CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL AGENDA

Mayor Dave Potter, Council Members Jeff Baron, Karen Ferlito, Bobby Richards, and Carrie Theis
Contact: 831.620.2000 www.ci.carmel.ca.us

All meetings are held in the City Council Chambers
East Side of Monte Verde Street
Between Ocean and 7th Avenues

REGULAR MEETING
Tuesday, June 7, 2022

OPEN SESSION
4:30 PM

THIS MEETING IS VIA TELECONFERENCE AND IN-PERSON AT CITY HALL

Governor Newsom's Executive Order N-29-20 has allowed local legislative bodies to hold public meetings via teleconference and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body. Also, see the Order by the Monterey County Public Health Officer issued March 17, 2020. The health and well-being of our community is the top priority for the City of Carmel-by-the-Sea.

To that end, this meeting will be held via teleconference and in-person in the City Council Chambers at City Hall located on Monte Verde Street between Ocean and Seventh Avenue. To participate via teleconference click the following link to attend via Zoom (or copy and paste link in your browser): https://ci-carmel-ca-us.zoom.us/j/85828336864?pwd=MDNGcXJFTU14SUdBRy9MaHZxU1ovUT09; Meeting ID: 858 2833 6864; Passcode: 304843; Dial +1 253 215 8782

To participate in this meeting in-person in the City Council Chambers, the public must show proof of vaccination (including virus booster) and wear a face covering at all times. Seating will be limited and available on a first come first served basis. The meeting will also be web-streamed on the City's website.

The public can also email comments to cityclerk@ci.carmel.ca.us. Comments must be received 2 hours before the meeting in order to be provided to the legislative body. Comments received after that time and up to the beginning of the meeting will be added to the agenda and made part of the record.

CALL TO ORDER AND ROLL CALL

PLEDGE OF ALLEGIANCE

PUBLIC APPEARANCES

Members of the public are entitled to speak on matters of municipal concern not on the agenda during Public

Appearances. Each person's comments shall be limited to 3 minutes, or as otherwise established by the Chair. Matters not appearing on the agenda will not receive action at this meeting and may be referred to staff. Persons are not required to provide their names, and it is helpful for speakers to state their names so they may be identified in the minutes of the meeting.

EXTRAORDINARY BUSINESS

A. Proclamation Recognizing June 2022 as LGBTQ Pride Month

ANNOUNCEMENTS

A. A. City Administrator Announcements

B. B. City Attorney Announcements

C. C. Council Member Announcements

ORDERS OF BUSINESS

Orders of Business are agenda items that require City Council, Board or Commission discussion, debate, direction to staff, and/or action.

1. Receive a presentation on the City of Carmel-by-the-Sea's Draft Climate Adaptation Plan and Draft Climate Action Plan, and provide feedback to staff

2. Resolution 2022-050 approving a 2.14 percent rate increase to charges by the City's franchised hauler, GreenWaste Recovery, for the collection of solid waste, recycling and organics, effective July 1, 2022, and approving an Amendment to the Memorandum of Understanding between the Monterey Regional Waste Management District and Member Agencies for Fiscal Year 2022/23 regional costs

3. Resolution 2022-036 ratifying appointments to the Harrison Memorial Library Board of Trustees, Historic Resources Board, and Planning Commission

PUBLIC HEARINGS

4. Resolution 2022-047 Adopting the Fiscal Year 2022-2023 Appropriations Limit

5. Resolution 2022-048 Adopting the Fiscal Year 2022-2023 Annual Operating and Capital Budget

FUTURE AGENDA ITEMS

ADJOURNMENT

6. Correspondence Received

This agenda was posted at City Hall, Monte Verde Street between Ocean Avenue and 7th Avenue, outside the Park Branch Library, NE corner of Mission Street and 6th Avenue, the Carmel-by-the-Sea Post Office, 5th Avenue between Dolores Street and San Carlos Street, and the City's webpage http://www.ci.carmel.ca.us in accordance with applicable legal requirements.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the City Council regarding any item on this agenda, received after the posting of the agenda will be available for public review at City Hall located on Monte Verde Street between Ocean and Seventh Avenues during regular business hours.

SPECIAL NOTICES TO PUBLIC

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at 831-620-2000 at least 48 hours prior to the meeting to ensure that reasonable arrangements can be made to provide accessibility to the meeting (28CFR 35.102-35.104 ADA Title II).

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
ORDERS OF BUSINESS

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Agnes Martelet, Manager, Environmental Compliance
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Receive a presentation on the City of Carmel-by-the-Sea's Draft Climate Adaptation Plan and Draft Climate Action Plan, and provide feedback to staff

RECOMMENDATION:

Receive a presentation on the City of Carmel-by-the-Sea's Draft Climate Adaptation Plan and Draft Climate Action Plan, and provide feedback to staff.

BACKGROUND/SUMMARY:

Project Background
In September 2019, the City of Carmel-by-the-Sea (City) began the process of developing Climate Action and Adaptation Plans that would establish a roadmap to reduce local greenhouse gas (GHG) emissions and adapt to climate change. The City convened a Climate Committee (Committee), consisting of two council members, four members of the public, and two staff members. The Committee held a series of monthly meetings with presentations from technical experts and agency partners to better understand the community's vulnerability to the impacts of climate change. The meetings also guided the preparation of the draft Climate Action and Adaptation Plans.

The Committee has prepared a Draft Climate Adaptation Plan (Attachment 1) that presents adaptation strategies for the City to prepare for the anticipated impacts associated with climate change, such as: stronger storms, more frequent and larger wildfires, sea level rise, drought, and increased temperatures. The Draft Climate Action Plan (Attachment 2) is included as Appendix A in the Climate Adaptation Plan and presents measures that will serve as a road map to meet Carmel-by-the-Sea's GHG emission reduction targets. These targets align with the state's targets of reducing GHG emissions to 40% below 1990 emission levels by 2030 and achieving carbon neutrality by 2045.

Climate Adaptation Plan
The Committee completed a Climate Change Vulnerability Assessment (Vulnerability Assessment) in July 2021 (Attachment 3, Appendix B) that identifies the climate hazards specific to the City and establishes a common understanding of the potential climate change impacts in the Carmel-by-the-Sea community. The Vulnerability Assessment characterizes hazards that are anticipated to impact the community and City-

owned assets, describes the community's major climate vulnerabilities, and identifies work that has already been done by the City to improve its resilience to climate impacts. Although the City has a variety of policies and programs already in place to address climate change impacts, the Vulnerability Assessment identified several policy gaps.

With the support of Rincon Consultants, the Committee prepared a Draft Climate Adaptation Plan (Attachment 1) that establishes an adaptation strategy, including goals, policies, and actions, to address the policy gaps identified in the Vulnerability Assessment. Three primary goals were identified for the Climate Adaptation Plan based on the results of the vulnerability analysis and input from the community:

Goal 1. A healthy, safe, and resilient community
Goal 2. A natural environment resilient to climate hazards
Goal 3. Resilient infrastructure and built environment

These goals serve as the basis for the policies and actions in the adaptation strategy. The policies and actions include metrics, implementation time frames, leads, and order-of-magnitude costs. The Draft Climate Adaptation Plan also establishes a roadmap to implement, monitor, evaluate, and adjust the adaptation strategy. City staff, stakeholders, and the community provided valuable input from many perspectives throughout the development of the Draft Climate Adaptation Plan at Climate Committee meetings and at a Climate Committee Public Workshop.

Climate Action Plan

The Committee, with the support of LSA Associates, concurrently worked on a Draft Climate Action Plan (Attachment 2), which provides a framework for measuring and reducing greenhouse gas (GHG) emissions.

The Draft Climate Action Plan consists of the following four elements:

1) A greenhouse gas emissions inventory,
2) A 2030 GHG emissions target (40% below 1990 levels) and forecast, and a 2045 carbon neutrality goal, in line with statewide goals,
3) A strategy to meet these targets,
4) Implementation and monitoring recommendations to ensure continued success towards reaching GHG reduction goals.

The strategy to meet the City's 2030 GHG emission target includes the following six Climate Action goals and identifies GHG reduction measures supporting each goal:

Goal 1: Energy Efficiency and Electrification of Residential and Commercial Buildings
Goal 2: Improved Transportation Choices
Goal 3: Renewable Energy Sources
Goal 4: Water Efficiency
Goal 5: Waste Reduction
Goal 6: Urban Forest Protection and Heat Island Effect Reduction

The strategy includes GHG reduction estimates for each measure, as well as metrics, implementation time frames, leads, and order-of-magnitude costs. The strategy also references climate adaptation measures that are common to both the Climate Action and Adaptation Plans.

Planning Commission and Forest and Beach Commission Feedback

The draft Climate Action and Adaptation Plans were presented at the Planning Commission's May 11, 2022 meeting and at the Forest and Beach Commission's May 12, 2022 meeting. Both Commissions were enthusiastically supportive of the plans.

The Planning Commission provided the following comments:

- Support for electrification in new commercial and residential buildings
- Support for reducing the use of automobiles, including higher development density in the downtown to provide housing for people who work in Carmel
- Recommendation for a shuttle service, especially for special events
- Support for further outreach on food waste composting, including solutions for common implementation issues
- Support for increasing forest health and wildfire mitigation, including in Pescadero Canyon
- Support for the use of green roofs as cool roofs
- Support for prioritized implementation to ensure success.

The Forest & Beach Commission provided the following comments:

- Support for a Grant Writer/Climate Coordinator position
- Support for a prioritized implementation to ensure success
- Recommendation to add Pescadero Canyon to the list of natural resources
- Suggestion to expedite bluff monitoring.

The Climate Adaptation Plan was amended to incorporate the feedback received from the Commissioners.

Council Guidance

Following the presentation of these Plans at the June 7, 2022 City Council meeting, staff will seek feedback from Council on the Climate Action and Adaptation strategies and implementation plans. Specifically, staff is seeking Council guidance on the following issues:

- The Climate Committee was assembled to develop the Climate Adaptation and Action Plans. As the Plans near completion, Climate Committee members have discussed the possibility of continuing meeting on a reduced schedule to oversee the implementation of certain projects, in particular the coastal engineering study, which will guide coastal infrastructure maintenance and improvement projects in the face of Sea Level Rise. Should the Climate Committee be tasked with this oversight?

- The Adaptation Plan recommends the establishment of a Sustainability Commission to oversee the plans' implementation. Does Council support the establishment of a Sustainability Commission? If not, which elected or appointed body(ies) should be tasked with reviewing and providing feedback on implementation and monitoring?
- Staff has already started to implement these plans by incorporating certain projects in the Capital Improvement Plan and by taking into account Climate Action and Adaptation in City projects such as wildfire mitigation in the Mission Trail Nature Preserve, the Forest Management Plan Update, and Design Guidelines Update. Some of the projects identified in the Climate Adaptation and Action Plans will require significant funding. What additional funding source(s) should be prioritized to implement these projects?
- The development of these Plans was on the list of Council strategic priorities. As this task gets completed and removed from the strategic priorities, should any action(s) be added to the list to ensure continued emphasis on long-term implementation?

Staff will incorporate feedback received from Council at the June 7, 2022 meeting and bring the Climate Adaptation Plan and Climate Action Plan back to Council for formal adoption at a future City Council meeting.

FISCAL IMPACT:

Order-of-Magnitude costs to implement the actions included in the Climate Adaptation and Action Plans are included in the Plans. Some actions will require minimal capital investment and will primarily rely on staff time, consultants, and/or community volunteers to implement, while other actions will require large capital investments in excess of $100,000 per project.

PRIOR CITY COUNCIL ACTION:

In August 2021, the City Council received the Climate Change Vulnerability Assessment that was developed by the Climate Committee. In April 2021, the City Council appropriated a $20,000 budget for a consultant to conduct a GHG emissions forecast. In December 2020 and March 2021, the City Council received an update on the Climate Action and Adaptation Project.

ATTACHMENTS:

Attachment 1: Draft Climate Adaptation Plan
Attachment 2: Draft Climate Action Plan (Appendix A)
Attachment 3: Appendices B through E

City of Carmel-by-the-Sea

Attachment 1

Climate Adaptation Plan

rincon

Pre-final Draft
April 2022

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Acknowledgements

This Climate Adaptation Plan was a coordinated effort among:

- Carmel-by-the-Sea Community Members
- Carmel-by-the-Sea Climate Committee Members
- Carmel-by-the-Sea Planning Commission and Forest & Beach Commission
- Carmel-by-the-Sea City Council
- Carmel-by-the-Sea City Staff
- Agency Partners and Experts who presented at Climate Committee Members
- Rincon Consultants, Inc.

Thank you for participating. We appreciate your feedback, insight, and passion – the Climate Adaptation Plan is better because of you.

Climate Committee Members

Jeff Baron, Council Member
Carrie Theis, Council Member
John Hill
Michael LePage
Scott Lonergan
LaNette Zimmerman
Evan Kort, Associate Planner
Agnes Martelet, Environmental Compliance Manager

Agency Partners and Experts

Citizens Climate Lobby
Association of Monterey Bay Area Governments (AMBAG)
Carmel Area Wastewater District (CAWD)
City of Monterey Fire Department
Monterey County Sustainability Program
Monterey County Office of Emergency Services
U.S. Geological Survey
Monterey Chapter of the American Institute of Architects
Monterey Regional Waste Management District
Monterey Peninsula Water Management District
Central Coast Community Energy
Carmel High School Environmental Club
Ecology Action
David Schonman, coastal ecologist
Sara Davis, City Forester
Bob Harary, Public Works Director
Greg D'Ambrosio, former City Forester & Assistant City Administrator

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Introduction

Introduction and Purpose

This Climate Adaptation Plan establishes an adaptation strategy for the City of Carmel-by-the-Sea (the City) to prepare for the anticipated impacts associated with climate change. Climate change is caused by the addition of excess greenhouse gases (GHGs) to the atmosphere, which traps heat near the earth's surface increasing global average temperatures in what is referred to as the greenhouse effect. This rise in average temperatures across the globe affects sea level rise, precipitation patterns, the severity of wildfires, the prevalence of extreme heat events, water supply, and ocean temperatures and chemistry.[1] According to the Intergovernmental Panel on Climate Change (IPCC), GHGs are now higher than they have been in the past 400,000 years, raising carbon dioxide levels from 280 parts per million to 410 parts per million in the last 150 years.[2] The dramatic increase in GHGs is attributed to human activities[3] beginning with the industrial revolution in the 1800s, which represented a shift from an agrarian and handicraft-based economy to one dominated by industry and machine manufacturing.[4]

Carmel-by-the-Sea is a coastal town, located on the Monterey Peninsula, with vegetation consisting mostly of evergreen and deciduous trees as well as coastal chaparral. Carmel-by-the-Sea, like many cities throughout California, is expected to experience increased climate hazards because of climate change. These include stronger storms, increasing wildfire risk, rising sea levels, extended drought conditions, and increasing temperatures. The impacts of climate change are already being felt throughout California and at least some increase in these impacts is expected even under aggressive global GHG reduction scenarios.[5] However, Carmel-by-the-Sea can adapt by taking steps to prepare the community and its infrastructure for these expected climate changes. Virtually all people and assets in the city will be affected by climate change in some way. Identifying the expected severity of these impacts and steps to adapt to these changes will be critical to minimizing future costs and community impacts. The purpose of the Climate Adaptation Plan is to identify and prioritize climate adaptation actions the City can implement to improve the resilience of its community members, natural environment, critical infrastructure, and built environment.

City Setting

Carmel-by-the-Sea is located on the Monterey Peninsula in northwest Monterey County, California, along the Pacific Ocean. The renowned scenic environment of Carmel-by-the-Sea stems from its two dominant features, the coastline and the central ridge of wooded hills. Highway 1 is the primary roadway linking Carmel-by-the-Sea to surrounding cities. Carmel-by-the-Sea is an area rich in coastal resources and cultural heritage and is popular for visitors across California and the United States. Approximately one square mile in area, the City's elevation ranges from sea level to 500 feet above sea level, sloping gently from Carmel-by-the-Sea Bay up to Highway 1. Vegetation in the vicinity of Carmel-by-the-Sea generally consists of evergreen trees, most notably the native Monterey Pine, in the City and along the coast, deciduous trees along the Carmel River, and coastal chaparral on the Carmel Valley hills. Various species of wildlife inhabit the area, especially in reserves and in undeveloped gulches. Carmel-by-the-Sea's land is largely forested and contains a substantial amount of open space. There are several areas in and around the City that qualify as wildland fire hazard areas. These areas are located to the north and east of the City boundaries and includes Pescadero Canyon, Forest Hill Park, and Del Monte Forest to the north, and Mission Trails Nature Preserve to the east.[6]

1. https://climate.nasa.gov/effects/
2. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf
3. https://climate.nasa.gov/scientific-consensus/
4. https://www.acs.org/content/acs/en/climatescience/greenhousegases/industrialrevolution.html
5. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report_smaller.pdf
6. https://ci.carmel.ca.us/sites/main/files/file-attachments/environmental_safety_cc_adopted_9-1-09.pdf?1510257865

Adaptation Strategy Lexicon

Several key climate adaptation-related words and phrases are used throughout the plan. The following definitions will be helpful in understanding the overall strategy and the process which led to its development.

- **Mitigation**: An act or sustained actions to reduce, eliminate, or avoid negative impacts or effects.[7]
- **Adaptation**: The process of adjustment to actual or expected climate and its effects. In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate.[8]
- **Vulnerability**: The propensity or predisposition to be adversely affected.[9]
- **Resilience**: The capacity of an entity (an individual a community, an organization, or a natural system) to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.[10]
- **Climate Hazard**: A dangerous or potentially dangerous condition created by the effects of the local climate.[11] Climate hazards of concern for Carmel-by-the-Sea are wildfire, increased temperature, drought, intense precipitation, and sea level rise.
- **Impacts**: Effects on natural and human systems. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate hazards and the vulnerabilities of the system or asset effected.[12]
- **Asset/Population**: Asset refers to a community structure or service that is relied on broadly by the City. Population groups are also identified. The purpose of including this information is to indicate which asset or population group the action would protect.
- **Implementation**: The process of putting a decision or plan into effect; execution.

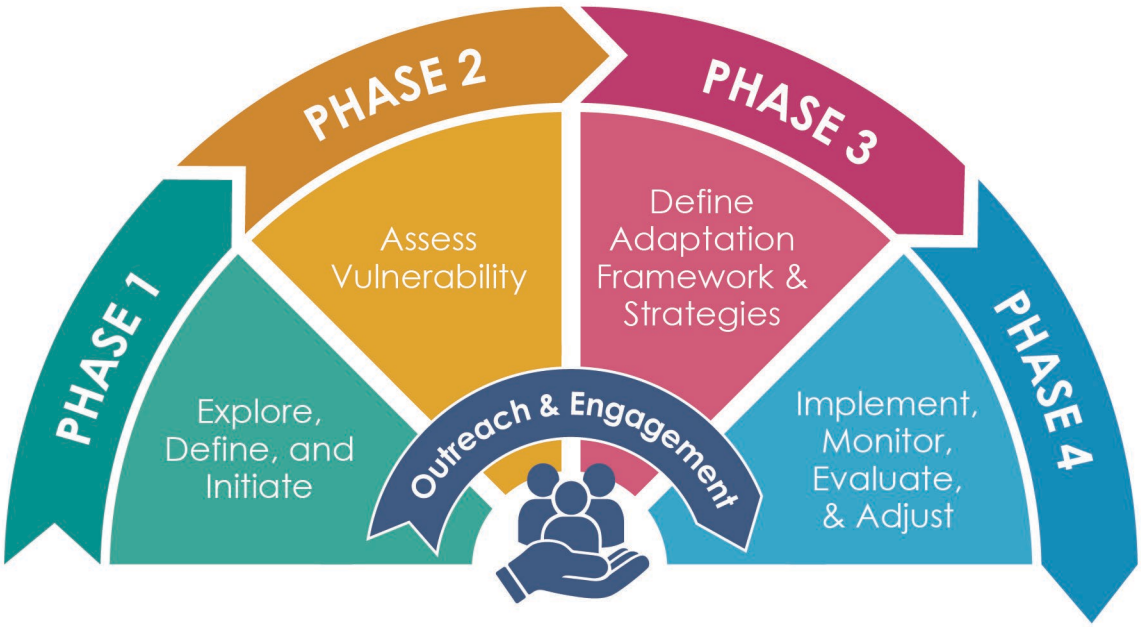
7. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf
8. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_FD_SPM_final-2.pdf
9. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_FD_SPM_final-2.pdf
10. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf
11. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf
12. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_FD_SPM_final-2.pdf

Climate Adaptation Plan Process

Background

In September 2019, the City began the process of developing Climate Action and Adaptation Plans that would establish a roadmap to reducing local GHG emissions and identify opportunities to adapt to climate change. The Climate Action Plan is included as Appendix A to the Climate Adaptation Plan. The City followed the climate adaptation planning process recommended by the California Governor's Office of Emergency Services, as documented in the 2020 California Adaptation Planning Guide (2020 CalOES APG), illustrated in the graphic below, and specifically described below.

- **Phase 1.** The City began by convening a Climate Committee to guide the preparation of the Climate Action and Adaptation Plans. The Climate Committee is composed of members of the Carmel-by-the-Sea community, including residents, business owners, and professional experts. The Climate Committee began monthly meetings in November 2019.
- **Phase 2.** To identify the climate hazards specific to Carmel-by-the-Sea and establish a common understanding of the potential climate change impacts in the Carmel-by-the-Sea community, the City completed a Climate Change Vulnerability Assessment (Vulnerability Assessment) in July 2021 (see Appendix B). The Vulnerability Assessment characterizes hazards associated with climate change that are anticipated to impact the community and City-owned assets, describes the community's major climate vulnerabilities, and identifies work that has already been done by the City to improve its resilience to climate impacts. Although the City has a variety of policies and programs already in place to address climate change impacts, policy gaps were identified in the Vulnerability Assessment.
- **Phase 3 and Phase 4**. The City prepared this Climate Adaptation Plan to establish adaptation goals, policies, and actions to address gaps identified in the Vulnerability Assessment. The Climate Adaptation Plan also establishes a roadmap to implementation. Implementing, monitoring, evaluating, and adjusting the Climate Adaptation Strategy (Phase 4), will be led by the City as described in the Implementation and Monitoring Plan section of the report.



Graphic: 2020 California Adaptation Planning Guide (Adaptation Planning Process)

Graphic: 2020 California Adaptation Planning Guide (Phase 3)

The Climate Adaptation Plan was developed pursuant to the steps in Phase 3 of the 2020 CalOES APG, shown in the graphic above.

Step 3.1. The City summarized the findings from the Vulnerability Assessment to aid in developing new policies and actions.

Step 3.2. The City confirmed the goals with the Climate Committee and community members.

Step 3.3. and Step 3.4. The City prepared and prioritized adaptation actions based on adaptation action selection criteria.

Step 3.5. The City incorporated input from stakeholders and community members.

The sections below detail the methodology used to shape the Climate Adaptation Plan.

Vulnerability Assessment Summary

The purpose of the Vulnerability Assessment is to characterize climate hazards that will impact the community and City assets in Carmel-by-the-Sea, determine the community's major climate vulnerabilities, and identify work that has already been done to improve community resilience. The Vulnerability Assessment uses information and modeling projections provided by the State of California to support climate adaptation efforts including the Cal-Adapt modeling tool and the Fourth California Climate Assessment. The City determined that Carmel-by-the-Sea is most vulnerable to the following climate change impacts: stronger storms, wildfires, sea level rise, extended droughts, and increased temperature.

The Vulnerability Assessment also evaluated the impact these climate hazards could have on the following **asset classes** (or types of resources) and *specific assets* present in the city.

- **Natural Assets**: *Mission Trail Nature Preserve, North Dunes, Pescadero Canyon, Urban Forest, Marine Sanctuary, and Carmel Beach*
- **Community**: *Elderly Population and People with Disabilities, Residents, Visitors, Local Businesses, Service Industry Workers, Second Homes*
- **Utilities**: *Water Supply, Sanitary Sewer System, Power Grid, Overhead Communication, Pacific Gas & Electric Company, Underground Lines (Gas, Cable)*
- **Regional Infrastructure**: *Wastewater Treatment Facility, Transportation Infrastructure (Caltrans), Hospital and Emergency Medical Care Facilities, Landfill & Waste Management*
- **Local Infrastructure**: *Shoreline Access Infrastructure, Seawalls and Revetments, Storm Drain System, Emergency Response Facilities*

Stronger storms **Wildfire** **Sea Level Rise** **Extended Drought** **Increased heat**

Within each asset class, specific assets were evaluated, as listed in Table 1 below. Each asset was categorized with one of the following climate impacts categories:

- already causing observable impacts or near-term significant risk
- mid- to long-range impacts
- not enough data
- no anticipated impacts

The City reviewed adopted policies and programs for each of the assets and indicated whether the City had already initiated policies or actions to address the climate hazard. This analysis assumes that existing adaptation policies and actions will continue to be implemented. Table 1 presents the results of this analysis, for more details on the vulnerability analysis see Appendix B.

Table 1 Vulnerability Scoring Matrix

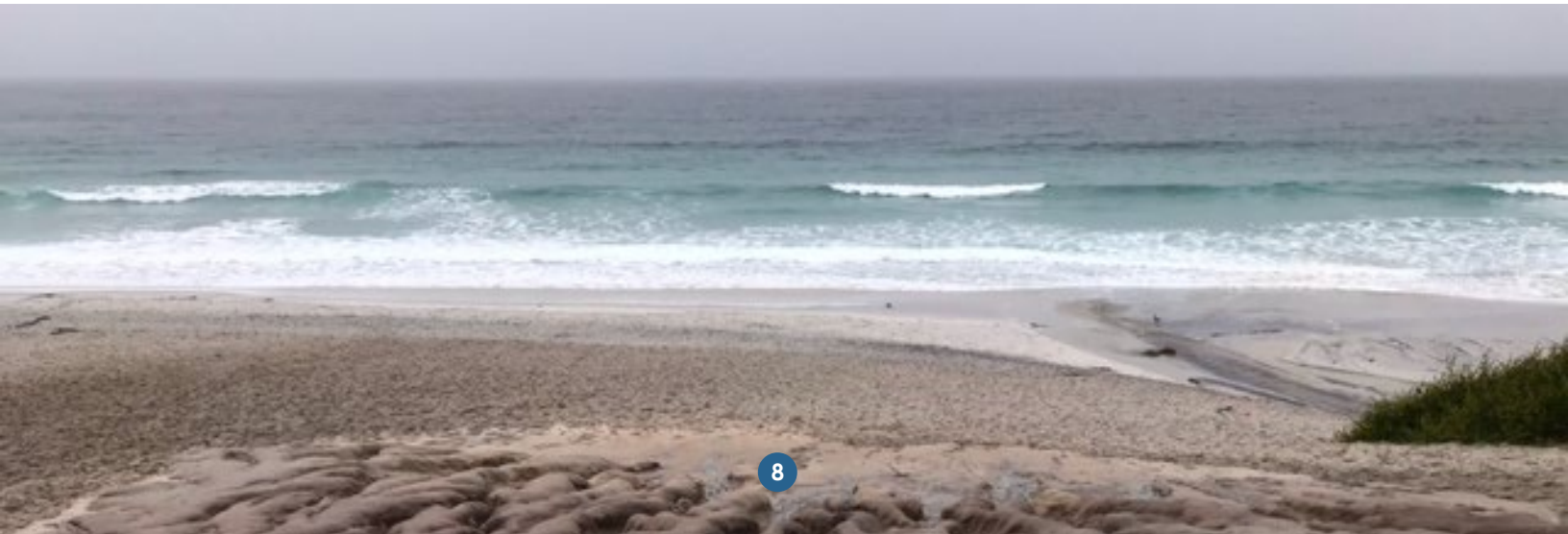
Color coding:

- Climate change is already causing observable impacts or a near-term significant risk
- Climate change poses mid- to long-range impacts
- Not enough data
- No anticipated impacts
- Yes — Some policy/action initiated
- **No** — No policy/action initiated

	Priority Climate-Related Hazards				
Priority Assets at Risk	**Stronger Storms**	**Wildfires**	**Sea Level Rise**	**More Droughts**	**Increased Temp**
Natural Assets					
Mission Trail Nature Preserve	Yes	Yes		Yes	Yes
North Dunes			**No**	Yes	Yes
Urban Forest	Yes	**No**		Yes	**No**
Marine Sanctuary					
Carmel Beach	Yes		Yes		
Community					
Elderly Population and People with Disabilities	**No**	**No**		**No**	**No**
Residents	Yes	Yes		Yes	**No**
Visitors	**No**	**No**			
Local Businesses	**No**	**No**	**No**	Yes	**No**
Service Industry Workers	**No**	**No**	**No**		**No**
Second Homes	Yes	Yes	**No**		

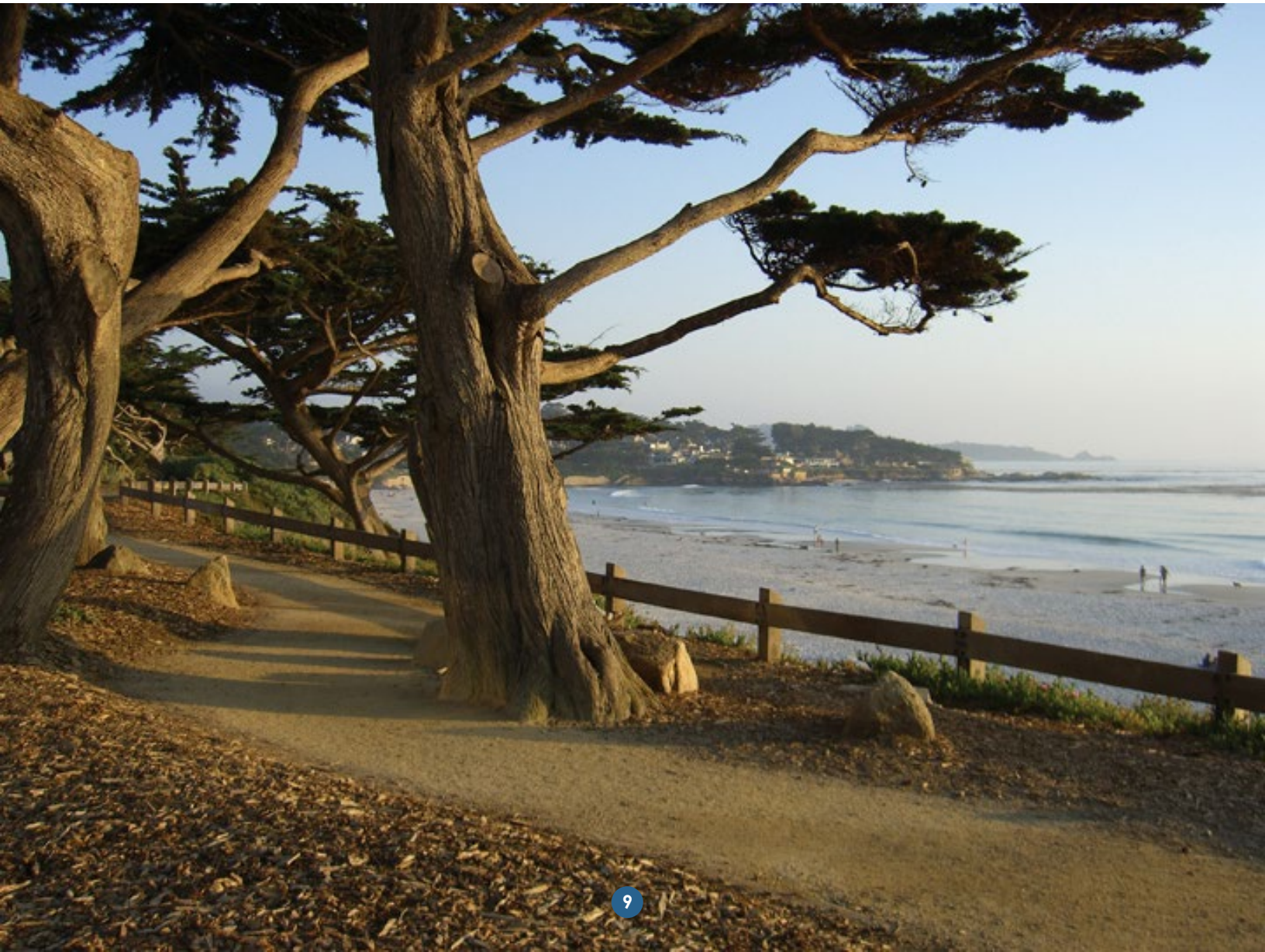
Priority Assets at Risk	Priority Climate-Related Hazards				
	Stronger Storms	Wildfires	Sea Level Rise	More Droughts	Increased Temp
Utilities					
Water Supply		Yes	Yes	Yes	Yes
Sanitary Sewer System			Yes		
Power Grid	**No**	**No**			**No**
Overhead Communication	**No**	**No**			
PG&E/Communication Underground Lines (gas, cable)		**No**	**No**		
Regional Infrastructure					
Wastewater Treatment Facility	Yes		Yes		
Transportation Infrastructure (Caltrans)	Yes	Yes	Yes		
Hospital and Emergency Medical Care Facilities					
Landfill & Waste Management	Yes				
Local Infrastructure					
Shoreline Access Infrastructure	Yes		Yes		
Seawall and Revetments	Yes		Yes		
Storm Drainage System	Yes		Yes		
Emergency Response Facilities (Fire station, EOC, PD, PW, City Hall, etc..)	Yes	Yes			**No**

Notes: Shoreline Access Infrastructure = Scenic trail, public restrooms, beach stairs, coastal roadways, and parking; EOC = Emergency Operations Center; PD = Police Department; PW = Public Works; PG&E = Pacific Gas & Electric Company
Source: Adapted from the July 2021 City of Carmel-by-the-Sea Climate Change Vulnerability Assessment (Appendix B)



Based on identified policy gaps in the Vulnerability Assessment, the Climate Adaptation Plan identifies new policies and programs for the assets considered to be most vulnerable to climate change. Assets and communities that are considered most vulnerable are those that have no policies/actions for increasing resilience and are either currently experiencing observable or near-term risks or those that are expected to experience mid- to long-range impacts (this corresponds to cells in Table 1 that are highlighted orange or yellow and labeled No). Key findings of the Vulnerability Assessment include:

- Carmel-by-the-Sea's natural assets are most vulnerable to wildfire, sea level rise, and increased temperature.
- Carmel-by-the-Sea's communities are vulnerable to all priority climate-related hazards.
- Utilities are most vulnerable to stronger storms, wildfire, sea level rise, and increased temperature.
- Regional infrastructure assets, including the Carmel Area Wastewater Treatment Facility and Highway 1, were determined to be vulnerable to climate change, however, policies and actions have been initiated to address vulnerabilities.
- Policy and actions have been initiated to reduce local infrastructure's vulnerability to stronger storms, wildfires, and sea level rise. No action has been taken to address vulnerability to increased temperature.
- The Climate Committee determined that a coastal engineering study would be necessary to fully assess the potential impacts of sea level rise on City assets and to identify policies and actions to address those impacts.



Stakeholder and Public Input

Outreach

The Climate Adaptation Plan was developed and refined through a stakeholder engagement process with the Carmel-by-the-Sea Climate Committee and the public. Draft versions of the adaptation strategy (goals, policies, and actions) were presented in September and October 2021 to the Climate Committee. Comments received during and following these meetings were incorporated into an updated set of goals, policies, and actions that were then presented at a virtual public workshop in November 2021. Comments received during and following the public workshop were incorporated into the goals, policies, and actions, and presented at the January 2022 Climate Committee meeting for final input. See Appendix C for meeting slides, interactive activity results, and responses to comments.

The Carmel-by-the-Sea Climate Committee provided input along the following themes:

- Support for additional strategies that would improve emergency evacuation, and relieve traffic and congestion
- Identification of additional actions to support vulnerable populations
- Additions to actions to address tree maintenance and protect native species, particularly the Monterey Pines
- Augment actions to include stormwater runoff reduction and increase resilience of the Carmel Area Water District facility

The community provided input along the following themes:

- Support to include a clear evacuation plan for elderly residents
- Applying updated City Planning Guidelines and Development Standards citywide, not just in the Very High Fire Hazard Severity Zone
- Additional opportunities for partnership in adaptation-related community engagement efforts
- Increasing City staff resources to increase staff time for implementation of the strategy

The Climate Adaptation Plan was presented to the Forest & Beach Commission and the Planning Commission in May, and City Council in June 2022 for input, and adopted in June 2022.

The Planning Commission was supportive of the plan and provided input on the following:

- Support for electrification,
- Support for reducing the use of automobiles, including higher development density in the downtown to provide housing for Carmel workforce, and the provision of shuttle services, especially for special events,
- Support for further outreach on food waste composting, including solutions for common implementation issues,
- Support for increasing forest health and wildfire mitigation, including in Pescadero Canyon,
- Support for the use of green roofs as cool roofs,

The Forest & Beach Commission provided input on the following:

- Support for the Grant Writer/Climate Coordinator position and for prioritizing implementation to ensure success,
- Suggestion to add Pescadero Canyon to the list of natural resources and to consider it in the adaptation plan,
- Suggestion to expedite bluff monitoring if feasible.

City Council provided input on the following:

- XX

Input from the Forest & Beach Commission, the Planning Commission, and City Council were incorporated into the Climate Adaptation Plan, and the Plan was adopted in May 2022.

Adaptation Strategy

Strategy Overview

The Adaptation Strategy presented in this section identifies goals, policies and actions that seek to contribute to increasing resilience to climate change in Carmel.

Goals, policies, and actions are defined as:

- **Goals**: Broad statements describing community desires. The Carmel-by-the-Sea adaptation goals are modeled after the Adaptation Vision and Principles developed by the California Governor's Office of Planning and Research (OPR) Integrated Climate Adaptation & Resiliency Program (ICARP).[13] Each goal is focused on increasing the resilience of one of the following broad asset categories: community, natural assets, and infrastructure (including utilities) and the built environment.
- **Policies**: Specific position statements that support the achievement of goals and serve as guides to City Council, Planning Commission, and City staff, when making decisions.
- **Actions**: Specific methods to incrementally implement and achieve policies and goals.

The intent of the goals, policies, and actions is to address the key vulnerabilities identified in the Vulnerability Assessment, including assets at risk from near-term or mid-term climate change impacts and that lack existing adopted policies or established programs. It is expected that existing adaptation-related policies and actions identified in the City's Vulnerability Assessment will continue to be implemented and re-assessed in the next update of the Climate Adaptation Plan and Vulnerability Assessment, by 2030 at the latest.

13. https://opr.ca.gov/planning/icarp/tac/

Carmel-by-the-Sea's Adaptation Goals

Based on the results of the vulnerability analysis and input from the community and Carmel-by-the-Sea Climate Committee three primary goals were identified. These goals served as a guide for the development of the adaptation actions and policies contained in the Adaptation Strategy.

With these goals in mind, the City, stakeholders, and community provided input on a suite of policies and specific actions that would achieve these goals and result in a more adaptive and resilient Carmel. These specific policies and actions can be found in the Adaptation Policies and Actions section.

Goal 1. A Healthy, Safe, and Resilient Community

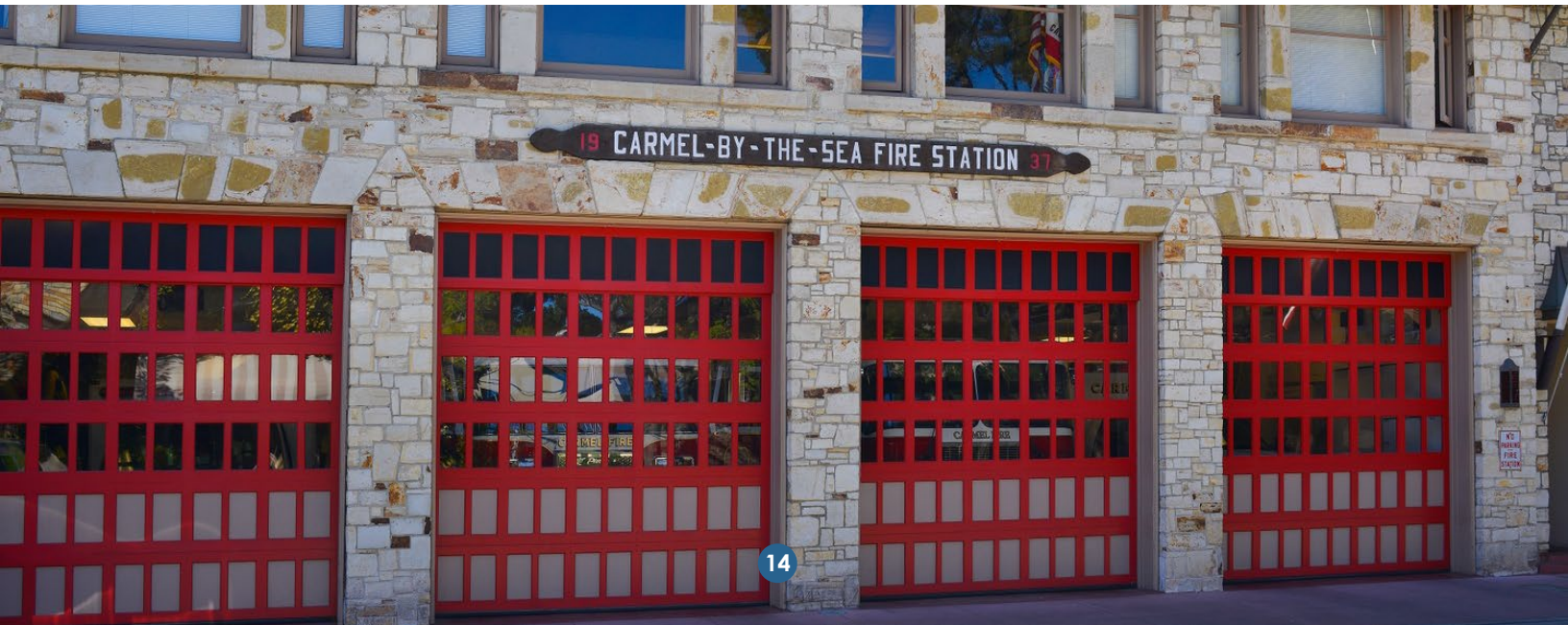
Goal 1 is a healthy, safe, and resilient community in the face of climate change. The policies and actions under this goal improve community health, safety, and resilience through equitable and effective emergency preparedness, targeted actions to improve the resilience for vulnerable populations, minimization of negative health impacts from climate change, and economic resilience in the form of support for service industry workers and local businesses. The policies and actions for Goal 1 are provided in Table 2 of the Adaptation Strategy. Goal 1 policies and actions should be prioritized given that community assets are those that have the greatest vulnerability based on the number of hazards they are exposed to and not having policies or actions currently in place to increase resilience (see Appendix B).

Goal 2. A Natural Environment Resilient to Climate Hazards

Goal 2 of Carmel's adaptation strategy is a resilient natural environment. The City's beaches, urban forestry, and parks are all vulnerable to climate hazards. The policies and actions under this goal aim to improve resilience of the community's habitats and ecosystems using studies, partnerships, funding, and structural actions. The policy and actions for Goal 2 are list in Table 3 of the Adaptation Strategy.

Goal 3. Resilient Infrastructure and Built Environment

Goal 3 in the City's adaptation strategy is a resilient built environment. This goal involves policies that address infrastructure redundancies and incorporation of climate change into built environment planning. The actions under these policies are organized by climate hazard-related improvements with each addressing improvements needed to increase infrastructure resilience to climate change. Actions like green infrastructure and storm drain repairs target intense precipitation while actions like bluff monitoring and the hiring of a coastal engineer help the community adapt to sea level rise. The policies and actions for Goal 3 are provided in Table 4 of the Adaptation Strategy.



Adaptation Policies and Actions

Policy and Action Development

In order to achieve each of the three adaptation goals identified in the Adaptation Strategy section above, a suite of adaptation policies and actions were developed. The policies and actions focus on the most vulnerable assets within Carmel-by-the-Sea which were identified through the vulnerability matrix. To guide the creation of effective adaptation strategies for these assets, the City developed selection criteria to prioritize the selection of goals, policies, and actions. These criteria were established to guide the development of policies and specific actions and help promote implementation, equity, and effectiveness. Every Goal contains at least one action that meets each of the criteria established. The following criteria were used to develop and ultimately select Carmel's adaptation actions:

1. Implement adaptation actions that result in **measurable increase in resilience** and reduction in climate change risks.
2. Implement actions that respond to continual changes in climate, ecology, and economics using **adaptive management** that incorporates regular monitoring.
3. Establish governance policies, **institutional structures**, and monitoring processes to implement adaptation actions.
4. Identify **funding** needs, establish funding mechanisms, and allocate adequate funding to support adaptation policy development and implementation.
5. Focus meaningful and active **engagement** with the most impacted communities.
6. Employ adaptive and flexible governance approaches by maximizing collaborative **partnerships** among sectors to accelerate effective problem solving.
7. Prioritize actions that promote **equity**, foster community resilience, and protect the City's most vulnerable populations, including the elderly. Explicitly prioritize communities that are disproportionately vulnerable to climate impacts.

To facilitate implementation of each action by the City, additional information is included for each specific action, as follows:

- **Metric**: A way to gauge progress of an action through measurable indicators or benchmarks of progress. This involves quantifying increases in resilience. The metric is a key component of *Phase 4: Implement, Monitor, Evaluate, and Adjust* of the 2020 CalOES APG.[14]

- **Timeframe**: Sorted into phases of near-term (1-2 years, or by 2024), mid-term (3-5 years, or by 2027), and long-term (5-10 years, or by 2023) this categorization helps plan for timing of implementation.

- **Implementation Lead**: The City department or entity that will lead the implementation of the action.

- **Cost**: Sorted into ranges of $-Low (<$25,000), $$-Medium ($25,000 - $100,000), and $$$-High (>$100,000) these estimates are used to determine type and extent of funding and financing needed.

Policies and actions are organized by goal in the following tables.

14. https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf

Table 2 A Health, Safe, and Resilient Community

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters							
Action 1.1.1. Maintain and Update Evacuation Plan. Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. The plan should focus on the most vulnerable groups including the elderly community and persons with disabilities.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Adaptive Management, Equity	Evacuation Plan updated every 8 years, with the first update by 2023	Near-term (by 2024) and Ongoing	Police and Fire	$
Action 1.1.2. Update Emergency Preparedness. Incorporate climate change risk and impact considerations into Carmel-by-the-Sea CERT programming and materials to promote emergency preparedness at a neighborhood block-by-block scale. CERT to promote block-by-block scale emergency preparedness by organizing City by blocks and recruiting Block Captains.		Residents, Local Businesses, Second Homes	Adaptive Management, Engagement, Measurable Increase in Resilience	Number of block captains formed, climate change risk incorporated into CERT materials	Near-term (by 2024)	Police and Fire	$
Action 1.1.3. Collaborate with Monterey Fire. Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Continue to coordinate with the CERT program and reach out to new potential outreach partners such as local businesses, community groups, and utilities to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.		Residents, Local Businesses, Second Homes	Engagement, Partnerships	Number of meetings held with Monterey Fire and CERT program; educational materials distributed	Near-term (by 2024)	Police and Fire	$
Action 1.1.4. Publicize Local Evacuation Routes. Publicize both City and Monterey County evacuation routes for the community on the City's website, and in the newsletter and brochures. Target additional outreach to the most vulnerable such as the elderly and people with disabilities in the event of a wildfire or other disaster.		Elderly Population and People with Disabilities, Residents	Engagement, Equity	Educational materials distributed	Near-term (by 2024)	Police and Fire	$
Action 1.1.5. Evaluate Evacuation Route Capacity. Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions in 2022, in accordance with Assembly Bill 747.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Adaptive Management	Analysis evaluating evacuation route capacity completed	Mid-term (by 2027)	Police and Fire	$ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 1.1.6. Evacuation Alternatives and Access. Identify neighborhoods that have single ingress/egress, pursuant to Senate Bill 99, and develop and employ evacuation alternatives, such as a gathering facility, and/or alternative emergency access routes in those neighborhoods. Evaluate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating. Evaluate options to provide evacuation, such as a shuttle service, for residents with mobility challenges.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Adaptive Management, Engagement, Equity	Analysis identifying neighborhoods that have single ingress/egress and evacuation alternatives completed; List of limited-mobility residents developed	Mid-term (by 2027)	Police and Fire	$ $
Action 1.1.7. Develop Local Partnerships to Increase Resistance to Wildfire Structural Damage. Work with local community groups to publicize the Firewise Community Certification program (e.g., on the City website and in the newsletter and brochures) and encourage resident involvement.		Residents, Second Homes	Engagement, Partnerships	Number of meetings held to publicize Firewise Community Certification	Mid-term (by 2027)	Police and Fire	$

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.							
Action 1.2.1. Establish a Resilience Hub. Formally designate a physical resilience hub, such as the Youth Center or Public Library, and make it available during extreme heat events, poor air quality, severe weather events, and other highly hazardous conditions for use by the community. Provide the following essential resources in the resilience hub(s): health programming and resources, food, refrigeration, charging stations, basic medical supplies, and other emergency supplies. Electrified heating and cooling paired with backup power sources like battery storage provides redundancy and continues services in the event of a power outage. Designate a virtual resilience hub on the City website where residents can access information about the physical resilience hub and resilience efforts.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Adaptive Management, Equity	Physical and virtual Resilience Hubs established; Existing facilities upgraded to provide all essential resources	Near-term (by 2024)	Public Works/Police and Fire/Library	$ $
Action 1.2.2. Limit the Impacts of Climate Change on the Most Vulnerable Populations. Develop a framework to define equity in Carmel-by-the-Sea and develop adaptation approaches that are equitably implemented.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Equity	Carmel-by-the-Sea Equity Framework developed	Mid-term (by 2027)	Community Planning and Building	$
Action 1.2.3. Engage the Community. Develop educational materials notifying the community about the resilience hub and how to access it by sharing updates across city and community channels. Partner with the CERT program and block captains, and community groups, to prioritize disadvantaged/marginalized communities including the elderly and individuals with disabilities.		Elderly Population and People with Disabilities, Residents, Service Industry Workers	Engagement, Equity	Community engagement plan developed	Near-term (by 2024)	Library/City Hall/Police Department	$
Action 1.2.4. Social Support Network. Collaborate with the Carmel Foundation and other community-based organizations (e.g., Carmel Residents Association) to develop an inventory of locations with isolated elderly residents and people with disabilities and develop a plan for a social support network to increase resilience to climate change, for example by promoting home electrification.		Elderly Population and People with Disabilities	Partnerships, Equity, Engagement	Social support network created; Inventory of locations created	Mid-term (by 2027)	Police Department/ CERT/ Community Planning and Building	$
Action 1.2.5. Back-up Power for Vulnerable Populations. Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.		Elderly Population and People with Disabilities	Partnerships, Equity, Measurable Increase in Resilience	Number of households with backup power established	Long-term (by 2032)	Police and Fire/Public Works	$ $ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Policy 1.3. Minimize health impacts of climate change.							
Action 1.3.1. Partner with Monterey County Health Department. Coordinate with Monterey County Health Department to develop and enhance disaster and emergency early warning systems to incorporate objective data and information for potential health threats such as heat-illness, and illnesses complicated by low air quality due to climate change hazards. Include information on early warning systems and other resilience efforts on the City's virtual resilience hub (Action 1.2.1.)		Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Partnerships, Measurable Increase in Resilience	Emergency early warning systems updated	Near-term (by 2024)	Police and Fire	$
Action 1.3.2. Initiate a Heat Pump Retrofit Program. Create a program to help fund property owners to convert HVAC units to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality and community adaptation to extreme heat. Include a microgrid energy storage component to increase power reliability. Prioritize at-risk populations for retrofit incentives.		Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Measurable Increase in Resilience	Number of heat pumps installed; Number of heat pumps serving at risk residents	Mid-term (by 2027)	Community Planning and Building	$ $ $
Action 1.3.3. Invest in Improving Resilience in Critical Facilities. Invest in sustainable backup power sources to provide redundancy and continued services for critical facilities, including City Hall, Carmel Police Department, Carmel Fire Department, the Libraries, and assisted living facilities, in the event of a power outage triggered by a climate event.		Elderly Population and People with Disabilities, Residents	Measurable Increase in Resilience	Number of critical facilities with sustainable backup power sources.	Mid-term (by2027)	Public Works	$ $ $
Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation and battery storage to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, potentially through a reach code, and building resilience to potential electrical grid shutoffs.		Elderly Population and People with Disabilities, Residents	Adaptive Management	Feasibility Study for Existing Building Electrification and Back-up Power completed	Mid-term (by 2027)	Public Works	$ $
Action 1.3.5. Improve Resilience in Existing Building Stock. Develop a program for identifying funding and incentives to weatherize residential and commercial buildings that addresses severe weather protection, energy efficiency, indoor air quality improvements, and other housing improvements. Include an outreach campaign as part of this program to advertise the benefits of weatherizing and electrifying buildings.		Elderly Population and People with Disabilities, Residents	Funding, Measurable Increase in Resilience, Adaptive Management	Number of retrofitted structures	Long-term (by 2032)	Community Planning and Building	$ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 1.3.6. Promote Funding Opportunities. Work with partners like 3CE and PG&E to identify and promote potential resilience opportunities and accessible funding and financing mechanisms to pay for building electrification, weatherization, and battery backups.		Elderly Population and People with Disabilities, Residents, Local Businesses	Funding, Partnerships, Engagement	Funding identified and promoted to community; Number of projects initiated with incentives	Near-term (by 2024)	Community Planning and Building/Police and Fire/Public Works	$
Policy 1.4. Increase Economic Resilience							
Action 1.4.1. Develop Partnerships to Provide Support to Displaced Workers. Work in partnership with the Monterey County Workforce Development Board and the Carmel Chamber of Commerce to develop a plan to provide support for displaced workers that establishes education and training partnerships for workers displaced or workers negatively impacted by climate change or climate adaptation policies.		Service Industry Workers, Local Businesses	Partnerships, Equity	Commitment from business community to develop a plan to support displaced workers	Near-term (by 2024)	Community Planning and Building/City Hall	$ $
Action 1.4.2. Establish Partnerships to Develop a Resilient Economy. Partner with the County of Monterey Economic Development Department, Carmel Chamber of Commerce, and the Monterey County Workforce Development Board, to develop more integrated strategies for protection of jobs, economic sustenance, and for the protection of vulnerable populations more at-risk of temporary or permanent job dislocation due to climate change.		Service Industry Workers, Local Businesses	Partnerships, Equity	Number of meetings held to develop strategies for job protection	Mid-term (by 2027)	Community Planning and Building/City Hall	$

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 1.4.3. Business Resilience Outreach Program. Collaborate with businesses in the city to better understand shared climate risks and identify opportunities to advance shared climate resilience priorities. Partner with the Carmel Chamber of Commerce and Visit Carmel to pilot and implement a local business resilience initiative to build small business capacity before a time of crisis by increasing the awareness of, and preparedness for, business continuity risks faced by the city's local businesses, providing a toolkit of intervention to help local businesses manage risks and enhance business resilience, and conducting outreach campaigns to engage leaders from the business, government, and community sectors to enhance preparedness for economic resilience.		Service Industry Workers, Local Businesses	Engagement, Partnerships	Toolkit of intervention developed to help support local businesses manage risks and enhance resilience	Near-term (by 2024)	Community Planning and Building/City Hall	$ $
Action 1.4.4. Hire a Grant Writer/Climate Coordinator. Hire a grant writer/climate coordinator to pursue available grants to fund climate adaptation implementation and track progress.		All	Funding	Grant writer hired	Near-term (by 2024)	City Hall	$ $ $

Table 2 Goal 2. A Natural Environment Resilient to Climate Hazards

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.							
Action 2.1.1. Increase Funding for Climate Adaptation. Earmark Capital Improvement Program (CIP) funding for design, permitting, and implementation of adaptation projects and strategies, such as those in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and Integrated Regional Watershed Management Program (IRWMP).		Urban Forest, Mission Trail Nature Preserve, North Dunes, Carmel Beach, Water Supply	Funding	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$ $
Action 2.1.2. Increase Urban Forest Resilience. Update and implement the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g., native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration and engagement with stakeholders, such as the Monterey Pine Forest Watch, California State University, Monterey Bay, and vulnerable communities.		Urban Forest	Engagement, Equity, Measurable Increase in Resilience, Adaptive Management	Forest Management Plan Updated	Near-term (by 2024) and Ongoing	Public Works Forestry Division /Forest and Beach Commission	$ $
Action 2.1.3. Increase Resilience of the Mission Trail Nature Preserve and Pescadero Canyon. Update and implement the Mission Trail Nature Preserve Master Plan to consider the potential impacts of climate change and to reduce wildfire risk for neighboring private properties. Coordinate with CalFire and the Monterey Fire Departments to incorporate Best Practices into an annual maintenance plan, including cost estimates for implementation and revenue sources for implementation. Continue to coordinate with CalFire and the Pebble Beach Community Services District on wildfire mitigation in Pescadero Canyon.		Mission Trail Nature Preserve	Adaptive Management, Partnerships, Funding	Mission Trail Nature Preserve Master Plan updated	Mid-term (by 2027) and Ongoing	Community Planning and Building and Public Works	$ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 2.1.4. Increase Resilience of the North Dunes. Continue to fund maintenance and monitoring at the North Dunes to determine how the changing climate will affect dune habitats. Implement enhancement efforts to improve resilience of the North Dunes.		North Dunes	Funding, Adaptive Management, Measurable Increase in Resilience	Regular maintenance and monitoring occurring at North Dunes	Ongoing	Community Planning and Building and Public Works	$ $
Action 2.1.5. Increase Resilience to Stronger Storms. When designing projects in the city, including those recommended in the Mission Trail Stream Stability Study, size improvements to handle larger storms consistent with best available climate change projections.		Mission Trail Nature Preserve	Institutional Structures, Adaptive Management, Measurable Increase in Resilience	Number of projects sizing improvements to handle larger storms.	Near-term (by 2024)	Public Works	$ $
Action 2.1.6. Beach Sand Monitoring Program. Reinstate beach sand monitoring program described in the Shoreline Management Plan.		Carmel Beach	Adaptive Management	Active beach sand monitoring program in place	Near-term (by 2024)	Public Works	$ $
Action 2.1.7. Carmel Cove Sand Supply. Partner with local researchers (e.g., California State University Monterey Bay) or other sources to conduct Carmel Cove sand supply dynamics analysis.		Carmel Beach	Partnerships	Carmel Cove sand supply dynamics analysis completed	Long-term (by 2032)	Community Planning and Building and Public Works	$ $

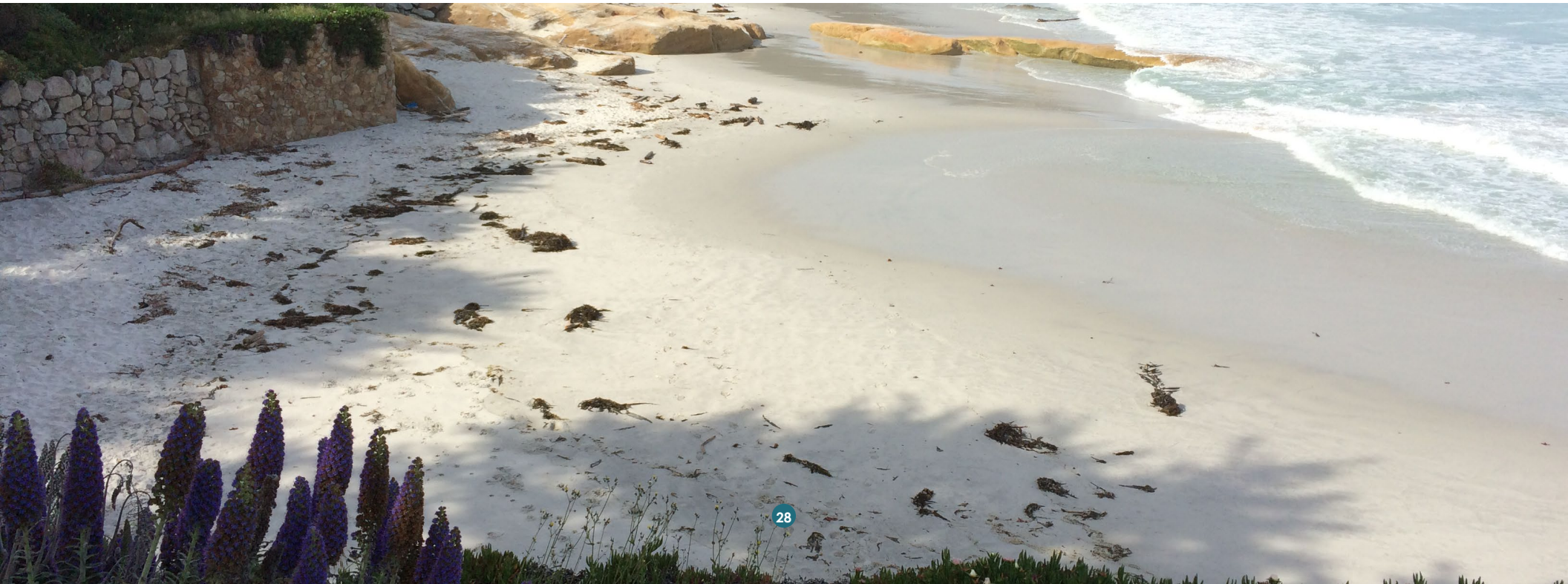
Table 3 Resilient Infrastructure and Build Environment

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.							
Action 3.1.1. Underground Utilities in Fire Hazard Zones. Determine the feasibility of, and community support for, undergrounding power lines in the Mission Trail Nature Preserve, designated evacuation routes, and in other high priority areas in the Very High Fire Hazard Severity Zone. Develop a plan for undergrounding utilities based on results from the feasibility study and begin implementation in the most vulnerable communities.		Water Supply, Sanitary Sewer System, Power Grid, Overhead Communication, PG&E/Communication Underground Lines- gas, cable	Measurable Increase in Resilience, Equity	Feasibility Study completed; Plan developed based on Feasibility Study; Number of utilities moved underground	Near-term (by 2024)	Community Planning and Building and Public Works	$ $ $
Action 3.1.2. Increase Green Infrastructure. Modify Capital Improvement Program (CIP) project design to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city.		Urban Forest, Storm Drain System	Institutional Structures, Measurable Increase in Resilience	Change in impervious surface coverage.	Near-term (by 2024)	Public Works	$ $
Action 3.1.3. Reduce Stormwater Runoff. Reduce stormwater runoff through implementation of stormwater diversion and infiltration projects that reduce pollution problems caused by more frequent and intense storms and more extreme flooding events.		Storm Drain System, Carmel Beach	Measurable Increase in Resilience	Stormwater diversion project implemented	Long-term (by 2032)	Public Works	$ $ $
Action 3.1.4. Storm Drain Repair Funding and Improvements. Earmark Capital Improvement Program (CIP) funding for design, permitting and implementation of storm drain repairs. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) for potential regional funding. Upsize Storm Drain Master Plan (SDMP) improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.		Storm Drain System	Funding	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$ $ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure. Conduct an evaluation of all first-responder and municipal facilities to determine retrofits that may be needed for long-term resilience to climate change hazards including sea-level rise related flooding and erosion, increased wind/storm events, an increase in high heat days, and/or wildfire depending upon location and risk factors. Develop a budget and schedule for retrofits based on the findings of the municipal facilities. Retrofit existing critical buildings as detailed in the program schedule.		Emergency Response Facilities – Fire station, EOC, PD, PW, City Hall, etc., Hospital and Emergency Medical Care Facilities	Measurable Increase in Resilience, Funding	List of critical buildings and related infrastructure requiring retrofits	Near-term (by 2024)	Public Works	$$$
Action 3.1.6. Water Conservation. Partner with the Monterey Peninsula Water Management District to reduce water demand and increase water recycling, such as stormwater capture and grey water reuse, through education and outreach. Provide information and incentives for residential water use reduction, focusing engagement on vulnerable communities first.		Water Supply	Partnerships, Equity, Engagement	Water demand reduced, incentives for grey water reuse developed and shared	Near-term (by 2024)	Community Planning and Building and Public Works	$
Action 3.1.7. Bluff Structural Monitoring Program. Implement bluff structural monitoring program and do follow-up monitoring post-storm to identify additional footing stability issues.		Carmel Beach	Measurable Increase in Resilience	Bluff structural monitoring program implemented	Mid-term (by 2027)	Public Works	$$

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 3.1.8. Sea Level Rise Coastal Vulnerability Study. Hire coastal engineer with experience in planning for climate change to: 1. Conduct research and prepare a Sea-Level Rise Vulnerability Study to further assess the risks to the city's coastal assets, including the beach, sea walls, revetments, bluffs, stairs and access, public bathrooms, parking areas, drainage infrastructure, and utilities. 2. Determine adaptation measures and Local Coastal Program policy options, including but not limited to: a) Mostly natural, unarmored North Dunes area; b) mostly armored bluffs along Scenic Roach south of 8th Avenue; c) Unarmored dunes along private property between 8th Avenue and Del Mar Parking Lot; d) Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area). 3. Evaluate the use of thresholds for phasing adaptation projects based on changing coastal conditions. Consider applying an adaptive pathways approach which establishes trigger thresholds for different adaptive measures based on the severity of the impact from flooding and erosion associated with sea-level rise.		Carmel Beach, Shoreline Access Infrastructure, Seawall and Revetments	Adaptive Management	Sea-level rise vulnerability study completed	Near-term (by 2024)	Public Works	$ $ $
Action 3.1.9. Wastewater Treatment. Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms. Maintain staff/council personnel as liaisons to CAWD.		Water Supply, Storm Drain System	Partnerships	Number of collaboration meetings with CAWD regarding facility's resilience	Near-term (by 2024) and Ongoing	Community Planning and Building and Public Works	$
Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.							
Action 3.2.1. Development Standards. Evaluate City's development standards for consistency with best practices for reducing climate change risk (e.g., wildfire risk) for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines and permitting the use of fire-resistant building materials that may conflict with current Design Guidelines. Develop a project checklist for building and site adaptation measures. The checklist, included with permit applications, should serve to provide education to permit applicants on modifications to site plans and structures that can improve a project's resilience to existing and potential future climate change hazards.		Residents, Local Businesses, Second Homes	Institutional Structures, Adaptive Management	Number of projects implementing adaptation measures, City development standards consistent with best practices for reducing wildfire risk	Mid-term (by 2027)	Community Planning and Building	$ $

Action	Climate Hazard	Asset/Population	Criteria	Metric	Timeframe	Implementation Lead	Cost
Action 3.2.2. Update City Planning Guidelines. Update the City's municipal code to maintain consistency with current California codes (California Building Code Chapter 7 and California Residential Code R337) throughout the City.		Residents, Local Businesses, Second Homes	Institutional Structures, Adaptive Management	City municipal code consistent with current California codes	Near-term (by 2024)	Community Planning and Building	$ $
Action 3.2.3. Incorporate Climate Change Adaptation into Local Plans. Prioritize the update of local plans, including the Climate Change Vulnerability Assessment, Local Coastal Program, General Plan, Mission Trails Nature Reserve Master Plan, Del Mar Master Plan, Shoreline Management Plan, and drought planning to promote climate change resilience as new information is available.		All	Adaptive Management	Number plans updated to incorporate adaptation	Mid-term (by 2027)	Community Planning and Building/Public Works	$ $
Action 3.2.4. Update Shoreline Management Plan. Update Shoreline Management Plan and Local Coastal Program based on results of Sea-level Rise Vulnerability Study.		Carmel Beach	Adaptive Management	Shoreline Management Plan and Local Coastal Program updated	Long-term (by 2032)	Community Planning and Building and Public Works	$ $
Action 3.2.5. Multi-Jurisdictional Hazard Mitigation Plan. Maintain a comprehensive list of projects, based on existing plans and gaps identified in the Vulnerability Assessment, to provide to Monterey County during updates to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan in 2022 and beyond.		All	Adaptive Management	Number of adaptation projects included in the Multi-Jurisdictional Hazard Mitigation Plan	Near-term (by 2024)	Community Planning and Building, Police, and Public Works	$



Implementation and Monitoring

Implementation

Implementation of the Climate Adaptation Plan will require City staff time and resources, along with strategic collaboration and leadership among key partners and regular and meaningful community engagement. Implementation of actions will require regular tracking and reporting to measure progress against established goals. This section describes the guidance, tools, responsibilities, and analysis required to effectively implement and monitor progress with the adaptation strategy. An implementation guide, which provides each adaptation action sorted by timeframe for implementation and organized by goal and policy, can be found in Appendix D. The appendix includes relevant case study examples to illustrate how policies and actions are being transformed into specific projects and programs.

Implementation Roles and Responsibilities

Effective implementation of the Climate Adaptation Plan will not only require coordination and leadership from the City and its partners, but also the active engagement and development of partnerships with community stakeholders, local businesses, and residents to achieve steady progress towards the City's climate resilience goals.

City's Role

The City will serve as the direct lead in the implementation and monitoring of the Climate Adaptation Plan. The City should incorporate the actions of the Climate Adaptation Plan into the operations, financial decision-making, community engagement, and overall planning processes. In alignment with the climate adaptation goals and policies, the City should update city services, building codes, and related programs, and pursue revenue and funding sources for implementing adaptation actions and projects. The City will be responsible for ensuring that the plan remains a relevant document informed by the best available science and is reviewed, evaluated, and updated on a consistent basis. Through the implementation, review, and updating process, the City should continue to actively engage vulnerable populations, such as the elderly and individuals with disabilities, through public workshops and other engagement opportunities to develop adaptation strategies that are inclusive, equitable, and effectively addressing community needs. City departments and entities tasked with leading implementation of adaptation actions include Public Works, Police & Fire, Community Planning & Building, the Library, City Hall, and the Community Emergency Response Team (CERT). See Appendix D, which shows which department is responsible for leading each action. The Adaptation Strategy identifies a Grant Writer/Climate Coordinator (action 1.4.4.) as a key position to ensure that each City department lead is making progress on their adaptation actions. Appendix D provides a detailed implementation guide indicating the appropriate City lead for each action with actions sorted by timeframe for implementation. The City Council should also consider establishing and appointing a new Sustainability Commission to support the implementation of the Climate Adaptation Plan by providing feedback on progress reports as described below in the Reporting on Progress section.

The Role of Partners

Partnerships will allow for efficient problem solving, regional collaboration for feasibility studies and other adaptation-related work, and the ability to widely communicate resources. To facilitate implementation of some of the actions, the City should coordinate with several key partners, as identified below.

Table 5 Partner Role

Organization	Partner Description and Opportunities
Fire Protection	
Firewise USA	Firewise USA provides as framework of communities and neighbors to organize and participate in wildfire risk mitigation efforts. Once a local fire safe council/neighborhood has been certified, the City should partner with the group to increase community resilience to wildfire.
California Department of Forestry and Fire Protection (CAL FIRE)	CAL FIRE protects and stewards over 31 million acres of California's privately owned wildlands. The Department also provides emergency services in 36 of the State's 58 counties through contracts with local governments and prevents wildfires in the State Responsibility Area (SRA). The City should apply for grant funding from CAL FIRE to better prepared for wildfires.
Monterey Fire	Monterey Fire serves an area of about 400 square miles and provides fire and emergency services as well as community education programs to Carmel and other jurisdictions in Monterey County. The City should regularly partner with Monterey Fire on defensible space code enforcement, education and outreach, and emergency preparedness.
National and Statewide Partners	
The U.S. Army Corps of Engineers	The U.S. Army Corps of Engineers provides engineering solutions to reduce disaster risk and energize the economy. They also have a regulatory program to protect the nation's aquatic resources and navigable capacity. The City should coordinate with the U.S. Army Corps of Engineers to implement projects related to coastal flood hazard reduction and/or habitat restoration that would serve as adaptation strategies.
California Department of Transportation (Caltrans)	Caltrans is responsible for designing, building, and maintaining the State's transportation system, including Highway 1. The City should partner with them to discuss feasible sea-level-rise adaptation strategies.
The California Coastal Commission	The California Coastal Commission plans and regulates the use of land and water in the coastal zone. The City should continue to collaborate with the California Coastal Commission regarding planning for sea level rise and climate change through Local Coastal Program updates.
Utilities	Electric, gas, cable, telephone, and other utility companies contain assets that will be affected by climate hazards. The City should coordinate with these utilities to discuss feasible adaptation strategies.
Regional Partners	
Association of Monterey Bay Area Governments (AMBAG)	AMBAG leads regional collaboration and services to analyze, plan and implement regional policies for Counties and Cities of Monterey, Santa Cruz, and San Benito. The City should collaborate with AMBAG to plan and implement regional-scale adaptation strategies.
Central Coast Community Energy (3CE)	3CE is a Community Choice Energy agency that sources clean and renewable electricity for Monterey, San Benito, and Santa Cruz and parts of San Luis Obispo and Santa Barbara counties. The City should collaborate with 3CE to plan and implement adaptation strategies that increase electricity reliability in the face of climate hazards.

Organization	Partner Description and Opportunities
The Central Coast Climate Collaborative	The Central Coast Climate Collaborative is a membership organization cultivating a network of local and regional community leaders throughout six Central Coast counties to address climate change mitigation and adaptation. The City could consider participating in the Central Coast Climate Collaborative to share best practices and information with other local and regional agencies.
County-based Partners	
The Monterey County Health Department	The Monterey County Health Department is a membership organization cultivating a network of local and regional community leaders throughout six Central Coast counties to address climate change mitigation and adaptation. The City could consider participating in the Central Coast Climate Collaborative to share best practices and information with other local and regional agencies.
The Monterey County Workforce Development Board (WDB)	The Monterey County Workforce Development Board coordinates with public and private partners to train and place individuals with the skills that employers need. WDB provides job seekers with connections, services, and resources needed to successfully join the workforce. The City should partner with WDB to establish education and training partnerships for workers displaced or negatively impacted by climate change.
The County of Monterey Economic Development Department	The County of Monterey Economic Development Department coordinates and facilitates the County's efforts to attract, return, and grow businesses and jobs and provide affordable housing throughout the County. The City should work with the County of Monterey Economic Development Department to develop more integrated strategies for job protection, economic sustenance, and the protection of vulnerable populations more at risk of temporary or permanent job dislocation due to climate change.
California State University (CSU) Monterey Bay	CSU Monterey Bay, founded in 1994, is a public, coeducational institution that provides undergraduate degrees, graduate degrees, and teacher certifications. The City should partner with CSU Monterey Bay to conduct local adaptation-related studies.
City-based Partners	
Carmel Area Wastewater District (CAWD)	CAWD provides wastewater treatment services Carmel-by-the-Sea and is owned, operated, and managed by the community via an elected Board of Directors. The City should maintain staff or council personnel as liaisons to CAWD to increase the facility's resilience to sea level rise and stronger storms.
Neighboring Cities	Neighboring cities include Monterey, Pacific Grove, Salinas, Del Rey Oakes, Marina, Sand City, and Seaside. The City should stay in regular communication with neighboring jurisdictions to share best practices and information on adaption planning, to jointly conduct needed monitoring, and to coordinate on issues that cross jurisdictional boundaries.
Carmel Unified School District	Carmel Unified School District serves communities in Carmel-by-the-Sea, Carmel Valley, and Big Sur, and has three elementary school, one middle school, one high school, one continuation high school, adult programs, preschool, and before/after school programs. The City could coordinate with the school district to provide resilience hubs in the community.
The Carmel Foundation	The Carmel Foundation is a Carmel-based membership organization with over 3,000 members 55 years of age and older that facilitates interactive programs, activities, and classes for its members. The City should partner with the Carmel Foundation to develop and plan for a social support network to increase resilience to climate change.

Organization	Partner Description and Opportunities
Local community and volunteer groups	Local community and volunteer groups can help disseminate adaptation-related information and workshops to all residents and communicate information back to the City.
The Carmel Chamber of Commerce	The Carmel Chamber of Commerce provides programs, workshops, and networking to promote the businesses in the City of Carmel. The City should partner with the Carmel Chamber of Commerce to increase economic resilience by developing strategies for job protection in the face of climate change.
Visit Carmel-by-the-Sea	Visit Carmel-by-the-Sea provides exclusive offers, itineraries, and resources for visitors to utilize when planning a visit to the City. The City could coordinate with Visit Carmel-by-the-Sea to distribute evacuation information to visitors, in the event of a climate change-induced disaster.

These partners are well positioned to support implementation of adaptation actions from the Plan that align with the respective expertise or jurisdictional mandate of each partner organization. For example, the Monterey County Health Department is best positioned to provide City emergency providers with information and data regarding potential health threats associated with climate change hazards for incorporation into disaster and emergency early warning systems. Similarly, the Carmel Foundation and Carmel Residents Association have the connections and expertise to support the development of a plan for a social support network that improves communication among vulnerable populations regarding climate change. Climate Adaptation Plan partners can utilize their expertise, relationships, and resources to work with the City on implementing adaptation-related engagement efforts, planning, and other related projects.

The Role of Business

A large portion of local businesses in the City is in the hospitality industry. Businesses, such as restaurants, hotels, and art galleries, can serve as key Climate Adaptation Plan partners by promoting outreach events and campaigns that center the engagement of the community in conversations around climate risks and concerns. The City should partner with the Carmel Chamber of Commerce, the Monterey County Workforce Development Board, and the County of Monterey Economic Development Department to support businesses in developing continuity plans and guidelines that support economic resilience, protect vulnerable workers, and prepare for emergency and disaster events. Businesses should explore opportunities to build resilience to climate hazards through improving emergency preparedness, electrifying equipment and procuring battery storage to prepare for potential electrical grid shutoffs.

The Role of Residents

Residents of the City should focus on utilizing the resources and programs developed as a result of the Climate Adaptation Plan to become better informed on ways to prepare for climate change hazards events. Residents can participate in outreach campaigns and local programs to build personal and community resilience.

Residents can create a buffer, or defensible space, between their properties and grass, trees, shrubs, or any wildland area that surround them to help slow or stop the spread of wildfire and help protect their homes. They can also become involved in Carmel-by-the-Sea CERT programming to become better informed on emergency preparedness and promote community scale awareness and disaster mitigation. Another possible avenue for resident participation in the Adaptation Strategy is to convert HVAC units to heat pumps for water heating and space heating in addition to cooling, which can improve indoor air quality and community adaptation to extreme heat.

Funding and Financing Mechanisms

Effective implementation of the Climate Adaptation Plan will require capital investment, funding, and staff time to update and create plans, develop standards and best practices, design programs, conduct studies, maintain projects, and upgrade and institute infrastructure improvements. While some actions have significant costs, some costs can be reduced through the utilization of grants, incentive programs, subsidies, and low interest financing, lessening the financial burden on the City and community.

The City should develop a funding and financing plan to fund the more costly actions in the adaptation strategy. In this plan, the City should consider the following revenue sources.

- **Assessment and Abatement Districts**, often financed through the collection of supplemental tax assessments, allow for the better assessment of hazards and increased funding for maintenance, repairs, and improvements. An example of an Abatement District is provided in Appendix E.
- **Infrastructure Financing Districts**, allow for incremental property tax revenues to be devoted to a specific purpose. Once an infrastructure financing district is established and priority projects have been identified as part of the business plan, funds can be drawn from changes in local tax revenues occurring as part of redevelopment or rezone, or can be used to apply for grant funds.

- **A Shoreline Account** can serve as the primary account where funds generated for future adaptation programs and maintenance would be kept in reserve.
- **Development Impact Mitigation Fees or In-Lieu Fees** can generate funds for implementing adaptation strategies. The City could consider establishing a fee program, similar to those established by the California Coastal Commission, to administer fees for habitat damages. These fees could be used to implement habitat restoration projects and maintenance.
- **Bonds** allow municipalities to borrow money from investors, which is then repaid to the investor over an established period at a certain rate. Green bonds are a new market that has emerged to specifically fund adaptation infrastructure.
- **Taxes** can be imposed to fund adaptation strategies. The City can impose a special tax with two-thirds majority voter approval. The taxing agency must publish an annual report including the tax rate, the amounts of revenues collected and expended, and the status of any project funded by the special tax.
- **Grants**. The City should also explore state and federal funding sources such as FEMA's Hazard Mitigation Grant Program and Pre-Disaster Mitigation Program, Caltrans Adaptation Planning Grant Program, CAL FIRE's Fire Prevention Grants Program, and the California Coastal Commission and California Coastal Conservancy – Local Coastal Program Local Assistant Grant Program and Climate Ready Grants.

The appropriate revenue source option should consider applicability to climate adaptation, revenue potential, and ease of authorization.

Monitoring and Evaluation

The City will lead the monitoring of the Climate Adaptation Plan to assess the effectiveness of the adaptation and resilience strategies and to confirm alignment with changing climate conditions and associated risks. To maintain consistency with the 2020 CalOES APG, the City should designate one department as the responsible agency for carrying out monitoring activities for adaptation action. As noted in the Adaptation Strategy (action 1.4.4), a Grant Writer/Climate Coordinator should be hired within the Public Works Department to lead monitoring and evaluation of the Climate Adaptation Plan. While some adaptation actions can be implemented using existing staff time, full Climate Adaptation Plan implementation will require additional staff and consultant time to coordinate implementation of the Climate Adaptation Plan and monitor progress. Responsibilities will include collecting and compiling all monitoring data and conducting an overall assessment of effectiveness annually. The City should follow monitoring with annual evaluation of the adaptation actions to be able to adjust in line with community needs. Re-evaluation of adaptation strategies should occur when an adaptation strategy is identified as losing effectiveness. When an adaptation action loses effectiveness, the vulnerability and susceptibility of the populations, assets, resources, and/or operations it affects should be reassessed.

The Climate Adaptation Plan should be monitored through tracking quantitative metrics to assess progress towards achieving the adaptation goals. For example, for Action 1.3.2, the City would track the number of heat pumps installed and for Action 3.1.2, the City would track the change in impervious surface coverage.

Annually, policy performance should be monitored and reported to determine the extent to which the City is achieving the adaptation policies and goals. The City should also track quantitative metrics that gauge compliance with the policies. For example, for Policy 3.2, the City would track the number of relevant plans and standards that were updated to incorporate climate change adaptation. To evaluate how adaptation strategies are considering and addressing the concerns of vulnerable populations, the City should consider defining and annually measuring a series of equity-related metrics and communicating findings through an online reporting system. The Climate Adaptation Plan should be monitored and evaluated simultaneously with the City's greenhouse gas reduction actions to measure the City's overall progress towards acting on climate change and increasing community resilience.

Reporting on Progress

The City should produce an annual report describing achievement towards the Climate Adaptation goals, policies, and actions. The report could be posted on the City website and disseminated into the community, with support from engagement partners, to maintain awareness of success of the adaptation strategies. The report should contain quantitative information regarding metric tracking as well as a narrative of lessons learned and future plans to address challenges faced. It is recommended that a new Sustainability Commission be established and appointed by the City Council to be responsible for reviewing the report, providing feedback on progress, and sharing any concerns around the strategies for increasing community resilience. Based on feedback from the Sustainability Commission, City and partner staff, and the community, the City could conduct an update to the Climate Adaptation Plan on or before 2030.

Updating the Climate Adaptation Plan and Vulnerability Assessment

The Vulnerability Assessment and Climate Adaptation Plan should be updated to incorporate new climate science data, shifting community priorities, implementation hurdles, changes in best practice, and technological advances. The Climate Committee determined that a coastal engineering study will be necessary to fully assess the impacts of sea level rise on City assets and to determine policies and actions to address those impacts. The Climate Adaptation Plan should be updated once this study has been completed. It is important that through each iteration of the Vulnerability Assessment and Climate Adaptation Plan, the City continue to engage key stakeholders, the community, and vulnerable populations.

Data Gaps

In the next update of the Vulnerability Assessment, the City should reassess impacts for which not enough data was available during the July 2021 update (see Appendix B). These include:

- Impacts of stronger storms on
  - Marine sanctuary, sanitary sewer system, hospital and emergency medical care facilities
- Impacts of wildfires on
  - Hospital and emergency medical care facilities
- Impacts of sea level rise on
  - Mission Trail Nature Preserve, landfill and waste management, coastal natural assets, coastal infrastructure assets
- Impacts of more drought on
  - Marine sanctuary
- Impacts of increased temperature on
  - Marine sanctuary, overhead communication, hospital and emergency medical care facilities
- Impacts of fog on
  - Mission Trail Nature Preserve, North Dunes, urban forest, marine sanctuary
- Impacts of ocean warming on
  - Marine sanctuary, visitors, local businesses

Attachment 1

Appendix A
Climate Action Plan

Attachment 2

City of Carmel-by-the-Sea Climate Action Plan

The Path Forward

Adopted by the Carmel-by-the-Sea City Council on _____

Pre-final Draft
April 2022

Credits and Acknowledgments

Members of the Climate Committee:

Community Members:
John Hill
Michael LePage
Scott Lonergan
LaNette Zimmerman

Council Members:
Jeff Baron
Carrie Theis

Staff:
Evan Kort, Associate Planner
Agnes Martelet, Environmental Compliance Manager

Consultant Team:

Michael Hendrix, LSA

Agency Partner:

Association of Monterey Bay Area Governments

Many thanks to the members of the public who have attended the Climate Committee meetings starting in November 2019 and provided valuable input throughout the plan development process.

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Appendix A – Greenhouse Gas Inventory and Forecasting Technical Memo

INTRODUCTION

Rising concentrations of carbon dioxide and other greenhouse gases are altering temperature and rainfall patterns and contributing to rising sea levels globally. In California, recent historic wildfires, droughts, floods, mudslides, and public safety power shutoffs represent the types of climate change impacts that will continue to be experienced with increasing frequency and severity. Although climate change is a global issue, regional and local governments are uniquely positioned to identify the specific risks and most effective solutions for their communities.

Recognizing the importance of local action, the City of Carmel-by-the-Sea (City) Climate Action Plan (CAP) presents measures that will serve as a road map to meeting Carmel-by-the-Sea's greenhouse gas (GHG) emission reduction targets. It addresses government operations emissions under the City's control, as well as community-wide emissions. The emissions reduction measures build on existing plans, policies and practices already adopted by the City and other regulators, and are consistent with statewide climate legislation. This plan is a companion document to the City's Climate Adaptation Plan and includes several measures that not only reduce the community's GHG emissions but also improve public health and community resilience.

Scope of the Climate Action Plan

This Climate Action Plan consists of the following elements:

(1) a greenhouse gas emissions inventory (summarized in this chapter and provided in full as Appendix A),

(2) a 2030 greenhouse gas emissions target and forecast, and a 2045 carbon neutrality goal, in line with Statewide goals,

(3) an action plan to meet these targets, and

(4) implementation and monitoring recommendations to ensure continued success towards reaching GHG reduction goals.

The CAP identifies strategies to guide the development and implementation of GHG reduction measures in the City of Carmel-by-the-Sea, and quantifies the emissions reductions that result from these strategies. The overall benefits of the CAP are much greater than reducing GHG emissions; it includes quality of life and resilience improvements for the community, potential energy cost savings for residents and businesses, and protection of environmental and community assets for future generations.

The CAP proposes strategies to reduce GHG emissions from community-wide activities and government operations. Strategies are broken down into six goals:
Goal 1: Energy Efficiency and Electrification of Residential and Commercial Buildings
Goal 2: Improved Transportation Choices
Goal 3: Renewable Energy Sources
Goal 4: Water Efficiency
Goal 5: Waste Reduction
Goal 6: Urban Forest Protection and Heat Island Effect Reduction

GREENHOUSE GAS EMISSIONS INVENTORY AND FORECAST

GHG emissions inventories are the foundation of planning for future reductions. Establishing an inventory of emissions helps to identify and categorize the major sources of emissions produced over a single calendar year. A community inventory includes GHG emissions that result from the activities of city residents and businesses. The inventory identifies the major sources of GHG emissions resulting from activities in sectors that are specific to community activities.

Community GHG Inventory Scope

The Association of Monterey Bay Area Governments (AMBAG) has prepared community inventories for its member jurisdictions, including the City, for the years 2005, 2010, 2015, 2018, and 2019. The 2019 inventory is the most recent year for which data is available. Table A provides the sectors evaluated in the GHG inventories.

Table A: Community Sectors Evaluated

Community Sectors
Residential Energy (Electricity and Natural Gas)
Commercial Energy (Electricity and Natural Gas)
On-Road Transportation
Solid Waste
Wastewater

AMBAG calculated GHG emissions using the available activity data (e.g., kilowatt-hours of electricity) in the State Energy Efficiency Collaborative (SEEC) ClearPath tools to convert activity data to emissions output using relevant emission factors.

Transportation GHG Analysis

LSA Associates (LSA) was retained by the City to develop an updated GHG emissions inventory to address specific concerns associated with the City's unique tourist-based economy that attracts visitors from around the State and the world (Appendix A). The City wanted to better understand the relationship between its tourist economy and GHG emissions resulting from tourism. The City had two specific goals: (1) understanding GHG emissions from on-road transportation based upon the origins and destinations of vehicle trips attributable to the City; and (2) developing GHG reduction strategies that will be effective for different types of vehicle trips including vehicle trips resulting from tourism, vacation homes, employee commutes, delivery services, and other local trips.

The analysis determined the following vehicle trip information:

- Local trips made up approximately 7 percent (%) of all vehicle trips in the City and averaged 6.5 miles.
- Commute trips represented 38% of all vehicle trips in the City and averaged 27 miles per trip.
- Delivery services providing supplies to local businesses and construction sites in the City made up approximately 10% of all vehicle trips and averaged 27 miles.

- 20% of vehicle trips result from the occupants of second homes in Carmel with an average trip length of 120 miles from their origin to the second home.
- Domestic tourists (primarily from the Bay Area and Salinas) make up 22.5% of vehicle trips. Their mileage varies depending on their origin from 27 miles for visitors from Salinas to 322 miles for those from Los Angeles and Orange Counties.
- International tourists make up approximately 2.5% of vehicle trips. Many of these visitors took a tour bus to arrive in Carmel from San Francisco International Airport.

There are three types of GHG emissions that the United States Environmental Protection Agency (EPA) defines in their guidance protocols: Scope 1 GHG emissions are "direct" emissions from sources that are controlled by the jurisdiction; Scope 2 emissions are "indirect" emissions from sources controlled by the jurisdictions, such as emissions from the generation of electricity; Scope 3 emissions are from sources not controlled by the jurisdiction.

According to the EPA protocols, GHG emissions associated with vehicle miles traveled within Monterey County boundaries are considered "Scope 1" emissions and are counted in the City's GHG inventory and target setting. The GHG emissions associated with vehicle miles traveled outside of the Monterey County boundaries are considered Scope 3 emissions. Although these emissions are not included in the target setting, the City has developed strategies focused on reducing these emissions as well.

GHG Inventory Results

The City's total emissions in 2019 were 30,962 metric tons of carbon dioxide equivalent (MT CO_2e). As shown in Figure 1 and Table B, the on-road transportation sector was the largest contributor to emissions in the 2019 inventory, with 45.8% of the City's total GHG emissions. Natural gas from residential and commercial buildings made up 43.2% of the City's GHG emissions.

The third most significant category of emissions was solid waste at 10.3% of total emissions. Solid waste emissions are associated with the decomposition of organic waste material in landfills, which generates methane gas, a greenhouse gas 84 times more potent than carbon dioxide.

Electricity (0.5%), and wastewater (0.2%) comprised the remainder of the emissions. As shown in Figure 2, electricity accounts for a low percentage of total emissions due to the power supply mix provided by Central Coast Community Energy (3CE), which relies largely on low-carbon energy sources.

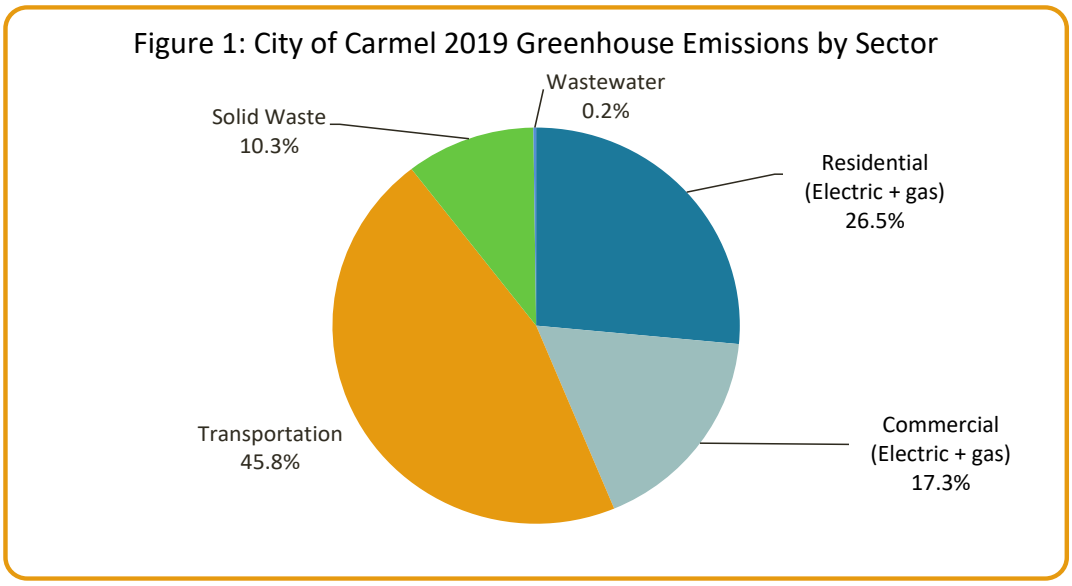
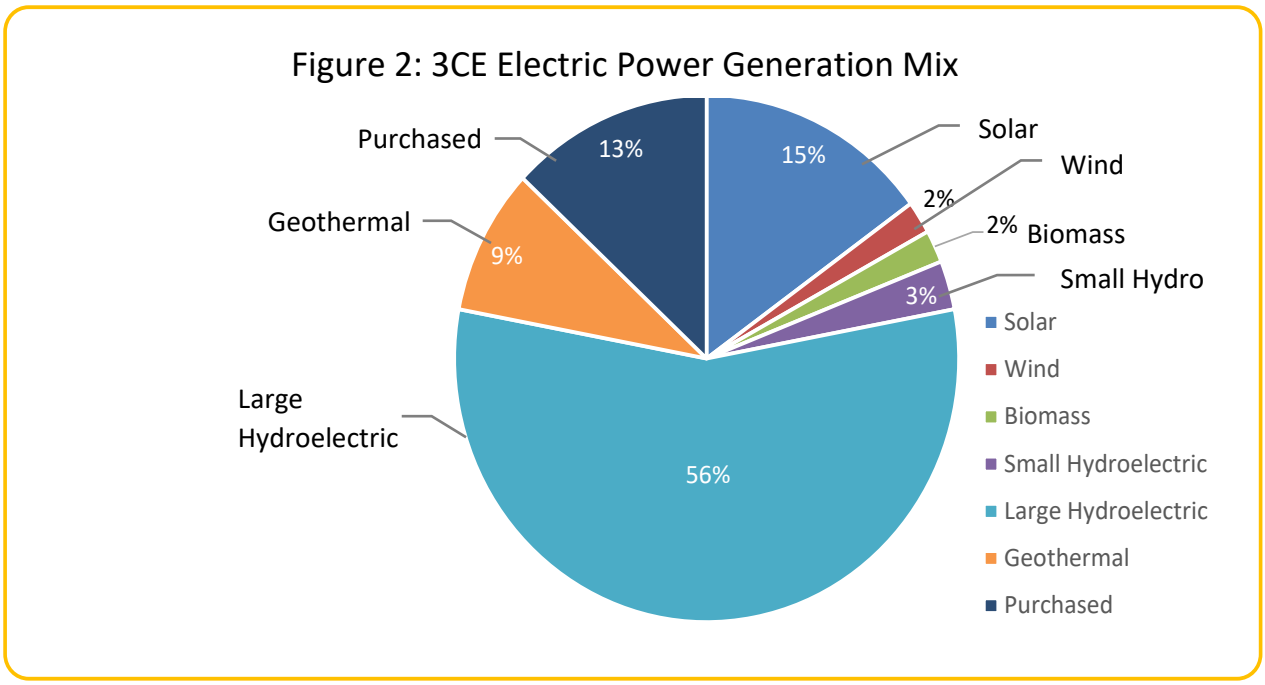


Table B: Communitywide GHG Emissions by Sector for 2019

Sector	2019 (MT CO_2e)	Percent of Total
On-road Transportation		
Scope 1	14,173	45.8
Scope 3	15,115	
Electricity		
Residential	63	0.5
Commercial	92	
Natural Gas		
Residential	8,138	43.2
Commercial	5,250	
Solid Waste	3,178	10.3
Wastewater	68	0.2
Total Scope 1 Emissions	**30,962**	100
Total with Scope 3 Emissions	**46,076**	

Source: AMBAG and LSA 2021.
MT CO_2e = metric tons of carbon dioxide equivalent



GHG Emissions Forecast

Forecasting future GHG emissions allows the City to understand how emissions are expected to increase or decrease in the future. Major changes in growth or land uses may affect how to best plan to reduce emissions in the future. GHG emissions are forecast using two scenarios: a Business-as-Usual (BAU) scenario and an Adjusted BAU (ABAU) scenario. The BAU scenario describes emissions based on projected growth in population and employment and does not consider policies that would reduce emissions in the future (that is, the policies and related efficiency levels in place in 2019 are assumed to remain constant through 2045). The City's projected growth is estimated using data from AMBAG's adopted growth forecasts for Carmel by-the-Sea, which provides the City's demographic growth indicators for the years 2030 and 2045. The growth rates for households, population, and employment were estimated based on the available data and used to estimate the growth in households, population, and employment into the year 2045. Table C shows the growth projections used to develop the emissions forecasts. As shown in this table, population, jobs, and energy consumption will experience very low growth rates in the City through 2045.

The ABAU scenario describes emissions based on projected growth *and* considers policies that will achieve GHG reductions in the future. By evaluating the two scenarios, the City can evaluate the effect that existing policies may have on future emissions and determine which local measures would provide additional reductions.

Two future years are forecast for each scenario: 2030 and 2045. The 2030 forecast year is consistent with the goals identified in the Senate Bill (SB) 32, and the corresponding Statewide Scoping Plan, which identifies Statewide GHG reduction targets for 2030.

As shown in Table D, the 2030 BAU emissions are estimated to be 29,445 $MTCO_2e$. By 2045, emissions are estimated to decrease to 27,471MT CO_2e. This modest reduction in GHG

emissions is due to changes over time as people purchase newer and more energy efficient automobiles and appliances.

As shown in Table E, the City's ABAU emissions are estimated to be 23,013 MT CO_2e in 2030, and 19,013 MT CO_2e in 2045. The ABAU takes into account stringent State regulations related to transportation (vehicle efficiency and low carbon fuel standards) and energy sectors (renewable energy portfolio standards and requirements for a portion of the natural gas supply to be renewable natural gas).

Table C: Growth Indicators for 2020, 2030, and 2045

Sector	Demographic Indicator	2020	2030	2020–2030 CAGR[1] Percent	2045	2020–2045 CAGR Percent
Residential Energy	Households	3,437	3,442	0.0002	3,459	0.0064
Commercial/Industrial Energy	Jobs	3,556	3,674	0.0033	3,915	0.0040
N/A[2]	Population	3,949	3,954	0.0001	3,984	0.0035
VMT, Solid Waste and Wastewater	Service Population (Population + Jobs)	7,505	7,628	0.0015	7,899	0.0020

Source: AMBAG, 2022 Regional Growth Forecast
[1] CAGR = Compound annual growth rate.
[2] Not applicable. Population data are shown for informational purposes but are not used for forecasting any sector.

Table D: Business As Usual (BAU) Forecast Emissions

Sector	2019 (MT CO_2e)	2030 (MT CO_2e)	Percent Change 2019–2030	2045 (MT CO_2e)	Percent Change 2019–2045
On-road Transportation Scope 1: Scope 3:	 14,173 15,115	 13,316 14,201	-5%	 12,582 13,418	-11%
Electricity Residential Commercial	 63 92	 60 87	-5%	 56 82	-11%
Natural Gas Residential Commercial	 8,138 5,250	 7,759 4,961	-4%	 7,239 4,628	-11%
Solid Waste	3,178	3,033	4%	2,830	-11%
Wastewater	68	59	-5%	55	-12%
Total (Scope 1) **Total (Scope 3)**	**30,962** **46,076**	**29,445** **43,646**	-5%	**27,471** **40,889**	-11%

Source: LSA forecasts for the City of Carmel by-the-Sea, 2021.
MT CO_2e = metric tons carbon dioxide equivalent

Table E: Adjusted Business As Usual (ABAU) Forecast Emissions

Sector	2019 (MT CO_2e)	2030 (MT CO_2e)	Percent Change (2019–2030)	2045 (MT CO_2e)	Percent Change (2019–2045)
On-road Transportation			-26.6%		-38.6%
Scope 1:	14,173	10,407		8,708	
Scope 3:	15,115	11,105		9,285	
Electricity					
Residential	63	47	-25.4%	39	-38.1%
Commercial	92	68		57	
Natural Gas					
Residential	8,138	6,138	-24.6%	5,010	-38.4%
Commercial	5,250	3,935		3,203	
Solid Waste	3,178	2,372	-25.4%	1,958	-38.3%
Wastewater	68	46	-32.4%	38	-44.1%
Total (Scope 1)	**30,962**	**23,013**	**-25.7%**	**19,013**	**-38.6%**
Total (Scope 3)	**46,076**	**34,118**		**28,298**	

Source: LSA forecasts for the City of Carmel by-the-Sea, 2021.
MT CO_2e = metric tons carbon dioxide equivalent

GREENHOUSE GAS EMISSIONS TARGETS

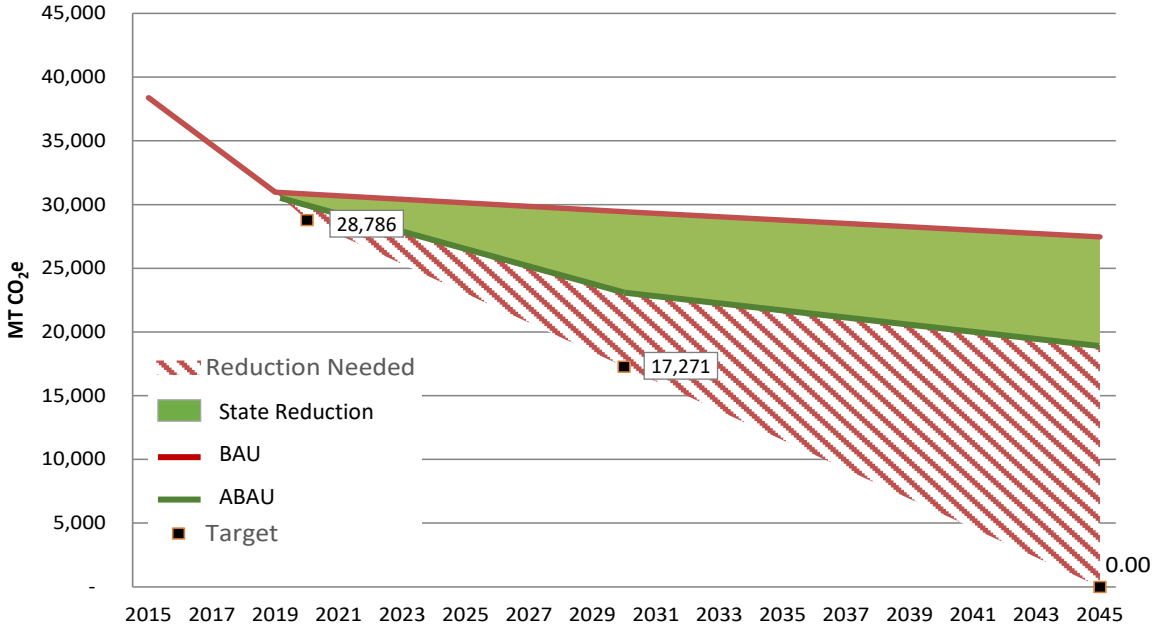
The State has set goals for reducing statewide GHG emissions by 2030 and 2045 through Assembly Bill (AB) 32, Senate Bill (SB) 32, SB 100, and Executive Order (EO)-B-55-18. The State has also provided guidance to local jurisdictions as "essential partners" in achieving the State's goals by identifying a 2030 GHG emissions target 40 percent below 1990 levels. Additionally, continued reduction goals should be implemented beyond the 2030 target to keep the State on a path toward Statewide climate neutrality by 2045.

In the City of Carmel-by-the-Sea, the State's target of 40 percent below 1990 levels by 2030 amounts to a reduction of 12,174 MT of CO_2 equivalent in annual emissions by 2030 compared to the BAU forecast and a reduction of 5,742 MT CO_2e by 2030 compared to the ABAU forecast to meet the State target. The City needs to implement strategies and measures to meet the State's 2030 GHG reduction target.

Additionally, the City's long-term goal is to also meet the State's 2045 carbon neutrality goal. As the City begins to implement the Climate Action Plan, additional measures will need to be identified and developed over time to meet this long-term goal.

Figure 3 depicts the BAU and ABAU forecasts, reduction targets, and additional GHG emission reductions required to meet the reduction targets.

Figure 3: BAU, ABAU forecasts, and Reduction Targets



GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Based on the City's GHG emissions forecasts and identified targets, the City developed a strategy table (Table F) of community-wide goals, measures, and actions to meet its 2030 reduction target and work towards its 2045 carbon neutrality goal.

In the strategy table, goals describe overarching objectives in a particular sector of GHG emission reductions. There are six goal areas listed in the table:

Goal 1: Energy Efficiency and Electrification of Residential and Commercial Buildings
Goal 2: Improved Transportation Choices
Goal 3: Renewable Energy Sources
Goal 4: Water Efficiency
Goal 5: Waste Reduction
Goal 6: Urban Forest Protection and Heat Island Effect Reduction

Within each goal, one or more measures are presented. Each measure includes a GHG reduction potential by 2030 and one or more actions that indicate the steps the City plans to take in achieving the measure. Certain actions are noted as "supporting actions" that will enhance the effectiveness of program implementation and GHG reductions.

To facilitate implementation of each action by the City, additional information is included for each measure, as follows:

- **Metric:** A performance indicator to gauge progress on implementation of actions. Metrics are a key component of implementing, monitoring, and evaluating the Climate Action Plan.
- **Timeframe**: The timeframe lays out a preliminary timeline for action implementation.
- **Implementation Lead**: The City department(s) that will lead the implementation of each action.
- **Cost**: Sorted into ranges of $-Low (<$25,000), $$-Medium ($25,000 - $100,000), and $$$-High (>$100,000), these estimates are used to determine the extent of funding and financing needed to implement these measures.

TABLE F: GHG Emissions Reduction Strategy Table
Goal 1. Energy Efficiency and Electrification of Residential and Commercial Buildings

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 1.1 Energy Efficiency Training, Education, Incentives and Recognition for Residential and Commercial							
Action 1.1.1: Energy Efficiency Outreach Post links on website and social media and provide materials at public events re: energy efficiency and electrification resources for residential and commercial. Promote an annual energy efficiency fair. Promote PG&E energy center and online resources. Hold trainings on energy efficiency and Title 24 requirements.	Supporting Action	Supporting Action	- Energy efficiency resources on website, Friday Letter, social media - Energy efficiency fair held (Earth Day) - Title 24 training held	2022-2024	Building, Planning, Public Works, Community Activities	$	1.3.6
Action 1.1.2: Energy Efficiency and Electrification Incentives Partner with AMBAG, PG&E and 3CE to promote incentive programs for residential and commercial efficiency and electrification, including heat pump retrofits and gas appliance and fireplace retrofits.	71.1	71.1	- Incentive programs posted on website, Friday Letter, social media - Incentive programs promoted at energy fair - Incentive program promoted thru Green Business and Green Citizen programs	2023-2025	Building, Planning, Public Works	$	1.3.2, 1.3.6
Action 1.1.3: Energy Efficiency Audits Promote PG&E energy audits and tools for residential and commercial	Supporting Action	Supporting Action	- Audit Information on website, Friday Letter, social media - Information shared at annual fair	2022-2024	Planning, Public Works	$	
Measure 1.2 Energy Efficiency in Renovation Projects							
Action 1.2.1: Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation, battery storage, and electric car readiness to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, through a reach code, and building resilience to potential electrical grid shutoffs.	Supporting Action	Supporting Action	- Feasibility Study for Existing Building Electrification and Back-up Power completed	2022-2024	Building, Planning, Public Works	$ $	1.3.4

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Action 1.2.2: Residential Home Energy Renovations. Enhance enforcement of Title 24 compliance Promote participation in green building programs such as Leadership in Energy and Environmental Design (LEED), Passive House, and Energy Upgrade California. Develop a Reach Code based on the results of the Feasibility Study (Action 1.2.1). If feasible, the Reach Code should require electrification retrofits, including electric car readiness, in major home renovations/additions. Evaluate feasibility of streamlining online permitting to facilitate electrification retrofits	1,217.5	1,294.6	- 100% of regulated projects are Title 24 compliant - Reach Code Adopted by City Council - Online permitting streamlined for electrification-only retrofits - Passive House, LEED, Build It Green, Energy Star information on City website and at energy fair	2023-2025	Building, Planning	$ $	
Action 1.2.3: Residential Home Energy Renovation Incentives. Develop a program to promote home energy efficiency and electrification benefits, advertise incentives, and recognize residents that implement retrofits, such as a Green Citizen Program. Promote financing programs for home upgrades, such as Home Energy Renovation Opportunity (HERO) and Property Assessed Clean Energy (PACE) Promote incentives available to homeowners to convert to all-electric homes and install EV chargers. Evaluate the feasibility of providing additional incentives.	Supporting Action	Supporting Action	- Green Citizen Program developed - Financing information on website, at energy fair - Incentive information on website, at energy fair	2022-2024	Building, Planning, Public Works	$	1.3.6

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Action 1.2.4: Commercial Energy Renovations. Enhance enforcement of Title 24 compliance Develop a Reach Code based on the results of the Feasibility Study (Action 1.2.1). If feasible, the Reach Code should require electrification retrofits in major commercial renovations/expansions, unless the business can show a need for natural gas (restaurants, pottery kilns etc.) Promote participation in green building programs such as Leadership in Energy and Environmental Design (LEED), Passive House, and Energy Upgrade California. Evaluate the feasibility of streamlining online permitting to facilitate electrification retrofits	1,206.2	1,666	- 100% of regulated projects are Title 24 compliant - Reach Code Adopted by City Council - Online permitting streamlined for electrification-only retrofits - Passive House, LEED, Build It Green, Energy Star information on City website and at energy fair	2023-2025	Building, Planning	$ $	
Action 1.2.5: Commercial Energy Renovation Incentives. Partner with AMBAG and 3CE incentive programs to increase business participation in commercial energy efficiency programs Promote financing programs for home upgrades, such as Property Assessed Clean Energy (PACE) Initiate a Green Business Certification Program for businesses that follow the California Green Business Program standards (www.greenbusinessca.org). Promote existing incentives for businesses to convert to all-electric buildings. Evaluate the feasibility of providing additional incentives.	69.4	69.4	- Green Business Program initiated - Financing information on website, at energy fair - Incentive information on website, at energy fair, and shared via GBP	2022-2024	Building, Planning, Public Works	$	1.3.6
Measure 1.3 Energy Efficiency in New Construction Projects							

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Action 1.3.1: Energy Efficiency in New Residential Construction Educate City staff and developers on future Title 24 updates. Promote CalGreenTier 1 and Tier 2 green building ratings such as Passive House, LEED, Build it Green or Energy Star certified buildings. Evaluate feasibility of streamlining online permitting. Develop a Reach Code based on the results of the Feasibility Study (Action 1.2.1). If feasible, the Reach Code should require new residential buildings to be all-electric homes.	0.01	0.01	- 100% of projects are Title 24 compliant - Reach Code Adopted by City Council - Online permitting streamlined for electrification-only retrofits - Passive House, LEED, Build It Green, Energy Star information on City website and at energy fair	2023-2025	Building, Planning	$	
Action 1.3.2: Energy Efficiency in New Commercial Construction Educate City staff and developers on future Title 24 updates. Promote CalGreen Tier 1 and Tier 2 green building ratings such as Passive House, LEED, Build it Green or Energy Star certified buildings. Evaluate feasibility of streamlining online permitting. Develop a Reach Code based on the results of the Feasibility Study (Action 1.2.1). If feasible, the Reach Code should require new commercial buildings to be all-electric with exemptions for business that can show a need for natural gas (restaurants, pottery kilns etc.)	0.0	0.0	- 100% of projects are Title 24 compliant - Reach Code Adopted by City Council - Online permitting streamlined for electrification-only retrofits - Passive House, LEED, Build It Green, Energy Star information on City website and at energy fair	2023-2025	Building, Planning	$	

Goal 2. Improved Transportation Choices

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 2.1. Alternative Transportation Options							
Action 2.1.1: Reduce Reliance on Automobiles. Work with AMBAG, TAMC and Caltrans to remove barriers to alternative transportation such as safe pedestrian and bicycle access to the City across Highway 1. Promote and provide incentives for bus ridership Explore the feasibility of increasing land use density in downtown during the next General Plan Land Use Element update. Identify and promote within the hotels and visitors center existing shuttle services between Carmel and the airports. Work with Monterey Airport and AMBAG to explore the feasibility of an electric shuttle service between Monterey Airport and destinations in the City.	Scope 1 563 Scope 3 89	Scope 1 563 Scope 3 89	- Outreach on shuttle services created and provided in Carmel hotels - Incentives developed and promoted to encourage bus use - Coordination meetings held with AMBAG, Monterey Airport on shuttle options - Coordination meetings held re: alternative transportation to Carmel - General Plan Land Use Element updated	2023-2030	Planning, Public Works	$ $ $	
Action 2.1.2: Develop Bicycle Master Plan to Create Safe Bike Routes around the City Develop customized bike routes to improve bike transit. Provide signage, reduce speed limits as necessary, and develop safety education programs on “sharing the road” with bikes.	10	10	- Bicycle master plan created - Signage installed - Outreach materials created and shared via City website, newsletters, local newspapers, and other outlets.	2024-2026	Planning, Public Works	$	
Action 2.1.3: Ride-Sharing and Bike to Work Programs within City Operations and Businesses Promote ride-sharing and facilitate air district incentives for ride-sharing Provide reserved preferential parking spaces for ride-sharing, carpooling, and ultra-low or zero emission vehicles in City parking lots. Encourage the same at private businesses that have employee parking. Require businesses of a certain size to provide facilities such as bike racks and showers.	Supporting Action	Supporting Action	- Incentives for ride-sharing created and advertised - Incentives for bike riding created and advertised - Reserved parking spaces created for ride-sharing, and low/zero emission vehicles - Bike racks included in design guidelines for commercial remodels	2022-2024	Planning, Public Works	$	

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 2.2. Electrify the Fleet							
Action 2.2.1: Prioritize Electric Vehicles (EVs) Promote electric vehicle incentive programs at outreach events. Apply for grants to install e-chargers at public facilities. Work with community groups and businesses to install additional e-chargers. Encourage hotels to provide priority parking for electric vehicles and provide e-chargers. Provide priority parking for bus tours that use electric buses. Work with Visit Carmel to develop and initiate a Green Visitor Program that rewards tourists that use electric vehicles, carbon credits for air-miles, and that adhere to the City's sustainability practices while visiting the City. Require or incentivize major commercial building renovations/expansions to install e-chargers.	Scope 1 1,511 Scope 3 1,425	Scope 1 1,538 Scope 3 1,452	- EV incentives shared on City website, newsletters, and at energy fair - EV chargers installed at City parking lots - Electric bus parking created and associated outreach - Green Visitor Program established - Outreach at Visit Carmel re: EV chargers on hotel properties - EV chargers included in design guidelines for commercial remodels	2024-2026	Planning, Public Works, Community Activities	$ $ $	
Measure 2.3 Initiate Origin/Destination Transportation Model							
Action 2.3.1: Develop Model Develop an Origin Destination Transportation Model focused on Carmel-by-the-Sea using the AMBAG regional model as a base. Update the CAP with new VMT data once the Origin Destination Model is completed.	N/A	N/A	- ODTM Model developed - ODTM results incorporated in updated CAP	2024-2026	Planning, Public Works	$ $	

Goal 3. Renewable Energy Sources

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 3.1. Promote Clean Energy							
Action 3.1.1: Incentivize Clean Energy Installations Promote clean energy incentives to the community Incentivize solar panels installation on existing residential units Require or incentivize solar panel installation on major commercial building retrofits/expansions and commercial parking lots. Promote energy storage system installation with solar panels.	364	364	- Incentive information on website, at energy fair, and shared via new City outreach and recognition programs - Incentive for solar panel and/or energy storage installation developed	2024-2026	Building, Planning, Public Works	$ $	1.3.6
Action 3.1.2: Increase uptake of 3CE Renewable Generation portfolio Switch the City's electricity to 3CE's 100 Percent Renewable Energy Option Promote 3CE's 100 Percent Renewable Energy Option by encouraging residents and businesses to participate in the program.	-	-	- City electricity accounts switched to 3CE's 100% renewable option - 3CE 100% renewable energy option promoted at energy fair and via City outreach and recognition programs	2022-2024	Public Works, Planning	$ $	

Goal 4. Water Efficiency

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 4.1. Water Conservation in Landscaping							
Action 4.1.1: Continued Implementation and Promotion of City and Model Water Efficient Landscaping Ordinance Water Conservation Standards Increase promotion of landscaping water conservation standards on website and social media Ensure all projects comply with the City's low-irrigation landscaping requirements. Work with the Monterey Peninsula Water Management District (MPWMD) to promote incentives for existing landscaping retrofits to reduce water use.	2.9	3	- Landscaping water conservation information on website - 100% of projects including landscape retrofits comply with requirements - Landscape retrofit incentives developed and promoted in documents and outreach for development projects	2023-2025	Planning, Forestry, Public Works	$ $	3.1.6
Action 4.1.2: Exceed Water Efficiency Standards In partnership with the MPWMD, conduct direct outreach to HOAs, businesses, residents re: water conservation, grey water, rainwater harvesting Allow and promote recycled water for commercial and multi-family residential landscape irrigation. Allow and promote greywater systems and rainwater harvesting.	Supporting Action	Supporting Action	- Direct outreach to HOAs, businesses, residents thru outreach and recognition programs - Recycled water Standard Operating Guidance developed and promoted for commercial and multi-family construction projects - Grey water systems and rainwater harvesting information promoted in documentation for development projects	2024-2026	Building, Planning, Forestry	$	3.1.6

Goal 5. Waste Reduction

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 5.1. Reduce Waste that goes to the Landfill							
Action 5.1.1: Increase the City's solid waste diversion to reduce landfill methane emissions Promote zero waste events, including the use of reusable rather than recyclable materials, and buy local to reduce waste. Work with the Monterey Regional Waste Management District and the waste hauler to implement the requirements of SB 1383, including organic waste collection for all commercial and residential properties to process into compost. Conduct outreach to residents and businesses to ensure compliance and to minimize contamination. Promote home composting and community gardens. Educate the community on proper use of the City-provided grey/green/blue containers.	1500	1500	- Develop zero waste event checklist and require City events to abide by it. - SB 1383 requirements implemented and waste diversion tracked - Outreach to residents and businesses through mailers, newsletters, City website, hauler website, letters, direct outreach.	2022-2024	Public Works, Community Activities	$ $ $	

Goal 6. Urban Forest Protection and Heat Island Effect Reduction

Action	2030 GHG Reduction Achieved (MT CO2)		Metric	Timeframe	Implementation Lead	Cost	Corresponding Adaptation Measure
	No Enhancing	With Enhancing					
Measure 6.1. Urban Forest Maintenance for Shade and Energy Savings							
Action 6.1.1: Urban Forest Maintenance and Improvement Maintain the health of the urban forest tree canopy in the City to keep streets shaded and maintain cool surface and ambient air temperatures. Continue to work with the Friends of Carmel Forest and the community to facilitate urban forest maintenance. Update the City's Urban Forest Management Plan to include tree planting guidelines to promote tree health and maintain a healthy urban forest canopy.	-	-	- Urban Forest Management Plan Updated - Tree planting and maintenance guidelines updated - Number of replacement trees planted	2023-2025	Forestry, Public Works	$ $	2.1.2
Measure 6.2. Light-reflecting Surfaces for Energy Savings							
Action 6.2.1: Allow Cool Roof Options Evaluate the feasibility of allowing cool roof options in residential and commercial areas of Carmel. If feasible, revise existing ordinances to allow cool roof options on residential, commercial and office buildings.	-	-	- Cool roof options researched and evaluated for consistency with Carmel design guidelines - Design Guidelines and/or ordinances revised	2024-2026	Planning	$	

Summary of GHG Emissions Reductions

By implementing the Statewide and local reduction measures described in Table F, the City would reduce its communitywide GHG emissions by 48 percent below 2019 levels of emissions by 2030. Table G below summarizes the strategies and the potential total GHG reductions for the community.

Figure 4 on the following page summarizes the 2015 through 2019 emission inventories, projected 2020, 2030, and 2045 emission forecasts, as well as the 2020, 2030, and 2045 reduction targets after implementation of the local reduction measures.

As shown in Figure 4, with implementation of the local reduction measures, emissions in 2030 are anticipated to be below the 2030 reduction target and provide additional reductions beyond 2030. However, even the proposed set of reduction strategies will not achieve carbon neutrality by 2045.

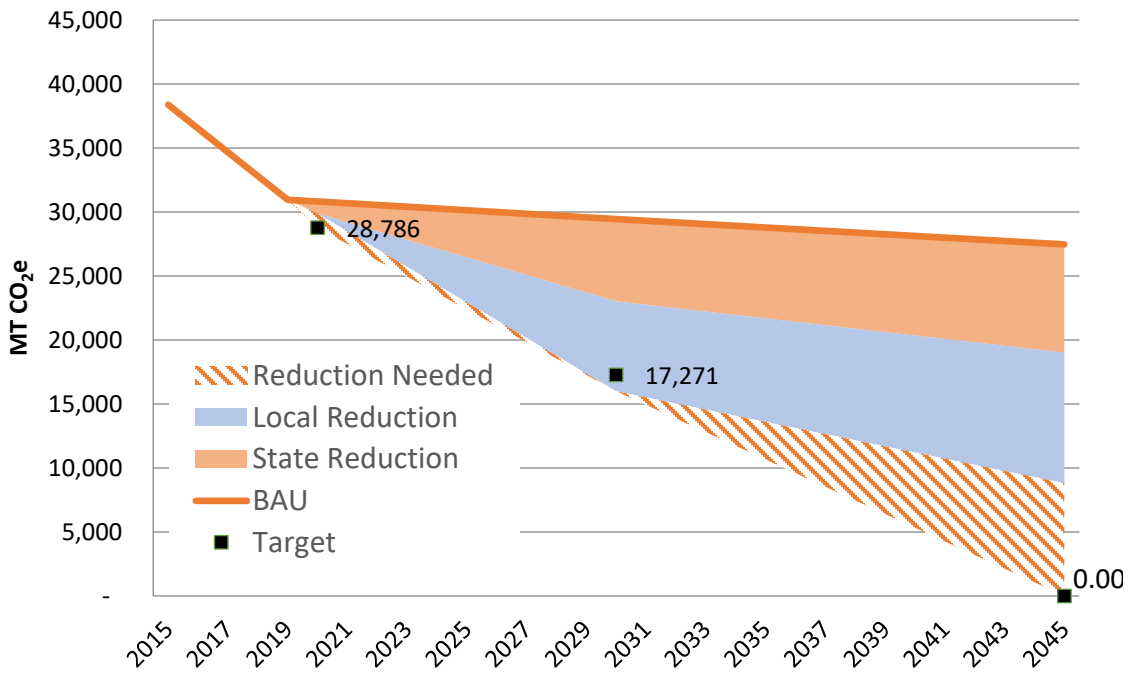
The City should track implementation of the Climate Action Plan over the next few years, update the 2045 ABAU forecasts, and provide local reduction strategy updates once the State has provided an updated Scoping Plan demonstrating how the State can achieve carbon neutrality by 2045.

Table G: Summary of Local GHG Reduction Strategies and Emissions Reductions

Goals and Measures	2030 Emission Reductions (MT CO_2e)
Goal 1: Energy Efficiency and Electrification of Residential and Commercial Buildings	
1.1: Energy Efficiency Training, Education, Incentives and Recognition for Residential and Commercial	71
1.2: Energy Efficiency in Renovation Projects	2,960
1.3: Energy Efficiency in New Construction Projects	0.01
Goal 2: Improved Transportation Choices	
2.1: Alternative Transportation Options	573
2.2: Electrify the Fleet	1,538
2.3: Initiate Origin-Destination Transportation Model	N/A
Goal 3: Renewable Energy Sources	
3.1: Promote Clean Energy	364
Goal 4: Water Efficiency	
4.1: Water Conservation in Landscaping	3
Goal 5: Waste Reduction	
5.1: Reduce Waste that Goes to the Landfill	1,500
Goal 6: Urban Forest Protection and Heat Island Effect Reduction	
6.1: Urban Forest Maintenance for Shade and Energy Efficiency	-
6.2: Light-reflecting Surfaces for Energy Savings	-
Total Community Measures	**7,009**

Source: Compiled by LSA 2022
MT CO_2e = metric tons of carbon dioxide equivalent
N/A = Not Applicable
- = Not quantified

Figure 4: Existing and Forecasted Emissions with Local Reduction Measure Implementation



IMPLEMENTATION

Implementation of the Climate Action Plan will require significant City staff time, consultants, and financial resources, along with collaboration with regulatory and utility partners to conduct community engagement. The successful implementation of the proposed actions will depend on the involvement of the whole community, including:

- City staff,
- Elected officials,
- Community group partners,
- Business community,
- Residents,
- Visitors.

This plan serves as a framework to strengthen the partnerships needed to meet the City's GHG reduction goals.

In addition to partnerships and community involvement, implementation of the Climate Action Plan will also require regular tracking and reporting to measure progress against the plan's goals. This section describes the guidance, tools, responsibilities, and analysis required to effectively implement and monitor progress with the adaptation strategy.

Strategies for Success

The strategies described below are recommended to ensure the successful implementation of this long-term multifaceted program:

- **Build on existing programs:** the Climate Action Plan focuses on building capacity based on existing programs and actions already in progress rather than "reinventing the wheel." There are many existing programs that the City can leverage, such as 3CE and PG&E incentive programs, LEED, and Energy Upgrade California, by ensuring businesses and residents have the knowledge and tools necessary to participate in them. Additionally, the CAP also builds on existing City policies and regulations that already provide GHG reduction benefits.
- **Leverage existing partnerships:** the CAP also prioritizes existing partnerships to leverage the expertise and resources that others, such as partner agencies and community groups, can bring to the table. This approach provides mutual benefits for the City and its partners.
- **Maintain communication:** it is essential to maintain communication within and between City departments, as well as with partners, elected bodies, and the community. A robust community outreach program, as well as regular updates to elected bodies, will be critical to the long-term success of the CAP.
- **Prioritize actions:** since the City and its partners cannot implement all the proposed measures and actions concurrently, each action has been prioritized for implementation over the next 10 years. Actions were prioritized in such a way that later actions could build on the outcomes of earlier actions. Early actions include those that can readily build on existing programs

and increase community awareness of necessary climate action measures to reduce the community's GHG emissions.

- **Regularly monitor implementation and evaluate success:** the Climate Action Plan will be monitored through tracking quantitative metrics, as described in the strategy table, to assess progress towards implementation of actions and measures. An annual report should be developed and should include an evaluation of the implemented actions and measures, assessing their effectiveness, and recommend modifications as needed. Elements that should also be considered in the evaluation include new regional and statewide programs and regulations, shifting community priorities, implementation hurdles, changes in best practice, and technological advances.
- **Seek guidance and leadership from elected bodies:** The City Council should consider establishing and appointing a new Sustainability Commission that could be responsible for reviewing the annual report, providing feedback on progress, and reviewing recommendations for enhancing the effectiveness of proposed measures. Based on feedback from the Sustainability Commission, City and partner staff, and the community, the City may conduct an update to the Climate Action Plan on or before 2030.
- **Funding:** although it is premature to estimate the overall cost of the CAP at this time, implementation will require significant staff time and capital investment. The City will ultimately need to develop a funding plan to implement the more costly actions in the Climate Action strategy. The City should consider a variety of revenue sources, including:
(1) adjusting existing fees to cover the costs associated with new or modified programs and services,
(2) allocating portions of new fees, such as a downtown parking fee, to fund sustainability projects and programs,
(3) exploring regional and state funding sources such as 3CE, the California Public Utilities Commission's California Solar Initiative, California Energy Commission and PG&E energy efficiency programs, the California Climate Action Corps Fellowship Program, CalRecycle grants and loans, and other similar programs.

Monitoring and Evaluation

The City should designate one department as the lead for carrying out implementation monitoring and evaluation of climate action. Although some GHG reduction measures and actions can be implemented using existing staff time, full implementation and coordination of efforts will require additional staff resources. For example, the City's Grant Writer/Climate Coordinator that is identified in the Climate Adaptation Plan could be tasked with carrying out implementation coordination, monitoring and evaluation of the CAP. The Grant Writer/Climate Coordinator could also lead the compilation of all monitoring data and an overall assessment of effectiveness annually.

Re-evaluation of GHG emissions reduction strategies should occur when new information indicates that a measure or action is either infeasible or ineffective. The CAP should be

monitored through tracking quantitative metrics as described in the strategy table (Table F). The CAP should be monitored and evaluated simultaneously with the City's Climate Adaptation Plan to measure the City's overall progress towards acting on climate change and increasing community sustainability and resilience.

Annually, the City should aggregate monitoring and evaluation results into an annual report describing achievements towards meeting the GHG reduction goals and measures in the Climate Action Plan. The report should be posted on the City's website and disseminated into the community, with support from engagement partners, to maintain awareness of success of the climate action strategies. Once implementation has been on-going for a few years and based on monitoring and evaluation results, as well as feedback from commissions, the City Council, and the public, the Climate Action Plan should be updated on or before 2030. As part of the Climate Action Plan update, the City should re-evaluate the ABAU forecast based on the latest State Scoping Plan, and should update its GHG emissions reduction strategy to reach Carbon Neutrality in 2045.

APPENDIX A

LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: April 11, 2022

TO: Agnes Martelet, City of Carmel By-The-Sea

FROM: Michael Hendrix, LSA

SUBJECT: Carmel By-The-Sea Greenhouse Gas Inventory Update, Forecast, Reduction Targets, and Strategies

The purpose of this technical memorandum is to present the City of Carmel-by-the-Sea (City) Greenhouse Gas (GHG) emissions inventory update, forecasts, targets, and reduction strategies to the City for review and feedback. The GHG emissions inventory update, forecasts and targets form the basis for the development of the GHG reduction strategies presented in this memorandum.

GREENHOUSE GAS EMISSIONS INVENTORY, FORECAST, AND TARGETS

An updated GHG emission inventory was prepared, as well as emission forecasts, and emission reduction targets as described in this section.

1.1 Greenhouse Gas Emissions Inventory Update

GHG emissions inventories are the foundation of planning for future reductions. Establishing an inventory of emissions helps to identify and categorize the major sources of emissions produced over a single calendar year. A community inventory includes GHG emissions that result from the activities of city residents and businesses. The inventory identifies the major sources of GHG emissions resulting from activities in sectors that are specific to community activities.

The Association of Monterey Bay Area Governments (AMBAG) prepared community inventories for the years 2005, 2010, 2015, 2018, and 2019. The 2019 inventory is the most recent year for which data is available. Table A provides the sectors evaluated in the GHG inventories.

Table A: Community Sectors Evaluated in the Inventories

Community Sectors
Residential Energy (Electricity and Natural Gas)
Commercial/Industrial Energy (Electricity and Natural Gas)
On-Road Transportation
Solid Waste
Wastewater

AMBAG calculated GHG emissions using the available activity data (e.g., kilowatt-hours of electricity) in the State Energy Efficiency Collaborative (SEEC) ClearPath tools to convert activity data to emissions output using relevant emission factors.

1.1.1 Vehicle Miles Traveled Analysis

One of the issues that needs to be resolved is the drastic reduction in the GHG emissions associated with the on-road transportation sector in years 2010 and 2015. LSA met with AMBAG and City staff to discuss the issue AMBAG stated that the transportation emissions were calculated by obtaining VMT data from the Caltrans California Public Roads Data (PRD) report. The PRD report uses Highway Performance Monitoring System (HPMS) Data to calculate the number of maintained miles for each jurisdiction in California and associated VMTs. In 2014 the HPMS data underwent methodology changes to assign the maintained miles of roadway to each jurisdiction using a GIS based system. Although the HPMS data is provided as is, and it is not possible to determine how much impact this methodology change had, AMBAG staff shared that the substantial reduction in GHG emissions may be artificial and due to this methodology change. Another issue to consider is that the HPMS allocated VMT is based on travel upon roads within the City boundaries rather than based upon vehicle trips origins or destinations.

AMBAG followed the International Council for Local Environmental Initiatives (ICLEI) protocols in developing the GHG inventories including the on-road transportation sector. Allocating VMT using the AMBAG Regional Travel Demand Model (RTDM) is an accepted practice.

However, the City has a unique tourist-based economy that attracts visitors from around the world and the State and the City wanted to better understand the relationship between its tourist economy and the GHG emissions resulting from tourism. There are two motivations the City has in understanding the relationship between tourism and GHG emissions. First, there is concern that the on-road transportation sector in the GHG inventories is underestimated because of the way the RTDM allocates VMT and the City wants to know the GHG emissions from the on-road transportation sector based upon the origins and destinations of vehicle trips attributable to the City. Second, the City wants to provide GHG reduction strategies that will be effective for different types of vehicle trips including vehicle trips resulting from tourism, vacation homes, employee commutes, delivery services, and other local trips. This second motivation requires that the City, not only know the origin and destination of the trip, but also be aware of the purposes of the vehicle trips.

There are several challenges in determining the origins and destinations of vehicle trips attributable to the City and its tourist economy as well as determining the types and purposes of vehicle trips. First, the schedule for completing the CAP does not allow for the time that would be required to develop, calibrate, and run an origin/destination traffic demand model for the City. In addition an origin/destination traffic demand model would not completely capture the full length of a visitor trip traveling from San Francisco to Carmel or other origins outside of the region.

To address these concerns and limitations, LSA proposed to evaluate the different types of trips and logical origins of trips associated with tourism, vacation homes, employee commutes, deliveries, as well as local trips, determine the distance between the trip origin and the City for each trip type,

estimate the number of vehicle trips per year using the RTDM, proportion the RTDM vehicle trips by trip type, and estimate VMT using the trip distances for each trip type.

First, LSA looked at tourists visiting Carmel-By-The-Sea. To do this LSA used several sources of information from the Carmel Chamber of Commerce and the Carmel Visitors Center including the Visit Carmel 2019 Annual Report,[1] and the Carmel Visitors Spending Report.[2]

These reports revealed that domestic tourists make up the majority (90.43 percent) of visitors and originated at the following locations:

- San Francisco Bay Area (41.95 percent with an average vehicle trip length of 110 miles),
- Salinas (39.79 percent with an average trip length of 27 miles),
- Los Angeles/Orange County (7.73 percent with an average trip length of 322 miles),
- Sacramento/Yolo County (5.31 percent with an average trip length of 190 miles),
- Fresno (2.21 percent with an average trip length of 157 miles), and
- New York/New Jersey/long Island (2.19 percent).

Salinas is a trip origin for a significant number of day visitors driving to Carmel-by-the-Sea. Visitors from San Francisco Bay Area, Los Angeles/Orange County, Sacramento/Yolo County, and Fresno also drove to Carmel-By-The-Sea; whereas visitors from New York, New Jersey and Long Island flew into San Francisco International Airport (SFO) and drove or took a tour bus with an average vehicle trip length of 110 miles.

The reports also reveal that approximately 9.57 percent of all visitors are international tourists who originated from the following locations:

- China (38.35 percent),
- Canada (26.38 percent),
- Brazil (9.3 percent),
- United Kingdom (15.74 percent),
- France (5.65 percent), and
- Australia (4.65 percent).

All of the international visitors flew into SFO and most (89.73 percent) took a tour bus. Each vehicle trip averaged 110 miles between SFO and Carmel-By-The-Sea.

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[1] Carmel Visitors Center. Visit Carmel 2019 Annual Report. Website: https://www.carmelcalifornia.com/userfiles/file/Visit_Carmel_2019_Annual_Report_Final_LowRes.pdf (accessed December 2021)

[2] Carmel Chamber of Commerce. 2014. Carmel Visitor Spending Report. Website: https://www.carmelchamber.org/carmel-visitor-spending-report/ (accessed December 2021)

Carmel Realty Company[1] assisted in providing generic information on second homes and vacation homes within the City, which resulted in an estimate of approximately 20 percent of vehicle trips result from the occupants of second homes with an average trip length of 120 miles between the origin of the trip and the second home/vacation home during the start and end of the visit. Vehicle trip lengths of the occupants of these homes during their stay averaged 6.5 miles.

Commute trips represented 38 percent of all vehicle trips in the City and averaged 27 miles per trip. Local trips (vehicle trips from local residents related to shopping, school, library and other local destinations) made up 6.5 percent of all vehicle trips in the City and averaged 6.5 miles.

Delivery services providing supplies to local businesses and construction sites within the City made up approximately 10 percent of all vehicle trips and averaged 27 miles.

Using the trip origins summarized above, it is estimated that a gross total of 134,607,473 VMT occurred in 2019. However, only local trips within the City are counted 100 percent. Vehicle trips with origins or destinations outside of the City are shared with the jurisdiction that the other end of the trip is located. The miles for these types of trips are multiplied by 0.5 to allocate half the trip length to Carmel-by-the-Sea. This results in a total of 67,439,064 VMT allocated to the City in 2019.

There is one final issue in estimating VMT using this method. Regional origin destination models are limited to the regional boundaries of the model. There is no origin destination model that would track vehicle trips between San Francisco, Los Angeles, Fresno, and the City. Such an analysis would require a statewide origin destination model. Because of this, the VMT distribution is limited to the regional model boundaries. Reviewing the AMBAG RTDM boundaries, the VMT attributable to the City is 32,658,143 in 2019.

Using the protocols[1,2], the GHG emissions associated with the VMT within the AMBAG RTDM boundaries are considered Scope 1 emissions and are counted in the GHG inventory and target setting. The United States Environmental Protection Agency (U.S. EPA) describes Scope 1 emissions as direct sources (smoke stacks or tailpipes that release emissions within an organizational boundary) of GHG emissions.[2] This definition fits well for on-road transportation related emissions within the RTDM boundaries.

The City is also interested in influencing tourist-related emissions and wants to provide strategies customized to reduce the emissions from vehicle trips originating in locations outside of the regional model limits. The U.S. Community Protocol for Accounting and Reporting GHG Emissions (version 1.2)[3] describes Scope 3 emissions as indirect emissions not covered under Scopes 1 and 2. The GHG emissions associated with the remaining VMT (34,780,921) outside of the AMBAG RTDM boundaries

[1] https://www.carmelrealtycompany.com/company-history.htm (accessed December 2021)

[2] U.S. EPA. 2020. Scope 1 and Scope 2 Inventory Guidance. Website: https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance (accessed January 2022).

[3] ICLEI. 2019. U.S Community Protocol for Accounting and Reporting GHG Emissions. Website: https://urbandrawdown.solutions/resource-database/uscp-ghge-accounting-2019 (accessed January 2022).

are considered Scope 3 indirect emissions and the City will develop reduction strategies focused on reducing these emissions as well.

Table B summarizes the activity data inputs for updating the 2019 GHG inventory using the revised VMT values.

Table B: 2019 Community GHG Inventory Data Inputs Used

Sector	2019 Data Input	Source
Electricity (KWh)		
Residential	2,493	3CE
Commercial	2,928	
Natural Gas (Therms)		
Residential	7,194	PG&E
Commercial	5,073	
Transportation		
On-Road (VMT) Scope 1	32,658,143	AMBAG Model with Out of Model Adjustments
On-Road (VMT) Scope 3	34,780,921	
Solid Waste (tons/year)	1,527	GreenWaste Recovery
Wastewater (million gallons)	74	California American Water (CalAm)/ Carmel Area Wastewater

MT CO_2e = metric tons of carbon dioxide equivalent
KWh: Kilowatt Hours
VMT: Vehicle miles traveled
PG&E: Pacific Gas & Electric
AMBAG: Association of Monterey Bay Area Governments
CARB: California Air Resources Board
3CE: Central Coast Community Energy

1.1.2 2019 Greenhouse Gas Emissions Summary

The City's total emissions in 2019 were 30,962 MT CO_2e. As shown in Table C, the on-road transportation sector was the largest contributor to emissions in the 2019 inventory, with 45.8 percent of the City's total GHG emissions. Natural gas made up 43.2 percent followed by solid waste at 10.3 percent of total emissions. Electricity (0.5 percent), and wastewater (0.2 percent) comprised the remainder of the emissions.

Table C: Communitywide GHG Emissions by Sector for 2019

Sector	2019 (MT CO_2e)	Percent of Total
On-road Transportation:		
Scope 1	14,173	45.8
Scope 3	15,115	
Electricity		
Residential	63	0.5
Commercial	92	
Natural Gas		
Residential	8,138	43.2
Commercial	5,250	
Solid Waste	3,178	10.3

Table C: Communitywide GHG Emissions by Sector for 2019

Sector	2019 (MT CO_2e)	Percent of Total
Wastewater	68	0.2
Total Scope 1 and Scope 2 Emissions **Total with Scope 3 Emissions**	**30,962** **46,076**	100

Source: AMBAG and LSA 2021.
MT CO_2e = metric tons of carbon dioxide equivalent

Figure 1 shows the 2019 GHG emissions by sector with energy (electricity and natural gas) divided between residential and commercial/industrial land uses. Figure 2 shows the proportion of electricity and natural gas in the energy sector.

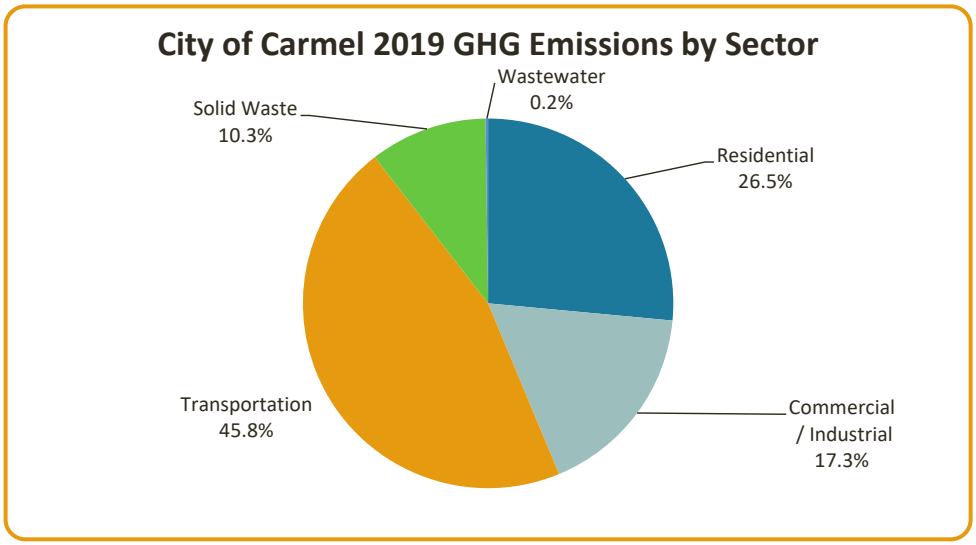


Figure 1: Communitywide GHG Emissions by Sector in 2019

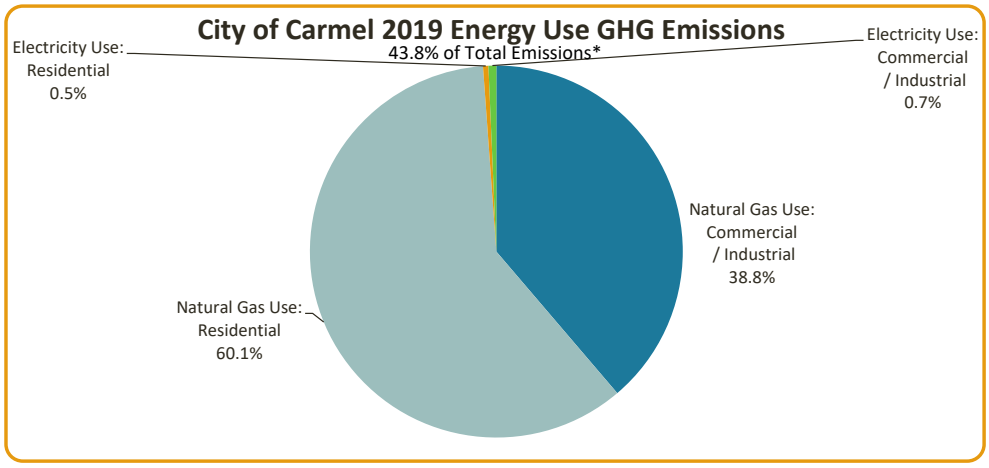


Figure 2: Energy Sector Emissions in 2019

Figure 3 breaks down the various sources of electrical generation by Central Coast Community Energy (3CE).

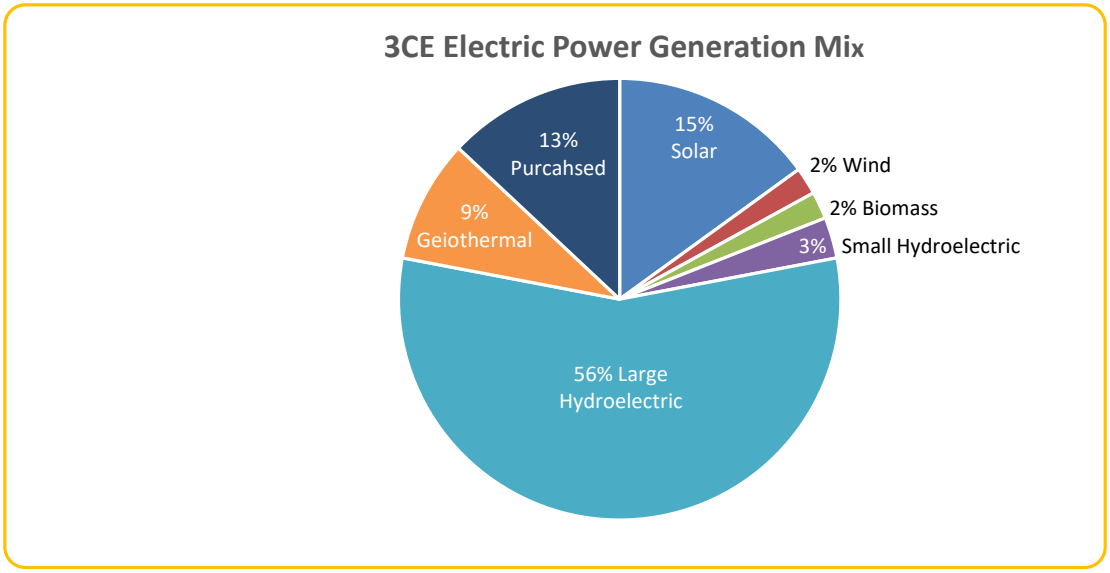


Figure 3: Sources of Electrical Power Generation

2.1 GHG Emissions Forecast

Forecasting future GHG emissions allows the City to understand how emissions are expected to increase or decrease in the future. Major changes in growth or land uses may affect how to best plan to reduce emissions in the future. GHG emissions are forecast using two scenarios: a Business-as-Usual (BAU) scenario and an Adjusted BAU (ABAU) scenario. The BAU scenario describes emissions based on projected growth in population and employment and does not consider policies that would reduce emissions in the future (that is, the policies and related efficiency levels in place in 2019 are assumed to remain constant through 2045). The City's projected growth is estimated using data from the AMBAG's adopted growth forecasts for Carmel by-the-Sea, which provides the City's demographic growth indicators for the years 2030 and 2045. The growth rates for households, population, and employment were estimated based on the available data and used to estimate the growth in households, population, and employment into the year 2045. Table D shows the growth projections used to develop the emissions forecasts.

Table D: Growth Indicators for 2020, 2030, and 2045

Sector	Demographic Indicator	2020	2030	2020–2030 CAGR[1] Percent	2045	2020–2045 CAGR Percent
Residential Energy	Households	3,437	3,442	0.0002	3,459	0.0064
Commercial/Industrial Energy	Jobs	3,556	3,674	0.0033	3,915	0.0040
N/A[2]	Population	3,949	3,954	0.0001	3,984	0.0035
VMT, Solid Waste and Wastewater	Service Population (Population + Jobs)	7,515	7,628	0.0015	7,899	0.0020

Source: AMBAG, 2022 Regional Growth Forecast
[1] CAGR = Compound annual growth rate.
[2] Not applicable. Population data are shown for informational purposes but are not used for forecasting any sector.

The Adjusted BAU scenario describes emissions based on projected growth and considers policies that will achieve GHG reductions in the future. By evaluating the two scenarios, the City can evaluate the effect that existing policies may have on future emissions and determine which local measures would provide additional reductions.

Two future years are forecast for each scenario: 2030 and 2045. The 2030 forecast year is consistent with the goals identified in the Senate Bill (SB) 32, and the corresponding Scoping Plan, which identifies Statewide GHG reduction targets for 2030.

The 2030 BAU emissions are estimated to be 29,445 MTCO_2e. By 2045, emissions are estimated to decrease to 27,471MT CO_2e. Table E shows the BAU emissions for different sectors. Table D shows a positive compounded annual growth rate (CAGR) of 0.0001 to 0.0033, which is extremely modest growth. The BAU forecast shows a modest reduction in GHG emissions (a modest negative percent change). This modest reduction of emissions within the BAU forecasts is due to changes over time as people purchase newer (and more efficient) automobiles and appliances.

Table E: Business As Usual (BAU) Forecast Emissions

Sector	2019 (MT CO_2e)	2020 (MT CO_2e)	Percent Change 2019–2020	2030 (MT CO_2e)	Percent Change 2019–2030	2045 (MT CO_2e)	Percent Change 2019–2045
On-road Transportation Scope 1: Scope 3:	 14,173 15,115	 14,117 15,055	-0.4%	 13,316 14,201	-5%	 12,582 13,418	-11%
Electricity Residential Commercial	 63 92	 63 91	-0.6%	 60 87	-5%	 56 82	-11%
Natural Gas Residential Commercial	 8,138 5,250	 8,122 5,193	-0.2	 7,759 4,961	-4%	 7,239 4,628	-11%
Solid Waste	3,178	3,175	-0.09	3,033	4%	2,830	-11%
Wastewater	68	62	-0.1	59	-5%	55	-12%
Total (Scope 1) **Total (Scope 3)**	**30,962** **46,076**	**30,824** **45,878**	-0.04	**29,445** **43,646**	-5%	**27,471** **40,889**	-11%

Source: LSA 2021
MT CO_2e = metric tons carbon dioxide equivalent

As shown in Table F, the City's ABAU emissions are estimated to be 30,287 MT CO_2e in 2020, 23,013 MT CO_2e in 2030, and 19,013 MT CO_2e in 2045. Table F shows the change in emissions from 2019 to 2045 under the ABAU scenario. Due to the stringent State regulations related to transportation (vehicle efficiency and low carbon fuel standards) and energy sectors (renewable energy portfolio standard and requirements for a portion of the natural gas supply to be renewable natural gas), emissions are expected to decrease significantly over time.

Table F: Community Adjusted Business As Usual (ABAU) Forecast Emissions

Sector	2019 (MT CO_2e)	2020 (MT CO_2e)	Percent Change (2019–2020)	2030 (MT CO_2e)	Percent Change (2019–2030)	2045 (MT CO_2e)	Percent Change (2019–2045)
Transportation							
Scope 1	14,173	13,679	-3.5%	10,407	-26.6%	8,708	-38.6%
Scope 3	15,115	14,646		11,105		9,285	
Electricity							
Residential	63	61	-3.0%	47	-25.4%	39	-38.1%
Commercial	92	89		68		57	
Natural Gas							
Residential	8,138	8,122	-0.2%	6,138	-24.6%	5,010	-38.4%
Commercial	5,250	5,193		3,935		3,203	
Solid Waste	3,178	3,077	-3.0%	2,372	-25.4%	1,958	-38.3%
Wastewater	68	66	-2.9%	46	-32.4%	38	-44.1%
Total (Scope 1)	**30,962**	**30,287**	-2.2%	**23,013**	**-25.7%**	**19,013**	**-38.6%**
Total (Scope 3)	**46,076**	**44,933**		**34,118**		**28,298**	

Source: LSA forecasts for the City of Carmel by-the-Sea, 2021.
MT CO_2e = metric tons carbon dioxide equivalent

3.1 Reduction Targets

3.1.1 Statewide GHG Reduction Goals

The State has set goals for reducing statewide GHG emissions by 2030 and 2045 through Assembly Bill (AB) 32, Senate Bill (SB) 32, SB 100, and Executive Order (EO)-B-55-18. The State has also provided guidance to local jurisdictions as "essential partners" in achieving the State's goals by identifying a 2030 GHG emissions target 40 percent below 1990 levels. Additionally, continued reduction goals should be implemented beyond the 2030 target to keep the State on a path toward Statewide climate neutrality by 2045.

3.1.2 Community Targets

In the City of Carmel-by-the-Sea, the State's target of 40 percent below 1990 levels by 2030 amounts to a reduction of 12,174 metric tons of CO_2 equivalent in annual emissions by 2030 compared to the BAU forecast (see Table G).

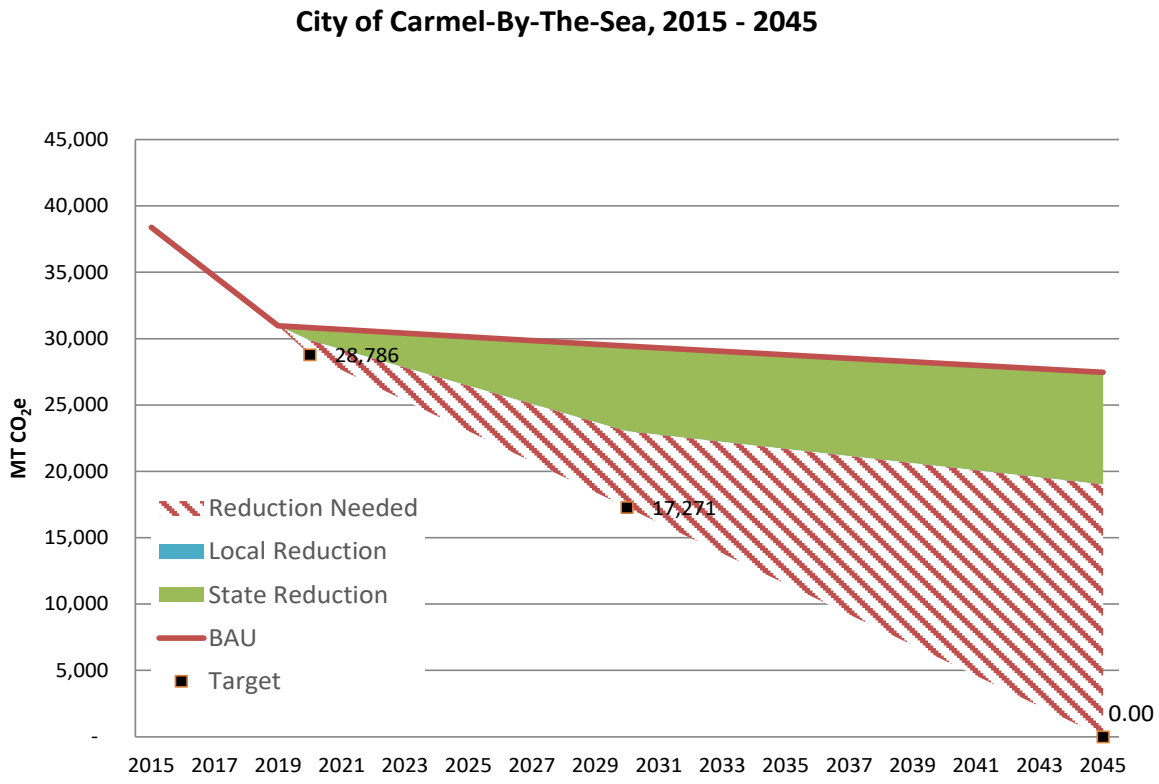
Under the ABAU scenario, Carmel-by-the-Sea would need to reduce its emissions by 5,742 MT CO_2e by 2030 to meet the State target. The City needs to implement additional strategies and measures to adhere to these State GHG reduction goals.

Table G: GHG Reduction Targets By Year

Sector	1990	2019	2030	2045
BAU Emissions (MT CO_2e)	28,786[1]	30,962	29,445	27,471
ABAU Emissions (MT CO_2e)	N/A	N/A	23,013	19,013
State-Aligned Target	N/A	N/A	40% below 1990 levels of emissions	Carbon Neutral
State-Aligned Emissions Goal (MT CO_2e)	N/A	N/A	17,271	0
Reductions from ABAU needed to meet the State-Aligned Target (MT CO_2e)	N/A	N/A	5,742	19,013

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
N/A = Not Applicable
1. 1990 levels of emissions approximated as 25 percent below the updated 2018 inventory of GHG emissions

Figure 4 depicts the BAU and ABAU forecasts, reduction targets, and additional GHG emission reductions required to meet the reduction targets.



ABAU: adjusted business as usual
BAU: business as usual
MT CO_2e = metric tons of carbon dioxide equivalent

Figure 4: Community Emissions Inventory, Forecasts, and Targets

GHG REDUCTION STRATEGIES

The following details how the City would meet its GHG reduction target by implementing goals, measures, and actions at the community level. The goal describes the overarching objective. Within each goal, one or more measures are presented indicating the City's commitment toward meeting the goal. Within each measure, one or more actions are presented that indicate the steps the City will take in achieving the measure. Each measure includes the GHG reduction potential in 2030. Actions are designed to include the steps needed to implement the measure.

4.1 Goals, Measures and Actions for the Reduction of GHG Emissions

The City of Carmel-by-the-Sea has chosen a total 9 goals, 22 measures, and 75 actions designed to achieve the 2030 GHG reduction target and provide continued progress toward carbon neutrality. The goals, measures, and actions are as follows:

4.1.1 Increasing Energy Efficiency in Existing Residential

The following measures in Goal 1 are shown in Table H and focus on increasing energy efficiency in existing residential buildings through behavior modification of residents and encouraging and incentivizing home energy retrofits.

Table H: Goal 1: Increase Energy Efficiency in Existing Residential Units

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 1.1 Energy Efficiency Training, Education, and Recognition in the Residential Sector				
Actions	Post links on website and social media and provide materials at public events. Promote an annual energy efficiency fair. Promote PG&E energy centers. Building Inspectors to hold trainings on energy efficiency and Title 24 requirements.	Supporting Measure	Supporting Measure	Years 1-3
Measure 1.2: Increase Community Participation in Existing Energy Efficiency Programs				
Actions	Partner with AMBAG and 3CE to promote incentive programs	1.7	1.7	Years 2-4
Measure 1.3 Home Energy Evaluations				
Action	Promote and provide energy audits with PG&E	Supporting Measure	Supporting Measure	Years 1-3

Table H: Goal 1: Increase Energy Efficiency in Existing Residential Units

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 1.4 Residential Home Energy Renovations				
Actions	Enhance enforcement of Title 24 compliance Promote participation in green building programs such as Leadership in Energy and Environmental Design (LEED), and Energy Upgrade California. Promote financing programs for home upgrades, such as Home Energy Renovation Opportunity (HERO) and Property Assessed Clean Energy (PACE) Evaluate feasibility of streamlining online permitting to facilitate electrification retrofits Initiate a Green Citizen Program for residents that initiate home renovations that include an all-electric home, improve energy efficiency, and install an e charger. Promote incentives available to homeowners to convert to all-electric homes. Evaluate the feasibility of providing additional incentives. Develop a Reach Code to require major home renovations/additions to convert to all-electric homes.	1,217.5	1,294.6	Years 2-4

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.2 Increasing Energy Efficiency in New Residential

This goal supports City staff becoming resources in implementing energy efficiency building measures beyond those required in current Title 24 standards. This goal also ensures that, as Title 24 standards are updated, City staff are well informed and can implement updates quickly and effectively. Note that the growth assumptions (see Table D) provided by AMBAG show an increase of five households between 2020 and 2030. In addition, Title 24 will include three updates over that timeframe. Since Title 24 updates are already included in ABAU, the additional local GHG reductions associated with Goal 2 account for only 0.01 MT CO_2e. Table I on the next page summarizes Goal 2.

Table I: Goal 2: Increase Energy Efficiency in New Residential Units

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 2.1 Exceed Energy Efficiency Standards				
Actions	Educate City staff and developers on future Title 24 updates. Promote Tier 1 and Tier 2 green building ratings such as LEED, Build it Green or Energy Star certified buildings. Evaluate feasibility of streamlining online permitting. Require new residential buildings to be all-electric homes.	0.01	0.01	Years 1-3

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.3 Increasing Energy Efficiency in Existing Commercial Land Uses

The following measures focus on increasing energy efficiency in existing commercial buildings through behavior modification of business owners and encouraging and incentivizing commercial energy retrofits. Table J summarizes Goal 3.

Table J: Goal 3: Increase Energy Efficiency in Existing Commercial Buildings

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 3.1 Energy Efficiency Training, Education, and Recognition in the Commercial Sector				
Actions	Post links on website and social media and provide materials at public events. Promote an annual energy efficiency fair. Promote PG&E energy centers. Building Inspector to hold trainings on energy efficiency and Title 24 requirements.	Supporting Measure	Supporting Measure	Years 1-3
Measure 3.2: Increase Business Participation in Existing Commercial Energy Efficiency Programs				
Actions	Partner with AMBAG and 3CE incentive programs	69.4	69.4	Years 1-3
Measure 3.3 Non-Residential Building Energy Audits				
Action	Promote and provide energy audits with PG&E	Supporting Measure	Supporting Measure	Years 1-3

Table J: Goal 3: Increase Energy Efficiency in Existing Commercial Buildings

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 3.4 Commercial Energy Renovations				
Actions	Enhance enforcement of Title 24 compliance			
	Promote participation in green building programs such as Leadership in Energy and Environmental Design (LEED), and Energy Upgrade California.			
	Promote financing programs for home upgrades, such as Property Assessed Clean Energy (PACE)			
	Evaluate the feasibility of streamlining online permitting to facilitate electrification retrofits			
	Initiate a Green Business Certification Program for businesses that follow the California Green Business Program standards (www.greenbusinessca.org).	1,206.2	1,666	Years 3-5
	Promote existing incentives for businesses to convert to all-electric buildings. Evaluate the feasibility of providing additional incentives.			
	Develop a Reach Code to require major commercial renovations/expansions to convert to all-electric building unless the business can show a need for natural gas (restaurants, pottery kilns etc.)			

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.4 Increasing Energy Efficiency in New Commercial Buildings

This goal will evaluate feasibility of streamlining online permitting to facilitate electrification retrofits and support City staff becoming resources in implementing energy efficiency within new commercial businesses. Note that the GHG emissions reductions for this goal includes some conservative assumptions that new businesses will be exempt from the requirement to be all-electric buildings and that Title 24 updates will include all of the energy efficiency reductions, which would mean no anticipated reductions from this goal. Table K on the next page summarizes Goal 4.

Table K: Goal 4: Increase Energy Efficiency in New Commercial Buildings

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 4.1 Exceed Energy Efficiency Standards				
Actions	Educate City staff and developers on future Title 24 updates. Promote Tier 1 and Tier 2 green building ratings such as LEED, Build it Green or Energy Star certified buildings. Evaluate feasibility of streamlining online permitting Create an energy award program for zero-net-energy businesses. Require new commercial buildings to be all-electric with exemptions for business that can show a need for natural gas (restaurants, pottery kilns etc.)	0.0	0.0	Years 2-4

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.5 Increasing Energy Efficiency through Water Conservation

This goal will continue the water efficiency and conservation programs the City has already initiated. This goal also promotes education and website links encouraging residents to implement water efficiency and conservation measures. Table L summarizes Goal 5.

Table L: Goal 5: Increase Energy Efficiency Through Water Conservation

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 5.1 Water Efficiency Through Continued Implementation of SB X7-7				
Actions	Post links on website and social media Continue with the low-irrigation landscaping requirements the City has in place.	2.9	3.0	Years 2-4
Measure 5.2 Exceed Water Efficiency Standards				
Actions	Conduct direct outreach to HOA, businesses, and the public Allow recycled water for commercial and multi-family residential landscape irrigation. Allow greywater systems and promote rainwater harvesting.	-	-	Years 3-5

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
= Not quantified
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.6 Decreasing Energy Demand through Reducing the Urban Heat Island Effect

Trees and vegetation lower surface and air temperatures by providing shade and through evapotranspiration, making vegetation a simple and effective way to reduce urban heat islands. Shaded surfaces may be 20–45 degrees Fahrenheit ([°F] 11–25 degrees Celsius [°C]) cooler than the peak temperatures of un-shaded materials. In addition, evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 2–9 °F (1–5 °C). Trees and vegetation that directly shade buildings can reduce energy use by decreasing demand for air conditioning. In addition, roofing and paving materials that reflect light (cool roofs and cool pavement) decrease the urban heat island effect which reduces energy use. Table M summarizes Goal 6. Note in Table M that the GHG reductions from this measure were not quantified. This is because the City already has a dense urban forest canopy and maintaining it ensures that shading will continue to reduce the urban heat island effect that would otherwise be present. Also, the City currently has roof and paving style ordinances that prevent the use of light reflecting roofing and paving. The City needs to revise these ordinances in order to be able to begin using light reflecting surfaces. For these reasons GHG reductions have not been quantified.

Table M: Goal 6: Decrease Energy Use through Reducing the Urban Heat Island Effect

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 6.1 Tree Planting for Shade and Energy Savings				
Actions	Maintain the health of the urban forest tree canopy in the City. Continue to work with the Friends of Carmel Forest and the community to facilitate urban forest maintenance. Update the City's Urban Forest Management Plan to include tree planting guidelines to promote tree health and maintain a healthy urban forest canopy.	-	-	Years 1-3
Measure 6.2 Light-reflecting Surfaces for Energy Savings				
Actions	Revise existing ordinances to allow cool roof options on residential, commercial and office buildings where feasible.	-	-	Years 3-5

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
- = Not quantified
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.7 Decrease GHG Emissions through Reducing VMT Traveled and Electric Vehicles

On-road transportation emissions include emissions from light- and medium-duty vehicles and heavy-duty trucks associated with land use activity. Emissions originate from the combustion of fossil fuels (such as diesel and gasoline) to power the vehicles. These are direct emissions and accounted for approximately nearly 46 percent of total emissions in 2019. On-road transportation measures can achieve significant benefits for both individual residents and the City as a whole. Reductions in and

traffic congestion would reduce smog-forming emissions, toxic air contaminants, and diesel particulate matter.

The City has a unique tourist-based economy that attracts visitors from around the world and the relationship between its tourist economy and the GHG emissions resulting from tourism are a significant source of VMT and GHG emissions. As described in Section 1.1.1 of this document, tourist based VMT results in both Scope 1 direct source GHG emissions, and Scope 3 indirect GHG emissions. Because of this, some of the actions within Measure 7.1 and Measure 7.4 focus on tourism based GHG emissions and will reduce both Scope 1 and Scope 3 emissions. Table N summarizes the measures and actions within Goal 7. Measures that reduce both Scope 1 and Scope 3 emissions include quantification that shows both.

Table N: Goal 7: Decrease GHG Emissions through Reducing VMT and Electric Vehicles

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 7.1 Alternative Transportation Options				
Actions	Work with AMBAG to remove barriers to alternative transportation such as exploring ways to provide safe pedestrian and bicycle access to the City across Highway 1. Explore the feasibility of increasing land use density in downtown during the next General Plan Land Use Element update. Identify and promote within the hotels and visitors center existing shuttle services between Carmel and the airports. Work with Monterey Airport and AMBAG to explore the feasibility of an electric shuttle service between Monterey Airport and destinations in the City.	Scope 1 563 Scope 3 89	Scope 1 563 Scope 3 89	Years 2-10
Measure 7.2 Develop Bicycle Master Plan to Create Safe Bike Routes around the City				
Actions	Develop customized bike routes to improve bike transit. Provide signage, reduce speed limits as necessary, and develop safety education programs on "sharing the road" with bikes.	10	10	Years 3-5
Measure 7.3 Ride-Sharing and Bike to Work Programs within Businesses				
Actions	Promote ride-sharing and facilitate air district incentives for ride-sharing Provide reserved preferential parking spaces for ride-sharing, carpooling, and ultra-low or zero emission vehicles in City parking lots and private businesses that have employee parking. Require businesses of a certain size to provide facilities such as bike racks and showers.	-	-	Years 1-3
Measure 7.4 Electrify the Fleet				

Table N: Goal 7: Decrease GHG Emissions through Reducing VMT and Electric Vehicles

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Actions	Promote electric vehicle incentive programs at outreach events. Apply for grants to install e-chargers at public facilities. Work with community groups and businesses to install additional e-chargers. Promote priority parking at hotels for electric vehicles and provide e-chargers. Provide priority parking for bus tours that use electric buses. Work with Visit Carmel to develop and initiate a Green Visitor Program that rewards tourists that use electric vehicles, carbon credits for air-miles, and that adhere to the City's sustainability practices while visiting the City. Require or incentivize major commercial building renovations/expansions to install e-chargers.	Scope 1 1,511 Scope 3 1,425	Scope 1 1,538 Scope 3 1,452	Years 3-5
Measure 7.5 Initiate Origin/Destination Transportation Model				
Actions	Develop an Origin Destination Transportation Model focused on Carmel-by-the-Sea using the AMBAG regional model as a base. Update the CAP with new VMT data once the Origin Destination Model is completed.	N/A	N/A	Years 3-5

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
Scope 1 = Direct source emissions that require quantification.
Scope 3= Indirect source emissions that are voluntarily quantified.
N/A = Not Applicable
1. With Enhancing = increased participation due to supporting measures that result in greater reductions.

4.1.8 Decreasing GHG Emissions through Reductions in Solid Waste Generation

According to Statewide Waste Characterization data, the commercial sector generates nearly three fourths of the solid waste in California[1]. Furthermore, much of the commercial sector waste disposed in landfills is readily recyclable. Increasing the recovery of recyclable materials will directly reduce GHG emissions. In addition to recyclables, it is also essential to focus on diverting organic waste from all the sectors as it can represent 30 percent of the total waste stream in the City. The SB 1383 requires Californians to reduce organic waste disposal by 50% by 2020 and 75% by 2025.

Table O summarizes the measures and actions within Goal 8.

[1] CalRecycle. 2020 Statewide Waste Characterization data. Website: https://www2.calrecycle.ca.gov/WasteCharacterization/Study (Accessed March 2022).

Table O: Goal 8: Decrease GHG Emissions through Reducing Solid Waste Generation

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 8.1 Reduce Waste at Landfills				
Actions	Promote zero waste events, use reusables rather than recyclable materials, and buy local to reduce waste. Require waste hauler to pick up organic waste in compliance with SB 1383 and conduct outreach to residents and businesses to ensure compliance and minimize contamination. Promote home composting and community gardens. Educate the community on proper use of the City-provided grey/green/blue containers.	1,500	1,500	Years 1-3

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
1. With Enhancing i= increased participation due to supporting measures that result in greater reductions.

4.1.9 Decreasing Energy Demand through Clean Energy Use

Renewable energy sources especially those that have zero or near zero emissions such as photovoltaic (PV) solar and wind generation are clean energy. Distributed renewable energy generation such as rooftop PV solar provides locally important environmental and economic benefits because the clean energy is being generated within the City. Ability to store energy is also crucial for enabling widespread adoption, stabilization, and grid integration of renewable energy. Energy storage can reduce power fluctuations, enhance system flexibility, and enable the storage and dispatch of electricity generated by variable renewable energy sources. Energy storage also helps customers better prepare for outages and Public Safety Power Shutoffs (PSPS).

Besides distributed renewable energy generation, the City is also participating in 3CE, a Community Choice Aggregation (CCA) within Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties that is delivering grid-based electricity comprising at least 31 percent renewable energy and 56 percent large hydroelectric generation to the City. 3CE is scheduled to increase renewable energy to 100 percent on or before 2030. Goal 9 will decrease GHG emissions by increasing the use of renewable and other clean energy sources. Table P summarizes the measures and actions within Goal 9.

Table P: Goal 9: Decrease GHG Emissions through Increasing Clean Energy Use

Measure	Actions	2030 GHG Reduction Achieved (MT CO_2)		Timing (Phased Implementation)
		No Enhancing	With Enhancing[1]	
Measure 9.1 Promote Clean Energy				
Actions	Promote clean energy incentives to the community Incentivize solar panels installation on existing residential units Require or incentives solar panel installation on major commercial building retrofits/expansions (70 percent or more of the building area) and commercial parking lots. Promote energy storage system installation with solar panels.	364	364	Years 3-5
Measure 9.2 Continue Participation with 3CE to increase the Renewable Generation Portfolio of Electricity in Carmel				
Actions	Promote 3CE's 100 Percent Renewable Energy Option in the City by encouraging residents and businesses to participate ir the program.	-	-	Years 1-3

Source: Compiled by LSA 2022
MT CO_2e = metric tons carbon dioxide equivalent
-= Not quantified
1. With Enhancing i= increased participation due to supporting measures that result in greater reductions.

4.2 GHG Reduction Summary and Comparison with the 2030 Reduction Target

By implementing the Statewide and local reduction measures described in Section 4.1, the City would reduce its communitywide GHG emissions by 48 percent below 2019 levels of emissions by 2030. Table Q summarizes the strategies and the potential GHG reductions for community and municipal operations, respectively.

Table Q: Summary of Community GHG Reduction Strategies and Emissions Reductions

Goals and Measures	2030 Emission Reductions (MT CO_2e)
Goal 1: Increase Energy Efficiency in Existing Residential	
1.1: Energy efficiency training, education, and recognition in the residential sector	Supporting Measure
1.2: Increase community participation in existing energy efficiency programs	1.70
1.3: Home energy evaluations	Supporting Measure
1.4: Residential home energy renovations	1,294.60
Goal 2: Increase Energy Efficiency in New Residential Units	
2.1: Exceed energy efficiency standards	0.01
Goal 3: Increase Energy Efficiency in Existing Commercial Units	
3.1: Energy efficiency training, education, and recognition in commercial sector	Supporting Measure
3.2: Increase business participation in existing energy efficiency programs	69.40
3.3: Non-residential building energy audits	Supporting Measure
3.4: Non-residential building retrofits	1,666.00

Table Q: Summary of Community GHG Reduction Strategies and Emissions Reductions

Goals and Measures	2030 Emission Reductions (MT CO_2e)
Goal 4: Increase Energy Efficiency in New Commercial Units	
4.1: Exceed energy efficiency standards	-
Goal 5: Increase energy efficiency through water efficiency	
5.1: Water efficiency through continued implementation of SBX7-7	3.00
5.2: Exceed water efficiency standards	Supporting Measure
Goal 6: Decrease Energy Demand through Reducing Urban Heat Island Effect	
6.1: Tree planting for shading and energy efficiency	-
6.2: Light-reflecting surfaces for energy efficiency	-
Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled	
7.1: Alternative Transportation Options	563.00
7.2: Develop Bicycle Master Plan to Create Safe bike routes in the City	10.00
7.3 Ride-sharing and bike-to-work programs within businesses	-
7.4: Electrify the fleet	1,538.00
7.5 Initiate Origin/Destination Transportation Model	N/A
Goal 8: Decrease Greenhouse Gas Emissions through Reducing Solid Waste Generation	
8.1: Reduce waste to landfills	1,500.00
Goal 9: Decrease Greenhouse Gas Emissions through Increasing Clean Energy Use	
9.1: Promote clean energy	364.00
9.2: Continue participation in 3CE Program	-
Total Community Measures	**7,009.71**

Source: Compiled by LSA 2022
3CE = Central Coast Clean Energy
MT CO_2e = metric tons of carbon dioxide equivalent
N/A = Not Applicable
SB = Senate Bill
- = Not quantified

Figure 5 on the following page provides a summary graph of the local emission reductions.

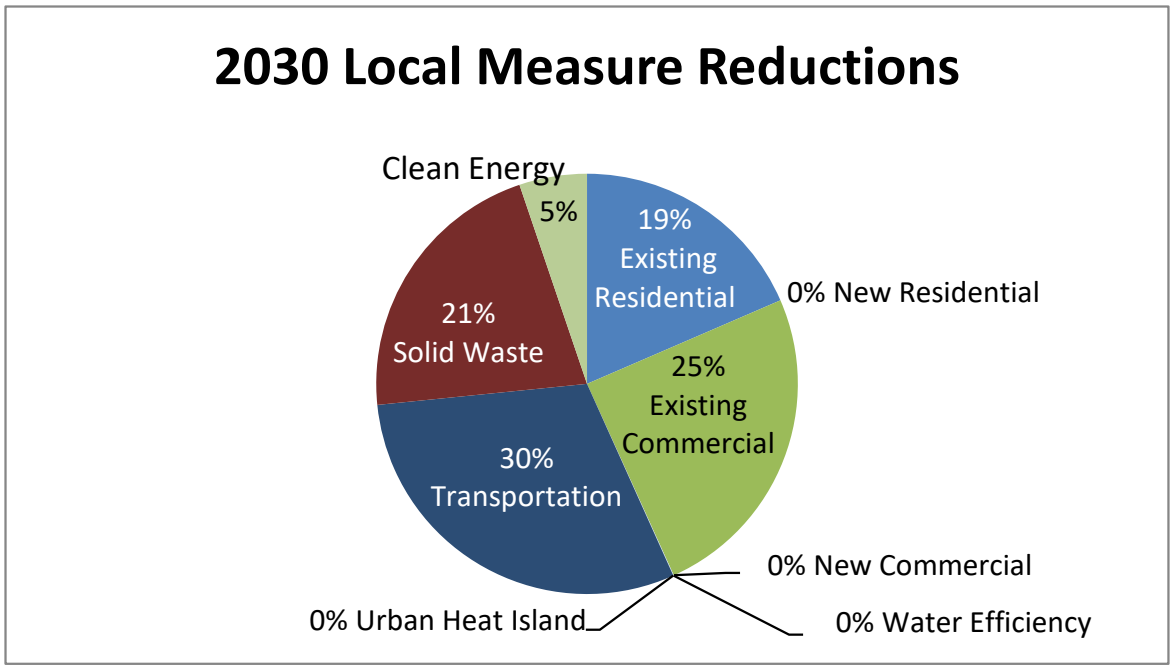


Figure 5: Local Reduction Measures

As shown in Figure 5, reductions in Transportation represent the largest (30 percent of total reductions) portion of reductions, followed by energy efficiency retrofits of existing commercial at 25 percent, solid waste diversion at 21 percent, energy efficiency retrofits of existing residential at 19 percent, and clean energy at 5 percent.

Figure 6 on the following page summarizes the 2015 through 2019 emission inventories, projected 2020, 2030, and 2045 emission forecasts, as well as the 2020, 2030, and 2045 reduction targets after implementation of the local reduction measures.

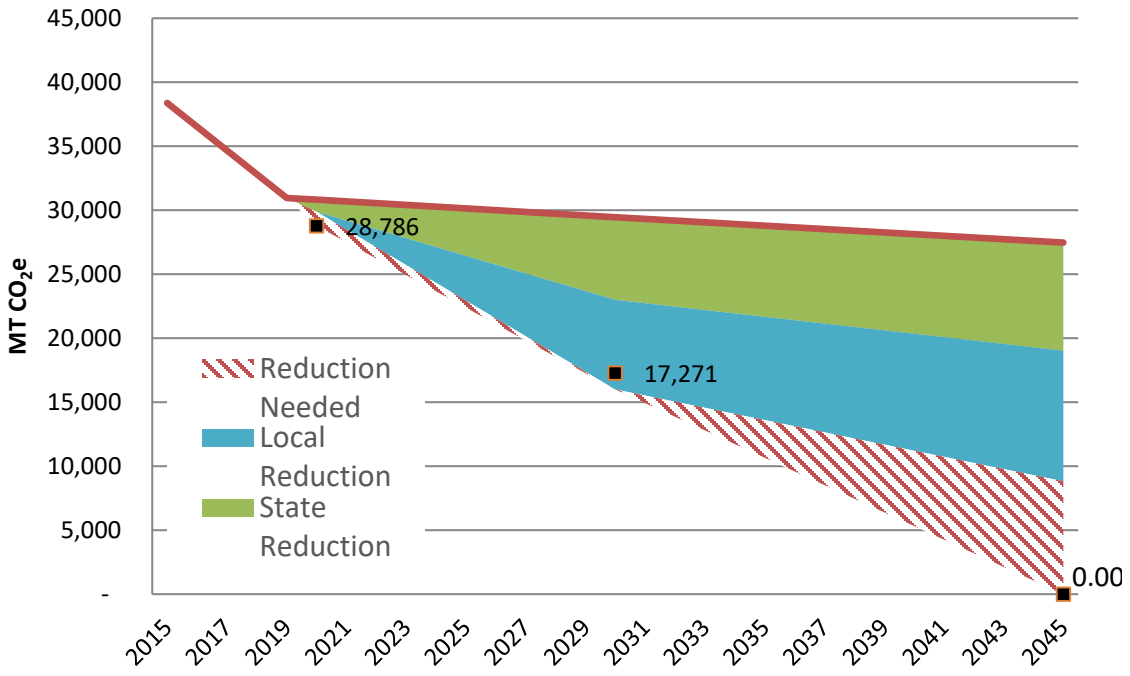


Figure 6: Existing and Forecasted Emissions with Local Reduction Measure Implementation

As shown in Figure 6, with implementation of the local reduction measures, emissions in 2030 will be below the 2030 reduction target and provide additional reductions beyond 2030. However, the current set of reduction strategies will not achieve carbon neutrality by 2045.

CONCLUSIONS

The City will see a total reduction of 13,442 MT CO_2e (6,432 MT CO_2e from State measures, and 7,010 MT CO_2e from local measures) in 2030 with implementation of all the measures. The remaining 2030 GHG emissions for the City after measure implementation will be approximately 16,003 MT CO_2e, which is below the 2030 reduction target of 17,271 MT CO_2e. However, with the current set of reduction strategies the City will not achieve carbon neutrality by 2045.

The City of Carmel-by-the-Sea should update the 2045 ABAU forecasts and provide local reduction strategy updates once the State has provided an updated Scoping Plan demonstrating how the State will achieve carbon neutrality.

Appendix B
Climate Vulnerability Assessment

Attachment 3

City of Carmel-by-the-Sea

CLIMATE CHANGE VULNERABILITY ASSESSMENT

FINAL REPORT

July 2021

Acknowledgments

Climate Committee Members:

Councilmember Jeff Baron
Councilmember Carrie Theis
John Hill
Michael LePage
Scott Lonergan
LaNette Zimmerman
Evan Kort, Associate Planner
Agnes Martelet, Environmental Compliance Manager

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Appendix A: Historical Hazards

Appendix B: Climate Committee Presentation Summaries

I. Introduction

The purpose of this Vulnerability Assessment is to characterize climate hazards that will impact the community and City assets in Carmel-by-the-Sea, determine our community's major climate vulnerabilities, and identify work that has already been done to improve community resilience. The Vulnerability Assessment will help provide focus to the City's adaptation planning efforts.

II. Historical Hazards

Historical hazards provide information about hazards that may be exacerbated by climate change, as well as potential vulnerabilities of City assets to those hazards. A table of historical hazards assembled from the Monterey County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), the National Oceanic and Atmospheric Administration (NOAA) Storm Events Database, and historic records at the Carmel Library, is included in **Appendix A**. Additionally, a map of historic wildland fires in Monterey County from the MJHMP is also included in **Appendix A**.

III. Changing Hazards with Climate Change

This Vulnerability Assessment uses information and modeling projections provided by the State of California to support climate adaptation efforts, including the Cal-Adapt modeling tool and the Fourth California Climate Assessment. The Cal-Adapt modeling tool provides climate change projections based on two different future greenhouse emissions gas scenarios: a high-emissions scenario, Representative Concentration Pathway (RCP) 8.5, in which greenhouse gas emissions continue to rise over the 21st century, and a low-emissions scenario, RCP 4.5, in which greenhouse gas emissions level off around the middle of the 21st century, and, by the end of the century, are lower than 1990 levels.

Increased Temperatures

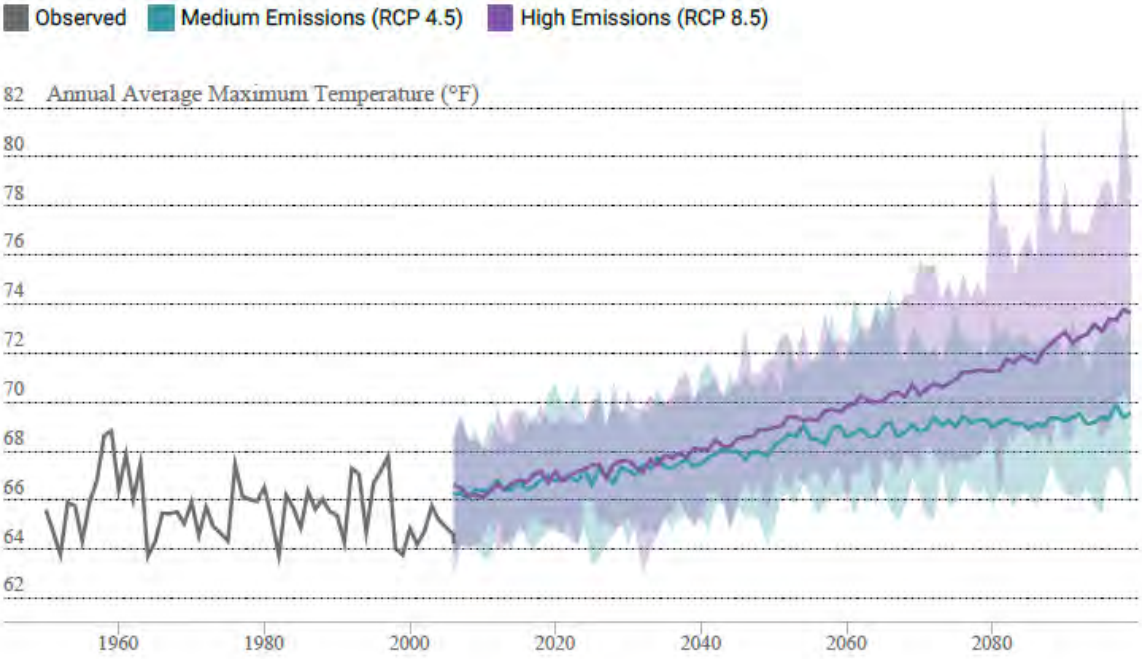
According to the State's Cal-Adapt modeling tool, overall temperatures are projected to rise in California during the 21st century. However, coastal areas will be less impacted due to the moderating effect of the Pacific Ocean. The current average annual maximum temperature (the average of all the hottest daily temperatures in a year) in Carmel-by-the-Sea is 65.6 degrees Fahrenheit (°F). According to the RCP 8.5 model, annual average maximum temperatures in Carmel-by-the-Sea could increase by 3.3°F by mid-century to 68.9°F, and by 6.3°F to 71.9°F by the end of the century.

The number of extreme heat days, defined as days with daily maximum temperature above 87.9 °F, is also projected to increase from 3 days to an average of 6 days per year by mid-century, and to an average of 7 to 13 days per year by the end of the century, depending on the emissions scenario. It is important to note that these are modeled averages and that some years will have more extreme heat days, and others fewer.

While the community and essential facilities of Carmel-by-the-Sea may be able to adapt to these temperature changes, local ecosystems are likely to be adversely impacted by the increased heat.

Annual Average Maximum Temperature

Average of all the hottest daily temperatures in a year.



		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	65.6 °F	65.3 - 65.8 °F
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+2.6 °F	68.2 °F	66.7 - 69.6 °F
HIGH EMISSIONS (RCP 8.5)	+3.3 °F	68.9 °F	67.3 - 70.6 °F
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+3.6 °F	69.2 °F	67.3 - 71.5 °F
HIGH EMISSIONS (RCP 8.5)	+6.3 °F	71.9 °F	69.2 - 76.0 °F

Source: Cal-Adapt Local Climate Change Snapshot for Carmel-by-the-Sea

Drought

In 2014, the State of California, including Monterey County, faced one of the most severe droughts on record. Governor Brown declared a drought State of Emergency in January 2014, and directed State officials to take all necessary actions to prepare for water shortages during what was considered an "unprecedented" drought.

Prior to the 2014 drought, the National Climatic Data Center has recorded no instances of severe drought conditions in the Monterey County forecast zone for the period of 1/1/1996 through 12/31/2013.

According to the Fourth California Climate Assessment, even minor fluctuations in rainfall patterns will increase pressure on Monterey County's water resources, which are already over-stretched by the demands of a growing agriculture economy and population. Decreasing spring stream flows, coupled with increasing demand for water resulting from both a growing population and hotter climate, could lead to increasing water shortages.

According to the State's Cal-Adapt modeling tool, research suggests that for much of the state, wet years will become wetter and dry years will become drier. Dry years are also likely to be followed by dry years, increasing the risk of drought. While California does not see the average annual precipitation changing significantly in the next 50-75 years, precipitation will likely be delivered in more intense storms and within a shorter wet season. We are already seeing some of the impacts from a shift towards larger year to year fluctuations.

Fog Changes

According to California's Fourth Climate Assessment, the formation of coastal fog is very complex and involves highly dynamic ocean, air, and land processes. Ocean upwelling, once thought to drive the formation of coastal fog, is secondary to the global atmospheric circulation pattern that situates a North Pacific zone of atmospheric high-pressure. This air mass generates inversions under which coastal fog forms. The frequency and thickness of summertime fog depends on the location of the high-pressure zone, the strength of the inversion, and sea surface temperatures.

The future of coastal fog under climate change remains uncertain. Long term fog trends over the coastal ocean from ship observations since 1951 show an increase, while fog trends over land show a decrease. The effect of other land surface changes such as forest fires on fog is unknown.

Changes in coastal fog could have a significant impact on coastal ecosystems. Fog provides an important source of water for many coastal plant communities through fog drip, and it also acts to keep moisture in the ecosystem, preventing evaporation and maintaining cooler temperatures during the summer months. Ecosystems such as the coastal redwoods and maritime chaparral are dependent on fog for their survival. A decline in coastal fog could also lead to increased water use and an increased demand for water in the Central Coast Region due to warmer temperatures and increased evaporation during the summer months. This in turn could lead to increased agricultural and landscape water use.

Ocean Warming

According to information provided by the National Oceanic and Atmospheric Administration (NOAA), Office of National Marine Sanctuaries, water temperatures in the Monterey Bay Sanctuary have risen slightly over the past century and offshore waters could warm by 7 degrees Fahrenheit by 2100. In addition to rising average temperatures, marine heatwaves are expected to increase in frequency, duration, and intensity.

Monterey Bay is at an ecological transition zone that is the northern range edge of many warm-water species. Thus, warming of ocean waters may have a significant impact on marine communities by shifting warm-water species northward. Warming waters also hold less oxygen and may increase the mortality of a variety of local organisms, including mussels, oysters, sea stars, rockfish, kelp, and deep-water corals.

Many impacts of warming waters were observed during the 2014-2016 marine heatwave known as “The Blob”, during which water temperatures in the Sanctuary reached 7.2 degrees Fahrenheit above normal. That marine heatwave caused significant impacts in the Bay, including a large Harmful Algal Bloom, reduced numbers of zooplankton, and migration of southern species. These changes in turn caused mass mortalities of seabirds and marine mammals, and early closure and delayed opening of the Dungeness crab fishery. Effects of the heatwave also led to significant declines in kelp forests in the region.

The varied impacts of The Blob on the marine ecosystems of the Monterey Bay and the fisheries that rely on them demonstrated the potential significant impacts of climate change on local marine communities; however, marine systems are complex, impacted by not only water temperature, but also upwelling, sea level rise, storm patterns, and ocean acidification. Thus, the long-term effects of climate change on local marine ecosystems are still under study and are difficult to predict.

Wildfires

Wildfires occur frequently in the Central Coast region. In recent years, much of California, including the Central Coast, has seen an increased risk of wildfire, with a wildfire season that starts earlier, runs longer, and features more extreme fire events.

According to California’s Fourth Climate Assessment, annual climatic water deficit, which measures water availability relative to water demand, is generally a strong predictor of fire occurrence in semi-arid regions, largely due to the correlation between annual water deficit and fuel moisture. Warmer temperatures will increase water demand and climate water deficit, and thus fire risks.

A key factor affecting wildfires on the Central Coast will be precipitation patterns. Northern Central Coast areas typically have higher precipitation and may see fewer, more severe, wildfires; while areas to the south may see more frequent, less severe, wildfires as warming temperatures increase climatic water deficit there but also could reduce vegetation growth rates and fuel loads. Another important factor in wildfire severity will be wind; at this time, climate models have not determined yet how climate change will affect major wind patterns in the Central Coast.

Given the uncertainties in climate predictions of precipitation and wind for the Central Coast region and the sensitivity to precipitation and climatic water deficits of our local ecosystems, it is difficult to accurately predict the change in wildfire frequency and severity; however, there is little doubt that large, severe wildfires will continue to occur in this region. Thus, growing populations and expansion into the Wildland Urban Interface (WUI) will increase vulnerability to fires. Projected increases in precipitation intensity during storms may also increase post-fire impacts such as sediment flows, nutrient pulses in nearshore waters, and the spread of invasive grasses.

Stronger Storms

Projections of changes in precipitation in California are more nuanced than projected changes in temperature and have less separation between RCP4.5 and 8.5 scenarios. There is a projected increase of year-to-year variability with wetter days during periods of precipitation, but with fewer total days with precipitation. This means that storms will intensify and rainfall will come in more intense bursts; however, drought years may also be more common and the wet season will become shorter. When combined with higher temperatures, these changes will create significant challenges for the state's water supplies, potentially creating more serious flooding events as well as more frequent drought conditions.

According to California's Fourth Climate Assessment, extreme atmospheric river events, which are associated with strong winds and severe flooding, are expected to increase under projected climate change in California. Atmospheric rivers are the dominant drivers of locally-extreme rainfall events along the Central Coast. During the winter of 2016-2017, a large number of atmospheric rivers that struck the Central Coast caused tremendous flooding and damage throughout the Monterey Bay region. During the winter of 2018-19, a series of atmospheric rivers struck the Monterey Peninsula with significant wind and rainfall that caused widespread power outages and road closures due to fallen trees and broken branches (Appendix A).

Periodic El Niño events also can significantly impact the intensity of storm events on the Central Coast. El Niño events are associated with seasonally-elevated ocean water levels as high as 1 foot above normal, and, on average, 30 percent larger winter wave energy in California. Extreme El Niño events of 1982-83 and 1997-98 caused significant coastal erosion due to strong winter waves. The magnitude and frequency of El Niño events, which may increase with climate change, will have significant impacts on coastal resources and will exacerbate the impacts of sea level rise.

Sea Level Rise

Global sea level rise is driven primarily by thermal expansion caused by the warming of the oceans and the loss of land-based ice such as glaciers and polar ice caps due to increased melting. The Monterey County MJHMP (September 2014) estimates that Monterey County may experience an approximate 5-foot (150 cm) rise in sea level by the year 2100. Figure 1 below is a chart from the Coast and Ocean Summary Report of California's Fourth Climate Assessment (August 2018). The chart indicates potentially more extreme sea level rise than previously anticipated, particularly if greenhouse gas emissions are not controlled. The chart also illustrates the rapid and drastic sea level rise between 2050 and 2100, especially under an unmitigated greenhouse gas emission scenario.

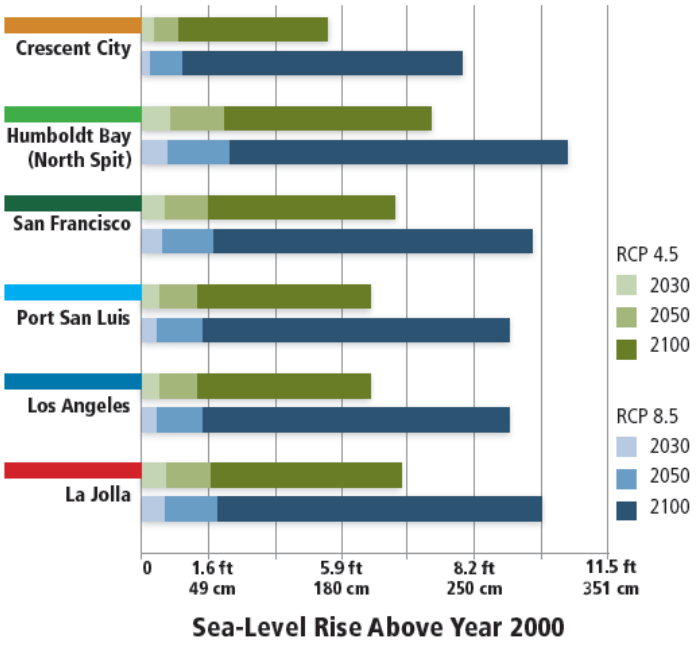
Figure 2 is from the USGS Coastal Storm Modeling System and shows a range of inundation zones, starting with 1) current conditions, 2) 1.6 feet (50 cm) of Sea Level Rise (SLR) by mid-century under normal conditions, 3) 1.6 feet of SLR during a 1-year storm, and 4) 5 feet of sea level rise by 2100 (no storm).

The figures indicate that the Carmel bluffs provide an important barrier against sea level rise impacts to property, which will be increasingly impacted by the rising tides. Particularly during storms, as the beach continues to narrow, the bluffs and seawalls will endure an increasing amount of the erosive force of ocean waves. Carmel Beach will continue to become narrower, particularly at the southern end of the bay, as well as the northern end, near Pescadero Canyon, and, by mid-century, will be inaccessible during and after storms. This phenomenon of beach loss is already happening after large winter storms in Carmel. With 5 feet of sea level rise

(near the end of the century under an RCP 4.5 scenario), the southern end of the beach will be gone, as well as the northern portions, even under normal conditions.

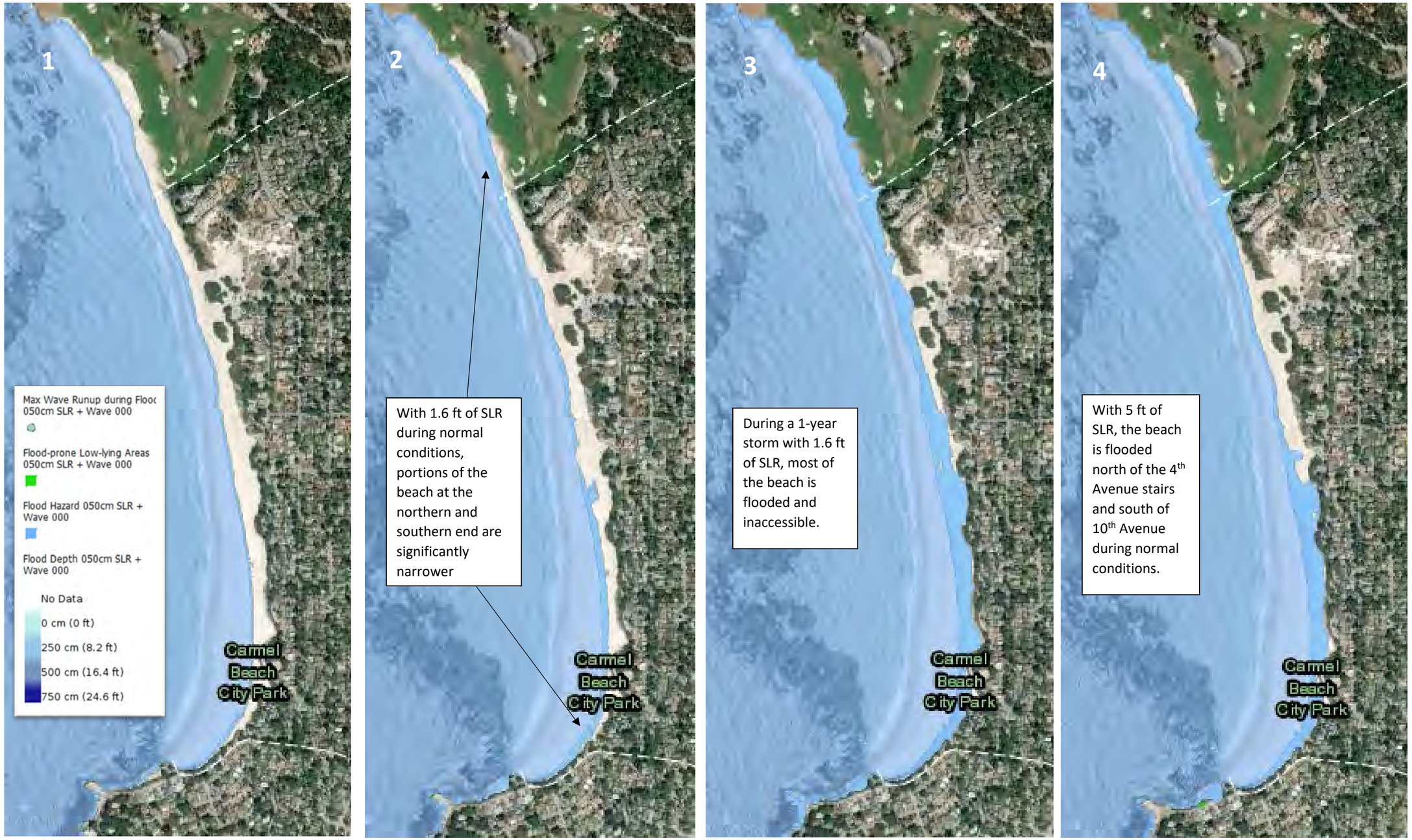
The loss of Carmel Beach will impact not only the recreational, environmental, and economic resources it provides but it also will amplify the impacts of hazard events such as storms, as well as coastal erosion. Coastal erosion analysis indicates that retreat rates for the Carmel bluffs average 2-4 inches per year. It is important to note that there are wide variations in coastal erosion from year to year and that, during El Nino years, which are characterized by stronger storms, the bluffs experience significantly more erosion. For example, during the winter of 1982-83, as much as 40 feet of bluff were lost in some areas of Carmel (Appendix A). Sea level rise, combined with amplified coastal erosion could cause considerable damage to the City's coastal facilities, including sea walls, revetments, access stairs, the Scenic pathway, bathrooms, Scenic Road, and utilities including the sanitary sewer, water supply, and stormwater systems.

Figure 1: Chart of Sea Level Rise along the California Coast



Source: California's Coast and Ocean Summary Report, California's Fourth Climate Change Assessment

Figure 2: Comparison of Carmel Beach maximum wave run-up during: 1) current conditions, 2) with 1.6 ft of sea level rise (SLR) and no storm, 3) 1.6 ft of SLR and 1-year storm, and 4) 5 ft of SLR and no storm.



Source: Our Coast Our Future, https://data.pointblue.org/apps/ocof/cms/

IV. Hazard Ranking

Based on the information provided by historical hazards (Appendix A), as well as projected changes from climate change, several climate effects will significantly impact Carmel over the coming years. Climate hazards are ranked in the table below by the timeframe of their impacts, with hazards that are already causing observable impacts or representing a significant near-term risk in orange and those with potentially significant impacts into the future in yellow. Hazards in yellow have a longer planning time horizon. Hazards for which we do not have enough data yet are shown in grey.

- Orange: already causing observable impacts or a near-term significant risk
- Yellow: significant mid- to long-range impacts
- Grey: not enough data

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperature
Fog Changes
Ocean Warming

V. Vulnerable City Assets and Populations

Climate change does not have the same effects in all parts of the community. Some people and physical assets will be affected more severely than others, and adaptation planning efforts should evaluate the full range of potential effects of climate change. Priority assets and populations at risk are organized in Table 1 below under the following main categories:

- Natural Assets
- Community
- Utilities
- Regional Infrastructure
- Local Infrastructure

Virtually all people and assets in our community will be affected by climate change in some way over the planning horizon; however, it is not feasible to assess the vulnerability of every group or every asset in our community. Thus, we have focused on those assets that face greater harm, require special consideration, or are critical to the community's well-being. They are listed below with potential hazards that may affect them.

Table 1: Vulnerable City Assets and Populations

Priority Assets at Risk	Priority Hazards						
	Stronger Storms	Wildfires	Sea Level Rise	More Droughts	Increased Temperature	Fog Changes	Ocean Warming
Natural Assets							
Mission Trail Nature Preserve	X	X	X	X	X	X	
North Dunes			X	X	X	X	
Urban forest	X	X		X	X	X	
Marine Sanctuary	X			X	X	X	X
Carmel Beach			X			X	X
Community							
Elderly population and people with disabilities	X	X		X	X		
Residents	X	X		X	X		
Visitors	X	X	X				X
Local businesses	X	X	X	X	X		X
Service industry workers	X	X	X		X		
Second homes	X	X	X		X		
Utilities							
Water supply		X	X	X	X		
Sanitary sewer system	X		X				
Power grid	X	X			X		
Overhead communication lines	X	X			X		
PG&E/communication underground lines (gas, cable)		X	X				
Regional Infrastructure							
Wastewater treatment facility	X		X		X		
Transportation infrastructure (Caltrans)	X	X	X				
Hospital and emergency medical care facilities	X	X			X		
Landfill & waste management	X						

Priority Assets at Risk	Priority Hazards						
	Stronger Storms	Wildfires	Sea Level Rise	More Droughts	Increased Temperature	Fog Changes	Ocean Warming
Local Infrastructure							
Shoreline access infrastructure: Scenic trail, public restrooms, beach stairs, coastal roadways, and parking	X	X	X		X (visitors)	X	
Seawalls and revetments	X		X				
Storm drainage system	X		X				
Other city streets	X						
Emergency response facilities (Fire station, EOC, PD, PW, City Hall, etc.)	X	X			X		

VI. Existing Strategies and Policies for Adaptation

The City has several existing documents that provide guiding policies and strategies that will help address elements of climate change adaptation. A summary of recommended projects in those documents that will help reduce the City's vulnerability to climate change is presented below, by asset category.

Natural Assets

a. Mission Trail Nature Preserve

Mission Trail Nature Preserve Master Plan

Adopted by the City Council: 1996

The Mission Trail Nature Preserve Master Plan has policies that will be beneficial to the short- and long-term health of the Preserve's ecosystems in the face of climate change. These policies can make the Preserve more resilient to increased heat, drought, and wildfires:

- O5-25: Preserve and enhance the vegetative diversity in Mission Trail Nature Preserve consisting of Monterey pine forest, central coast willow riparian forest, wet meadow, coast live oak woodland, redwood, box elder, cottonwood, coastal terrace prairie.
- O5-31: Maintain natural drainage patterns except where erosion or human safety problems may be created. Encourage/allow the channelized ditch to revert to a more natural channel in order to enhance the park's wetlands (riparian forest, wet meadow) and natural character.

- Prepare annual maintenance plans for habitats within the Preserve. Encourage native vegetation to reestablish on sites previously mowed, cut, or invaded by exotic species.

Implementation Status: *Initiated.* Many elements of the Mission Trail Nature Preserve Master Plan, including enhancing native habitats and site hydrology, have been initiated and are currently in progress. The City has been working with its private non-profit partners on invasive species and fire fuel removal throughout the Preserve for several years.

Mission Trail Nature Preserve Baseline Biological Assessment

Prepared by Nicole Nedeff: January 2016

The Mission Trail Nature Preserve Baseline Biological Assessment was completed in 2016 and includes an implementation plan for maintenance and enhancement of the various habitats of the Preserve. This is the primary guiding document for habitat restoration projects in the Preserve.

Implementation Status: *Initiated.* Many elements of the Mission Trail Nature Preserve Baseline Biological Assessment, including weed removal and improving the site's hydrology, have been initiated and are currently in progress. The City has been working with the Friends of Mission Trail Nature Preserve on invasive species and fire fuel removal throughout the Preserve.

Mission Trail Stream Stability Study

Prepared by Dudek and Waterways Consulting: February 2019

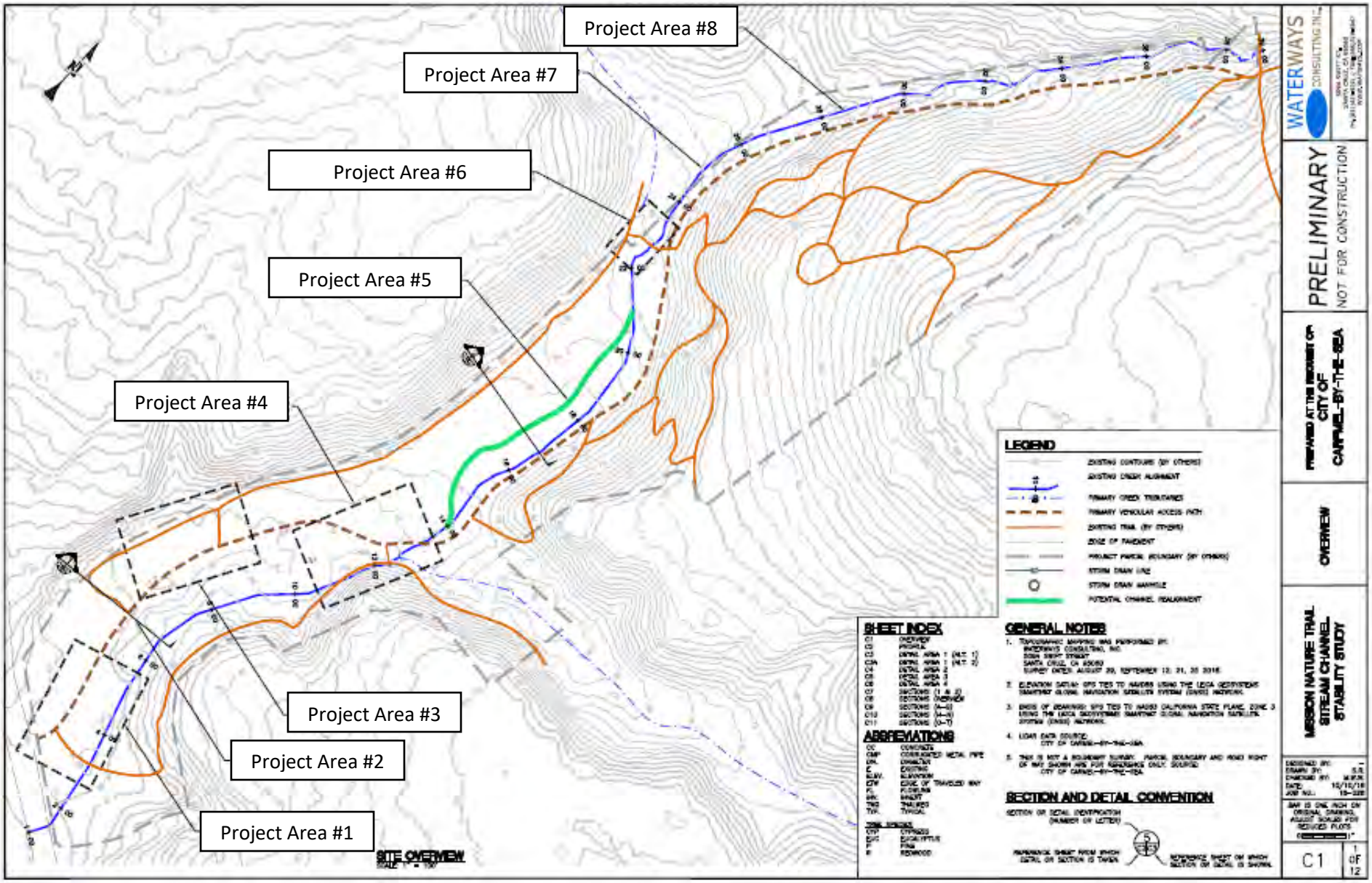
The Stream Stability Study was completed in 2019 to determine factors contributing to channel instability in Mission Trail Nature Preserve, to determine the stability of drainage improvements in the Preserve, and to recommend actions to restore the stream and habitat conditions in the riparian corridor. The study identified eight projects to restore natural hydrology and stream stability in the Preserve. The projects are shown on Figure 2 below and listed in Table 2.

Table 2: Mission Trail Stream Restoration Projects

PROJECT AREA	PROJECT COMPONENTS	APPROXIMATE COSTS	
		DESIGN	IMPLEMENTATION & ESTABLISHMENT
1 (Alt 1)	RAISE ENTRANCE ROAD, INSTALL NEW CULVERT BELOW ENTRANCE ROAD, CONSTRUCT OPEN SWALE TO CREEK	$17,000	$90,000
1 (Alt 2)	RAISE ENTRANCE ROAD, INSTALL NEW CULVERT BELOW ENTRANCE ROAD, CONSTRUCT PIPE TO CREEK	$17,000	$95,000
1 (Alt 3)	RAISE ENTRANCE ROAD, INSTALL NEW CULVERT BELOW ENTRANCE ROAD	$15,000	$75,000
2	CONSTRUCT APPROX. 100 LF PEDESTRIAN BOARDWALK	$8,000	$40,000
3	INSTALL CULVERT OR ROCKED FORD AND REALIGN TRIBUTARY DRAINAGE, INSTALL SMALL DITCH CULVERT AND PERFORM DITCH MAINTENANCE	$7,500	$22,500
4	DEMOLISH PORTION OF EXISTING FORD, RESTORE DOWNSTREAM REACH OF CHANNEL, REALIGN TRAIL, CONSTRUCT PEDESTRIAN BRIDGE, RESTORE OLD TRAIL ALIGNMENT	$17,500	$100,000
5	REALIGN APPROX. 700 LF OF CHANNEL. RESTORE OLD CHANNEL BED, REVEGETATE DISTURBED AREAS	$27,500	$300,000
6	REPLACE EXISTING UNDERSIZED BRIDGE, RESTORE DOWNSTREAM CHANNEL AND ARMOR REACH TO PREVENT FURTHER INCISION UPSTREAM	$25,000	$230,000
7	REMOVE EXISITING WEIR, LOWER CHANNEL, STABILIZE NEW CHANNEL BED AND BANKS	$9,500	$30,000
8	PERFORM BOUNDARY SURVEY, DETAILED TOPOGRAPHY, GEOLOGIC & GEOTECHNICAL INVESTIGATION. PRIORITIZE A PHASED REPAIR PLAN, AND PREPARE PRELIMINARY AND FINAL DESIGNS FOR GRADE CONTROL.	$50,000	N/A

Implementation Status: *Initiated*. A successful grant application for $178,000 for the design and construction of Projects 1-3 has been submitted to the Per Capital Grant Program and is awaiting contract.

Figure 2: Mission Trail Stream Stability Projects



b. North Dunes

Del Mar Master Plan and North Dunes and Del Mar Dunes Habitat Restoration Plan (2009)

Adopted by the City Council: September 2009

The Del Mar Master Plan provides a framework for improving parking, circulation, pedestrian flow, handicap accessibility, aesthetics and environmental resources in the Del Mar and North Dunes areas. At the time of the Master Plan development, the North Dunes were a 4 to 5 acre tract of substantially disturbed dunes with small pockets of remaining native species. The Master Plan has several policies that support the restoration of the native habitats in the North Dunes, which will improve sensitive habitat resilience in the face of climate change:

P5-103: Identify and protect environmentally sensitive habitat areas against any significant disruption of habitat values. Only uses dependent upon those resources shall be allowed.

P4-48: Discourage any further incursion of recreational activities into the North Dunes habitat. Sensitive resources in the North Dunes habitat area shall be protected.

P5-28: Restore dune areas to improve habitat for Tidestrom's lupine and other native dune plants.

O5-7: Protect the fragile dunes and sensitive plants in the Del Mar Dunes and North Dunes against any significant disruption of habitat values.

P5-27: Maintain an attractive mix of plant material that favors native species and other, drought-tolerant, noninvasive species.

P5-29: Control the spread, and prohibit planting of, invasive non-native plants.

O5-40: Ensure that long-term management activities maintain the natural dune ecology of Carmel Beach in a manner consistent with public safety. Protect areas of the beach from the loss of habitat, where special status plant species are growing.

P5-173: Retain a qualified botanist to monitor the population of Tidestrom's lupine and other special status species on the North Dunes of Carmel Beach. The population should be assessed annually (or based upon a schedule agreed upon by the Department of Fish and Game, Coastal Commission and U.S. Fish and Wildlife Service) to determine if the population is stable and if measures to protect the population should be instituted. If the population appears heavily affected by public use, the City should consider fencing or placing barriers around the lupine habitat on the beach.

P5-176: Implement a Dune Restoration Plan.

P4-34 : Post educational/interpretive signs where appropriate along Scenic Road and in the North Dunes area.

P4-3: Improve and sign the vertical access at Fourth Avenue. Consider development of a pedestrian path from the foot of Jane Powers walkway to the Fourth Avenue beach access through Sand and Sea. Investigate and implement opportunities to establish or reestablish additional vertical access from North San Antonio to the beach to the extent feasible.

P4-18: Improve the pedestrian experience through the Del Mar Parking area for those arriving on foot and from parked vehicles to the beach. Consider construction of boardwalks or other improvements to aid beach circulation, protect tree roots and protect the sensitive vegetation in the North Dunes area.

A Habitat Restoration Plan for the North Dunes and Del Mar Dunes is included as an appendix to the Del Mar Master Plan, which guides the specific habitat restoration actions at the North Dunes. The Habitat Restoration Plan has the following success criteria:

- Aggressive non-native species shall have less than 1% of coverage in the project area.
- The dune scrub plant coverage should reach at least 70% coverage in the project area, with the other 30% occupied by bare sand or Monterey cypress within the cypress corridor.
- All planted species must be displaying evidence of reproduction.
- The dune scrub shall be comprised of all 22 native species listed in the report.
- Successful establishment of 10 locations of Tidestrom's lupine with at least 100 plants each.
- Successful establishment of the quantity and quality of available habitat for Black Legless Lizards, including the habitat corridor between Del Mar and North Dunes.
- Annual monitoring of the Tidestrom's lupine population is performed and results reported to the CA Department of Fish and Game's Data Base.
- The trail system has been established and is being used exclusively for visiting or traversing the dunes. No foot traffic impact is occurring within the Del Mar or North Dunes.
- Interpretive panels are increasing the visitors' experience and knowledge of the dune habitat.

Implementation Status: *substantial progress*. In 2010, the City installed a boardwalk connecting the 4th Avenue beach stairway to the dune access at the end of 4th Avenue, which reduces impacts on dune habitat and endangered Tidestrom's lupine. In 2016, the City obtained a CDP to conduct habitat restoration actions at the North Dunes. Significant strides have since been made in removing invasive weeds and restoring native dune vegetation throughout the North Dunes. The City retained a biologist who has been monitoring the progress of restoration activities. The latest preliminary results for the 2021 monitoring indicate that average percent cover of native species along 18 transects in the dunes is 65% and the average weed cover is 10%. The monitoring also indicated that 39 different native species were recorded in the North Dunes.

c. Urban Forest

Forest Management Plan (2000)

Prepared by: Michael Branson, City Forester, December 2000

Adopted by the City Council: March 2001

The Forest Management Plan establishes a broad set of goals and policies for management of the City's urbanized forest. Some policies of the Forest Management Plan are beneficial to drought and wildfire mitigation, and provide other adaptation benefits:

- Promote undergrounding of utilities where feasible and with minimum detriment to the root systems of trees.
- Monitor tree pest and disease problems and take appropriate measures to minimize their impact.
- Plant native Monterey pine seedlings of different genotypes to maximize resistance to diseases and make these seedlings available to the public.
- Establish and implement a procedure for removal of invasive vegetation.
- Maximize retention of surface water on each site through site design and use of best management practices.
- Where feasible, direct street runoff to open-space areas on public property for percolation into the soil.
- Implement development standards that minimize runoff and the amount of area paved with impervious surfaces.
- Require approval of landscape plans for drought tolerance and trees by the Forestry department on new construction.

Implementation Status: *Initiated.* Requirements for stormwater infiltration, drought tolerance, and trees on private property are in place in the municipal code and are enforced by City staff. The City Forester monitors tree pest and disease problems. Invasive vegetation removal is an on-going task.

d. Opportunities to build on Existing Adaptation Strategies for Natural Resources:

The following opportunities to build on existing adaptation strategies were identified based on technical expert presentations at Committee meetings (Appendix B) and from the review of previous reports:

- Update the Forest Management Plan to (1) address transitioning the urbanized forest to tree species that can withstand the projected temperatures of the second half of the century, and (2) include planting guidelines to improve tree health, (3) incorporate tree species that have greater drought and wildfire resistance, and (4) in addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property.
- Encourage stormwater infiltration features as part of street CIP projects to reduce runoff volume and increase groundwater infiltration.
- When designing projects recommended in the Mission Trail Stream Stability Study, size improvements to handle larger storms.
- Earmark CIP funding for design, permitting, and implementation of stream stability study projects. Include strategies in 2021 MJHMP and Integrated Regional Watershed Management Program (IRWMP) for potential regional funding.
- Update the Mission Trail Nature Preserve Master Plan to consider the potential impacts of climate change and to reduce wildfire risk for neighboring private properties. Incorporate Best Practices into an annual maintenance plan, including cost estimates for implementation and revenue sources for implementation.
- Continue maintenance and monitoring at the North Dunes to determine how the changing climate will affect dune habitats.

Community

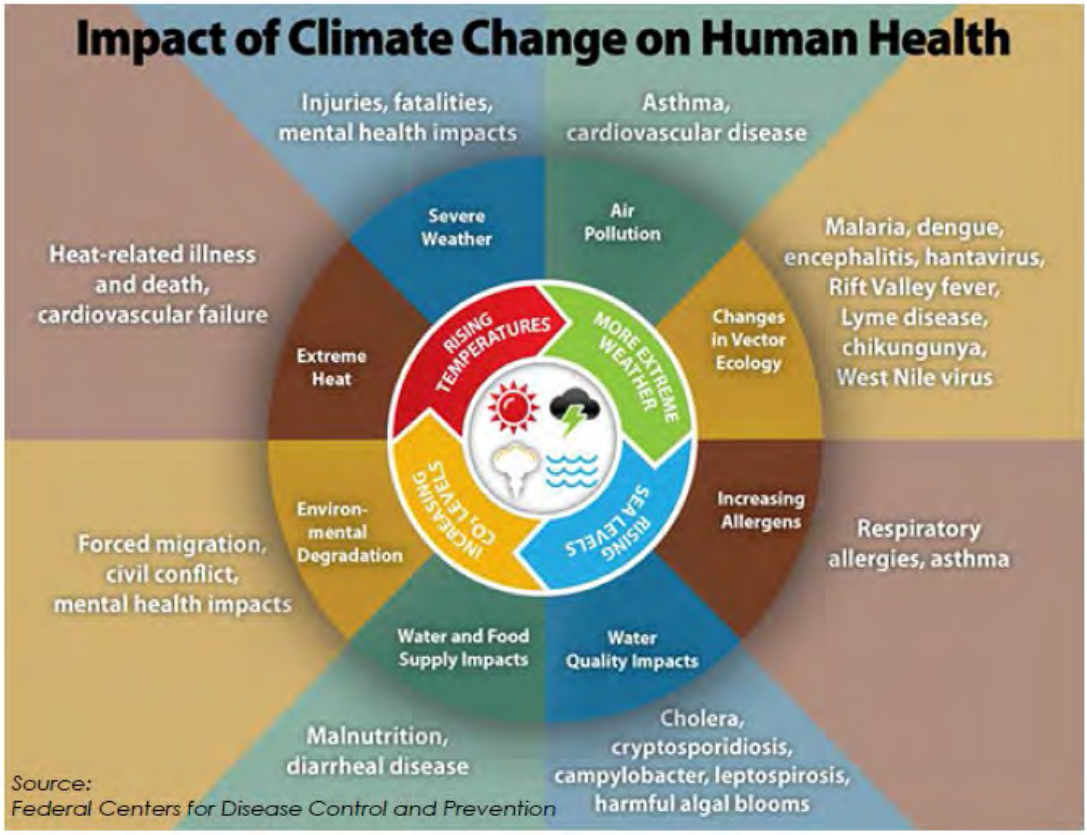
a. Elderly population and people with disabilities

Climate Change and Health Profile Report: Monterey County (2017)

Prepared by: California Department of Public Health, Office of Health Equity

Researchers have examined the pathways in which increased temperatures and hydrologic extremes can impact health and generally recognize three main pathways: direct exposures, indirect exposures, and socio-economic disruption. As shown in Figure 3 below, all Californians are vulnerable to the health impacts of climate change.

Figure 3: Impact of Climate Change on Human Health



Based on medical reviews of individuals who died during heat waves and other extreme weather events, those who are particularly vulnerable to the direct effects of climate change include the very old and very young, individuals who have chronic medical conditions and psychiatric illness, people taking multiple medications, people without means for evacuation (no access to public transit or private cars), people who are socially isolated, medically fragile, and those living in institutions.

A much larger part of the population is vulnerable to intermediate or socioeconomic factors such as preexisting physical and mental health conditions, cultural or physical isolation, occupations involving outdoor or high risk work, a precarious socioeconomic status, or lack of social cohesion and collective

efficacy. Collective efficacy and local community cohesion may be associated with effective action to plan and coordinate responses to climate threats.

The Health Profile Report provides the following useful health statistics for the County of Monterey:

- In 2012, nearly 46% of adults (149,059) reported one or more chronic health conditions including heart disease, diabetes, asthma, severe mental stress or high blood pressure.
- In 2009, approximately 86% of households were estimated to lack air conditioning.
- In 2010, Monterey County had approximately 28,971 outdoor workers whose occupation increased their risk of heat illness.
- In 2005-2010, there was an annual average of 27 heat-related emergency room visits in the County.
- In 2010, approximately 14% (58,314 residents) of the county's population lived in fire hazard zones of moderate to very high severity.

b. Residents and Private Properties

California Green Building Standards (CALGreen) (2019)

CALGreen is California's first green building code and first in the nation state-mandated green building code. It is formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. The purpose of CALGreen is to improve public health, safety, and general welfare through enhanced design and construction of buildings using concepts which reduce negative impacts and promote those principles which have a positive environmental impact and encourage sustainable construction practices. CALGreen applies to the planning, design, construction, use, and occupancy of every newly-constructed building or structure on a statewide basis unless exempt. Additions and alterations to existing buildings which increase the building's conditioned area, interior volume, or size are also covered by CALGreen.

The latest iteration of CALGreen standards was issued in 2019. CALGreen includes minimum requirements for water and energy efficiency, waste reduction and recycling, use of materials that are less polluting, and better indoor air quality.

Defensible Space Inspection Program

Community wildfire preparedness is supported by Monterey Fire's Defensible Space Inspection Program and coordination with surrounding fire prevention organizations to limit fire and wildfire risk through planning, prevention, and mitigation. CalFire's Fire & Resource Assessment Program (FRAP) and Fire Hazard Severity Zone (FHSZ) maps are available online with information on forest assessment, fire severity zones, and defensible space. Monterey Fire personnel have inspected and graded all Carmel parcels as pass, pending, or fail. Grading criteria are evolving as knowledge on fire spread is developed. Current criteria are based on dry fuel accumulation, spark arrestors, and overhanging tree limbs.

Multi-Jurisdictional Hazard Mitigation Plan (2015)

Prepared by: The Monterey County Hazard Mitigation Planning Team with Professional Planning Assistance from AECOM, June 2015

The Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) provides a framework for regional collaboration on hazard mitigation and resilience. The goals of the plan are: (1) To protect life and property by reducing the potential for future damages and economic losses that result from known hazards; (2) To qualify for additional grant funding, in both the pre-disaster and post-disaster environment; (3) To speed recovery and redevelopment following future disaster events; (4) To sustain and enhance existing governmental coordination throughout Monterey County; and (4) To comply with federal and state requirements for local hazard mitigation plans. The MJHMP is currently in the process of being updated. The following City-specific community outreach projects that would improve community and private property resilience were included in the 2016 MJHMP:

Table 3: MJHMP City Community Resilience Actions

Action No.	Description	Priority	Admin. Dept	Potential Funding	Timeframe	Narrative Update/ Explanation
2	Develop a sustained public outreach program that encourages consistent hazard mitigation content. For example, consider publishing tsunami inundation maps in telephone books, wildland fire defensible space tips with summer water bills, and the safe handling and disposal of hazardous waste and chemicals with garbage bills.	High	City Clerk	General Funds, HMGP, and PDM Grants	0-1 years	The City has installed new tsunami warning signs along shoreline areas and beach access points. The City will be revamping its website in the next few years and can add information on hazard mitigation such as wildland fire prevention actions, evacuation routes, and hazardous waste disposal.
5	Develop and provide funding and/or incentives for defensible space measures (e.g., free chipping day, free collection day for tree limbs).	High	Fire	General Funds, HMGP, and PDM Grants	Ongoing	Due to staff and fund shortages, this item has not been implemented. The City has provided, and will continue to provide, inspection, information, and enforcement of fuel management on private property as appropriate.

General Plan Environmental Safety Element (2009)

Adopted by the City Council: 2009

The Environmental Safety Element focuses on reducing human injury, loss of life, property damage, and the economic and social dislocation caused by natural and human-caused hazards. The policies included in this element are intended to provide a framework to address natural and human induced hazards through prevention and emergency response. This element seeks to guide the continuous development of preventative measures that address existing and potential hazards, while also providing contingent emergency response procedures in the instance of a local or regional emergency.

The following issues were identified as relevant to the City of Carmel-by-the-Sea and are addressed in the Goals, Objectives, and Policies and Supporting Information sections.

- Earthquakes
- Landslides
- Drainage/Flooding
- Tsunami
- Fire
- Disaster Preparedness

The following policies from the safety element relate to storms, wildfire, sea level rise, drought, and increased temperatures:

P8-14 Educate the public regarding seismic, geologic, flood, fire, tsunami, and other potential disasters, by preparing periodic news articles for local media outlets, such as Carmel Pine Cone.

P8-16 Encourage property owners to retrofit older structures with fire detection and/or warning systems.

P8-19 Encourage new development located in or adjacent to fire hazard areas to incorporate fire preventative site design, access, landscaping and building materials, and other fire suppression techniques.

P8-20 Control excessive buildup of flammable vegetative material on vacant lots and within and adjacent to high severity fire hazard zones (such as Mission Trails and Pescadero Canyon), especially following wet springs.

c. Opportunities to build on Existing Community Adaptation Strategies:

The following opportunities to build on existing adaptation strategies were identified based on technical expert presentations at Committee meetings (Appendix B) and from the review of previous reports:

- Update City Planning guidelines to reflect and/or not conflict with current California codes (CBC Chapter 7 & CRC R337) in the Very High Fire Hazard Severity (VHFHS) Zone.
- Incorporate defensible space design in landscaping guidelines.

- Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Help spread information at critical times to increase resident awareness and knowledge of how to reduce wildfire risk and prepare for emergencies.
- Evaluate the feasibility of gaining Firewise Community Certification in Carmel-by-the-Sea.
- Consider updating the General Plan's Safety Element policy P8-17 to include "move or remedy existing" utilities in high severity fire hazard zones.
- Review and publicize the evacuation plan for the community in the event of a wildfire or other disaster.

Utilities

a. Water Supply

Integrated Regional Water Management Plan

The Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management Plan (IRWMP) was updated in 2019. Integrated regional water management in California is established as a way to increase regional self-sufficiency by encouraging local water resource managers to take a proactive role in solving water management problems through collaboration with stakeholders to create innovative strategies and effective actions to achieve water management objectives. The Monterey Peninsula Regional Water Management Group (RWMG), the body responsible for the development and implementation of the IRWM Plan, includes 17 local agencies and organizations, including the City. The Monterey Peninsula IRWM Plan region is approximately 350 square miles and includes the coastal cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside. Also included are the unincorporated portions of Monterey County in Carmel Valley, Pebble Beach, the Carmel Highlands, the Laguna Seca area, and a portion of the Ord Community.

The IRWMP has the following prioritized regional objectives, which support climate change resilience:

- Improve regional water supply reliability through environmentally responsible solutions that promote water and energy conservation. Protect the community from drought and climate change effects with a focus on interagency cooperation and conjunctive use of regional water resources.
- Protect and improve water quality for beneficial uses consistent with regional community interests and the RWQCB Basin Plan through planning and implementation in cooperation with local and state agencies and regional stakeholders.
- Ensure that flood protection strategies are developed and implemented through a collaborative and watershed-wide approach and are designed to consider climate change effects and maximize opportunities for comprehensive management of water resources.
- Ensure that erosion management strategies are developed and implemented through a collaborative and watershed-wide approach and are designed to consider climate change effects.

- Develop watershed scale management strategies, considering climate change effects and maximizing opportunities for comprehensive management of water resources.
- Preserve the environmental health and well-being of the Region's streams, watersheds, and the ocean by taking advantage of opportunities to assess, restore and enhance these natural resources when developing water supply, water quality, and flood protection strategies. Seek opportunities to conserve water and energy, and adapt to the effects of climate change.
- Adapt the region's water management approach to deal with impacts of climate change using science-based approaches, and minimize the regional causal effects related to water resources.
- Identify an appropriate forum for regional communication, cooperation, and education. Develop protocols for encouraging integration and reducing inconsistencies in water management strategies between local, regional, State, and Federal entities.

The IRWMP identified the high priority adaptation strategies included in Table 3 below. Additionally, within the City of Carmel-by-the-Sea, the following three projects were submitted as concept proposals for inclusion in the IRWMP and potential future grant funding:

- **Carmel-by-the-Sea Pilot Wet-Dry Weather Diversion Program:** The goal of this project is to capture and treat runoff to substantially reduce the pollutants that enter the Carmel Bay Area of Special Biological Significance (ASBS). This project proposes to install a diversion facility at the City's 4th Avenue and Ocean Avenue storm drains, which capture most of the residential areas on the north side of the City and the downtown area. These diversion facilities would capture dry weather, first flush and small storm runoff from approximately 170 acres (approximately 50% of the City's watersheds that drain directly to the Pacific Ocean at Carmel Beach). Runoff captured would flow to the sanitary sewer collection system and ultimately to the Carmel Area Wastewater District's Wastewater Treatment Plant where the water would be treated and beneficially reused for irrigation of landscape at the Pebble Beach property.

- **Forest Hill Park Creek Restoration**: The goal of this project is to reduce erosion of the drainage channel that flows through Forest Hill Park on the north side of the City of Carmel-by-the-Sea and provide sediment capture to improve water quality flowing to the Carmel Bay ASBS from the City's largest watershed. The restoration would consist of rerouting and stabilizing the creek channel, which is eroding and impacting tree roots, slopes and nearby pedestrian walkways. Reducing sediment loads that flow into the storm drain system and to Carmel Bay from the City will also reduce heavy metals that bind to sediments such as lead and particulate copper.

- **Park Branch Library-Devendorf Rainwater Capture**: The goals of this project are to harvest and use dry weather flows and storm water from the Park Branch Library site for irrigation of neighboring Devendorf Park. This project also proposes to install permeable pavement at the Park Branch Library to allow storm water to infiltrate into the ground instead of running off in the street. This project could be integrated with the proposed Sixth Avenue / Devendorf Park Plaza.

Table 4: IRWMP High Priority Climate Adaptation Strategies

ADAPTATION RESPONSE STRATEGIES TO THE EFFECTS OF CLIMATE CHANGE		
Climate Change Effects	**Adaptation and Response Strategies**	**Initial Actions**
Rangelands are expected to be drier	Prepare fire reduction strategies to protect watershed lands using ecologically sustainable strategies. Implement adaptation strategies to conserve California's biodiversity.	N/A
Domestic landscaping water needs will be higher	Integrate land use and climate adaptation planning	Education Incentive programs Demonstration programs Grey water Xeriscaping Expand water supplies (purple pipe) and storage Aquifer management
Decrease in local rainfall	Promote community resilience to reduce vulnerabilities: Food sustainability Implement water conservation and supply management efforts Manage watersheds, habitat, and vulnerable species	Education Incentive programs Demonstration programs Grey water Xeriscaping
Sea level rise and higher groundwater extraction will lead to increased rates of seawater intrusion	Prepare a regional sea level rise adaptation strategy Promote working landscapes with ecosystem services Integrate land use and climate adaptation planning	Education Incentive programs Demonstration programs Grey water Xeriscaping Expand water supplies (purple pipe) and storage Aquifer management Expand agriculture water conservation programs

Adaptation Response Strategies To The Effects Of Climate Change		
Climate Change Effects	**Adaptation and Response Strategies**	**Initial Actions**
Droughts will be more frequent and severe	Implement adaptation strategies to conserve California's biodiversity. Educate, empower, and engage citizens regarding risks and adaptation Integrate land use and climate adaptation planning Promote community resilience to reduce vulnerabilities	Human safety response Education Incentive programs Demonstration programs Grey water Xeriscaping Expand water supplies (purple pipe) and storage Aquifer management Expand agriculture and urban water conservation programs
Lower seasonal surface flows can lead to higher pollutant concentrations	Manage watersheds, habitat, and vulnerable species	Minimize non-point source pollution Buffers
Changes in storm intensity will increase sediment loading in many systems	Prepare fire reduction strategies to protect watershed lands using ecologically sustainable strategies	Erosion control on farms and creeks Buffers
Channel stability will be impacted from higher storm flows causing additional turbidity	Provide guidance on protecting critical creek/river ecosystems and development	Erosion control on creeks Wastewater and stormwater infrastructure vulnerability analysis
Sea level rise will impact current estuary brackish water interface towards more marine systems	Implement adaptation strategies to conserve California's biodiversity	Retain freshwater in watershed Habitat migration Buffers Erosion control
Regional levees will provide less protection during higher storm flow events	Support essential data collection and information sharing Manage watersheds, habitat, and vulnerable species Prepare a regional sea level rise adaptation strategy	Refurbish or expand levees or tide gates (upgrade priority infrastructure) Map/inventory infrastructure

Adaptation Response Strategies To The Effects Of Climate Change		
Climate Change Effects	**Adaptation and Response Strategies**	**Initial Actions**
Natural creeks throughout the region and managed conveyance within the Carmel Valley will see higher flow rates leading to increased erosion and flooding	Manage watersheds, habitat, and vulnerable species	Refurbish or expand levees or tide gates(upgrade priority infrastructure) Map/inventory infrastructure
Coastal levees and control structures will be undersized to manage the combined influences of higher flow events and sea level rise	Support essential data collection and information sharing Prepare a regional sea level rise adaptation strategy	Refurbish or expand levees or tide gates(upgrade priority infrastructure) Map/inventory infrastructure/levee locations and WCS, ownership Phase II task 5 activity 3 - ecosystem services - be aware of services available Elevations of levees and sea walls - maybe with PWA-management strategies USGS elevation data
State recommendations suggest no new critical facilities be built within the 200-year flood plain(DWR 2008, DWR 2009b, CNRA2009)	Integrate land use and climate adaptation Planning	Work with Monterey County and cities, Coastal Commission (local jurisdiction)
Migration patterns and species distribution will change	Establish a system of sustainable habitat Reserves	Reduce migration impediments (dams, etc.) Compile data on species distribution Primary focus species - amphibians, waterfowl, salmonids, redwoods, tide water gobies Maintain habitat corridors - contiguous areas Fish and Game - wildlife adaptation plan - vulnerability for key species for each region
Invasive species populations will expand	Habitat/ecosystem monitoring and adaptive management	What are the invasive species and their ranges? Will they expand, be introduced? How are the habitats shifting (awareness)? Ecological adaptation investigation and strategy

Adaptation Response Strategies To The Effects Of Climate Change		
Climate Change Effects	**Adaptation and Response Strategies**	**Initial Actions**
Coastal wetland systems are especially vulnerable to the combined influences of climate change	Establish regional policies to protect critical habitats Provide guidance on protecting critical coastal ecosystems and development	Identify critical habitats and ecosystems Integrate ecosystem management Regulatory mechanisms dedicated to protecting future locations of these areas Inventory of wetlands currently
Some locally unique species such as coastal redwoods and giant kelp are susceptible to changes in certain locally favorable climate variables (fog duration, coastal upwelling)	Manage watersheds, habitat, and vulnerable species	Identify how they will be impacted - What are the changes? USGS study outcome - get a better handle on modeling fog changes in climate change

b. Wastewater

Carmel Area Wastewater District Sea Level Rise Study

CAWD conducted a Sea Level Rise study for their wastewater treatment facility in 2018. According to CAWD's study, the sea level rise projections do not identify new hazards to the WWTP of greater concern than the 100-year flood risks that CAWD has previously planned for. However, increased storm intensities as well as higher sea levels may increase the base flood elevations. According to the study, increased storm intensity, as well as sea level rise, will not detrimentally effect the CAWD WWTP before the year 2062 under the"Extreme Risk Aversion" scenario. The study also identified facility retrofits needed to maintain operations of essential infrastructure. This will allow for 40 years of continued operation in the existing location while evaluating options of future improvements to increase flood resiliency vs. relocating the WWTP. Long term options for the facility seem to be:

- Retreat up Carmel Valley
- Pump to Monterey One Water

c. Opportunities to build on Existing Utilities Adaptation Strategies:

The following opportunities to build on existing adaptation strategies were identified based on technical expert presentations at Committee meetings (Appendix B) and from the review of previous reports:

- Provide information and incentives for residential water use reduction.
- Incorporate the Carmel projects included in the IRWMP into the City's 5-year CIP. Seek potential regional or State funding for projects.

Infrastructure

a. Local Infrastructure

General Plan Environmental Safety Element (2009)

Adopted by the City Council: 2009

The Environmental Safety Element focuses on reducing human injury, loss of life, property damage, and the economic and social dislocation caused by natural and human-made hazards. The following policies from the safety element relate to local utilities and infrastructure resilience to storms, wildfire, sea level rise, drought, and increased temperatures:

P8-7 Ensure that water, gas, and sewage utilities serving critical facilities are in good condition and are engineered to withstand damage from disasters.

P8-17 Avoid and discourage locating public structures and utilities in high severity fire hazard zone.

P8-18 Ensure adequate water supply for fire emergencies.

P8-30 Reduce flooding hazards in areas with flooding potential by improving drainage and minimizing the alteration of natural drainage and natural protective barriers that accommodate or channel floodwaters.

Multi-Jurisdictional Hazard Mitigation Plan (2015)

Prepared by: The Monterey County Hazard Mitigation Planning Team with Professional Planning Assistance from AECOM, June 2015

The following City-specific infrastructure and utility projects were included in the 2016 Multi-Jurisdictional Hazard Mitigation Plan:

Table 5: MJHMP Infrastructure and Utility Resilience Actions

Action No.	Description	Priority	Admin. Dept	Potential Funding	Timeframe	Narrative Update/ Explanation
1	Identify hazard-prone critical facilities and infrastructure and carry out acquisition, relocation, and structural and nonstructural retrofitting measures as necessary.	High	Planning and Building	HMGP and PDM Grants	Ongoing	The City has retained an engineering firm to assist in project management of Public Services Department hazard evaluation. The City will also be retaining an engineering consultant to evaluate the City's revetments and other shoreline protection structures in the next year or two.
4	Continue to conduct current fuel management programs and investigate and apply new and emerging fuel management techniques.	High	Fire	General Funds and PDM Grant	Ongoing	The City has provided for fuel management on City owned lands and will provide that service annually. Staff will explore the use of goats as a new method to do this work to improve the fuel management in steeper terrain areas.
6	Work with the Utility Companies (especially PG&E) to build and strengthen relationships to improve communication regarding emergency situations and develop an emergency response plan that includes all emergency responders and 911 communications.	Priority / Moderate	Public Safety/PD	General Funds	Ongoing	New action for 2014-2019.

b. Storm Drainage System

Storm Drain Master Plan (2020)

Prepared by: Schaaf & Wheeler for the City

The Storm Drain Master Plan was completed in 2020. The master plan identifies current system capacity, condition, and maintenance issues. The master plan also identifies 17 projects to restore the system's ability to handle a 10-year 24-hour storm without localized flooding in various locations in the City. The projects are shown on the map below (Figure 4) and listed, with cost estimates in Table 6. Modeling of a 16% increase in storm intensity that could be associated with Climate Change showed that, with the system upgrades outlined in the plan, most of the system could handle the increased storm intensity, with some localized flooding in Mission Trail Nature Preserve, the northeast part of the City, the 4th Avenue drainage, and the southwest near Santa Lucia Avenue. There is greater risk for flooding for larger storms as the city's drainage system was only designed for 10-year, 24-hour storms.

Figure 4: Map of Storm Drain Master Plan Projects

Table 6: Storm Drain Improvement Projects

Priority	Asset Name	Estimated Cost[1]
High Priority	Mission Street Bypass	$820,000
	Forest Hill Park – Emergency Repair	$130,000
	Santa Rita 1	$220,000
	High Priority Total	**$1,170,000**
Medium Priority	Junipero	$800,000
	Rio Road 1	$2,420,000
	Santa Rita 2	$170,000
	Ocean Ave	$250,000
	Santa Fe	$490,000
	Carpenter	$270,000
	11th and San Antonio	$400,000
	2nd and Monte Verde	$830,000
	Forest Hills Park - Realignment	$700,000
	Medium Priority Total	**$6,330,000**
Low Priority	2nd Avenue	$150,000
	5th and Junipero	$660,000
	Mission Trail Preserve Projects	$940,000
	Camino del Monte	$30,000
	Dolores	$20,000
	Rio Road 2	$140,000
	Lasuen	$460,000
	Low Priority Total	**$2,400,000**
Grand Total		**$9,900,000**

[1]Includes Contingencies (40%). 2020 Construction cost only. Construction cost includes mobilization, traffic control, trench, and surface restoration. Does not include costs associated with permitting, land acquisition, or other unforeseen special circumstances.

Implementation Status: *Initiated*. Staff is seeking funding to design and construct some priority repairs. Implementation included in the City's 5-year Capital Improvement Plan.

c. Shoreline Access and Protection Infrastructure

Shoreline Management Plan (2003)

Prepared by: David Shonman and Greg D'Ambrosio
Accepted by the City Council: September 2003

The Shoreline Management Plan provides an overview of the many resources of the Carmel coastline and management policies for long-term maintenance and enhancement of coastal resources. The Shoreline Management Plan includes information on erosion processes along the shoreline and the City's existing shoreline protection structures. A long-term coastal bluff erosion analysis was conducted by Johnson (1984), who analyzed aerial photographs from 1908 to 1983, and indicated that the coastal bluff was eroding at an average rate of 0.4 feet/year in the north and 0.3 to 0.7 feet/year in the southern portion. Aerial photograph analysis indicated some periods of extreme bluff erosion, including the loss of at least 20 feet of bluff near 13th Avenue and near Martin Way between 1968 and 1970.

Approximately 50% of the City's shoreline protection structures are seawalls. Most of Carmel's seawalls have held up well over the years. One seawall built in 1978 failed, apparently due to poor design. Since 1978, the City has used rock revetments to protect nearly one quarter of its shoreline.

Shoreline Management Plan Policies supporting sea level rise adaptation:

- Pursue scientific studies that document physical processes occurring at Carmel Beach (e.g. sediment transport, sand bar dynamics, influences from the Carmel Bay offshore canyon).
- Limit development along the Carmel shoreline to facilities that support passive and active recreational activities, beach access, bluff protection and protection of infrastructure. Bluff protection and protection of infrastructure shall be permitted only when required to protect existing structures that are in danger from erosion.
- Discourage any further incursion of recreational activities into the North Dunes habitat. Sensitive resources in the North Dunes habitat area shall be protected.
- Protect the fragile dunes and sensitive plants in the Del Mar Dunes and North Dunes against any significant disruption of habitat values.
- Maintain records of sand moved and the volumes needed to cover each revetment. When revetments fail or need to be substantially reconstructed, consider vertical seawalls as an alternative.
- Construct new shoreline armoring in areas previously unprotected only when required to protect existing structures in danger of erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.
- Obtain and maintain an accurate digitized map of the Carmel shoreline to develop the City's beach management and maintenance policies. Analyze historic beach trends using aerial photo analysis and other available tools. Update topographic information at least every 5 years and analyze shoreline changes to facilitate early identification of erosion hot spots, sand losses/gains, migration of revetments, and other long-term impacts.
- Place a series of permanent surveyed benchmarks inland of the bluffs running the length of Carmel Beach for long-term monitoring.
- Protect public access, Scenic Road, and the aesthetic character of the coast by maintaining existing seawalls and engineered revetments. When any existing seawalls or revetments need to be replaced or substantially reconstructed, review other beach management strategies and

determine the best balance among objectives for access, aesthetics, and protection of coastal resources. Protect the natural character and features of the Del Mar and North Dunes by prohibiting the construction of any new shoreline protective structures unless required to protect existing structures in danger of erosion.

- Sand and bluff profiles shall be surveyed in 2003 and 2005 to establish a baseline. Thereafter, a set of sand profiles shall be taken at five-year intervals, beginning in 2010 to establish an on-going record of shoreline trends on Carmel's beaches and bluffs. For each set of profiles, measurements shall be taken at mid-winter (lowest sand level), at spring (prior to sand redistribution activities), at early summer (after sand redistribution), and in the early fall (before offshore retreat).
- After each 5-year period of monitoring beach sand elevations, review available data to make preliminary determinations on the effects of seawall structures and sand redistribution activities.
- If data indicate that the beach has been losing sand over time, investigate options for beach nourishment using offshore deposits or other sources matching Carmel Beach sand.

Geotechnical Inspection of Carmel Beach Shoreline Improvements (2016) and 2016 Shoreline Assessment Update

Inspections of the City's shoreline infrastructure were conducted in the winters of 2015 and 2016 by Easton Engineers. The inspection noted that the shoreline improvements were in acceptable condition with relatively minor repairs required. The Inspection results included the recommendations shown below in Table 7. Additional recommendations were included in the 2016 Shoreline Assessment Update and are included in Table 8.

Table 7: Recommendations from the Geotechnical Inspection of Carmel Beach Shoreline Improvements (2016)

Location	Recommendation
4th Avenue Outfall	Replacement of the outfall structure should be considered in the next few years, with a focus on how drainage can be appropriately released in a non-erosive manner. Additional recommendations: Prevent public access atop the structure and inspect the outfall structure when the beach is scoured and the structure's base is exposed.
10th Avenue Stairs Retaining Wall and Revetment	Settled portions of revetment should be restacked. Stairs, walls, and and revetments should be inspected when the beach is scoured.
10th Avenue Retaining Wall	Wall footing appears in good condition. Inspect when the beach is scoured.
Revetment south of 11th Avenue Stairs	Downcoast third of the revetment should be monitored. Additional large rip rap should be added to the downcoast third of the revetment and this portion keyed into bedrock and restacked to a more stable configuration.

Unprotected bedrock at 12th Avenue outfall	Inspect location when the beach is scoured so the base of the bluff is exposed. To protect the base of the bluff from undercutting, rip-rap revetment may be extended downcoast to a point just beyond the storm drain outfall.
Cove North of 13th Avenue Point	The wall's footing and repaired areas should be monitored and infilled with concrete as needed to help prevent further undermining. Remaining undercuts should be filled. Where constructed on potentially unstable material, the footing of the retaining wall should be underpinned. Restack fugitive rip-rap.
Retaining wall just north of 13th Avenue Point	Footing is significantly undermined and should be protected from further erosion by restacking the seaward revetment or constructing a deepened footing.
Rip-rap at Santa Lucia Stairs	The blufftop should be monitored for continued signs of erosion. The toe of the revetment should be monitored when the sand is scoured.
Seawalls between Santa Lucia & Martin Way	Wall segment A footing should be protected from further undermining by constructing a deepened footing or a rip-rap revetment across the areas of concern. The undercut, exposed portions of the footing should at a minimum be infilled with structural concrete to prevent further undermining. A deepened footing along the entire A through F wall segments will improve the stability and longevity of the walls. Alternatively, a rip-rap revetment along the base of the walls will help prevent continued undermining.
Martin Way Stairway	A concrete pedestal or piers should be constructed at the base of the stairs to support the stairs.

Table 8: Recommendations from the 2016 Carmel Shoreline Assessment Update

Location	Recommendation
Revetments: Unstable Rip Rap	Carmel's shoreline revetments should be regularly monitored (especially after the end of the storm season); perched riprap should be re-stacked and exposed revetments covered with redistributed sand whenever feasible.
Revetments: Migrated Riprap (12th & 13th Ave. Coves)	The re-stacking of migrated riprap should be conducted the next time conditions allow. This will best be accomplished if conducted during low sand conditions. Such work has been conducted in the past, but usually during periods of significant sand scour, a condition that is often accompanied by strong waves and a narrowing of Carmel Beach. This operation should be conducted with the advice of a qualified geotechnical specialist. It should be planned in advance so that all necessary preliminary steps (including funding, permits, and contracts) can be in-place of ahead of time, increasing the chances that it will be completed before the high sand level returns.
Stairways: general	The extensive list of stairway repairs recommended in the Graebe report (dated March 2, 2015) should be addressed as soon possible.
Shoreline Landscape Barriers (SLBs)	The Shoreline Landscape Barriers should be redesigned during FY 2016/2017, and rebuilt as soon as feasible. Their design should

Location	Recommendation
	conform with Carmel's design traditions, and the new barriers should be able to be maintained, repaired and replaced by staff. The installation and locations of the new SLBs should be coordinated with the re-surfacing of the Pathway and re-vitalization of the Carmel bluff-top landscape. Because people often trampled landscape vegetation to walk over to the SLBs, it has been suggested that new barriers be placed within 12-18" of the Pathway.
Monitoring Program	An effective monitoring program should be developed to be conducted by City staff as they work along the shoreline. This program would take advantage of the skills of staff as well as their familiarity with the Carmel shoreline. If done correctly, it will encourage staff to report conditions that are not necessarily in their direct area of responsibility. Asking staff to be alert for conditions of concern as they work along the shore would serve as a "force multiplier," greatly expanding the City's ability to address conditions at an early, more manageable, stage.
Stairway Closures	To protect the safety of those who use Carmel's shoreline stairways, the City should employ effective methods for closing these access ways when conditions warrant. Such methods should involve physical barriers, clearly worded signage and enforcement. City staff should also focus on re-opening the stairways to public use, once safer conditions return.

Implementation Status: *Partially initiated.* Public Works closes stairways to the public when hazardous conditions exist. Essential repairs to the stairs have been made. A landscape design was created and approved by the Planning Commission that incorporated restoration of the shoreline landscape barriers.

d. Regional Infrastructure

Climate Change Vulnerability Assessment Summary Report: Caltrans District 5 (2019)

Prepared by: Caltrans

Caltrans' District 5 incorporates the Counties of Monterey, Santa Cruz, San Benito, San Luis Obispo, and Santa Barbara. The Summary Report presents information on potential vulnerabilities to the Caltrans District 5 portion of the State Highway System (SHS), including climate stressors and their potential effects on how highways are planned, designed, built, operated, and maintained. Identified vulnerabilities are summarized below:

- Higher temperatures:
    - Higher temperatures could cause expansion that deteriorates bridge joint seals, which could accelerate replacement schedules, and even affect bridge superstructure.
    - Extreme heat could affect employee health and safety, especially for those working long hours outside.

    - High temperatures for extended periods could increase the need for protected transit facilities along roadways.
    - Right-of-way landscaping and vegetation must be able to survive longer periods of high temperatures.
    - Pavement quality will be affected by long-term temperature changes
- Wildfires:
    - Much of the SHS lies within high fire hazard zones.
    - Maintenance issues associated with wildfires for the SHS include: increased erosion and runoff, increased landslide potential, debris blocking culverts and bridges during rain events, destruction of signs and guardrails, damage to culverts and bridges
- Sea Level Rise:
    - SHS impacts from sea level rise are expected to be significant in Monterey County. Significant impacts of combined sea level rise and storm surges to Highway 1 are expected in the low-lying areas between Moss Landing and Castroville, and south of Carmel-by-the-Sea where the highway crosses the mouth of the Carmel River. Additionally, cliff erosion is expected to impact Highway 1 in Big Sur.

Additionally, Caltrans will need to consider the role of the SHS during a disaster when planning for climate change. The SHS is the backbone of most county-level evacuation plans and often provides the only high-capacity evacuation routes from rural communities. State highways also serve as the main access routes for emergency responders, and may serve as a physical line of defense such as a firebreak, an embankment against floodwaters, etc. As climate-related disasters become more frequent and more severe, this aspect of SHS usage will assume a greater importance that should be reflected in highway design.

e. Opportunities to build on Existing Infrastructure Adaptation Strategies:

The following opportunities to build on existing adaptation strategies were identified based on technical expert presentations at Committee meetings (Appendix B) and from the review of previous reports:

- Determine the feasibility of undergrounding power lines in Mission Trail Nature Preserve and in priority transportation corridors in the VHFHZ
- Upsize SDMP improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.
- Consider incorporating green infrastructure in street and sidewalk projects to reduce runoff volumes into the City's storm drain system.
- Earmark CIP funding for design, permitting, and implementation of storm drain repairs. Include strategies in 2021 MJHMP for potential regional funding.
- Reinstate beach sand monitoring program described in the Shoreline Management Plan.
- Implement bluff structural monitoring program and do follow-up monitoring post-storm to identify additional footing stability issues.

- Earmark CIP funding for design, permitting, and implementation of repairs. Include strategies in 2021 MJHMP for potential regional funding.
- Reach out to local researchers (e.g. CSUMB) or other sources to conduct Carmel Cove sand supply dynamics analysis.
- Hire a coastal engineer with experience in planning for climate change to conduct:
    - Further assessment of the risks to our coastal assets, including sea walls, revetments, bluffs, stairs and access, public bathrooms, parking areas, drainage infrastructure, and utilities.
    - Determine adaptation measures and LCP policy options.
        - Prioritize adaptations and projects that protect and maintain public resources and beach access, and the viability of the community and tourism.
        - Determine how the options and strategies along the coast are different for the:
            - Mostly natural, unarmored North Dunes area
            - Mostly armored bluffs along Scenic Road south of 8th Avenue
            - Unarmored dunes along private property between 8th Avenue and Del Mar Parking Lot
            - Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area).
        - Evaluate feasibility and phasing, the use of thresholds for when different elements of these strategies are implemented. For example, maintaining armory or other defenses up to a point, but then if a threshold is reached, embracing a new bluff line and different adaptive measure.
- Update Shoreline Management Plan and LCP based on results of coastal engineering analysis.
- The City has an opportunity in 2021 to provide an updated list of projects to include in the MJHMP Update. The City should include a comprehensive list of projects based on its existing plans, as well as identified gaps in this Vulnerability Assessment.

VIII. Vulnerability Scoring Matrix

The vulnerability scoring matrix incorporates the potential threat of a climate hazard with the existence of current policies to mitigate hazards to vulnerable assets and populations. The matrix provides information to identify and prioritize vulnerable assets and populations that have not yet been addressed by City policies or projects.

Color coding:

- Already causing observable impacts or a near-term significant risk
- Mid- to long-range impacts
- Not enough data

YES Some policy/action initiated
NO No policy/action initiated

Priority Assets at Risk	Priority Hazards						
	Stronger Storms	**Wildfires**	**Sea Level Rise**	**More Droughts**	**Increased Temperature**	**Fog changes**	**Ocean Warming**
Natural Assets							
Mission Trail Nature Preserve	YES	YES	X	YES	YES	X	
North Dunes			**NO**	YES	YES	X	
Urban Forest	YES	**NO**		YES	**NO**	X	
Marine Sanctuary	X			X	X	X	X
Carmel Beach	YES		YES			X	X
Community							
Elderly population and people with disabilities	**NO**	**NO**		**NO**	**NO**		
Residents	YES	YES		YES	**NO**		
Visitors	**NO**	**NO**					X
Local Businesses	**NO**	**NO**	**NO**	YES	**NO**		X
Service industry workers	**NO**	**NO**	**NO**		**NO**		
Second homes	YES	YES	**NO**				
Utilities							
Water Supply		YES	YES	YES	YES		
Sanitary Sewer System	X		YES				
Power Grid	**NO**	**NO**			**NO**		
Overhead communication	**NO**	**NO**			X		

Priority Assets at Risk	Priority Hazards						
	Stronger Storms	Wildfires	Sea Level Rise	More Droughts	Increased Temperature	Fog changes	Ocean Warming
PG&E/communication underground lines (gas, cable)		NO	NO				
Regional Infrastructure							
Wastewater Treatment Facility	YES		YES		X		
Transportation Infrastructure (Caltrans)	YES	YES	YES				
Hospital and emergency medical care facilities	X	X			X		
Landfill & Waste Management	YES		X				
Local Infrastructure							
Shoreline Access Infrastructure: Scenic trail, public restrooms, beach stairs, coastal roadways, and parking	YES		YES		X (visitors)	X	
Seawalls and revetments	YES		YES				
Storm drainage system	YES		YES				
Emergency response facilities (Fire station, EOC, PD, PW, City Hall, etc.)	YES	YES			NO		

IX. Conclusion And Next Steps

The Climate Change Vulnerability Assessment provides the basis for the City to develop a Climate Adaptation Plan by identifying existing hazards, assets and communities at risk, as well as actions that have already been taken that enhance climate change resilience. The Climate Committee should utilize the Vulnerability Scoring Matrix and the list of opportunities to build on existing strategies as a starting point to identify and prioritize potential climate change adaptation strategies.

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APPENDIX A

APPENDIX A - Historical Hazards

Data sources for historical hazards include: Monterey County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), the National Oceanic and Atmospheric Administration (NOAA) Storm Events Database, and historic records at the Carmel Library

Disaster Type (Storm, drought, wildfire, heat event)	**Date**	**Location**	**Local Impact**
Storm	Winter of 1982/83	Monterey Peninsula	El Niño winter. During this period, severe winter storms struck Carmel every 10 days. More sand was removed from the beach than at any previous time in the memory of long-term residents or documented history. Additionally, heavy rains overwhelmed the City's storm drain system. Uncontrolled stormwater flows washed away portions of the City's coastal bluffs and undermined beach access stairways. Between 1983 and 1988, the entire Scenic Road storm drain system was rebuilt with larger drain pipes and catch basins, and moving outfalls to less erosive locations. Johnson (1984) recorded several areas of significant erosion during the 1982/83 winter: - Loss of 20 feet of bluff north of 8th Avenue, - Loss of 25 feet of bluff between 10th and 11th Avenues, - Loss of 30 feet of bluff between 8th and 9th Avenues, - Loss of 30 feet of bluff near Santa Lucia Avenue, - Loss of 40 feet of bluff between 9th and 10th Avenues.
Wildfire	July 1987	Pebble Beach/Carmel	The fire that rushed up a canyon and destroyed 32 homes in Pebble Beach on May 31 was fueled by acres of dead underbrush and thick stands of trees, according to a forester who toured the area Thursday . Bill Ruskin, a vegetative management coordinator with the California Department of Forestry and Fire Protection in Felton, said after the tour: "It was a situation that was waiting to happen." Ruskin described the devastated residential area as one located in a "perilous" position, on top of a box canyon containing an "incredible number of stems per acre — about 200 to 300 per acre." Fanned by strong winds and funneled by steep terrain, the fire raced up the canyon as it burned dense underbrush and released gases that ignited above the tree crowns, creating a "crown fire" effect, Ruskin said. Ruskin collected fuel data in Del Monte Forest to simulate the path of the fire in a computer model. He said results would not be available until later this summer. "It may or may not verify whether the response should have been different," Ruskin said. In the computer model, Ruskin said, he will be able to use fuel data, topography and weather conditions to determine ways to manage the forest and devise ways to fight further fires in the area. As for the disastrous Sunday afternoon when heat from an illegal campfire ignited pine needles and set off the tragic chain of events,

			leaving 49 people homeless, Ruskin said the heat was so intense from the fire that houses began burning just from the radiated heat instead of flames. "The point is that you had so much heat going up that canyon," said Ruskin, 36, who has been a forester with CDF for five years and received a forestry management degree from the University of California at Berkeley. The point of origin of the fire has been determined as being on forested property owned by Pebble Beach Co. and adjacent to the Morse Botanical Reserve. Notified of Results The property was surveyed Tuesday by Pebble Beach Co., which notified the Del Monte Forest Foundation, owner of the botanical reserve, of the results in a letter this week. Ruskin said that dead materials, including fallen limbs and pine needles, burned the thickly packed Monterey pine trees and sent gases above the ground smoke to be fanned by oxygen and winds. The intense gaseous fire created "radiated and convected" heat that spared few of the homes." Only the houses made of stucco and not having wood on the outside and one with double-pane windows were able to withstand the heat," Ruskin said. "It was not a crown fire in those trees," Ruskin said. "... Flames shooting up and over the trees could very well have been gases going up to meet oxygen in the wind. That's where they were being ignited." In the wake of the fire, Ruskin said, the bad news is that many of the trees in the 160-acre swath cut by the four-day blaze did not survive. However, he said, seeds released by exploding pine cones will regenerate the forest. Alternative Vegetation Ruskin said that as equipment is used to clear trees and brush, now is a good time to consider alternative vegetation — coastal and coyote brush — that would stay succulent throughout a fire season and be less likely to add fuel to a fire. Ruskin added that selective hand-cutting of trees could also be done in forest management. Controlled burns, Ruskin said, can be effective but "it may not be aesthetically desirable from what we learned at Point Lobos." Foresters learned that a controlled burn last October at Point Lobos led to "an unexpectedly high amount of tree mortality." "The Monterey pine is a shallow-rooted tree," Ruskin said. "Even in a controlled burn, you are killing a lot of roots." In addition, Ruskin said, the controlled burn at Point Lobos created "burning pitch pockets," which also weaken trees. "I'm not sure that a prescribed burn is an acceptable management alternative," Ruskin said. Ruskin observed after the tour that the fire appeared to have fed on pine trees 60 to 80 years old and "petered out" in younger trees. Mission Trail Park Ruskin also toured Camel's Mission Trail Park to assess the amount of fuel there that could lead to fire. Ruskin recommended to Gary Kelly, Carmel city forester, that some clearing of brush and fallen trees should take place and that a "pre-suppression plan" should be devised for the park area. Ruskin said that "fire-retardant vegetation" should be planted at the park rather than pine trees. Ruskin said the Mission Trail Park area did not have as much stored fuels as the Pebble Beach area. "He didn't seem to find any major concerns other than cleanup and a pre-fire plan," Kelly said. Ruskin was invited to tour the area by Kelly and Roy Perkins, CDF district fire chief.

Heat Event	April 1988	Monterey Region	Hot temperatures Sunday in the mid-80s in Monterey and into the low-90s in Carmel Valley set weather records for April 10. Monterey's high temperature of 86 degrees at 2 p.m. topped the record of 80 degrees in 1968 for the date, according to Robert J. Renard, observer in Monterey for the National Weather Service. It also marked only the seventh time in 37 years of recordkeeping that the temperature reached 86 or higher during a day in April, he said. There has never been an 86-degree reading recorded in Monterey for January, February and March, he said, and Sunday's high temperature was the third earliest recording of an 86 or higher in a calendar year. Twice in previous years on April 2, the temperature climbed to 86 or above, with 88 and 87, respectively. Sunday's low temperature in Monterey also was a record. The 57 degrees was the highest minimum not only for April 10 but also for this early in the calendar year, Renard said. Meanwhile, in Carmel Valley, where temperatures on hot days are typically up to 10 degrees warmer than Monterey, the high temperature got up to 93 after an early morning low of 51, according to Graham Matthews, who keeps weather records for Carmel Valley. The 93 reading, which set a record for the date, topped the previous mark of 85 degrees set in 1968, Matthews said. Source: Monterey Herald, April 1988
Storm	January 1995	Monterey Region	In January 1995, sustained precipitation fell throughout the region and over 125 residential properties in the Carmel Valley sustained damage. Two months later, Monterey County experienced a second significant winter storm, which resulted in further sustained precipitation falling on already saturated watersheds. Devastating flooding occurred throughout Monterey County, particularly in the unincorporated communities of Castroville, Mission Fields, Carmel Valley, Cachagua, Carmel Highlands, Spreckels, and Big Sur. Over 1,500 residences and 100 businesses were damaged.
Storm	January 10, 1995	Carmel Area	A Monterey County Sheriffs deputy evacuates two elderly residents from their flooded Mission Fields neighborhood home in Carmel on January 10,1995. According to a new study, extreme weather swings — a historic drought followed by drenching winter storms that cause flooding — will become the norm over coming generations. Source: Monterey Herald, April 2, 2018
Wildfire	Oct – Nov 1996	Northern Big Sur	This fire known as the Big Sur fire began Oct 18 near Ventana Camp Park. Much of the fire occurred in the Ventana wilderness area. 2500 Fire fighter participated. 4400 acres were burned. Light rain helped control fire. The cost of fighting the fire is estimated 12.3 million. 180 fire engines were used. 13 helicopters and 3 air tankers were used.
Storm	December 21, 1996	Monterey Peninsula	2.96" of rain in 11 hours at Monterey, Seaside had 2.5"and Marina had 2.12". Streets and intersections were flooded in Monterey, Del Rey Oaks, Pacific Grove, Carmel Highlands, and Carmel. HWY 101 N of Salinas was flooded.

Wildfire	September 1999	Carmel Valley	A surface low off the CA Coast brought tropical moisture and mild instability over the coastal CA are and lightning continued through the night over the entire Central Coast and San Francisco Bay area. Kirk Complex (consisted of Tassajara, Five, Big Pine, Elephant, Lone Pine, Freed, 7, Torre, Devil, Kirk and Hare Fires) Complex was divided into the North and South Components). Cause: Lightning strikes Location: In the Ventana Wilderness approximately 20 miles Southeast of Carmel, CA. Monterey Co. Size: 85,634 acres (as of 10/19/99) Containment: October Fatalities: none Structures Lost: none Cost: $66.9 million (as of 10/19/99)
Storm	January 2008	Monterey Peninsula	Strong coastal storm brought flooding rains, high winds, record high surf and coastal flooding to Monterey County and resulted in nearly $1 million in property damages. Approximately 30 homes in the Carmel Lagoon area were affected by some degree of flooding.
Wildfire	December 2013	Northern Big Sur	The Pfeiffer Fire started on December 17th 2013 around midnight in the vicinity of Pfeiffer Ridge in the Monterey Ranger District of Los Padres National Forest. The fire burned 917 acres. Thirty four (34) residence and 4 outbuildings were damaged/destroyed. The fire was declared contained on December 20 2013 at 6:00 p.m.
Storm	January 8, 2017	Monterey Peninsula	Potent atmospheric river bringing heavy rain, strong southerly winds, and storm surge issues. This AR is following a normal to slightly above normal 3 month period, meaning the grounds were saturated. Three to four feet of standing water at Casa Verde Road and SR 1N.
Storm	February 9, 2017	Monterey Peninsula	A cold front passed over the area Thursday Feb 9. There were strong winds ahead of the front and heavy rains associated with the frontal passage that produced roadway flooding and debris flows.
Storm	February 20, 2017	Monterey Peninsula	Potent AR brought copious amounts of rain to the region causing widespread flooding, debris flow, accidents, and over topping of reservoir spillways. Roadway flooding on Quail Meadows Dr in Carmel Valley. Large section of roadway flooded, vehicles sliding.
Lightning / Wildfire	September 11, 2017	Central Coast/Monterey County	A disturbance rotating around an upper level low west of San Diego brought thunderstorm activity to the Bay Area on September 11. Widespread reports of lightning were received along with a few small hail reports and strong wind gusts. It has been reported that there were over 40,000 lightning strikes across the Central Coast of California during this event. Several brush fires were also ignited due to lightning strikes.

			Various lightning strikes sparked 15 fires in Monterey County that were contained on the same day http://www.mercurynews.com/2017/09/13/crews-contain-15-fires-started-by-lightning-in-monterey-county/. Timing has been estimated.
Storm	November 29, 2018	Monterey Peninsula	A mid/upper level low moved through the region at the end of November. A cool unstable air mass allowed for the development of scattered thunderstorms across the region that produced lightning and small hail. An associated surface low approached the coast during this time causing high surf and gusty winds. Some locations saw wave heights above 25 feet. This system caused roadway flooding, minor debris flows, and downed trees along with damage from gusty winds. Flooding at Hwy1 and Hwy 68.
Storm	January 2019	Carmel/Monterey Peninsula	After a strong cold front brought severe weather to the Central Coast on Wednesday night, the cleanup process began Thursday. Pacific Gas & Electric Co. crews worked to restore power after more than 10,000 Monterey Peninsula customers lost power due to the storm. Power was restored to about half of those without power by early afternoon Thursday and spokeswoman Mayra Tostado said PG&E was aiming to restore power by the evening to customers without any access issues caused by mudslides, flooding or blocked roads…. According to Carmel City Administrator Chip Rerig, a significant trunk line transformer just outside the city blew up, causing a citywide power outage. In Carmel, 12 streets were closed due to trees that fell on electrified wires. City crews began cleaning up the streets after PG&E removed trees touching or adjacent to live wires. "The storm last night hit us hard," Rerig wrote in a post to Carmel's website. "Fortunately there have been no reported injuries to residents, guests, staff, or contractors." The city opened the Carmel Youth Center as a warming center, welcoming residents to stop by and charge their mobile devices and get a cup of coffee or water. Speaking by phone Thursday afternoon, Rerig said city staff worked with PG&E to open up many of the streets that had been closed and explained the city came together overnight into Thursday to respond to the storm damage. "We really had a great concerted effort last night with our police department, our public works, who are fantastic, Monterey Fire (Department), which is our contracted fire services, responded to 1 think 32 calls, we had a series of volunteers, our Community Emergency Response Team and a litany of other staff members," he said. People from Senior Helping Seniors checked in on some of the city's elderly population to make sure they were OK during the outage. The Carmel Unified School District canceled classes and activities at all of its schools for Thursday due to the road closures and power outages but planned on opening its schools Friday. Source: Monterey Herald, Jan 18, 2019
Storm	February 4, 2019	Monterey Peninsula	A mid/upper low with a very cold air mass moved through in early February bringing snow to lower elevation peaks across the region prompting a rare Winter Weather Advisory. Junipero Serra Peak received around a foot of snow. Rainfall just ahead of this

			system also brought roadway flooding and minor debris flows. Carmel River flooding near Mid Valley. SR 1 at Rio Rod culvert is flooding, water going over the roadway.
Storm	November 30, 2019	Carmel	A low pressure system moving in from the Gulf of Alaska and drawing in moisture from the tropics combined to bring the first atmospheric river event of the winter season to the Greater Bay Area. This system brought widespread heavy rainfall, roadway flooding, and strong winds to the region. Rare Storm Warnings were issued over the coastal waters where buoys reported wind gusts in excess of 50 mph. Bay Area peaks recorded wind gusts between 60 to 70 mph with gusts along the Monterey Peninsula and Big Sur Coast at 50 to 60 mph. These winds caused downed trees and power outages across the area. Street at 3438 Martin Rd in Carmel, CA is flooding along with potential flooding at residence as water is being diverted down reporting party's driveway.
Storm	December 3, 2019	Carmel	A low pressure system moving in from the Gulf of Alaska and drawing in moisture from the tropics combined to bring the first atmospheric river event of the winter season to the Greater Bay Area. This system brought widespread heavy rainfall, roadway flooding, and strong winds to the region. Rare Storm Warnings were issued over the coastal waters where buoys reported wind gusts in excess of 50 mph. Bay Area peaks recorded wind gusts between 60 to 70 mph with gusts along the Monterey Peninsula and Big Sur Coast at 50 to 60 mph. These winds caused downed trees and power outages across the area. Carmel River Lagoon rose significantly overnight after 3 to 5 inches of rain fell over the Carmel River Basin. The Monterey OES phoned to say Public Works tried to breach the Lagoon and was unable to do so in time so the surrounding area had to be evacuated due to flooding. Minor Street flooding was observed along 15th, 16th, 17th Ave as well as Carmelo St and Scenic Rd. The unofficial flood stage of the Carmel River Lagoon is 10 ft. The gauge exceeded 10 ft during this time period before the Lagoon was breached and the water level fell dramatically just after 1 am.
Wildfire	August - September 2020	Central Coast, Carmel Valley	A prolonged and oppressive heat wave swept the Central Coast and Bay Area for almost a week from August 14th to August 19th with widespread record breaking temperatures observed across the region. This was caused by a strong high pressure system over the Desert Southwest that expanded westward into California. This dome of heat brought hot temperatures to the area for several days. Multiple days of triple digit afternoon highs were recorded inland with some coastal locations even reaching the mid-90s. Several days of hot and dry weather further dried fuels over the area increasing fire danger. During this event, a surge of monsoonal and tropical moisture from a former Tropical Storm advected northward with sufficient instability to generate multiple high based and dry thunderstorms that produced several thousand lightning strikes over the Greater Bay Area. Many locations saw wind gusts of 40-50 mph with isolated areas seeing gusts of 60-75 mph. This prompted the San Francisco Bay Area forecast office to issue a rare severe thunderstorm warning. These lightning strikes in combination with gusty and erratic outflow winds sparked hundreds of wildfires across the state of California. Several smaller

			fires combined to form complexes some of which are now among the largest wildfires in state history. Most of which were still actively burning at the end of August. Hundreds of thousands of acres have been burned with several hundred structures destroyed as well as a handful of deaths and injuries. Tens of thousands of residents were also forced to evacuate. Additionally, all of these wildfires burning simultaneously across the state gave the Bay Area the worst air quality in the world at one point. Lightning sparked the River Fire in Monterey County on the afternoon of the 16th. Several evacuation orders were issued throughout the month and four people including fire personnel and civilians were injured. Both the River and Carmel Fires caused smoke and ash to rain down on surrounding cities. The River Fire continued to burn through early September. A total of 48,088 acres burned with 30 structures destroyed, 13 damaged, and 4 injuries https://www.fire.ca.gov/incidents/2020/8/16/river-fire/.

Figure E-11. Historic Wildland Fires

Monterey County, California
Multi-Jurisdictional Hazard Mitigation Plan

URS

Carmel-by-the-Sea | Marina | Pacific Grove | Seaside
Del Rey Oaks | Monterey | Sand City

Monterey Bay

Pacific Ocean

Santa Cruz County | Santa Clara County | San Benito County | San Luis Obispo County | Fresno County | Kings County

Pajaro | Las Lomas | Aromas | Moss Landing | Elkhorn | Prunedale | Castroville | Boronda | Salinas | Spreckels | Chualar | Gonzales | Soledad | Greenfield | King City | San Lucas | San Ardo | Bradley

Pacific Grove | Marina | Sand City | Monterey | Seaside | Del Rey Oaks | Carmel-by-the-Sea | Del Monte Forest (Pebble Beach) | Carmel Valley Village

Los Padres National Forest | Hunter Liggett Military Reservation | Camp Roberts Mil. Res. | Attachment 3

Monterey Peninsula Airport | Marina Municipal Airport | Salinas Municipal Airport | King City Municipal Airport | City of Seaside Not Considered in Plan

Gonzales | Salinas | Soledad | King City | Greenfield

N | W | E | S

339.07 degree rotation for all views

County Map Scale

1 inch equals 4 miles

0 1 2 4 6 8
Miles

City Inset Map Scale

1 inch equals 1.5 miles

0 0.75 1.5 2.25 3
Miles

Legend

- Census Designated Place

Jurisdictional Boundaries
- County Boundary
- City Limits, Monterey County
- National Forest
- Military Reservation

Circulation
- US Highway
- State Highway
- County Highway
- Major Roads
- Local Roads *(City Insets Only)*
- Active Railroad (Union Pacific)

Hydrology (Perennial and Intermittent)
- Lake or Pond
- River, Creek or Tributary
- Artifical Path, Canal/Ditch or Connector

Basemap
Hillshades created from USGS 1" (county-wide) and 1/3" (city insets) National Elevation Dataset.

- Fire Perimeters (1911 - 2005)

Fire Occurrence 1986 - 1996
Total Acres Burned
- 1 - 30
- 31 - 300
- 301 - 1000
- 1001 - 3000
- 3001 - 8850

Data Sources: County of Monterey - GIS Department, URS Corporation, US Geological Survey (USGS), US Census Bureau, University of California Santa Barbara (UCSB), HAZUS-MH MR2, Fire Sciences Laboratory - Rocky Mountain Research Station, Fire and Resource Assessment Program - California Department of Forestry and Fire Protection (CDF-FRAP)

T:\Monterey_County\RHMP\deliverables\E11_HistoricWildlandFires.mxd

APPENDIX B

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet for Wastewater Treatment Facility and Associated Underground Infrastructure

September 17, 2020

TO:	Climate Committee Members
SUBMITTED BY:	Jeff Baron, Councilmember

SUMMARY

Asset: Wastewater treatment facility and associated underground infrastructure (CAWD)
Hazards: Sea level rise, Stronger Storms, More variable rainfall
Version: 2

General Comments and Outlook: The Carmel Area Wastewater District treatment facility (and underground infrastructure) will be under increasing environmental pressure as sea level rises and storms (and hence rainfall drainage down the Carmel River watershed) increase in intensity. CAWD's prediction is that the facility will need to be relocated by 2062, which is approximately 40 years in the future. The long term options for the facility seem to be

1. Retreat up the valley
2. Pump to Monterey One Water

Identified Issues:

- Both long term projects are said to be expensive, in the neighborhood of $100,000,000.
- It will take a significant amount of time to make the decision as to which path to take.
- The value (cost) of the current facility (which may have to be abandoned) is approximately $200,000,000
- The lagoon situation will become increasingly precarious as time passes.

Outstanding Issues:

- Do not understand (yet) an overrun scenario if the move is not completed in time. What are the consequences and/or costs if the plant is flooded during an extreme weather event?
- Of lesser visibility but still important are possible mitigation measures required for the CAWD underground and pumping infrastructures, particularly along the coastline.

Possible Committee Comments or Actions for Final Report

- The committee could/should recommend that the Carmel City Council pass a resolution on this topic, ensuring that the city monitors the transition towards a relocated plant, and perhaps has formal, written input into this process. The resolution might:
    - Document the asset and the various hazards
    - Assign staff/council personnel as liaisons to CAWD, with an eye towards resolution of this asset's vulnerability
    - Urge CAWD to take specific actions

REFERENCES

Attachment 3

- The CAWD Sea Level Rise Study can found at https://www.cawd.org/2018-sea-level-rise-study
- The CAWD presentation to the Committee: https://ci.carmel.ca.us/sites/main/files/file-attachments/ccc_presentation_v3.pptx?1600365293
- Recording of the September 17, 2020 Meeting at which CAWD presented: https://drive.google.com/file/d/1PZK0tP8b2jB_XoTtBJLPcXmLVEl9kY1Z/view

HISTORY

- Version 1 presented at Committee meeting on 10/15/2020
- Version 2 presented at Committee meeting on 11/19/2020.

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet for the Urban Forest

October 15, 2020

TO:	Climate Committee Members
SUBMITTED BY:	Scott Lonergan, Committee Member

SUMMARY

Asset: Urban Forest
Hazards: Stronger Storms & Wind, More Variable Rainfall, Increased Temperature, Wildfires
Version: 1

General Comments and Outlook:

- Carmel-by-the-Sea's upper canopy trees impart a distinctive ambiance and identify to the City, and provide several climate adaptation benefits including reducing urban heat island effect, capturing stormwater runoff, improved air quality, and sequestering carbon
- Increased transpiration and water demand, coupled with less consistent water availability as a result of fewer, larger storms, and reduced fog, is increasing tree stress
- Tree species selection and density is a 50 to 100-year decision with implications for 1) tree resilience and ecology, 2) aesthetics, and 3) safety and maintenance cost

Identified Issues:

- Our urban forest lacks age and species diversity and is currently showing signs of stress.

Remaining Issues to be Understood:

- Urban forest consideration as part of Action Plan e.g. carbon capture, walkability and desirability of the environment

Possible actions to be recommended in the committee's Final Report

- Update the CBTS Forest Management Plan, including a public process to determine tree canopy species and density objectives, and a process for ongoing monitoring and plan review.

REFERENCES

- CBTS Forest Management Plan: https://ci.carmel.ca.us/sites/main/files/file-attachments/forest_management_plan_0.pdf?1510272614
- Sara Davis, City Forester 15-Oct-2020 Climate Change Committee presentation video: https://carmel.novusagenda.com/agendapublic/VODPreview.aspx?meetingVideoID=898ec714-3a25-42a8-ae8f-2441cf4c1440&index=329
- Canopy.org including the 16-Jul-2020 Resilient Trees for a New Climate webinar, including presentations from Igor Lacan, and Dave Muffly: https://canopy.org/more-trees-please/

History

- Version 1 presented at committee meeting on 11/19/2020
- Sent for comments to Sara Davis (City Forester) on 11/10/2020

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet – Community Wildfire Preparedness

October 15, 2020

TO:	Climate Committee Members
SUBMITTED BY:	John Hill, Committee Member

SUMMARY

Asset: Public and Private Property, Public Safety
Hazards: Local Fires and Wildfire damage due to accumulated dry fuel & increasing wind and weather events.
Version: 1

General Comments and Outlook: The severity of fires and wildfires in California continues to increase in intensity and occurrence. California had low intensity fires until the logging of old growth forests, the introduction of grazing and invasive grasses, indigenous burning was replaced by fire suppression, and urban sprawl invaded the wildland areas. Community wildfire preparedness is supported by Monterey Fire's Defensible Space Inspection Program and coordination with surrounding fire prevention organizations to limit fire and wildfire risk through planning, prevention, and mitigation. Monterey Fire and the Carmel Public Works Department have working relationships with the Pebble Beach Services District for fire mitigation in Pescadero Canyon, and partner with the Friends of Mission Trail Nature Preserve for fuel reduction in Mission Trail Nature Preserve. CalFire's Fire & Resource Assessment Program (FRAP) and Fire Hazard Severity Zone (FHSZ) maps are available on line with information on forest assessment, fire severity zones, and defensible space. Monterey Fire personnel have inspected and graded all Carmel parcels as pass, pending, or fail. Grading criteria is evolving as knowledge on fire spread is developed. Current criteria is based on dry fuel accumulation, spark arrestors, overhanging tree limbs, etc.

Identified Issues:

- Some northern and eastern areas within City limits are within the Very High Fire Hazard Severity and Wildland Urban Interface (WUI) Zones.
- Some areas within the City limits and adjacent communities have accumulated fuel levels as well as overhead infrastructure (i.e. Mission Trail Park) that present fire and wildfire risks.
- An integrated approach to fire resilience in the landscape along with hardening structures against fire are ways to mitigate fire impact on lives and property.
- Fire resiliency can be controlled by creating defensible space with Fire Defense Zones around structures, an ignition zone (5 feet), a defense zone (30 feet) and reduced fuel zone (100 feat)
- Fuel is affected by the height and placement of plants & their chemical content. Pine forests and Oak woodlands are resilient but dead material and limbed branches in the understory must be maintained.
- Fire retardant plants, trees, and ground covers can absorb heat and fire without burning, trap embers, reduce wind speed, and slow the travel of a fire.
- 9 out of 10 structures lost are due to low intensity ground fire and embers in the 5-foot zone around them. Combustible materials such as decks, wood chips, and plant material should not be located within 5 feet of nor attached to the structure.

- Vents and windows are the most vulnerable areas in a house, gaps in vent screening should be no more than 1/8" maximum and plants should not be located near or below windows.
- The City's Building Department has adopted the California Building Code requirements in the Very High Fire Hazard Zone but the City's planning guidelines currently do not address them or may be in conflict with them.

Possible actions to be recommended in the committee's Final Report

- Carmel City Council consider fire hazard severity and evacuation plans in the safety elements of the General Plan and monitor the level of fire hazards within and surrounding the community. Resolutions and/or Ordinances could include:
    - Documenting the various existing hazards.
    - Assigning staff/council personnel as liaisons to CalFire (Cypress Fire District), and adjacent communities which could threaten Carmel in a wildfire.
    - Assist Monterey Fire in its current efforts in inspecting and identifying fire risks.
    - City Forester consider fire retardant trees and plants in City controlled areas and for tree replacement requirements for private property.
    - Update City Planning guidelines to reflect or not conflict with current California codes (CBC Chapter 7 & CRC R337) in the Very High Fire Hazard Severity (VHFHS) Zone.

REFERENCES

- Fire and Resource Assessment Program (FRAP) ResilientCA.org
- Monterey Fire Defensible Space Inspection Program mry.maps.arcgis.com , monterey.org/fire
- CalFire Defensible Space/Home Hardening readyforwildfire.org
- CalFire Fire Severity Zone Viewer gis.data.ca.gov
- Wildland Urban Interface (WUI) frap.fire.ca.gov
- Every Building's Wildfire Risk in Monterey County defensibleapp.com
- The A.I.A. Designing for Fire Presentation http://youtu.be/MWslhXidZnc

History

- Version 2 presented at committee meeting on 12/17/2020

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet for the Multi-Jurisdictional Hazard Mitigation Plan

November 19, 2020

TO:	Climate Committee Members
SUBMITTED BY:	Agnes Martelet, Environmental Compliance Manager

SUMMARY

Asset: multiple
Hazards: multiple
Version: 1

General Comments and Outlook:

- The Multi-jurisdictional Hazard Mitigation Plan (HMP) was presented by Kelsey Scanlon of the Monterey County Office of Emergency Services. The HMP establishes a broad local vision and guiding principles for reducing hazard risk, and proposes specific mitigation actions to reduce identified vulnerabilities. The plan is due for renewal in 2021.

- This plan helps local jurisdictions comply with the climate change planning requirements of SB 379, and also allows them to be eligible for pre- and post-disaster mitigation project grant funding from the Federal Emergency Management Agency (FEMA).

- Objectives of the HMP include:
    - Protect life and property
    - Minimize economic losses
    - Enhance community resilience
    - Reduce burden on local government and taxpayers
    - Break the cycle of repetitive disaster damages
    - Speed disaster recovery
    - Integrate hazard mitigation planning with other local planning and decision-making

- The HMP addresses the impacts of Climate Change and shares many objectives with Climate Adaptation Plans. Identified hazards that will be exacerbated by Climate Change in Monterey County include: wildfires, flooding, coastal erosion, landslides and debris flows, extreme heat and drought, human health hazards, and mass migration.

Identified Issues / To-do:

- Each of the 12 cities in the County will provide mitigation strategies and projects to include into the HMP. By including projects into the HMP, jurisdictions may be eligible for FEMA grant funding.

Possible Committee Actions

- The Committee could provide feedback and recommendations for hazard mitigation projects to include in the HMP. The Monterey County Office of Emergency Services anticipates soliciting comments and projects in the Spring of 2021.

REFERENCES

- Monterey County Hazard Mitigation webpage: http://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/hazard-mitigation

History

- Version 1 presented at committee meeting on 12/17/2020

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet – Storm Drain Master Plan

December 17, 2020

TO:	Climate Committee Members
SUBMITTED BY:	Agnes Martelet, Environmental Compliance Manager

SUMMARY

Asset: Public and Private Property, Public Safety
Hazards: Flooding due to stronger storms
Version: 1

General Comments and Outlook: The Director of Public Works presented the City's first Storm Drain Master Plan (SDMP), which was completed in 2020. The plan includes an evaluation of the physical condition of the existing storm drain system, a hydrologic and hydraulic analysis, and a prioritization of improvements to fix deficiencies and capacity issues. With the proposed improvements outlined in the SDMP at an estimated cost of $9.9 million, the drainage system could handle a 10-year storm (3 inches in 24 hours) without flooding.

Identified Issues:

- The City's storm drain system was built to handle only a 10-year storm; it was less costly to construct over the years but incurs the potential for more frequent flooding due to reduced capacity. Most agencies have storm drainage systems that accommodate 20-year storms.

- Repairs are needed for the system to currently be able to handle a 10-year storm.

- Climate change may cause storm intensities to increase by 12 to 20%. Models indicate that, with larger storms, some flooding may occur in the northeast part of the City, the southwest corner near Santa Lucia, and in Mission Trail Nature Preserve, even with improvements.

Possible actions to be recommended in the committee's Final Report

- Funding of the SDMP projects as part of the City's CIP and including them in the Multi-jurisdictional Hazard Mitigation Plan for potential FEMA funding.
- Upsizing pipes as repair projects are conducted so that critical components of the system can eventually handle larger storms

REFERENCES

- Carmel-by-the-Sea Storm Drain Master Plan: https://ci.carmel.ca.us/sites/main/files/file-attachments/complete_final_sdmp_report_september_2020_small.pdf?1602098761

History

- Version 1 presented at committee meeting on 2/18/2021

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet for the Beach, Bluff, Coastal Armoring, Public Infrastructure, and Private Property

February 18, 2021

TO:	Climate Committee Members
SUBMITTED BY:	Scott Lonergan, Committee Member

SUMMARY

Asset: Beach, Bluff, Coastal Armoring, Public Infrastructure, and Private Property
Hazards: Sea Level Rise, Stronger Storms and Waves, More Variable Rainfall
Version: 8-Feb-2021

General Comments and Outlook:

- It is not widely understood that the climate change threat to coastal infrastructure, private property, the beach, along with the associated impacts on tourism and Carmel's economy, is so substantial, and that the potential solutions so complex.
- Nearly the entire coastline south of 8th Avenue has been armored by a combination of seawalls, vertical or stepped retaining walls, or engineered rock revetments. Secondary impacts to armoring often include escalating maintenance costs, and the loss of beach, aesthetics, and ecology.
- Coastal erosion and storm events already pose a threat, and climate change driven sea level rise and storm intensity will dramatically increase that threat.
- Longer term, the degree to which the City should, or can, forestall the natural processes driven by climate change is not fully understood.

Identified Issues:

- The frequency and duration of beach inundation and wave attack on armoring and natural barriers is increasing. The impacts of armoring on beach sand loss, as well as the seasonal migration of sand on and off shore, has not been investigated.
- The natural erosion processes along the mostly unarmored North Dunes area will accelerate bluff retreat and potentially create space for the beach to migrate inland. North Dune habitat at the retreating bluff would be reduced in this case.
- Seawall integrity is being compromised by ongoing erosion of the relatively soft sandstone base of some seawalls. Equipment access to areas on the beach required for completing repairs and maintenance is increasingly limited.
- Public infrastructure at risk along the coast including Scenic Road and the bluff walkway, beach access stairways, bathrooms, armoring, Del Mar Avenue beach parking, and some utilities.
- Private property at risk along the coast including: 1) that along Scenic Road, 2) that between 8th Avenue and Del Mar Avenue, and 3) that at the north end of the City (Pescadero Canyon area).
- The need to educate the community about the climate change threat to coastal infrastructure, private property, the beach, and the associated impacts on tourism and Carmel's economy, along with the potential solutions.

Remaining Issues to be Understood (in Preparation for the Committee's Final Report):

- Engagement of a coastal engineer with experience in planning for climate change in an LCP context.
    - Further assessment of the risks to our coastal assets.

- Determine adaptation measures and LCP policy options. Draft updated or new LCP for certification with the Coastal Commission.
    - Prioritize adaptations and projects that protect and maintain public resources and beach access, and the viability of the community and tourism.
    - Coordinate with regional partners (e.g. County, Pebble Beach) and align with the Coastal Commission on acceptable plans.
    - Determine how the options and strategies along the coast are different for the:
        - Mostly natural, unarmored North Dunes area
        - Mostly armored bluffs along Scenic Road south of 8th Avenue
        - Unarmored dunes along private property between 8th Avenue and Del Mar Avenue
        - Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area).
    - Evaluate feasibility and phasing, the use of thresholds for when different elements of these strategies are implemented. For example, maintaining armory or other defenses up to a point, but then if a threshold is reached, embracing a new bluff line and different adaptive measure.
    - Consider legal liabilities, coastal armoring and building regulations, real estate disclosures, and fiscal impacts.
    - Community-wide outreach and education, including that focused on exposed property owners.

- Actions independent of engaging a coastal engineer including:
    - Characterize erosion hot spot areas of particular concern along the City's coastline based on maintenance records, historical knowledge, and further assessment.
    - Research Carmel Cove sand supply dynamics through the engagement of local experts (e.g. CSUMB, NPS) or other resources.
    - Assess risks with the USGS Coastal Storm Modeling System (CoSMoS).
    - Investigate and, if appropriate, apply for pre-disaster planning and mitigation funding from the State or other sources.
    - Amend City documents, if appropriate, to enable the request of FEMA disaster relief post-disaster.

Possible Actions to be Recommended in the Committee's Final Report

- Update the CBTS Shoreline Management Plan and the General Plan / LUP.
- Proactive sourcing or contracting for repair resources prior to episodic events.

REFERENCES

- Coastal Resource Management Element of the Carmel-by-the-Sea General Plan: https://ci.carmel.ca.us/post/general-plan
- Carmel-by-the-Sea / Shoreline Management Plan: https://ci.carmel.ca.us/post/additional-forestry-division-resources
- David Shonman and Greg D'Ambrosio 19-Nov-2020 Climate Change Committee presentation slides: https://ci.carmel.ca.us/sites/main/files/file-attachments/shonman_-_ccc_presentation_-_final_nov_19_2020.pdf?1605903015
- USGS representative, Andrea O'Neill, 17-Dec-2020 Climate Change Committee presentation video: https://carmel.novusagenda.com/agendapublic/MeetingView.aspx?MeetingID=922&MinutesMeetingID=510&doctype=Agenda
- California Coastal Commission and Local Government Public Workshop on 17-Dec-2020 to discuss sea level rise planning in an LCP context: https://documents.coastal.ca.gov/reports/2020/12/SM-Th3/th3-12-2020-report.pdf

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History

- Version 8-Feb-2021

CITY OF CARMEL-BY-THE-SEA

Water Supply Summary

January 21, 2021 Meeting

TO:	Climate Committee Members
SUBMITTED BY:	Michael LePage, Committee Member

SUMMARY

Asset:
Monterey Peninsula water supply

Hazards:
Seasonal drought, climate warming, sea level rise

General Comments and Outlook:
California is located in a drought-prone area of the United States. Even though there are yearly seasonal variations in rainfall, the average temperature in California is trending up. This is the result of climate change. A warming climate leads to the increase of drought frequency and duration.

Additionally, climate change is predicted to increase local sea level rise by 1.5 meters by the century's end. Storm surges along with high tides and extreme weather events will result in much higher levels of sea level rise. This will have an impact on the local water delivery infrastructure which is located in the areas of projected sea level rise.

The Monterey Peninsula's water supply has historically been provided by the Carmel River, local reservoirs and ground water. The State Water Resources Control Board has issued a Cease and Desist Order, 95-10, that requires California American Water Company (CalAm) to reduce its unlawful pumping of water from the Carmel River. The original pumping deadline has been extended to 2021. In response to the Cease and Desist Order, CalAm is pursuing a permit for a desalinization water treatment plant located in Marina that would utilize slant wells to source seawater for desalinization.

Simultaneously with this project, the Monterey Peninsula Water Management District (MPWMD) has worked in collaboration with 9 local agencies to create the Pure Water Monterey Project. The project sources water from four sources, domestic waste water, agriculture produce water, agriculture waste water and storm water. By the use of advanced water recycling technology, all these water sources are purified to provide potable water for domestic and agricultural use. Additionally, the project injects seasonal water flows into the Seaside aquifer to provide ground water replenishment. The project potentially will provide one third of the water demand for the area it serves.

Identified Issues:
- California is located in a drought-prone area of United States.
- Average temperatures are trending upward because of climate change
- Global warming is causing dryer weather patterns resulting in more frequent droughts.

- The State Water Resources Control Board has issued a Cease and Desist Order (95-10) to reduce unlawful pumping from the Carmel River.
- The proposed desalinization plant requires a cumbersome permitting process resulting in an expensive water source.
- Climate change is causing sea level rise that will impact water related infrastructure, both delivery and waste treatment

Possible actions to be recommended in the committee's Final Report

- Keep informed regarding the Carmel Lagoon Ecosystem Protective Barrier and the Scenic Road Protective Barrier System.
- Provide maps of predicted sea level rise for the required shore line assessment reports
- Review city infrastructure opportunities for implementing additional water conservation measures

REFERENCES

- Monterey Peninsula Water Management website, https://www.mpwmd.net/
- Pure Water Monterey Project, https://purewatermonterey.org/
- Monterey Peninsula Integrated Regional Water Plan, https://www.mpwmd.net/environmental-stewardship/irwm-program/final-draft-monterey-peninsula-integrated-regional-water-management-plan-update/
- Carmel Lagoon Ecosystem Protective Barrier and Scenic Road Protective Barrier System, https://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-/planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road-

History

- Version 1 presented at committee meeting on 4/15/21

CITY OF CARMEL-BY-THE-SEA

2018 Draft Greenhouse Gas Inventory Summary

February 18, 2021 Meeting

TO:	Climate Committee Members
SUBMITTED BY:	Evan Kort, Associate Planner

SUMMARY

Asset:
2018 Draft Greenhouse Gas (GHG) Inventory

Hazards:
N/A

Key Terms:

- Baseline Year: A specific year against which emissions are tracked over time.
- Greenhouse gases (GHG): Carbon dioxide (CO2), methane (CH4), and nitrous oxide (N20). Emissions are expressed in equivalents of carbon dioxide (CO2e).
- Community Greenhouse Gas Inventory: A calculation of GHG emissions generated as a result of activities within a community.

General Comments and Outlook:
The Association of Monterey Bay Area Governments (AMBAG) has prepared GHG Inventories for member agencies for 2005, 2010, 2015. Starting 2018, in partnership with Central Coast Community Energy (3CE), AMBAG is preparing GHG Inventories for 3CE member jurisdictions for 2018, 2019, and 2020 –this 2018 GHG Inventory was prepared as part of the MOU between AMBAG and 3CE.

The state of California has adopted a baseline year of 1990 for statewide targets. The 2020 target (AB 32) was to return to 1990 emission levels, and the 2030 target (SB 32) is a 40% reduction from 1990 levels with the 2050 target (executive order: S-3-05) being an 80% reduction from 1990 levels. In 2018, the Governor signed an executive order (B-55-18) with the goal of achieving carbon neutrality by 2045. Most cities do not have 1990 inventories and it is not possible to go back and establish a 1990 baseline. Therefore, in order to quantify targets, most cities use 2005 inventories and assume emissions increased by approximately 15% between 1990 and 2005.

The emission inventory is broken into 5 sectors: Residential, Commercial/Industrial, Transportation, Solid Waste, Wastewater. Residential and commercial/industrial sectors inventory electricity and natural gas emissions. The transportation sector is an inventory of emissions resulting from travel on local roads in the City of Carmel-by-the-Sea. Solid waste is an inventory of emissions from the waste that is generated by the community and sent to the landfill, and wastewater is an inventory of emissions from the treatment of wastewater.

AMBAG gathered data directly from PG&E and 3CE for electricity and natural gas consumption. Transportation data is gathered from an annual report prepared by the California Department of Transportation (CalTrans) that looks at the amount of Vehicle Miles Traveled on local roads as well as the CARB's EMFAC model, which is used to estimate emissions based on on-road travel. Solid waste data is obtained from CalRecycle's annual

report as well as characteristic studies that study the composition of materials in the landfill. Lastly, wastewater data is gathered from a population-based method that uses the population to estimate the emission.

2018 Inventory Findings:

- Electricity between 2005 to 2018 has become cleaner. Electricity use has remained stable; however, the carbon intensity of the electricity has been drastically reduced (likely due to the local energy procurement being taken over by 3CE).
- Data sources have reported less and less travel on local roads over time resulting in a reduction in GHG for the transportation sector.
- Solid waste being sent to the landfill from the city has decreased significantly (46% emission reduction) and the composition of the solid waste being sent to the landfill is less impactful in 2018 than it was in 2005.
- Wastewater: not discussed.

Identified Issues:

- The California Air Resources Board (CARB) is required to update their Scoping Plan every 5 years. The scoping plan was last updated in 2017, prior to the executive order establishing a goal of carbon neutrality by 2045 so the carbon neutrality target has yet to be included in the Scoping Plan (80% reduction by 2050 is still the official target). When the scoping plan is updated in 2022, the 2045 carbon neutrality target will likely be included in the Scoping Plan and is expected to be the main target moving forward. There is still uncertainty regarding 2045 vs 2050 goal.
- The significant decrease in GHG emissions in the transportation sector may be the result of a change in methodology by CalTrans in preparing their annual report, which may account for some or most of the reduction in GHG emissions. The report provided to AMBAG from CalTrans is a finished product that does not provide the opportunity to evaluate the methodology used.
- CalRecycle reports the solid waste data and the reason for the significant decrease in emissions is unclear.

Possible actions to be recommended in the committee's Final Report

- Maintain the 2030 goal outlined in SB 32. Although there is still uncertainty regarding the 2045 vs 2050 goals, the Committee is interest in using the more rigorous 2045 carbon neutrality target as its goal for emissions reductions.
- Re-evaluation of emissions may be required as a result of possible changes in methodology that may have impacted the outcomes of the inventory. Consultant assistance will be required in making a determination regarding the accuracy of the inventory and methodology.

REFERENCES

- City of Carmel Draft 2018 Greenhouse Gas Inventory
- EMFAC Model: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools

History

- Version 2 presented at committee meeting on 7/15/21

Attachment 3

CITY OF CARMEL-BY-THE-SEA

Central Coast Community Energy

February 18,2021 Meeting

TO:	Climate Committee Members
SUBMITTED BY:	Agnes Martelet, Environmental Compliance Manager

SUMMARY

Asset:
Power Supply

Hazards:
Greenhouse gas emissions

General Comments and Outlook:
Central Coast Community Energy (3CE, formerly Monterey Bay Community Power) is a Joint Powers Authority with 33 municipal members to deliver energy throughout the Central Coast. 3CE delivers the energy to the power grid that is operated by PG&E locally. 3CE has a goal to reach 100% clean and renewable energy by 2030, although they have clarified that there will be times of the day when there will be natural gas on the grid for reliability when renewables are not available.

Regionally, 3CE is investing in technology to increase supply and storage capacity for reliable and clean power. Locally, 3CE is investing in programs to increase the pace of electrification, including in the transportation and construction sectors, and in the agricultural industry. 3CE also provides an incentive for local municipalities to adopt reach codes for energy conservation and electrification to reduce the use of natural gas in the built environment. Reach codes are more advanced or enhanced building codes that go above and beyond the State's building code requirements.

Identified Issues:

- Providing 100% clean energy power supply is challenging due to the times of energy use that do not always match the times of peak power supply from renewable sources. Thus, natural gas will remain a source of energy on the power grid.

Possible actions to be recommended in the committee's Final Report

- Consider taking advantage of 3CE's reach code incentive to amend the City's municipal code to increase the pace of energy conservation and electrification in local construction projects.

REFERENCES

- 3CE Presentation at the Climate Committee meeting: https://carmel.novusagenda.com/agendapublic/VODPreview.aspx?meetingVideoID=5ddd8ae3-bf7f-456c-8c9f-38f55eeb55a6&index=3004
- 3CE Energy Programs: https://3cenergy.org/energy-programs/

History

- Version 1 presented at committee meeting on 5/20/21

CITY OF CARMEL-BY-THE-SEA

Hazard and Asset Summary Sheet for Electrical Grid Resilience

May 20, 2021

TO:	Climate Committee Members
SUBMITTED BY:	Jeff Baron, Councilmember

SUMMARY

Asset: Electrical Grid
Hazards: Stronger Storms, Increasing temperatures
Version: 1

General Comments and Outlook: The electrical grid in Carmel has been historically somewhat unreliable during weather events, with outages affecting from half a block to the entire community. In the future, we could see causes of disruptions (related to climate change) include:

1. Larger weather events (storm damage to power line infrastructure.)
2. Public safety power shutoffs (related to the threat of wildfire during wind events along transmission lines.)
3. Supply shortages (related to grid shortages, as seen during the summer of 2020.)

Identified Issues:

Grid failure can lead to numerous effects, including:

- Residential – spoiled food, cold and dark homes
- Commercial – essential businesses shuttered
- Tourism – loss of income of reputation
- Government services impacts (police and fire, public works)

Outstanding Issues:

- Would be good to have access to PG&E Grid map to better understand power grid
- Ask PG&E for historical outage map (or list) with causes
- Work with PG&E to understand possible PSPS transmission lines. Which lines are subject to these? How does this effect Carmel?
- PG&E: Microgrids
  - Power sources within the power grid?
  - Could we get power from somewhere else, some dedicated “outside line” not subject to power outages?
- Community business survey to determine which businesses are grid resilient

Possible Committee Comments or Actions for Final Report

Explore and make recommendations on possible mitigation measures:

- Prevention
  - Tree planning and maintenance - Work with PG&E to prioritize tree trimming
  - Explore the possibility of undergrounding select or all utility lines (via with property assessments)
- Personal resiliency
  - Require new homes to be “ready” for home power storage
  - Require homes to be “EV ready” (also helps with GHG metrics.)

    - Explore new home requirements for home power generation (solar, fuel cells, generators)
- Carmel resiliency
    - Explore areas in which Carmel should or could provide resiliency services to local residents and business, beyond the simple continuation of essential government services. For example:
        - Warming or cooling areas
        - Electrical phone and other small appliance charging facilities
        - Food and other supplies (for visitors)
        - Communication infrastructure
- Regional resiliency
    - Explore possible peninsula microgrid

REFERENCES

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HISTORY

- Version 1 presented at Committee meeting on 5/20/2021

CITY OF CARMEL-BY-THE-SEA

2018 Draft Greenhouse Gas Inventory Summary

January 21, 2021 Meeting

TO:	Climate Committee Members
SUBMITTED BY:	Carrie Theis, Committee Member

SUMMARY

Asset:
Regional recycling, waste processing and disposal facility

Hazards:
Methane gas emissions

General Comments and Outlook:
The Monterey Regional Waste Management District is located north of Marina and has been operating since 1951 to handle the waste processing and disposal along with recycling for the Monterey Peninsula. Over the years they have added programs to their facility producing an integrated approach to reduce, reuse and recycle the waste produced on the Monterey Peninsula.

The decomposing of waste materials and organics creates methane gas. Extraction of methane from the landfill creates renewable power for the use by the District and Monterey 1 Water (M1W) to help produce recycled water. Soon the District will be converting landfill gas to Compressed Natural Gas (CNG) to provide fuel for the trash trucks. CNG is a carbon negative fuel. The extraction of methane gas from the landfill produces 5 megawatts of power and the CO2 offset is about 22,000 tons per year.

Windrow Composting is used to manage organics processing to produce compost for nearby organic farms. This process keeps the yard trimmings and organics out of the landfill and creates a nutrient rich compost. It has been shown that applying ¼" of compost (California Carbon Project) to grasslands will improve the soil environment for over a 100 years. Plants thrive more by pulling CO2 out of the air to help offset greenhouse gas emissions. A more widespread application of compost could work to reverse climate change by becoming a carbon bank.

Food recovery and organics processing has become a priority for the State of California with the implementation of AB1826 in 2014 for the mandatory commercial organics recycling and SB1383 in 2016 to mitigate climate change with the Short-Lived Climate Pollutant Reduction Strategy.

The goal of SB1383 is to divert 75% of organic material from the landfill and 20% of edible food for recovery by 2025. To try to obtain the goal of 75% diversion of organic food waste, the waste haulers will be Implementing the collection of residential food waste sometime this year. To handle the increased tonnage of organic materials, the Waste Management District will need to implement a larger anaerobic digesting system to prevent the methane gas from being released into the environment. The edible food recovery part of this bill will be accomplished by having the restaurants partner with the Monterey County Food Bank.

Identified Issues:

- The challenges will be to meet the diversion goals set by the State by continuing to educate the public about recycling and introduce the concept of organics waste diversion. The program logistics of diverting edible food from the restaurants to the Monterey Fook Bank program is yet to be determined.

REFERENCES

- Monterey Regional Waste Management District website – www.mrwmd.org.
- Monterey Regional Waste Management District presentation to the Climate Committee: https://www.youtube.com/channel/UCAu0elLwM1JCDkzD7Js86mA

History

- Version 1 presented at committee meeting on 8/19/21

Stakeholder and Public Input

This appendix includes presentation slides, the Mural activity completed at the virtual public workshop in November 2021, and responses to comments.

Appendix C
Outreach

Appendix C
Outreach

Presentation Slide Deck from September 16, 2021, Climate Committee Meeting

RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

City of Carmel-by-the-Sea

Potential Climate Adaptation Goals, Policies, and Actions

Climate Committee Meeting

Photo by Chris Leipelt on Unsplash

Vulnerability Assessment

- Carmel-by-the-Sea is experiencing and will continue to experience
  - Stronger storms
  - Increased wildfire risk
  - Sea level rise
  - Extended drought conditions
  - Increased temperature

Vulnerability Assessment

- Identified gaps
- Opportunities to build on existing adaptation strategies

Color coding:
- Already causing observable impacts or a near-term significant risk
- Mid- to long-range impacts
- Not enough data

YES Some policy/action initiated
NO No policy/action initiated

Priority Assets at Risk	Priority Hazards						
	Stronger Storms	Wildfires	Sea Level Rise	More Droughts	Increased Temperature	Fog changes	Ocean Warming
Natural Assets							
Mission Trail Nature Preserve	YES	YES	X	YES	YES	X	
North Dunes			NO	YES	YES	X	
Urban Forest	YES	NO		YES	NO	X	
Marine Sanctuary	X			X	X	X	X
Carmel Beach	YES		YES			X	X
Community							
Elderly population and people with disabilities	NO	NO		NO	NO		
Residents	YES	YES		YES	NO		
Visitors	NO	NO					X
Local Businesses	NO	NO	NO	YES	NO		X
Service industry workers	NO	NO	NO		NO		
Second homes	YES	YES	NO				

Potential Adaptation Strategies Table

- Structure
  - Goals – Broad statements describing community desires
  - Policies – Specific position statements that support the achievement of goals and serve as guides to the City when making decisions
  - Actions – Specific methods to implement and achieve policies and goals.

Potential Adaptation Strategies Table

- Action Sources
  - Carmel-by-the-Sea Vulnerability Assessment
  - State/Regional Plans
    - Safeguarding California Plan: 2018 Update, California's Climate Adaptation Strategy, California Natural Resources Agency
    - Southern California Adaptation Planning Guide
      - Appendix F – General Plan and Local Coastal Plan Model Policies
      - Appendix B – Matrix of Adaptation Strategies and Actions
  - Local Plans and Ordinances
    - Pacifica All-Electric Reach Code
    - Berkeley Existing Building Electrification Strategy

Principles for Implementable Actions

6 principles to consider when selecting adaptation actions

1. Measurable increase in resilience
2. Institutional structures
3. Funding
4. Engagement
5. Partnership
6. Equity

Photo by Adomas Aleno on Unsplash

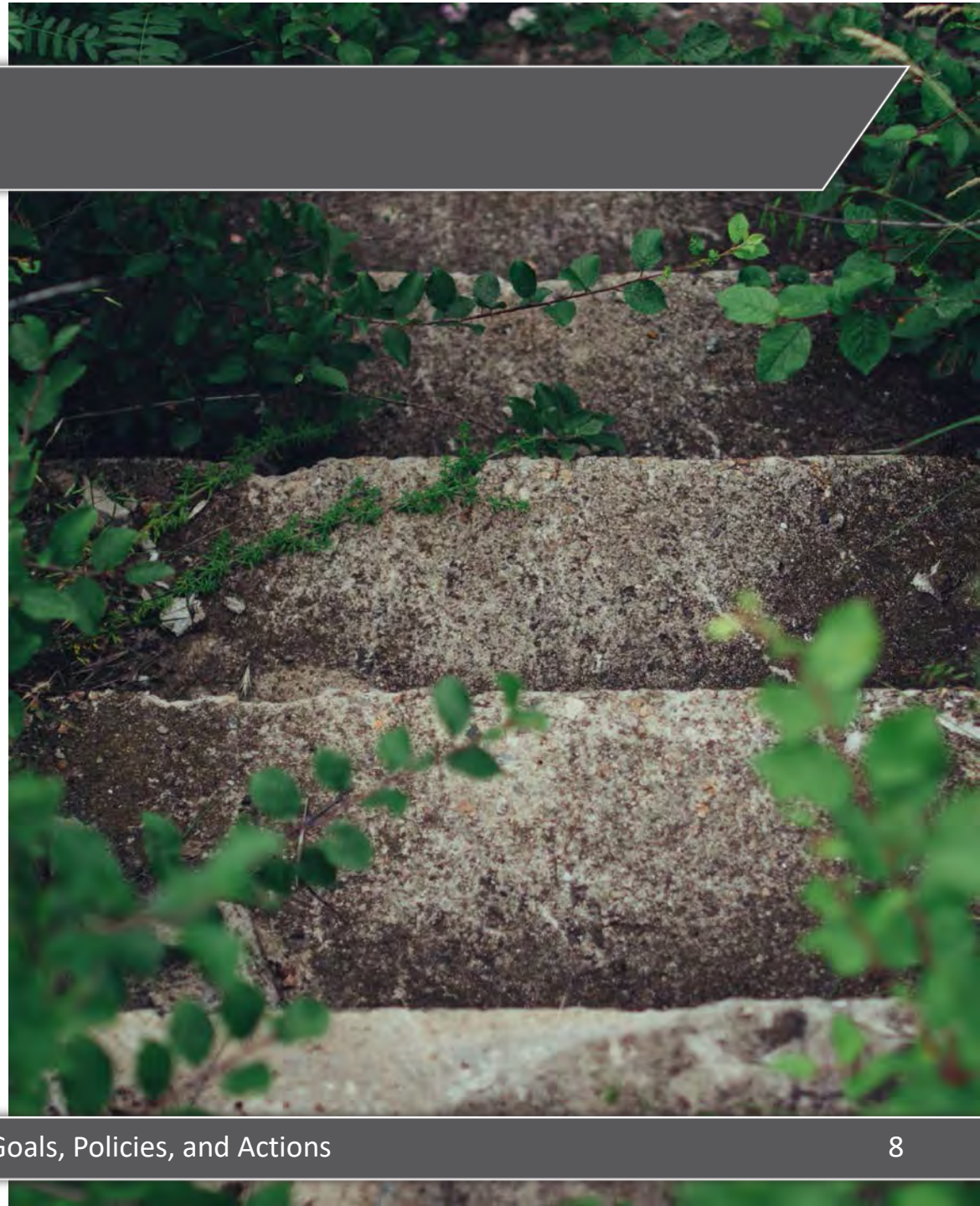
Potential Adaptation Strategies Table

City of Carmel-by-the-Sea Potential Adaptation Strategies

Goal/Policy/Action	Climate Hazard	Asset	Potential Metric	Timeframe	Potential Lead	Cost	Source
Goal 1. A Healthy, Safe, and Resilient Community							
Policy 1.1. Provide effective emergency preparedness and response following a climate-related disaster							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.1.1. Improve Emergency Preparedness. Incorporate climate change risk and impact considerations into Carmel CERT programming and materials, to promote emergency preparedness at a neighborhood block-by-block scale.	All	Residents, Local Businesses, Second Homes	# of block captains formed	TBD	TBD	TBD	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions

Next Steps

- **Collect** comments from Climate Committee before the October meeting
- **Refine** the goals, policies and actions based on comments
- **Present** the refined list at the public workshop on November 18th



Thank you for your time!

Questions?

Extra Slides

Goals

ICARP Adaptation Visions and Principles	City of Carmel-by-the-Sea Adaptation Goals
All people and communities respond to changing average conditions, shocks, and stresses in a manner that minimizes risks to public health, safety, and economic disruption and maximizes equity and protection of the most vulnerable.	Goal 1. A Healthy, Safe, and Resilient Community
Natural systems adjust and maintain functioning ecosystems in the face of change.	Goal 2. A Natural Environment Resilient to Climate Hazards
Infrastructure and built systems withstand changing conditions and shocks, including changes in climate, while continuing to provide essential services.	Goal 3. Resilient Infrastructure and Built Environment

Appendix C
Outreach

Presentation Slide Deck from October 21, 2021, Climate Committee Meeting

RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

City of Carmel-by-the-Sea

Revised Climate Adaptation Goals, Policies, and Actions

Climate Committee Meeting

Photo by Chris Leipelt on Unsplash

Resources

- Summary of Comments and Responses
- Revised Potential Adaptation Strategies

Photo by anna breaux on Unsplash

Comment Categories

- Electrification
- Evacuation, traffic, and congestion
- Vulnerable populations
- Tree maintenance and Monterey Pines
- Stormwater runoff and wastewater

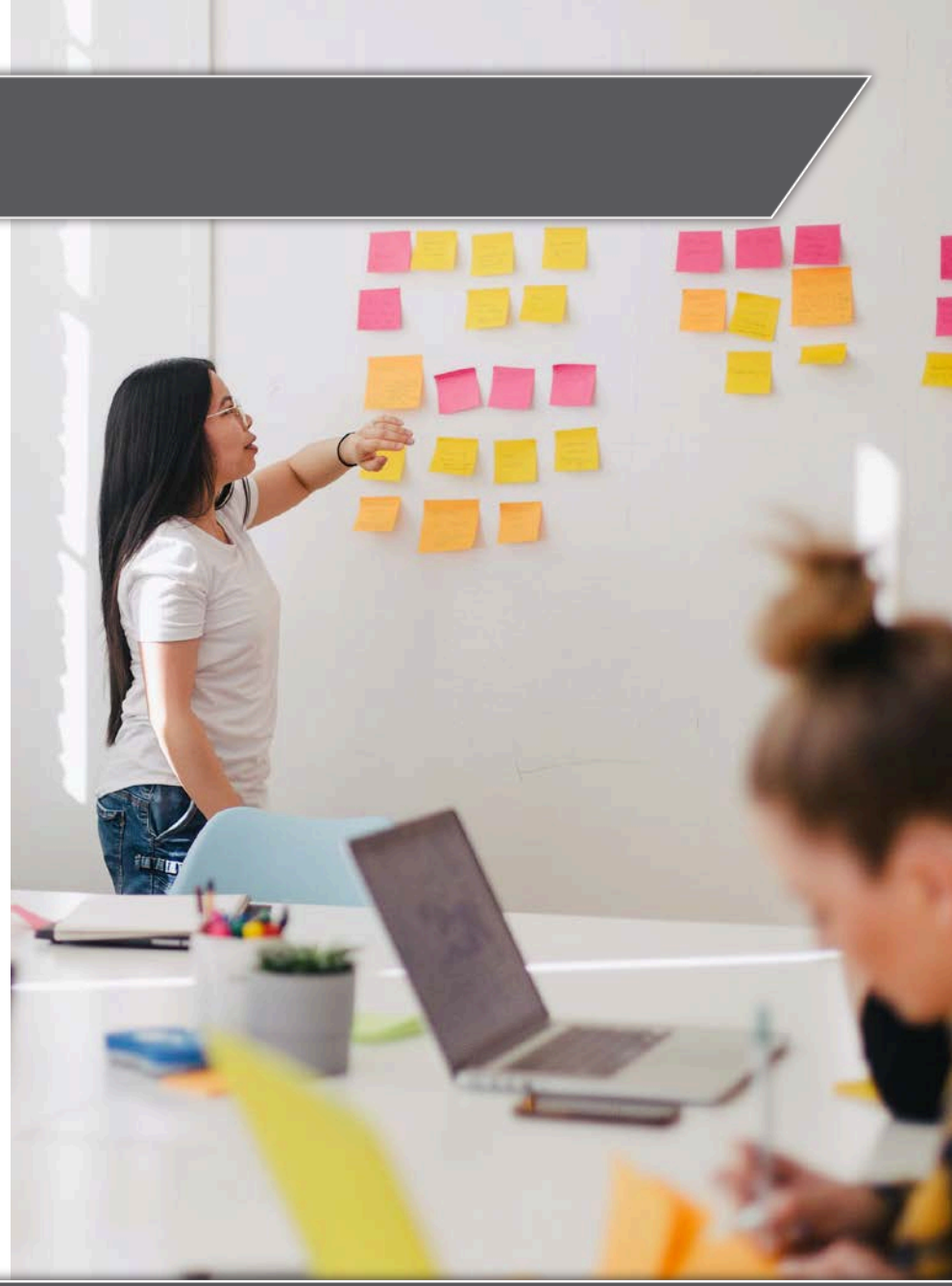


Photo by Leon on Unsplash

Electrification

- It is noted that members of the Climate Committee would prefer to move these types of strategies to the Climate Action Plan.
- Electrification actions will remain in the list of potential adaptation goals, policies, and actions for the public to weigh in on.

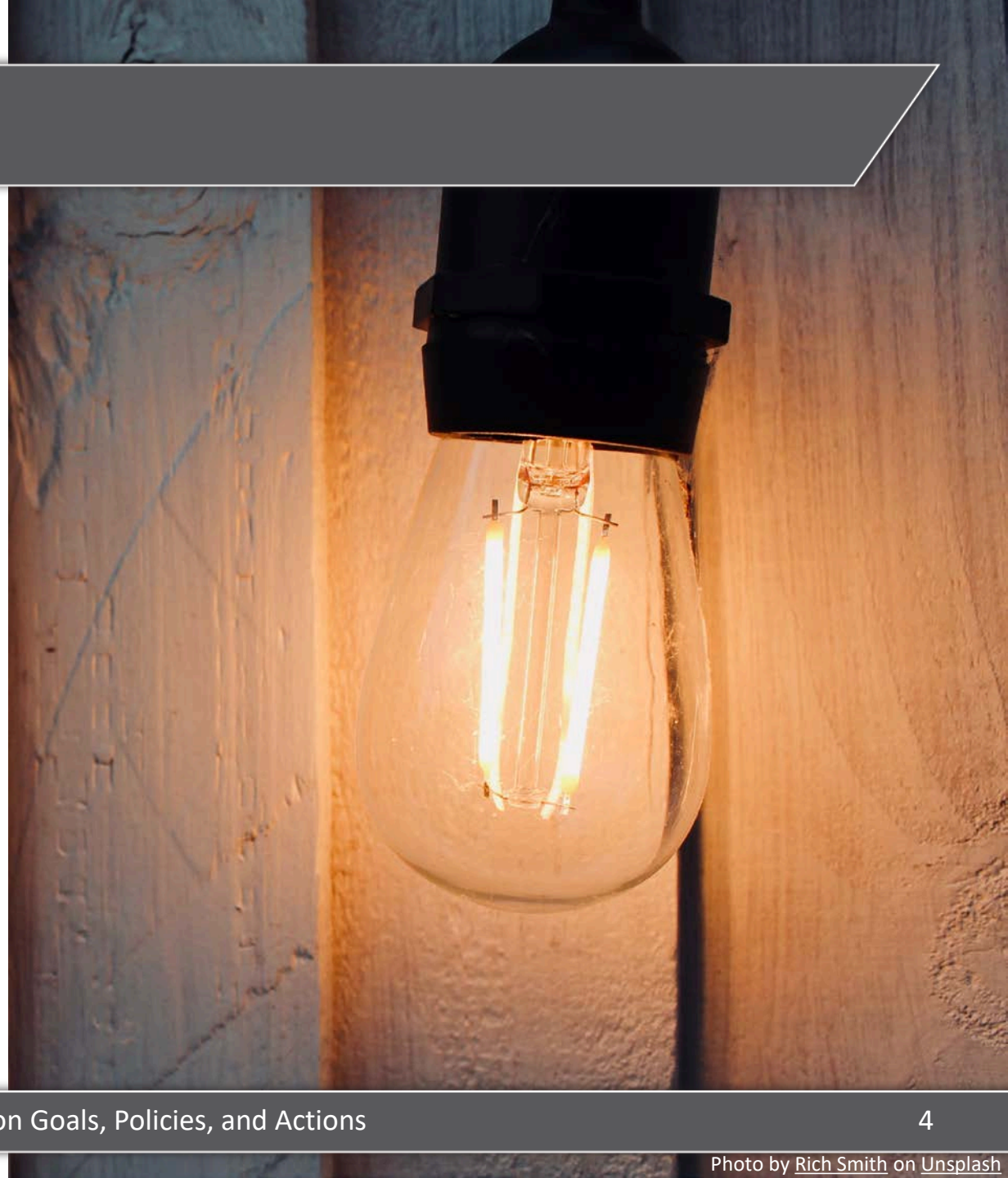


Photo by Rich Smith on Unsplash

Evacuation, Traffic, Congestion

- New actions added
  - **Action 1.1.5. Evacuation Access.** Investigate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating and provide evacuation options for residents with mobility challenges.
  - **Action 1.1.6. Evaluate Evacuation Route Capacity.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions.
  - **Action 1.1.7. Evacuation Alternatives.** Develop and employ evacuation alternatives and/or alternative emergency access routes in neighborhoods that have single ingress/egress.

Vulnerable Populations

- New actions added
  - **Action 1.2.4. Social Support Network.** Collaborate with the Carmel Foundation and other community-based organizations to develop an inventory of locations with isolated seniors and people with disabilities and develop a plan for a social support network to increase resilience to climate change.
  - **Action 1.2.5. Back-up Power for Vulnerable Populations.** Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.

Tree maintenance and Monterey Pines

- Revised action 2.1.2.
  - **Action 2.1.2. Increase Forest Resilience.** Update the Forest Management Plan to:

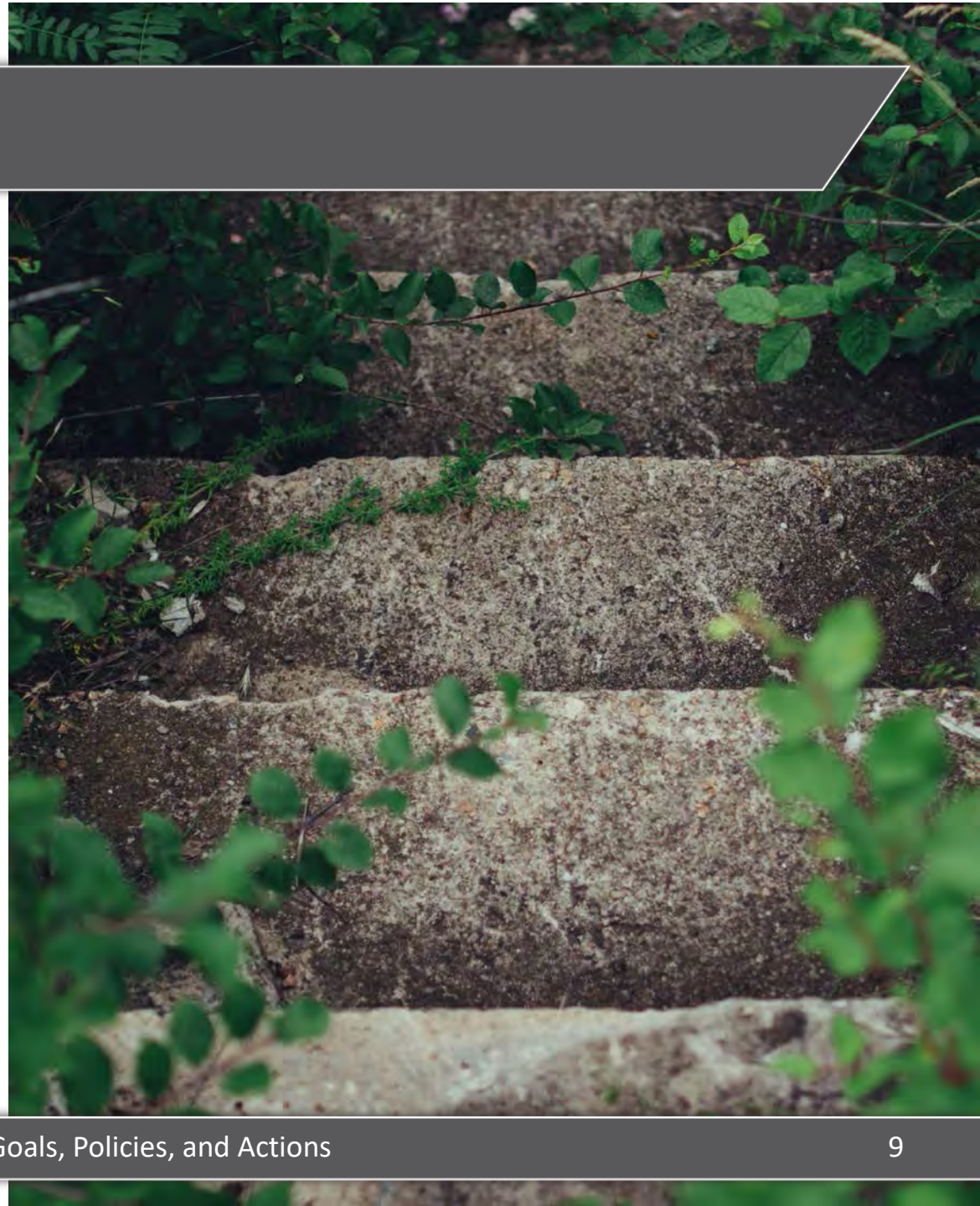
    1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, **and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g., native species from the Southwestern US or Mexico would likely be preferred to European species).**
    2. Include planting **and maintenance** guidelines to improve tree health, particularly in the public right-of-way
    3. Incorporate tree species that have greater drought and wildfire resistance
    4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property.
    5. Enhance carbon sequestration potential

Stormwater Runoff and Wastewater

- New actions added
  - **Action 3.1.3. Reduce Stormwater Runoff.** Reduce stormwater runoff through implementation of a stormwater diversion project to divert all dry weather flows and first flush runoff to the large sanitary sewer that runs along San Antonio Avenue, such that they can be directed to the Wastewater District.
  - **Action 3.1.9. Wastewater Treatment.** Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms, and incentivize reduction of water use in the community and transitioning to reclaimed water use for irrigation. Maintain staff/council personnel as liaisons to CAWD.

Next Steps

- **Present** the goals, policies, and actions at the November 18th public workshop
- **Collect** comments from the public
- **Refine** the goals, policies, and actions based on public and climate committee comments



Thank you for your time!

Questions?

Appendix C
Outreach

Presentation Slide Deck from November 18, 2021, Public Workshop

CITY OF CARMEL-BY-THE-SEA

WORKSHOP

Climate Adaptation and Greenhouse Gas Reduction Strategies for Carmel

Climate Committee

November 18, 2021

Workshop Agenda & Logistics

- Project Background
- Carmel Vulnerability to Climate Change
- Carmel Greenhouse Gas Reduction Goals
- Forum: Vision for the Future in Carmel
- Forum: Review of Potential Climate Adaptation and Greenhouse Gas Reduction Strategies

- Providing comments during the workshop
- Providing comments after the workshop

Project Background

- Climate Action and Adaptation Project initiated during Fiscal Year 2019/2020
  - Action: reducing greenhouse gas emissions
  - Adaptation: Developing strategies to adapt to the changing climate
- Climate Committee formed in Fall 2019 with 8 members:
  - 2 Council members: Jeff Baron and Carrie Theis
  - 4 members of the public: John Hill, Michael LePage, Scott Lonergan, LaNette Zimmerman
  - 2 staff members: Agnes Martelet, Environmental Compliance Manager, Evan Kort, Associate Planner
- Consultants: Rincon Consultants, LSA Associates

Progress to Date

- Monthly presentation series to better understand climate threats and opportunities for action in Carmel
- Outreach to community groups and regional partners
- Climate Change Vulnerability Assessment
- Greenhouse Gas Inventories and Draft Forecast
- List of Potential Adaptation Strategies
- List of Potential Strategies to reduce Greenhouse Gas Emissions

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

More intense storms projected

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

Large, severe wildfires will continue to occur in the Central Coast region

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

Monterey County is projected to experience ~5 feet in sea level rise by 2100

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

Dry years are projected to get drier and are likely to be followed by dry years

Climate Change Hazards

Climate Change Vulnerability Assessment

Stronger Storms
Wildfires
Sea Level Rise
Drought
Increased Temperatures
Fog Changes
Ocean Warming

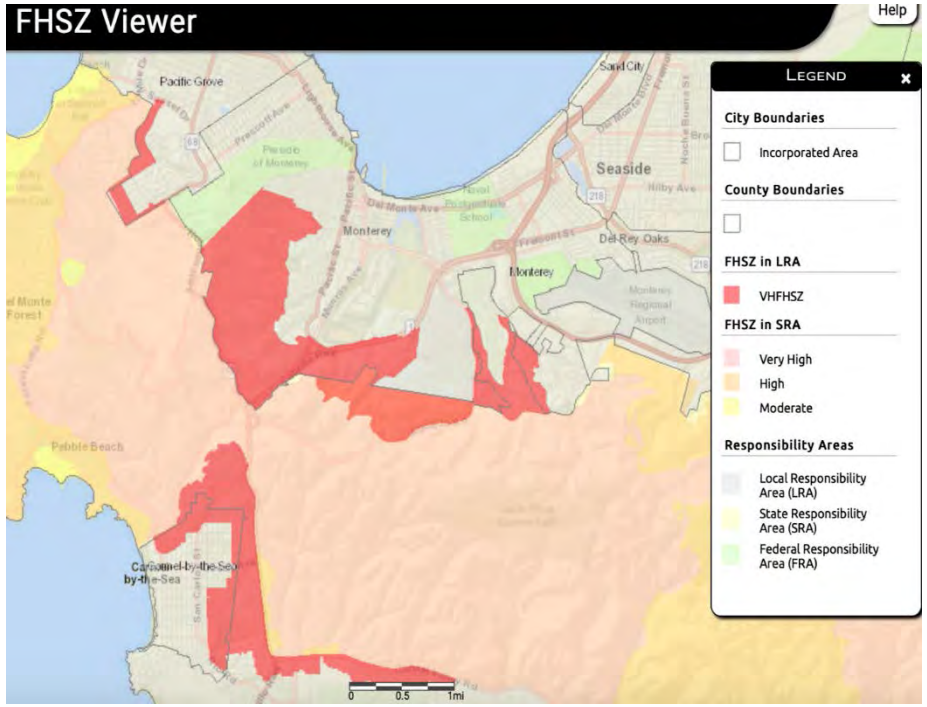
Annual average maximum temp is projected to increase by 3.3°F by mid-century and 6.3 °F by end of the century.

CBTS Assets to Consider

- Community
  - Elderly population and people with disabilities
  - Residents
  - Visitors
  - Local businesses and workers
- Natural Environment
  - Beach
  - Special Habitats and Open Spaces on land and in the ocean
  - Urban Forest
- Infrastructure and Built Environment
  - Utilities (incl. electricity, water, sewer, storm drainage)
  - Shoreline infrastructure (incl. access infrastructure and sea walls and revetments)
  - Critical community facilities
  - Downtown and residences

Vulnerabilities - Community

- Very High Fire Hazard Severity Zones (VHFHSZ) in Carmel
- Wildfire vulnerability can be reduced with better siting, landscape design, and building materials
- Lack of a plan for evacuating at-risk community members
- Lack of a plan to support at-risk workers and businesses



Vulnerabilities - Community

- Stronger storms could lead to localized flooding, which could isolate residents
- Increased temperature could lead to negative health impacts for older adults and individuals living with disabilities

Vulnerabilities – Natural Environment

- Increased tree stress due to increased heat, more variable water supply
- Open spaces with sensitive habitats will be impacted by stronger storms, hotter temperatures, drought, and wildfires
- Beach and dune loss from sea level rise
- Monterey Bay National Marine Sanctuary impacts from ocean warming and acidification
- Carmel's urban forest lacks age and species diversity

Vulnerabilities – Infrastructure

Utilities and Infrastructure:

- Access and utility infrastructure along the coastline
- Coastal protection infrastructure: revetments, sand ramps, and sea walls. Sea walls undercutting due to erosion and retreat of surrounding sand stone. 10 hot spots with significant damage after major storms (1982-83)
- Storm drain system only designed to handle 10-year storms and in need of repairs
- CAWD wastewater facility will need to be relocated by 2062
- Power grid impacts of wildfires and storms

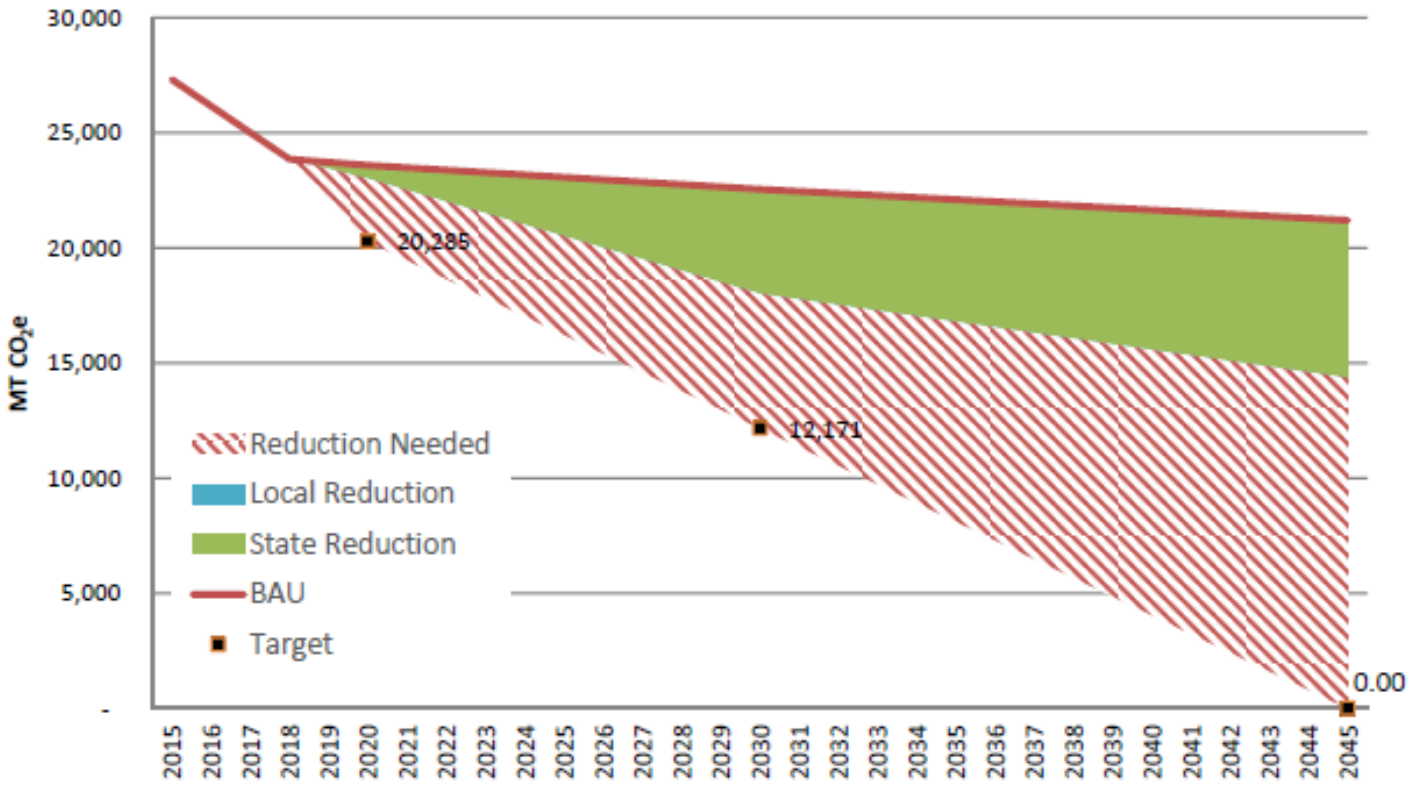
Vulnerabilities – Built Environment

- City Planning guidelines conflict with California fire codes in the VHFHSZ
- Lack of defensible space around homes
- Extreme heat may lead to increased use of air condition which could tax the electrical grid
- Lack of cooling infrastructure

Climate Change Mitigation

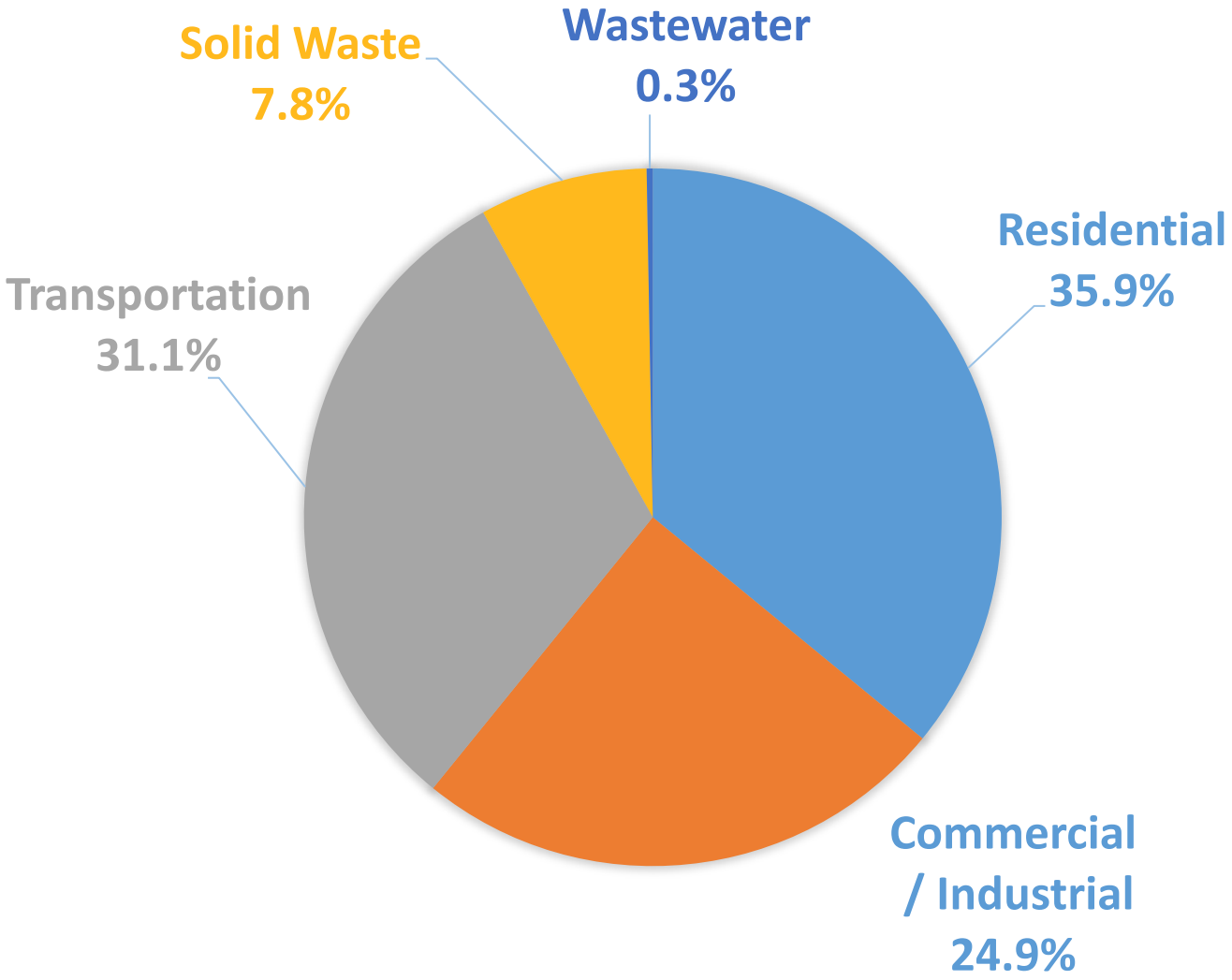
Carmel Greenhouse Gas Reduction Goals

FIGURE 1: State and Local Reductions Comparison with Targets
City of Carmel-By-The-Sea, 2015 - 2045



State measures and reduction goals are estimated based on the 2015 *GHG Inventory and Population Forecasting* by AMBAG. Targets are set based on CARB recommendations using the 2015 GHG Inventory as a baseline (2020 target = 15% reduction from 2015 emissions, 2030 target = 40% reduction from the 2020 target, 2045 target = net zero emissions).

Carmel 2018 GHG Emissions by Sector



Forum: Envision Resilient Carmel in 2050

- What aspects of Carmel help the community's resilience? What actions have the city and constituents taken to reduce their impact and adapt to climate change?
- What does a resilient Carmel community look like? What outcomes are we hoping to achieve?

Forum: Envision Sustainable Carmel in 2050

Mural

Potential Strategies for Adaptation and GHG Reduction

Structure:

- **Goals** –Broad statements describing community desires
- **Policies / Measures** –Specific position statements that support the achievement of goals and serve as guides to the City when making decisions
- **Actions** –Specific methods to implement and achieve policies and goals.

Potential Adaptation Goals

Goal 1. A Healthy, Safe, and Resilient Community

Goal 2. A Natural Environment Resilient to Climate Hazards

Goal 3. Resilient Infrastructure and Built Environment

Goal 1. A Healthy, Safe, and Resilient Community

Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters.

Action 1.1.1 .Improve Emergency Preparedness by incorporating Climate Change risk in CERT programming

Action 1.1.2. Collaborate with Monterey Fire on inspection and outreach for fire risk reduction

Action 1.1.3. Publicize Local Evacuation Routes

Action 1.1.4. Maintain and Update Evacuation Plan

Action 1.1.5. Evacuation Access for residents with disabilities

Action 1.1.6. Evaluate Evacuation Route Capacity

Action 1.1.7. Evacuation Alternative

Action 1.1.8. Update City Planning Guidelines in the Fire Hazard Zones

Action 1.1.9. Development Standards in the Fire Hazard Zones.

Action 1.1.10. Increase Resistance to Wildfire Structural Damage.

Goal 1. A Healthy, Safe, and Resilient Community

Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.

Action 1.2.1. Establish a Resilience Hub.

Action 1.2.2. Limit the Impacts of Climate Change on the Most Vulnerable Populations.

Action 1.2.3. Educate the Community.

Action 1.2.4. Social Support Network.

Action 1.2.5. Back-up Power for Vulnerable Populations

.

Goal 1. A Healthy, Safe, and Resilient Community

Policy 1.3. Minimize health impacts of climate change.

Action 1.3.1. Partner with Monterey County Health Department.

Action 1.3.2. Initiate a Heat Pump Retrofit Program.

Action 1.3.3. Improve Resilience in Critical Facilities.

Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification.

Action 1.3.5. Improve Resilience in Housing Stock.

Action 1.3.6. Electrify Fireplaces.

Action 1.3.7. Identify Funding and Financing.

Goal 1. A Healthy, Safe, and Resilient Community

Policy 1.4. Increase Economic Resilience

Action 1.4.1. Support Displaced Workers.

Action 1.4.2. Establish Partnerships to Develop a Resilient Economy.

Action 1.4.3. Business Resilience Outreach Program.

Forum: Adaptation Strategies for Community Resilience

- Did we miss anything?
- Which policies and actions should be prioritized for Community Resilience?

Forum: Adaptation Strategies for Community Resilience

Mural

Goal 2. A Natural Environment Resilient to Climate Hazards

Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.

Action 2.1.1. Increase Funding for Climate Adaptation.

Action 2.1.2. Increase Forest Resilience and Update the Forest Management Plan

Action 2.1.3. Update the Mission Trail Nature Preserve Master Plan to increase resilience

Action 2.1.4. Increase Resilience of the North Dunes

Action 2.1.5. Increase Resilience to Stronger Storms by sizing improvements for larger storms

Action 2.1.6. Beach Sand Monitoring Program

Action 2.1.7. Carmel Cove Sand Supply Analysis

Forum: Adaptation Strategies for Natural Environment Resilience

- Did we miss anything?
- Which policies and actions should be prioritized for Natural Environment Resilience?

Forum: Adaptation Strategies for Natural Environment Resilience

Mural

Goal 3. Resilient Infrastructure and Built Environment

Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.

Action 3.1.1. Evaluate Undergrounding Utilities in Fire Hazard Zones

Action 3.1.2. Increase Green Infrastructure.

Action 3.1.3. Reduce Stormwater Runoff.

Action 3.1.4. Storm Drain Repair Funding and Improvements.

Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure to handle Climate Hazards.

Action 3.1.6. Water Conservation.

Action 3.1.7. Bluff Structural Monitoring Program.

Action 3.1.8. Hire Coastal Engineer to evaluate coastal protection infrastructure.

Action 3.1.9. Wastewater Treatment.

Goal 3. Resilient Infrastructure and Built Environment

Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.

Action 3.2.1. Develop a Guidance Project Checklist.

Action 3.2.2. Incorporate Climate Change Adaptation into Local Plans.

Action 3.2.3. Update Shoreline Management Plan.

Action 3.2.4. Multi-Jurisdictional Hazard Mitigation Plan.

Forum: Adaptation Strategies for Infrastructure Resilience

- Did we miss anything?
- Which policies and actions should be prioritized for Infrastructure Resilience?

Forum: Adaptation Strategies for Infrastructure Resilience

Mural

Greenhouse Gas Reduction Policies for the Built Environment

Goal 1/3: Increase Energy Efficiency in Existing Residential and Commercial Units

- Energy Efficiency education and recognition in the residential and commercial sectors.
- Increase participation in energy efficiency programs.
- Home / Business Energy Evaluations.
- Residential home / Commercial energy renovations.
  - Promote participation in green building programs.
  - Provide incentives to homeowners / businesses to convert to electrification.
  - Streamline the permitting process for energy efficiency retrofits.
  - Require green building programs for large commercial renovations

Greenhouse Gas Reduction Policies for the Built Environment

Goal 2/4: Increase Energy Efficiency in New Residential / Commercial Units

- Educate City staff and the community on future Title 24 compliance.
- Promote Tier 1 and Tier 2 Green Building Standards.
- Incentivize electrification in new residential/commercial units.
- Streamline the permitting process for Tier 1 and Tier 2 Green Building applications

Goal 9: Increase Clean Energy Use

- Incentivize solar panel installation for residential and small commercial.
- Promote energy storage systems installation with solar panels.
- Require large commercial renovations to install solar panels.
- Encourage residents and businesses to participate in the 3CE 100 percent renewable Program.

Forum: Greenhouse Gas Reduction Policies for the Built Environment

- Did we miss anything?
- Which policies and actions should be prioritized?

Forum: Greenhouse Gas Reduction Policies for the Built Environment

Mural

Greenhouse Gas Reduction Policies

Goal 5: Energy Efficiency Through Water Conservation

- Exceed State Water Efficiency Standards.
- Recycled water for certain types of commercial and multi-family landscaping.
- Grey Water Systems.
- Promote rainwater harvesting.

Goal 6: Decrease Energy Demand by Reducing the Heat Island Effect.

- Maintain the health of the Urban Forest Canopy.
- Modify codes to allow light reflecting surfaces on rooftops (cool roofs).
- Where feasible, use cool pavement options when repaving roadways.

Greenhouse Gas Reduction Policies

Goal 7: Decrease GHG Emission By Reducing VMT.

- Develop Bicycle Master Plan.
- Ride Sharing and Bike to Work Programs.
- Electric Vehicle Infrastructure.
- Neighborhood Electric Vehicles (NEV) and NEV Shuttles.
- Shuttle service between the Monterey Airport and destinations in the City.

Goal 8: Reduce Solid Waste

- Promote Zero Waste events.
- Promote home composting.
- Promote reusable containers rather than recyclables.
- Educate the community on use of City provided containers.

Forum: Greenhouse Gas Reduction Policies

- Did we miss anything?
- Which policies and actions should be prioritized?

Forum: Greenhouse Gas Reduction Policies

Mural

Next Steps

- Refine Strategy Tables based on feedback from the Workshop
- Develop cost ranges and implementation timelines, and identify primary implementation parties
- Finalize Climate Adaptation and Action Plans

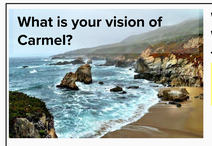
CITY OF CARMEL-BY-THE-SEA

Thank you for participating!

Contact for comments:
amartelet@ci.carmel.ca.us

Appendix C
Outreach

Interactive Activity Results from November 18, 2021, Public Workshop



What is your vision of Carmel?

What aspects of Carmel help the community's resilience? What actions have the city and constituents taken to reduce their impact and adapt to climate change?

- Safety during weather events.
- Equity/vulnerable community risk
- Vision associated with each asset
- What are the top priorities around assets. What are the costs associated with them?
- Non action is WAY more expensive

What does a resilient Carmel community look like? What outcomes are we hoping to achieve?

Goal 1. A Healthy, Safe, and Resilient Community

Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters.

- Maintaining and updating the evacuation plan should be higher in the priority list.
- Fire and the elderly are a high priority
- I think creating a comprehensive plan for the elderly community would be a priority
- The Fossils community certification seem like a great opportunity for Carmel because the town is so small and its overlap with the Fossils certification would be awesome!
- Presentation on this. Very interesting.
- Provide adaption to keep the urban forest healthy
- 11.8 and 9... Why limit to high fire severity zones, make it Citywide.
- Consistent building code
- Permit streamlining for high performing projects.

Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.

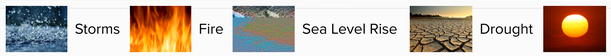
- Connecting the plans and implementing them.
- The residents that care about protection, versus what to go and/or get info. The residents that aren't care about protection, how do we engage with (retiree/ vacation rental/ home owners)
- Second home owners hard to reach
- Social media, public workshops
- Neighborhood Organizations
- Update codes to match and not conflict with CA codes. (Fire for example)
- Wine and Dine approach! Have some parties to reach the community.

Policy 1.3. Minimize health impacts of climate change.

- Make it clear why electrification is an adaptation issue.
- More specific actions under the policies
- Clear and implementable actions
- More SMART goals
- The youth center as a resilience location. Water treatment, elderly communities.
- Health impacts of natural gas combustion
- What does educate the community mean?
- Smaller steps that add up to larger actions (more detail)

Policy 1.4. Increase Economic Resilience

Goal 2. A Natural Environment Resilient to Climate Hazards



Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.

- Not able to hire shoreline engineer (beach sand analysis)
- Add action to hire a shoreline engineer to better understand issues / Opportunities
- Consider hiring a grant writer to gain additional funding.
- Might be an action to add.
- Make a distinction between parks and urban forest?
- Urban forest is not the same as parks
- Pescadero Canyon as a fire safety issue
- Improved parklands vs. forests
- For forest resilience, maybe reach out to CSUMB to conduct an analysis on the current state of the forest?
- habitat value, corridors
- Add "urban" to 2.1.2
- Urban forest is important to town.
- What does that look like?
- Forest and Beach commission
- Hill Park is in desperate need for major renovation work. *I'd never take children there.*
- Not controlled burns in Carmel! But in Del Monte Forest and Jacks Peak.

Goal 3. Resilient Infrastructure and Built Environment

Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.

- I'm almost positive that dual plumbing is to code. It's a requirement for structure to reuse (a graywater for toilet flushing and irrigation. If I understand that correctly.
- Intelligent landscaping design can definitely reduce water runoff
- Do not think Carmel city code allows graywater?
- CA allows washing machine graywater only. I believe without a permit as well.

Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.

Climate Mitigation

Goal 1/3: Increase Energy Efficiency in Existing Residential and Commercial Units

- Looking for ideas for personal actions community can take
- Housing stock will be around for quite a while and most of it was built in an era when built a long time ago. Improvements can be made by increasing the efficiency of existing housing stock is crucial
- Synergies between energy efficiency and adaptation
- Ways to shift towards solar
- Heat pumps!
- Largest source of emissions. Hard to make mandatory
- How do we incentivize?
- Under the new infrasturture Federal program monies are being funneled to both counties and cities if we stay on top of the rollout.
- Panel Upgrades as a major hurdle
- Technological shifts (away from solar hot water towards electrification)
- Limit/eliminate natural gas hookups - Reach Codes (City of Berkeley Example)
- Title 24 is the lowest requirements. City should go above and beyond.

Goal 2/4: Increase Energy Efficiency in New Residential / Commercial Units

- Reach Codes. Santa Cruz as an example City.
- EV Ready Codes
- Battery storage ready
- Need to include remodels as well.
- Add to Alameda requirements recently at 7.2%
- "REQUIRE"
- Thresholds for remodels?
- Hook to fire sprinkler requirement

Goal 9: Increase Clean Energy Use

Goal 5: Energy Efficiency Through Water Conservation

- hard to make storage tank pencil out, but greywater could be good
- dual plumbing code
- "Greywater ready"
- Need incentives
- Does carmel have non-potable water now? Purple pipe?

Goal 6: Decrease Energy Demand by Reducing the Heat Island Effect.

Goal 7: Decrease GHG Emission By Reducing VMT.

- EV chargers fits into rennovation well.
- Hotels as an important place for chargers.
- Public EV chargers are needed throughout town.
- Walking/biking villiage. Improve character.
- We will need public EV chargers. Ocean Ave., The Plaza and Sunset Center come to mind
- Need more VMT reduction policies
- Yes only two lanes on Ocean Ave. would be a great transition.
- Parking fees
- Reduce trips into town
- Bus use
- Free electric shuttles
- Shuttle services
- Bus passes
- More housing in town?
- worker housing near jobs?
- Drive-by tourists
- Monterey Airport and Shuttle to town
- Take lanes away from cars and use for bikes/ ped.

Goal 8: Reduce Solid Waste

- Incentivize or require disassembly of buildings. (construction diversion requirements.)

Unnamed area
Unnamed area

What aspects of Carmel help the community's resilience? What actions have the city and constituents taken to reduce their impact and adapt to climate change?

Safety during weather events.

Equity/vulnerable community risk

Vision associated with each asset

What are the top priorities around assets. What are the costs associated with them?

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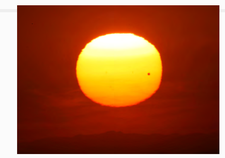
Goal 1. A Healthy, Safe, and Resilient Community

Storms

✔ Fire

Sea Level Rise

✔ Drought



Increased Temp

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Goal 2. A Natural Environment Resilient to Climate Hazards

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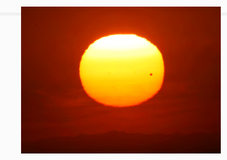

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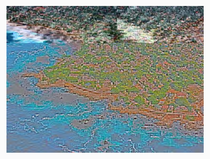

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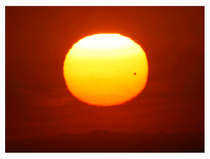

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Synergies between energy efficiency and adaptation

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Goal 2/4: Increase Energy Efficiency in New Residential / Commercial Units

Reach Codes. Santa Cruz as an example City.

EV Ready Codes

Battery storage ready

Adds to solar requirements (already in T24)

Need to include remodels as well.

"REQUIRE"

Attachment 3

Thresholds for remodels?

Hook to fire sprinkler requirement

Goal 9: Increase Clean Energy Use

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Public EV chargers are needed throughout town.

Walking/biking villiage. Improve character.

We will need public EV chargers. Ocean Ave., The Plaza and Sunset Center come to mind

Need more VMT reduction policies

Yes only two lanes on Ocean Ave. would be a great transition.

Parking fees

Reduce trips into town

Driven by tourists

Bus use

Shuttle services

Free electric shuttles

Bus passes

More housing in town?

worker housing near jobs?

Monterey Airport and Shuttle to town

Take lanes away from cars and use for bikes/ ped.

Goal 8: Reduce Solid Waste

Incentivize or require disassembly of buildings. (construction diversion requirements.)

Appendix C
Outreach

Presentation Slide Deck from January 20, 2022, Climate Committee Meeting

RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

City of Carmel-by-the-Sea

Climate Adaptation Goals, Policies, and Actions

Climate Committee Meeting

Photo by Chris Leipelt on Unsplash

Agenda

- Progress to date
- Comments from 11/18/21 Public Workshop & how they were addressed
- Additions to the Adaptation Strategy
  - Timeframe, lead, costs
- Next Steps
- Questions/Discussion

Photo by anna breaux on Unsplash

Progress to Date

- Draft Adaptation Strategy developed (Aug)
- Updated Draft Adaptation Strategy based on Climate Committee comments (Sept/Oct)
- Revised Draft Adaptation Strategy shared at 11/18/21 public workshop
- Adaptation Strategy refined based on comments from public workshop
  - Timeframe, lead, and costs added to Adaptation Strategy

Photo by anna breaux on Unsplash

11/18/2021 Public Workshop Comment Categories

- Evacuation and senior residents
- Apply updated City Planning Guidelines and Development Standards citywide (not just in the VHFHSZ)
- Support for more partnerships in engagement efforts
- Need for a grant writer
- Desire for more specific actions
- Support for policies/actions already in place (e.g., evacuation, vulnerable communities, Firewise Community certification, and more)

Photo by Leon on Unsplash

Evacuation and Senior Residents

- A clear evacuation plan for seniors in the community was suggested.
- **Action 1.1.1** revised:
  - **Action 1.1.1. Maintain and Update Evacuation Plan.** Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. The plan should focus on the most vulnerable groups including the elderly community.

Photo by Fabian Quintero on Unsplash

Planning Guidelines and Development Standards

- It was suggested that City Planning Guidelines and Development Standards apply citywide rather than only in the Very High Fire Hazard Severity Zone (VHFHSZ)
- Actions revised:
  - **Action 1.1.8. Update City Planning Guidelines.** Update the City's municipal code to maintain consistency with current California codes (California Building Code Chapter 7 and California Residential Code R337) throughout the City.
  - **Action 1.1.9. Development Standards.** Evaluate City's development standards for consistency with best practices for reducing wildfire risk for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines.

More Partnerships for Engagement

- Many additional potential outreach partnerships and ideas for new outreach methods suggested.
- Examples of Actions revised:
  - **Action 1.1.3. Collaborate with Monterey Fire.** Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Continue to coordinate with the CERT program and reach out to new potential outreach partners such as local businesses, community groups, and utilities to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.
  - **Action 1.2.3. Engage the Community.** Ensure the community knows about the resilience hub and how to access it by sharing updates across city and community channels. Partner with the CERT program and block captains, and community groups, to prioritize disadvantaged/marginalized communities including the elderly and individuals with disabilities.

Grant Writer

- Action added
  - **Action 1.4.4. Hire a Grant Writer.** Hire a grant writer to ensure implementation of the City's adaptation strategy.

Photo by Kaitlyn Baker on Unsplash

Desire for More Specific Actions

- Actions are specific while still leaving room to refine based on new information received during the implementation process.
- Specific examples of potential projects will be included under select actions in the Carmel Climate Change Adaptation Plan.

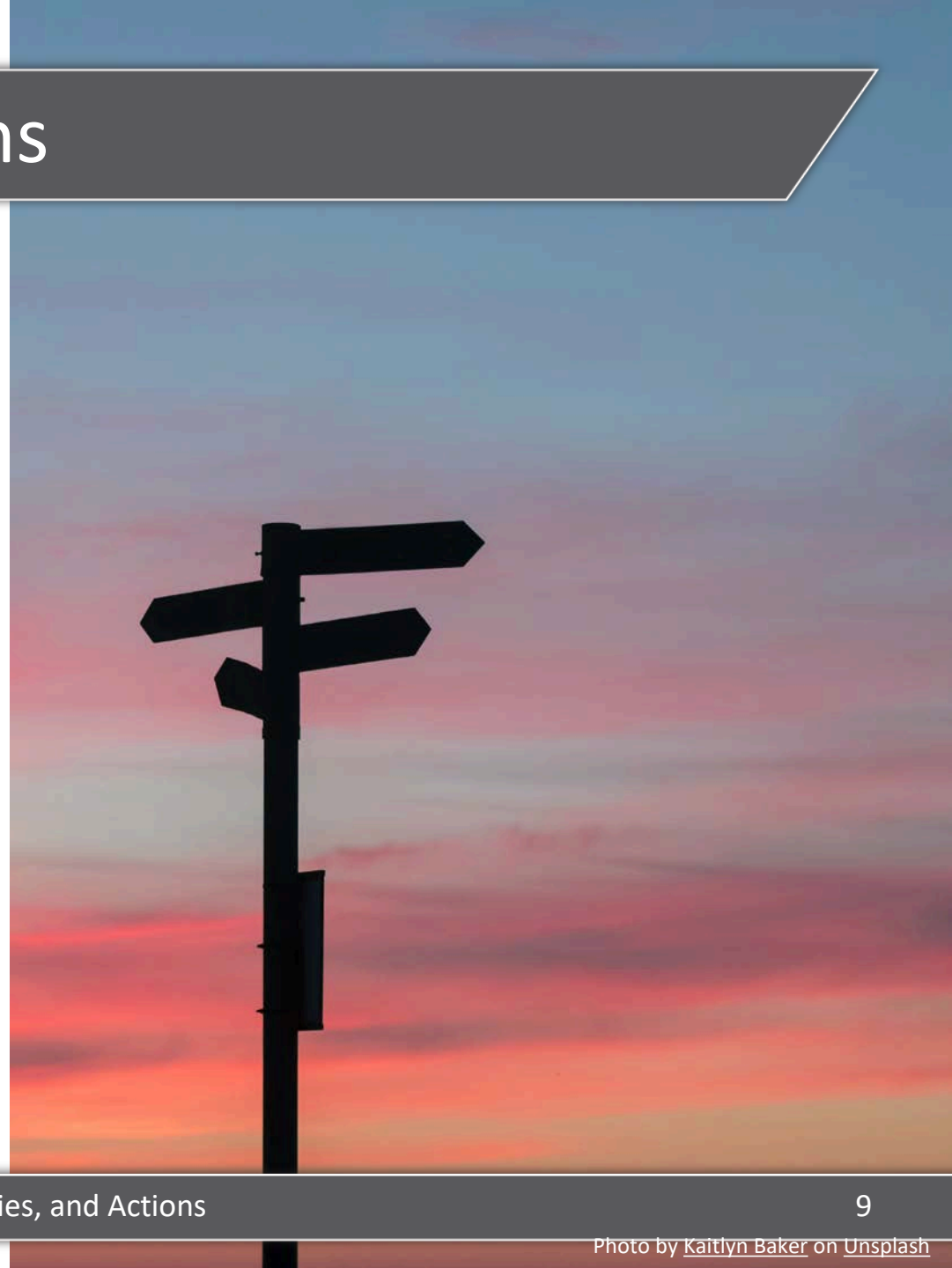


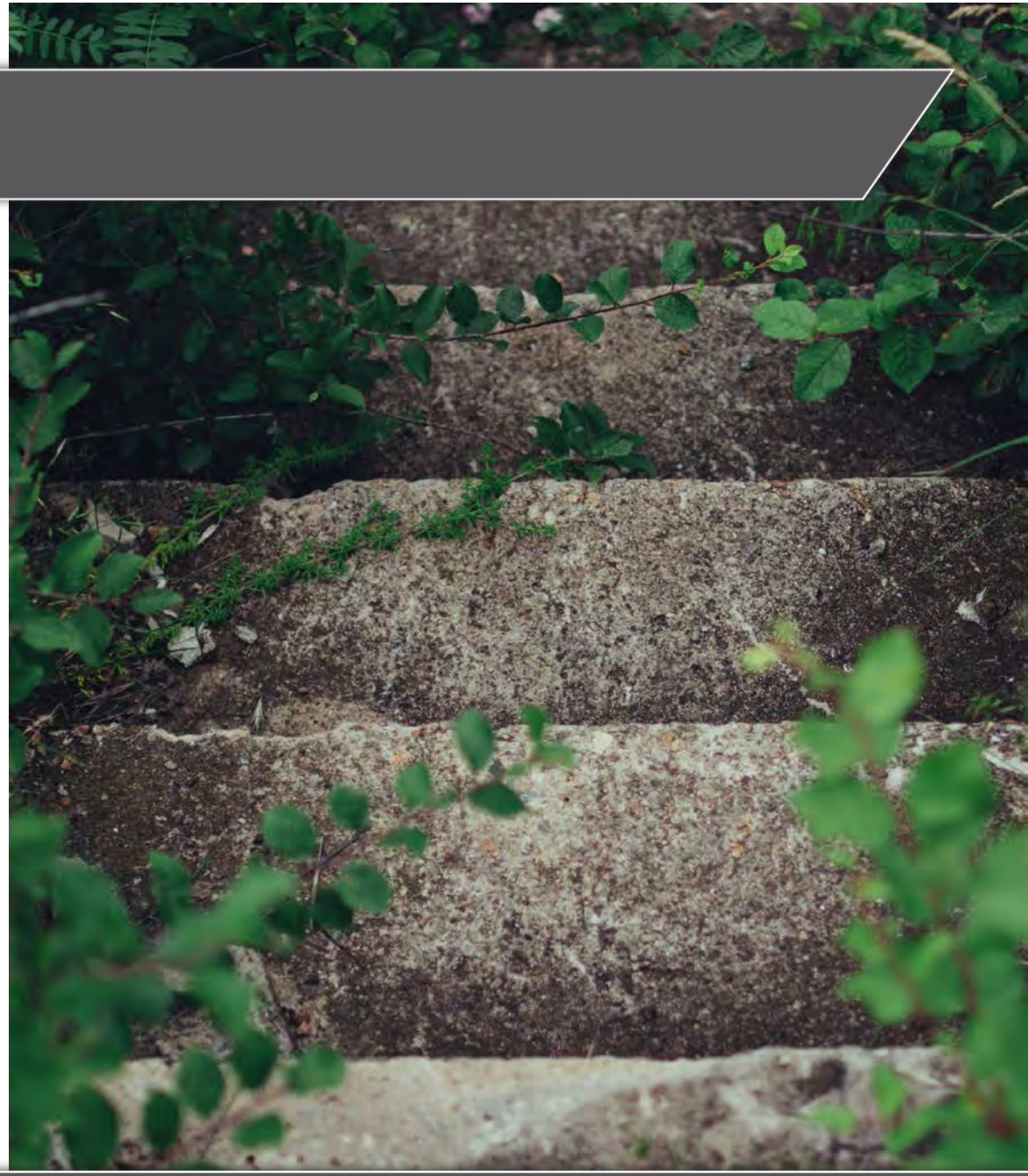
Photo by Kaitlyn Baker on Unsplash

Additions to the Adaptation Strategy

Timeframe	Potential Lead	Cost
Near-term (1-2 years); Mid-term (3-5 years); Long-term (5-10 years)		$-Low (<$50K); $$-Medium ($50K - $100K); $$$-High (>$100K)
Near-term and Ongoing	Police & Fire	$

Next Steps

- **Prepare** Adaptation Report January - February
- **Share** Adaptation Report with Climate Committee in March
- **Present** Adaptation Report to Commissions and City Council for feedback and approval April - May



Thank you for your time!

Questions?

Appendix C
Outreach

Response to Comments Received From September 2021 to January 2022

Commenter	Comment	Response
Scott Lonergan	Reducing polluted runoff from going into the Bay (even if just in the form of investigation). Might be able to use Rio Park as a settling pond to capture some urban runoff	**Added the following action:** **Action 3.1.3. Reduce Stormwater Runoff.** Reduce stormwater runoff through implementation of a stormwater diversion project to divert all dry weather flows and first flush runoff to the large sanitary sewer that runs along San Antonio Avenue, such that they can be directed to the Wastewater District.
Scott Lonergan	Electrification, how will these be reconciled with CAP, maybe adaptation plan is not the place for these sorts of actions.	**The electrification actions will remain in the list of potential adaptation strategies to share with the public, but it is noted that some Climate Committee Members would prefer to move these types of strategies to the Climate Action Plan.**
Scott Lonergan	3.2.2. consider including traffic congestion/pedestrian (add here or create new item)	**Updated policy below to include investigation of congestion issues in the event of an evacuation. Additional evacuation policies added. More transportation (including active and public transportation) will be included in the Climate Action Plan.** **Action 1.1.5. Evacuation Access.** Investigate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating and provide evacuation options for residents with mobility challenges. **Action 1.1.6. Evaluate Evacutaion Route Capacity.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions. **Action 1.1.7. Evacuation Alternatives.** Develop and employ evacuation alternatives and/or alternative emergency access routes in neighborhoods that have single ingress/egress.
Scott Lonergan	2.1.2. including planning AND maintenance	**Added "maintenance" to action 2.1.2.** **Action 2.1.2. Increase Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential
Linda Smith + Scott Lonergan	Suggest re-writing Action 2.1.2. Action 2.1.2. Increase Forest Resilience. Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native e.g. native species from the Southwestern US or Mexico would likely be preferred to European species. 2. Include planting and maintenance guidelines to improve tree health particularly in the public right-of-way 3. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 4. Enhance carbon sequestration potential	**Action 2.1.2. updated to reflected recommended changes.** **Action 2.1.2. Increase Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential
Salmeh Moghimi	Wood-burning smoke falls under the umbrella of supporting climate change and should be considered as it contributes to air pollution and GHG emissions	**Action 1.3.6., shown below, is maintained in the list of potential adaptation strategies to address the health risk of wood-burning fire places.** **Action 1.3.6. Electrify Fireplaces.** Explore the feasibility of incentivizing electric fire places and induction ranges for existing and new development. Develop outreach materials explaining the health, environmental, and potential cost benefits of switching to electric fire places and induction ranges.
Jeff Baron	Emission from wood smoke, is an environmental issue, but is not within the scope of the climate change committee. That's more likely to be the Planning commission, for one, and failing that, the city council, though the Forest and Beach commission does manage some (other) aspects of the environment. My fear is that if the climate committee begins to take on items that are outside of our specific purview, it will begin to dilute the strength of the climate change message that we are endeavoring to deliver.	**Action 1.3.6., shown below, is maintained in the list of potential adaptation strategies to address the health risk of wood-burning fire places. However, it is noted that Climate Committee members believe this is out of the scope of adaptation.** **Action 1.3.6. Electrify Fireplaces.** Explore the feasibility of incentivizing electric fire places and induction ranges for existing and new development. Develop outreach materials explaining the health, environmental, and potential cost benefits of switching to electric fire places and induction ranges.
John Hill	Action 1.1.7. add "neighborhoods within" before "Carmel-by-the-Sea	**Recommended changes made to Action 1.1.7. (now 1.1.10.)** **Action 1.1.10. Increase Resistance to Wildfire Structural Damage.** Evaluate the feasibility of gaining Firewise Community Certification in neighborhoods within Carmel-by-the-Sea.
John Hill	Action 1.3.2. Replacing cooling with "water heating and space heating" and heating with "cooling"	**Recommended changes made to Action 1.3.2.** **Action 1.3.2. Initiate a Heat Pump Retrofit Program.** Create a program to aid homeowners in converting to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality.
John Hill	Action 1.3.4. add "reducing or" before eliminating and words like "incentivize" instead of require. Softer language would be better.	**Recommended changes made to Action 1.3.4.** **Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification.** Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, on-site energy generation, and battery storage, in the City of Carmel-by-the-Sea and establish a plan for reducing or eliminating natural gas from existing buildings and building resilience to potential electrical grid shutoffs. **Recommended changes made to Action 3.2.5 from "require" to "provide incentives" (this is the only action that included the term "require") (now 3.1.5.)** **Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure.** Provide incentives to ensure that all first responder and municipal facilities are properly retrofitted for existing and future climate change hazards including sea-level rise related flooding and erosion, increased wind/storm events, an increase in high heat days, and/or wildfire depending upon location and risk factors.
John Hill	Action 1.3.6. add "and induction ranges" after electric fire places	**Recommended changes made to Action 1.3.6.** **Action 1.3.6. Electrify Fireplaces.** Explore the feasibility of incentivizing electric fire places and induction ranges for existing and new development. Develop outreach materials explaining the health, environmental, and potential cost benefits of switching to electric fire places and induction ranges.
John Hill	Action 2.1.1 add "for downtown and" before in the Mission Trail…	**Recommended changes made to Action 2.1.5. - made broader by saying designing projects in the city (rather than just downtown or Mission Trail).** **Action 2.1.5. Increase Resilience to Stronger Storms.** When designing projects in the city, including those recommended in the Mission Trail Stream Stability Study, size improvements to handle larger storms consistent with best available climate change projections.
John Hill	Action 2.1.4. Reword second sentence to: "Coordinate with CAL FIRE, Carmel, and the Monterey Fire Departments to…"	**Recommended changes made to Action 2.1.3.** **Action 2.1.3. Increase Resilience of the Mission Trail Nature Preserve.** Update the Mission Trail Nature Preserve Master Plan to consider the potential impacts of climate change and to reduce wildfire risk for neighboring private properties. Coordinate with CAL FIRE and the Monterey Fire Departments to incorporate Best Practices into an annual maintenance plan, including cost estimates for implementation and revenue sources for implementation.
John Hill	Action 3.1.1 (and maybe others) be clearer about whether we are talking about city owned buildings or all buildings (could provide incentives for residential and commercial buildings too.	**Action 3.1.1. removed as it was reduntant with 1.3.3.**
John Hill	3.1.2 and 3.1.4 are redundant - can combine	**Policies 3.1.2. and 3.1.4. combined. Now 3.1.1.** **Action 3.1.1. Underground Utilities in Fire Hazard Zones.** Determine the feasibility of undergrounding power lines in the Mission Trail Nature Preserve and designated evacuation routes.
Jeff Baron	Would like to see more details for each action.	**More details not added to action list but can be provided for select measures in the report development phase.**
Jeff Baron	Concerns with banning gas fire places	**Electrification actions are kept in the list of potential adaptation strategies sheet, but it has been noted that some Climate Committee members prefer not to include these types of actions in the adaptation report**
Jeff Baron	1.1.3. publicize evacuation routes, not evacuation plans, issues with publicizing plans because it all depends on the type of hazard/event what evacuation will be possible. Only 1 or 2 main way out, big issue here.	**Recommended changes made to Action 1.1.3. Policy was split up as shown below.** **Action 1.1.3. Publicize Local Evacuation Routes.** Publicize both City and Monterey County evacuation routes for the community, especially among the most vulnerable, in the event of a wildfire or other disaster. **Action 1.1.4. Maintain and Update Evacuation Plan.** Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. **Evacuation concern addressed with new policy** **Action 1.1.5. Evacuation Access.** Investigate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating and provide evacuation options for residents with mobility challenges. **Action 1.1.6. Evaluate Evacuation Route Capacity.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions. **Action 1.1.7. Evacuation Alternatives.** Develop and employ evacuation alternatives and/or alternative emergency access routes in neighborhoods that have single ingress/egress.
Jeff Baron	1.2 - more emphasis. Carmel foundation - serves the elderly	**Two new actions added to address vulnerable populations.** **Action 1.2.4. Social Support Network.** Collaborate with the Carmel Foundation and other community-based organizations to develop an inventory of locations with isolated seniors and people with disabilities and develop a plan for a social support network to increase resilience to climate change. **Action 1.2.5. Back-up Power for Vulnerable Populations.** Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.
Jeff Baron	Goal 3 issue with water and sewer system, make sure city takes an active role. The City has one seat on water board and wastewater district elector - use these better. Evaluate Carmel's own drought risk/SLR rather than relying on these larger districts (CAWD etc.) Call out relationships in the plan.	**New action added related to wastewater treatment.** **Action 3.1.9. Wastewater Treatment.** Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms, and incentivize reduction of water use in the community and transitioning to reclaimed water use for irrigation. Maintain staff/council personnel as liaisons to CAWD.
Jeff Baron	Suggest moving Action 1.1.2, 1.1.5, 1.1.6, 1.1.7 (fire prevention strategies) to Goal 3, since Policy 1.1 says "… following a climate-related disaster"	**Fire prevention actions are maintained under Goal 1 and Policy 1.1. because these are related to emergency preparedness as well as response following a disaster. See updated Policy 1.1. language below.** **Policy 1.1.** Provide effective emergency preparedness and response in anticipation of potential climate-related disasters

Jeff Baron	Policy 1.3.4 belongs in the CAP, not this document (concern about access to enough power generation to be part of a micro-grid. More education needed before taking it further – concerns about batteries as well.)	**The electrification actions will remain in the list of potential adaptation strategies to share with the public, but it is noted that some Climate Committee Members would prefer to move these types of strategies to the Climate Action Plan.** **Modified Action 1.3.7. to address resilience concerns regarding power generation.** **Action 1.3.7. Identify Funding and Financing.** Work with partners like 3CE and PG&E to identify and promote potential resilience opportunities and accessible funding and financing mechanisms to pay for home electrification, weatherization, and battery backups.
Jeff Baron	Policy 1.3.6 also does not belong in this document	**The electrification actions will remain in the list of potential adaptation strategies to share with the public, but it is noted that some Climate Committee Members would prefer to move these types of strategies to the Climate Action Plan.**
Jeff Baron	Policy 1.4 - like this but it will be a sell - especially 1.4.1, and 1.4.2., and 1.4.3 (people that work in Carmel don't live in the City – needs more exploration of who is responsible – maybe not the City)	**Noted, this could be a good policy to focus more discussion around in the plan, and it will be important to identify a lead (likely not the City).**
Jeff Baron	Action 2.1.1 seems to refer to 2.1.4. Recommend keeping the policy unchanged, have the "overall funding action" first, and then three actions, one corresponding to MTNP, the urban forest, and the North Dunes. Consider adding one for the beach itself	**Actions were reorganized as recommended. A new action for Carmel Beach was not created, but two actions (previously 3.2.9, and 3.2.11) regarding Carmel Beach were moved to this section.** **Action 2.1.6. Beach Sand Monitoring Program.** Reinstate beach sand monitoring program described in the Shoreline Management Plan. **Action 2.1.7. Carmel Cove Sand Supply.** Reach out to local researchers (e.g., California State University Monterey Bay) or other sources to conduct Carmel Cove sand supply dynamics analysis.
Jeff Baron	Action 3.1.1. Encourage Energy Generation. Text seems to imply PV and other green systems, but that's biased towards green energy and implies discounting of generators, which probably have an important part in this action.	**Action 3.1.1. removed as it was redundant with 1.3.3.**
Jeff Baron	Action 3.1.2 - Updating the GP is not strong enough. "allocating monetary resources" is stronger, and probably belongs in more policies than just this one. Money should be more prominent in the report, I think, as should policies that require more than a simple GP update. In general, actions 3.1.2, 3.1.3, and 3.1.4, should refer to the same "type of thing" (like comment above about Action 2.1.1.) rather than being more	**Action 3.1.2 updated to include feasibility study, which would include cost. Reference to GP updates removed because it is too specific (and there are many more updates that will be required). In addition, Action 2.1.1. is to increase adaptation funding.** **Action 3.1.1. Underground Utilities in Fire Hazard Zones.** Determine the feasibility of undergrounding power lines in the Mission Trail Nature Preserve and designated evacuation routes. **Action 2.1.1. Increase Funding for Climate Adaptation.** Earmark Capital Improvement Program (CIP) funding for design, permitting, and implementation of adaptation projects, including stream stability study projects. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and Integrated Regional Watershed Management Program (IRWMP) for potential regional funding.
Jeff Baron	Action 3.2.2. and 3.2.1 overlap. Both are good but overlap should be removed and actions more fleshed out.	**Actions combined to eliminate overlap and a new action to reduce stormwater runoff was developed.** **Action 3.1.2. Increase Green Infrastructure.** Modify CIP project design and review approach to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city. **Action 3.1.3. Reduce Stormwater Runoff.** Reduce stormwater runoff through implementation of a stormwater diversion project to divert all dry weather flows and first flush runoff to the large sanitary sewer that runs along San Antonio Avenue, such that they can be directed to the Wastewater District.
Jeff Baron	Action 3.2.3. and 3.2.4. closely related, might be better to have one action related to the storm drain, with a few sentences underneath it.	**Actions combined as recommended.** **Action 3.1.4. Storm Drain Repair Funding and Improvements.** Earmark Capital Improvement Program (CIP) funding for design, permitting and implementation of storm drain repairs. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) for potential regional funding. Upsize Storm Drain Master Plan (SDMP) improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.
Jeff Baron	Action 3.2.9,3.2.10,3.2.1.., and 3.2.12, aren't "infrastructure" though 3.2.10 and 3.2.12 might be. Recommend moving these to the natural environment section, with a nod to the revetments etc. in the section of "infrastructure"	**Actions previously labeled 3.2.9 and 3.2.11 were moved to the natural environment section, the rest remain in the infrastructure section as they refer to coastal infrastructure.**
Jeff Baron	Don't see anything related to CAWD. Nor to regional roads (possible evacuation routes) or to regional electrical infrastructure or to waste management. Should be added.	**Actions related to CAWD, evacuation, and electrical infrastructure are included. Waste management actions should be included in the Climate Action Plan.** **Action 3.1.9. Wastewater Treatment.** Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms, and incentivize reduction of water use in the community and transitioning to reclaimed water use for irrigation. Maintain staff/council personnel as liaisons to CAWD. **Action 1.1.5. Evacuation Access.** Investigate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating and provide evacuation options for residents with mobility challenges. **Action 1.1.6. Evaluate Evacutaion Route Capacity.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions. **Action 1.1.7. Evacuation Alternatives.** Develop and employ evacuation alternatives and/or alternative emergency access routes in neighborhoods that have single ingress/egress. **Action 3.1.1. Underground Utilities in Fire Hazard Zones.** Determine the feasibility of undergrounding power lines in the Mission Trail Nature Preserve and designated evacuation routes.
Jeff Baron	Would prefer if the policies and actions and goals more closely resembled the vulnerability matrix - it would be easier to track from that document to this one.	**The spreadsheet addresses all priority assets at risk identified in the vulnerability assessment (as described in the introduction tab of the adaptation strategy spreadsheet). At this stage, the policies, actions, and goals will not be reorganized given budget and timeline constraints, but can be organized differently for the report. To be discussed with the Committee.**
LaNette	Big jump – who's doing what?	**After the public workshop - a final list of adaptation actions will be developed and timeframe, lead agency/group, and cost will all be determined. The City will not be responsible for doing everything, but rather for coordinating with other agencies/groups.**
LaNette	1.4.1 workers – service workers are a huge asset to the City – no discussion currently on the impacts of climate change on them. Chamber of Commerce can be very helpful here.	**Chamber of Commerce added as potential lead for actions related to service workers (1.4.1., 1.4.2., 1.4.3.).**
LaNette	1.2. more on vulnerable populations	**Two new actions added to address vulnerable populations.** **Action 1.2.4. Social Support Network.** Collaborate with the Carmel Foundation and other community-based organizations to develop an inventory of locations with isolated seniors and people with disabilities and develop a plan for a social support network to increase resilience to climate change. **Action 1.2.5. Back-up Power for Vulnerable Populations.** Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.
Carrie	Resilience Hub (Youth Center?) Police Chief could be a good resource, this might be a continuum, rather than a new action.	**Added the Youth Center to Action 1.2.1 (Establish a Resilience Hub).**
Carrie	Incentivize rather than mandate	**Mandate and require have been replaced with incentivize (Action 3.2.6.), and reduce was added to Action 1.3.4.** **Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification.** Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, on-site energy generation, and battery storage, in the City of Carmel-by-the-Sea and establish a plan for reducing or eliminating natural gas from existing buildings and building resilience to potential electrical grid shutoffs. **Recommended changes made to Action 3.2.6 (now numbered 3.1.5.) from "require" to "provide incentives" (this is the only action that included the term "require")** **Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure.** Provide incentives to ensure that all first responder and municipal facilities are properly retrofitted for existing and future climate change hazards including sea-level rise related flooding and erosion, increased wind/storm events, an increase in high heat days, and/or wildfire depending upon location and risk factors.

Date	Commenter	Mode	Policy	Comment	Response
11/18/2021	Unknown	Workshop Mural	1.1	Maintaining and updating the evacuation plan should be higher in the priority list	Addressed. Moved to the top of the list.
11/18/2021	Unknown	Workshop Mural	1.1	Fire and the elderly are a high priority	General comment. No action required.
11/18/2021	Unknown	Workshop Mural	1.1	I think creating a clear evacuation plan for the elderly community would be a priority	Addressed by including more detail to Action 1.1.1: **Action 1.1.1. Maintain and Update Evacuation Plan.** Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. The plan should focus on the most vulnerable groups including the elderly community.
11/18/2021	Unknown	Workshop Mural	1.1	The Firewise community certification seem like it might be very applicable in Carmel because the lots are so small and do overlap. Incentivizing that certification would be awesome!	General comment. No action required, action 1.1.10 addresses exploring the feasibility of and gaining firewise community certification.
11/18/2021	Unknown	Workshop Mural	1.1	Provide adaptation to keep the urban forest healthy	No action required. Adaptation to keep the urban forest healthy included: **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration with stakeholders, such as the Monterey Pine Forest Watch and California State University, Monterey Bay.
11/18/2021	Unknown	Workshop Mural	1.1	1.1.8 and 1.1.9... why limit to high fire severity zones, make it citywide	Addressed. Updated to make the actions citywide. **Action 1.1.8. Update City Planning Guidelines.** Update the City's municipal code to maintain consistency with current California codes (California Building Code Chapter 7 and California Residential Code R337) throughout the City. **Action 1.1.9. Development Standards.** Evaluate City's development standards for consistency with best practices for reducing wildfire risk for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines.
11/18/2021	Unknown	Workshop Mural	1.1	Consistent building code	General comment. No action required, action 1.1.9 addresses consistent codes.
11/18/2021	Unknown	Workshop Mural	1.1	Permit streamlining for high performing projects	This comment seems related to new construction - streamline permits for projects that meet GHG reduction/adaptation goals. Could be an option, but sometimes difficult to actually make permit process easier. Need to discuss feasbility with Planning.
11/18/2021	Unknown	Workshop Mural	1.2	Connecting the plans and implementing them	General comment. No action required. The City will ensure that plans are connected and implemented.
11/18/2021	Unknown	Workshop Mural	1.2	The residents that care about preparedness - know what to go and/or get info. The residents that don't care are the bigger challenge. engage with parttime/vacation rental home owners. Second home owners hard to reach. Social media, public workshops, home owner associations.	Addressed. Updated action below to include outreach to second home owners through community groups. **Action 1.1.3. Collaborate with Monterey Fire.** Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Continue to coordinate with the CERT program and reach out to new potential outreach partners such as local businesses, community groups, and utilities to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.
11/18/2021	Unknown	Workshop Mural	1.2	Neighborhood organizations (support for engagement)	Addressed. Updated action 1.2.3 **Action 1.2.3. Engage the Community**. Ensure the community knows about the resilience hub and how to access it by sharing updates across city and community channels. Partner with the CERT program and block captains, and community groups, to prioritize disadvantaged/marginalized communities including the elderly and individuals with disabilities.
11/18/2021	Unknown	Workshop Mural	1.2	update codes to match and not conflict with CA codes (fire for example)	No action required. Action 1.1.9 addresses codes.
11/18/2021	Unknown	Workshop Mural	1.2	Wine and Dine approach, have some parties to reach the communities.	Addressed. Updated action below to include outreach with the support of restaurants and other community groups. **Action 1.1.3. Collaborate with Monterey Fire.** Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Coordinate with the CERT program, home owner associations, restaurants, and other community groups to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.
11/18/2021	Unknown	Workshop Mural	1.3	Make it clear why electrification is an adaptation issue	No action needed. To be discussed in plan development (narrative).
11/18/2021	Unknown	Workshop Mural	1.3	Health impacts of natural gas combustion	No action needed. To be discussed in plan development (narrative).
11/18/2021	Unknown	Workshop Mural	1.3	More specific actions under the policies	General comment. No action required. Actions are as specific as feasible while leaving room to refine based on new information during implementation. Examples will be added to the Adaptation Strategy Report.
11/18/2021	Unknown	Workshop Mural	1.3	What does educate the community mean?	Addressed. Changed to "Engage the Community."
11/18/2021	Unknown	Workshop Mural	1.3	clear and implementable actions	General comment. No action required. The City will ensure the actions are clear and implementable.
11/18/2021	Unknown	Workshop Mural	1.3	Smaller steps that add up to larger actions (more detail)	General comment. No action required. Actions are as specific as feasible while leaving room to refine based on new information during implementation. Examples will be added to the Adaptation Strategy Report.
11/18/2021	Unknown	Workshop Mural	1.3	More SMART goals	No action required. Actions are where the specifics come into play (not the goals). Measurable actions will include metrics and general time-frame will be added and included in the plan.
11/18/2021	Unknown	Workshop Mural	1.3	The youth center as a resilience location. Water treatment, elderly communities	No action needed. Youth center called out as resilience location in action 1.2.1. Water treatment addressed in action 3.1.9. Elderly communities are addressed throughout actions under policy 1.1
11/18/2021	Unknown	Workshop Mural	2.1	Add action to hire a shoreline engineer to better understand issues/opportunities	Hiring a coastal engineer is addressed in the action below: **Action 3.1.8. Hire Coastal Engineer.** Hire coastal engineer with experience in planning for climate change to conduct: 1. Conduct research and prepare a Sea-Level Rise Vulnerability Study to further assess the risks to the city's coastal assets, including the beach, sea walls, revetments, bluffs, stairs and access, public bathrooms, parking areas, drainage infrastructure, and utilities. 2. Determine adaptation measures and Local Coastal Program policy options, including but not limited to:. a) Mostly natural, unarmored North Dunes area; b) mostly armored bluffs along Scenic Roach south of 8th Avenue; c) Unarmored dunes along private property between 8th Avenue and Del Mar Parking Lot; d) Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area). 3. Evaluate feasibility and phasing, the use of thresholds for when different elements of these strategies are implement. For example, maintaining armory or other defenses up to a point, but then if a threshold is reached, embracing a new bluff line and different adaptive measure. Consider applying an adaptive pathways approach which establishes trigger thresholds for different adaptive measures based on the severity of the impact from flooding and erosion associated with sea-level rise.
11/18/2021	Unknown	Workshop Mural	2.1	Consider hiring a grant writer to gain additional funding (potential new action)	Addressed. Added the following action: **Action 1.4.4. Hire a Grant Writer.** Hire a grant writer to ensure implementation of the City's adaptation strategy.
11/18/2021	Unknown	Workshop Mural	2.1	Make a distinction between parks and urban forest? Urban forest is not the same as parks. Add "urban" to 2.1.2	Addressed. Added "urban" **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration with stakeholders, such as the Monterey Pine Forest Watch and California State University, Monterey Bay.
11/18/2021	Unknown	Workshop Mural	2.1	Pescadero Canyon as a fire safety issue	General comment. No action needed. To be considered in narrative/implementation of the plan. This has been discussed at length and fire fuel reduction is already being conducted in the canyon to the extent feasible.
11/18/2021	Unknown	Workshop Mural	2.1	Improved parklands vs. forests - habitat value, corridors	No update needed. Addressed in actions 2.1.1. and 2.1.7.
11/18/2021	Unknown	Workshop Mural	2.1	For forest resilience, maybe reach out to CSUMB to conduct an analysis on the current state of the forest	Added CSUMB as potential collaborators: **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration with stakeholders, such as the Monterey Pine Forest Watch and California State University, Monterey Bay.
11/18/2021	Unknown	Workshop Mural	2.1	Urban forest is important to town. What does that look like? Forest and beach commission	Urban forest addressed in action below: **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration with stakeholders, such as the Monterey Pine Forest Watch and California State University, Monterey Bay.
11/18/2021	Unknown	Workshop Mural	2.1	Hill Park is in desperate need for major renovation work. I'd never take children there	No action necessary. Though Forest Hill Park could use renovation - it is not directly connected to adaptation.
11/18/2021	Unknown	Workshop Mural	2.1	No controlled burns in Carmel! But in Del Monte Forest and Jacks Peak.	General comment. No action required (the strategy does not mention controlled burns in the City.

11/18/2021	Unknown	Workshop Mural	3.1	I'm almost positive that dual plumbing is to code now, which enables a structure to reuse its greywater for toilet flushing and irrigation, if I understand that correctly. Do not think Carmel City code allows graywater. CA allows washing machine graywater only. I believe without a permit as well. Intelligent landscaping design can definitely reduce water runoff	Dual plumbing is a voluntary measure for non-residential uses when non-potable water is availabe. Greywater for washing machines is also allowed as a voluntary measure for residential. Both included in Calgreen (CA Building Code). The City code is silent on greywater.
9/23/2021	Jill Petker	Email		1.1.6 Defensible Space: I think we should get serious about this. No one is going to be able to have 100 feet of defensible space — there would be almost no trees in the city. But certainly within the first 5 or maybe 20 feet, I think we should let homeowners remove trees even if they don't meet the current size criteria. I wouldn't go so far as to require the removal of plants within the first 5-20 feet, but I don't think the city should stop anyone who wants to. This is related to 2.1.2, point 4. 1.3.4 Building Electrification: Just curious, why is it important to remove natural gas from buildings? Is this seen as a fire hazard, or is this just a recognition that eventually there may be no more natural gas supplies (at least without fracking, which I'm vehemently opposed to). 3.1.2 Resilience of Utilities: I'm not sure what this strategy means. 3.2.2 Green Infrastructure: How do we reconcile planting more trees and shrubs with wildfire risk? I'm glad to see rain capture, gray water recycling, and what I think is water-permeable surfacing on the list. I'm also glad to see solar energy on the list, but why just for city buildings? Should we facilitate solar energy for private buildings? I haven't tried, so I don't know how difficult it is to get approval for solar panels.	Defensible space will be addressed as part of the plan implementation. Specifically, the action below addresses incorporating defensible space design in landscaping guidelines. **Action 1.1.9. Development Standards.** Evaluate City's development standards for consistency with best practices for reducing wildfire risk for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines. Electrification - this was discussed in the meeting and will be addressed in the adaptation strategy narrative. Heat pump water heaters can use electricity from rooftop or community solar to heat water and store it for over 24 hours, while modern gas water heaters (required by A building code in new homes with gas) require electricity to operate, as well as a functioning gas system, and will not work during gas or eletric outages. Heat pumps offer the most efficient heating and cooling systems, in one, which gas furnaces can't offer (it is also more expensive to have two separte systems (heating + cooling) instead of one. Induction cooking also helps in heat waves as it does not heat up the whole room/house, but only the bottom of the pot/pan directly using magnts (not flames). This is twice as efficient as gas. Storms and other manifestations of cliamte change are expected to be catastrophic to California's gas infrastructure. The gas system take 30 times longer to restore than the electric system after natural disasters. (https://www.sierraclub.org/articles/2019/10/electrification-for-climate-resiliency) 3.1.2. Updated the wording slightly to increase clarity **Action 3.1.2. Increase Green Infrastructure.** Modify Capital Improvement Program (CIP) project design to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city. Reconciling planting trees and shrubs with wildfire risk to be addressed as part of implementation for action 2.1.2 **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics
9/23/2021	Fran Vardamis	CRA meeting		Wouldn't burying the electric lines be a big step in avoiding fires and blackouts during inevitable climate-change disasters. An urban forest with electric/communication wires strung among the vulnerable trees is a recipe for eventual disaster, both from downed lines sparking and from blackouts. Buried wires is something the city can and should do	No action required. Undergrounding utilities is included in action 3.1.1
9/23/2021	Nancy Twomey	CRA meeting		What about addressing water quality and litter as part of storm drain upgrades?	No action required. Water quality and trash capture are already addressed in the City's stormwater program and ASBS requirements. Projects to reduce stormwater quality impacts are in the City's Storm Drain Master Plan.
9/23/2021		CRA meeting		Support for burying power lines and wondering how feasible it is.	No action required. Undergrounding utilities is included in action 3.1.1, where feasibility will be explored
9/23/2021	Wanda Vollmer	CRA meeting		Regarding the power lines, I volunteer San Carlos street as test street. :)	No action required. Undergrounding utilities is included in action 3.1.1
9/23/2021	Susan Bjerre	CRA meeting		Does PG&E have any motivation to contribute to the cost of burying power lines?	No action required. Undergrounding utilities is included in action 3.1.1, where feasibility (including potential funding) will be explored. Yes, PG&E does have motivation to underground utilities.
9/23/2021		CRA meeting		Might the City conduct a survey of Carmel homeowners to gauge interest in burying power lines?	Addressed. Action 3.1.1 updated: **Action 3.1.1. Underground Utilities in Fire Hazard Zones.** Determine the feasibility of, and community support for, undergrounding power lines in the Mission Trail Nature Preserve and designated evacuation routes.
9/24/2021	Salmeh Moghimi	Email		Dear Jeff, Thanks again for this environmental gathering and discussing the issues that are so relevant to climate change and our town. I am however confused that regulating wood-burning smoke does not fall under this umbrella of supporting climate change. I believe the pollution from the smoke that gets into our atmosphere in town especially when we have these devastating fires that are also creating smoke is an environmental issue. Also the fact that Covid is a respiratory disease, cleaner air is better for everyone. We all know wood-burning smoke is toxic and that's been already addressed. So when we speak about adapting and changing our ways, I feel it starts with things we as individual Carmel residents can do too. Carmel's landscape of homes are very close to one another for this kind of activity to be left without any kind of regulation. Being part of the environmental committee, I hope you consider this. You we're kind enough to mention that I can raise this concern to another panel of people. Can you please let me know who they are.	No action required. Wood burning smoke/natural gas issues addressed in action 1.3.4 and 1.3.6.
10/15/2021	Michael DeLapa	Email		If Carmel is similar to other cities in Monterey County whose greenhouse gas inventories we've examined — and of course we would need to look a lot closer at Carmel's actual data to know for sure — the City's three most important climate mitigation strategies are: 1) Transportation policies that facilitate transition from gas cars to EVs; 2) Building policies that facilitate transition from natural gas to electric (appliances, heating, etc.) in both commercial and residential buildings 3) Land use policies that support infill, upzoning, and mixed use to facilitate walking, biking, and public transportation (buses).	No action required. This is a mitigation comment.
11/15/2021	Georgina Armstrong	Email		I'm particularly pleased that the bluffs are now getting the attention they deserve. I used to say that, while many of the non-profits were "Friends of….." there were no "Friends of the Bluffs" for obvious reasons - the hazard is too great for resident volunteers. The bluffs are the workhorses of shoreline protection, and Carmel depends upon their resiliency in the era of climate change. I'm glad that the suggestion is for the Forest and Shoreline Management Plans to be updated, and I hope that new plans become better integrated into the day-to-day operations of the City than the first emanations. I know that Mayor Potter believes that too much money is spent on studies that end up collecting dust on shelves, but if they are incorporated into the everyday structure of staff responsibilities, they can make a difference in future outcomes. They can also save the City a lot of money, since getting it right today is much cheaper than paying to get it done tomorrow. I remember being impressed with how the Santa Cruz Climate Action Plan was woven into everything that every department brought to the City Council or to the commissions in their department reports and recommendations which made the likelihood of success much higher. I know that grant applications are onerous when the City is short-staffed, but it seems that it will be crucial that funding sources be identified and used if the huge price tag on protecting Carmel from climate change vulnerabilities is to be achieved. In looking at creating defensible space which is probably the greatest challenge of all in Carmel where roofs come within 3' to 5' of touching, and buildings are about 10-15' apart, I think that accessing the big pockets of the Grants Clearinghouse's federally-funded grant program that the California Fire Safe Council maintains might go a long way to help reassure people that action on climate adaptation challenges in at least the high risk fire hazard zone is feasible since the City's budget is always so tight and staffing so limited. With an ignition zone of 5' being a real issue in Carmel in keeping an adequate clearance around buildings, the 30' defense zone is daunting. There are, of course, so many residents who have decks and stairs that are attached to their homes, and with so many properties being second homes, outside maintenance often leaves much to be desired.	Mostly general (implementation) comments that do not require action. Funding will be addressed in the plan (narrative). Added a new action about hiring a grant writer: **Action 1.4.4. Hire a Grant Writer.** Hire a grant writer to ensure implementation of the City's adaptation strategy.
11/22/2021	Nikki Nedeff	Email		My only suggestion about the proposed update to the Forest Management Plan is to recommend that substitute species not have to potential to invade into Monterey Pine Forest habitat. For example, in an effort to plant what seemed like a good idea at the time, Torrey pines were planted by Caltrans along Highway 1 in Marina, and also at Rancho Canada golf course years ago. Torrey pines are now aggressively colonizing rare Maritime Chaparral habitat in Marina and have jumped Carmel Valley Road and are invading the native pine forest below Jacks Peak. Who knew this would be a problem?!	No action required. This is more of an implementation comment (very detailed). See row below for details on inclusion of explicit collaboration with stakeholder groups such as MPFW during update of the Forest Management Plan.
11/18/2021	Joyce Stevens	Email		Mr. Chairman and Members of the City of Carmel by the Sea Climate Committee: I'm Joyce Stevens, a founding member and past president of Monterey Pine Forest Watch. Our group came together in 1992 in order to facilitate better understanding of our beautiful native Monterey Pine Forest, in the face of increasing threats from development. Not only does our local forest give the Peninsula its fundamental character, but it has long been of interest to a worldwide industry of forest products based on Monterey Pine, as it serves as the most important genetic repository for this industry. Huge development projects were in the works and the threat of pitch canker reared its ugly head right after we formed our group. As you may know there are only 5 populations of native Monterey Pines in the world…3 on the coast of California and 2 on two small islands off the coast of Baja California. Our forest is the oldest of the California stands. It is the largest and also the most impacted by human activity. In concert with the California Native Plant Society and the California Department of Fish and Game, we sponsored a scientific ecological assessment of the Peninsula forest and put on two symposia to highlight its findings and to take a look at the threat of pitch canker and it's implication for the native forest. Fortunately our forest has done what natural systems do best. It has developed resistance on its own to this fungal disease and the consequences for the native forest have been blessedly inconsequential. As the Climate Committee and Carmel authorities grapple with the threat of Climate Change on Carmel and its urbanized Monterey Pine forest, we hope you will include our group and use it as a resource. Carmel's forest is in special category, as Carmel was the only municipality locally to embrace it at its inception. In fact its visionary founders and residents were intent upon preserving it and living in harmony with the beautiful forest. And Carmel can play an important role in safeguarding the local native forest which surrounds it. We have accumulated an enormous amount of scientific information during our most active period and are proud to have contributed to the preservation of over 1200 acres of native forest habitat, most lately at Aguajito. And we published a book in 2011 entitled Coastal California's Living Legacy, The Monterey Pine Forest. We want to be involved and share our experience, insights and information with you because we love our beautiful Monterey Pines and all the life they support! Sincerely, Joyce Stevens	Updated action 2.1.2 to include explicit collaboration with stakeholder groups such as MPFW. **Action 2.1.2. Increase Urban Forest Resilience.** Update the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g. native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration with stakeholders, such as the Monterey Pine Forest Watch and California State University, Monterey Bay.

City of Carmel-by-the-Sea Potential Adaptation Strategies

Background

Carmel-by-the-Sea (City) is currently experiencing, and will continue to experience, climate change impacts, including stronger storms, increased wildfire risk, sea level rise, extended drought conditions, and increased temperature. The City developed a Climate Adaptation Plan to increase resilience of the community and assets in Carmel-by-the-Sea. In September 2019, a Climate Committee was convened to develop and guide the preparation of the Climate Adaptation Plan. The City published a Climate Change Vulnerability Assessment in July 2021. The Vulnerability Assessment characterizes climate hazards that will impact the community and City-owned assets, describes the community's major climate vulnerabilities, and identifies work that has already been done by the City to improve resilience.

This workbook provides the City's Climate Adatpation Goals, Policies and Actions to take to improve the resilience of its community members, natural environment, infrastructure and built environment. The adaptation goals, policies, and actions were developed to address all priority assets at risk in the City's Vulnerability Assessment. The **All Goals, Policies & Actions** tab shows all adaptation goals, policies and actions developed. The **Near-Term**, **Mid-Term**, and **Long-Term** tabs provides actions to be completed in the near term, mid-term, and long-term, respectively (organized by goal and policy) to support implementation.

Definitions

Goals: Broad statements describing community desires. The Carmel-by-the-Sea adaptation goals are modeled after the Adaptation Vision and Principles developed by the California Governor's Office of Planning and Research (OPR) Integrated Climate Adaptation & Resiliency Program (ICARP). Each goal is focused on increasing the resilience of one of the following broad asset categories: community, natural assets, and infrastructure and the built environment.

Policies: Specific position statements that support the achievement of goals and serve as guides to City Council, Planning Commission, and city staff, when making decisions.

Actions: Specific methods to implement and achieve policies and goals.

Appendix D
Implementation Tracking Tool

City of Carmel-by-the-Sea Potential Adaptation Strategies

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City of Carmel-by-the-Sea Adaptation Strategies

Goal/Policy/Action	Climate Hazard	Asset	Metric	Timeframe	Implementation Lead	Cost	Source
Goal 1. A Healthy, Safe, and Resilient Community							
Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters				Near-term (1-2 years); Mid-term (3-5 years); Long-term (5-10 years)		$-Low (<$50K); $$-Medium ($50K - $100K); $$$-High (>$100K)	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.1.1. Maintain and Update Evacuation Plan. Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. The plan should focus on the most vulnerable groups including the elderly community and persons with disabilities.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Evacuation Plan updated every 8 years, with the first update by 2023	Near-term (by 2024) and Ongoing	Police & Fire	$	Suggested by Climate Committee Members
Action 1.1.2. Update Emergency Preparedness. Incorporate climate change risk and impact considerations into Carmel-by-the-Sea CERT programming and materials to promote emergency preparedness at a neighborhood block-by-block scale. CERT to promote block-by-block scale emergency preparedness by organizing City by blocks and recruiting Block Captains.	All	Residents, Local Businesses, Second Homes	Number of block captains formed, climate change risk incorporated into	Near-term (by 2024)	Police & Fire	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.1.3. Collaborate with Monterey Fire. Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Continue to coordinate with the CERT program and reach out to new potential outreach partners such as local businesses, community groups, and utilities to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.	Wildfire	Residents, Local Businesses, Second Homes	Number of meetings held with Monterey Fire and CERT program; educational materials distributed	Near-term (by 2024)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 1.1.4. Publicize Local Evacuation Routes. Publicize both City and Monterey County evacuation routes for the community on the City's website, and in the newsletter and brochures. Target additional outreach to the most vulnerable such as the elderly and people with disabilities in the event of a wildfire or other disaster.	All	Elderly Population and People with Disabilities, Residents	Educational materials distributed	Near-term (by 2024)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 1.1.5. Evaluate Evacuation Route Capacity. Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions in 2022, in accordance with Assembly Bill 747.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Analysis evaluating evacuation route capacity completed	Mid-term (by 2027)	Police & Fire	$$	Assembly Bill 747 Requirement
Action 1.1.6. Evacuation Alternatives and Access. Identify neighborhoods that have single ingress/egress, pursuant to Senate Bill 99, and develop and employ evacuation alternatives, such as a gathering facility, and/or alternative emergency access routes in those neighborhoods. Evaluate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating. Evaluate options to provide evacuation, such as a shuttle service, for residents with mobility challenges.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Analysis identifying neighborhoods that have single ingress/ egress and evacuation alternatives completed; List of limited-mobility residents developed	Mid-term (by 2027)	Police & Fire	$$	Senate Bill 99 Requirement
Action 1.1.7. Develop Local Partnerships to Increase Resistance to Wildfire Structural Damage. Work with local community groups to publicize the Firewise Community Certification program (e.g., on the City website and in the newsletter and brochures) and encourage resident involvement.	Wildfire	Residents, Second Homes	Number of meetings held to publicize Firewise Community Certification	Mid-term (by 2027)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.2.1. Establish a Resilience Hub. Formally designate a physical resilience hub, such as the Youth Center or Public Library, and make it available during extreme heat events, poor air quality, severe weather events, and other highly hazardous conditions for use by the community. Provide the following essential resources in the resilience hub(s): health programming and resources, food, refrigeration, charging stations, basic medical supplies, and other emergency supplies. Electrified heating and cooling paired with backup power sources like battery storage provides redundancy and continues services in the event of a power outage. Designate a virtual resilience hub on the City website where residents can access information about the physical resilience hub and resilience efforts.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Resilience Hub established; Existing facilities upgraded to provide all essential resources	Near-term (by 2024)	Public Works / Police & Fire / Library	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.2.2. Limit the Impacts of Climate Change on the Most Vulnerable Populations. Develop a framework to define equity in Carmel-by-the-Sea and develop adaptation approaches that are equitably implemented.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Carmel-by-the-Sea Equity Framework developed	Mid-term (by 2027)	Community Planning & Building	$	Inspired by the City of Berkeley Existing Building Electrification Strategy
Action 1.2.3. Engage the Community. Develop educational materials notifying the community about the resilience hub and how to access it by sharing updates across city and community channels. Partner with the CERT program and block captains, and community groups, to prioritize disadvantaged/marginalized communities including the elderly and individuals with disabilities.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Community engagement plan developed	Near-term (by 2024)	Library / City Hall / Police Department	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.2.4. Social Support Network. Collaborate with the Carmel Foundation and other community-based organizations (e.g., Carmel Residents Association) to develop an inventory of locations with isolated elderly residents and people with disabilities and develop a plan for a social support network to increase resilience to climate change, for example by promoting home electrification.	All	Elderly Population and People with Disabilities	Social support network created; Inventory of locations created	Mid-term (by 2027)	Police Department / CERT / Community Planning & Building	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.2.5. Back-up Power for Vulnerable Populations. Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.	All	Elderly Population and People with Disabilities	Number of households with backup power established	Long-term (by 2032)	Police & Fire / Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Policy 1.3. Minimize health impacts of climate change.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.3.1. Partner with Monterey County Health Department. Coordinate with Monterey County Health Department to develop and enhance disaster and emergency early warning systems to incorporate objective data and information for potential health threats such as heat-illness, and illnesses complicated by low air quality due to climate change hazards. Include information on early warning systems and other resilience efforts on the City's virtual resilience hub (Action 1.2.1.)	All	Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Emergency early warning systems updated	Near-term (by 2024)	Police & Fire	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.3.2. Initiate a Heat Pump Retrofit Program. Create a program to help fund property owners to convert HVAC units to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality and community adaptation to extreme heat. Include a microgrid energy storage component to increase power reliability. Prioritize at-risk populations for retrofit incentives.	Wildfire, Increased Temperature	Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Number of heat pumps installed; Number of heat pumps serving at risk residents	Mid-term (by 2027)	Community Planning & Building	$$	Inspired by the City of Berkeley Existing Building Electrification Strategy
Action 1.3.3. Invest in Improving Resilience in Critical Facilities. Invest in sustainable backup power sources to provide redundancy and continued services for critical facilities, including City Hall, Carmel Police Department, Carmel Fire Department, the Libraries, and assisted living facilities, in the event of a power outage triggered by a climate event.	All	Elderly Population and People with Disabilities, Residents	Number of critical facilities with sustainable backup power sources.	Mid-term (by2027)	Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions

Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation and battery storage to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, potentially through a reach code, and building resilience to potential electrical grid shutoffs.	Wildfire, Increased Temp	Elderly Population and People with Disabilities, Residents	Feasibility Study for Existing Building Electrification and Back-up Power completed	Mid-term (by 2027)	Public Works	$$	Inspired by the City of Berkeley Existing Building Electrification Strategy
Action 1.3.5. Improve Resilience in Existing Building Stock. Develop a program for identifying funding and incentives to weatherize residential and commercial buildings that addresses severe weather protection, energy efficiency, indoor air quality improvements, and other housing improvements. Include an outreach campaign as part of this program to advertise the benefits of weatherizing and electrifying buildings.	All	Elderly Population and People with Disabilities, Residents	Nubmer of retrofitted structures		Community Planning & Building		Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies (City of Placentia policy)
Action 1.3.6. Promote Funding Opportunities. Work with partners like 3CE and PG&E to identify and promote potential resilience opportunities and accessible funding and financing mechanisms to pay for building electrification, weatherization, and battery backups.	All	Elderly Population and People with Disabilities, Residents, Local Businesses	Funding identified and promoted to community; Number of projects initiated with incentives	Long-term (by 2032) Near-term (by 2024)	Community Planning and Building/Police and Fire/Public Works	$$ $	Passive House Principles Inspired by the City of Pacifica All-Electric Reach Code
Policy 1.4. Increase economic resilience.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 1.4.1. Develop Partnerhsips to Provide Support to Displaced Workers. Work in partnership with the Monterey County Workforce Development Board and the Carmel Chamber of Commerce to develop a plan to provide support for displaced workers that establishes education and training partnerships for workers displaced or workers negatively impacted by climate change or climate adaptation policies.	All	Service Industry Workers, Local Businesses	Commitment from business community to develop a plan to support displaced workers	Near-term (by 2024)	Community Planning & Building / City Hall	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.4.2. Establish Partnerships to Develop a Resilient Economy. Partner with the County of Monterey Economic Development Department, Carmel Chamber of Commerce, and the Monterey County Workforce Development Board, to develop more integrated strategies for protection of jobs, economic sustenance, and for the protection of vulnerable populations more at-risk of temporary or permanent job dislocation due to climate change.	All	Service Industry Workers, Local Businesses	Number of meetings held to develop strategies for job protection	Mid-term (by 2027)	Community Planning & Building / City Hall	$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 1.4.3. Business Resilience Outreach Program. Collaborate with businesses in the city to better understand shared climate risks and identify opportunities to advance shared climate resilience priorities. Partner with the Carmel Chamber of Commerce and Visit Carmel to pilot and implement a local business resilience initiative to build small business capacity before a time of crisis by increasing the awareness of, and preparedness for, business continuity risks faced by the city's local businesses, providing a toolkit of intervention to help local businesses manage risks and enhance business resilience, and conducting outreach campaigns to engage leaders from the business, government, and community sectors to enhance preparedness for economic resilience.	All	Service Industry Workers, Local Businesses	Toolkit of intervention developed to help support local businesses manage risks and enhance resilience	Near-term (by 2024)	Community Planning & Building / City Hall	$$	Adapted from Gateway Cities Climate Adaptation Model General Plan Language (December 2018)
Action 1.4.4. Hire a Grant Writer/Climate Coordinator. Hire a grant writer/Climate coordinator to pursue available grants to fund climate adaptation implementation and track progress.	All	All	Grant writer/climate coordinator hired	Near-term (by 2024)	City Hall	$$$	Suggested at the 11/18/2021 public meeting
Goal 2. A Natural Environment Resilient to Climate Hazards							
Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 2.1.1. Increase Funding for Climate Adaptation. Earmark Capital Improvement Program (CIP) funding for design, permitting, and implementation of adaptation projects and strategies, such as those in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and Integrated Regional Watershed Management Program (IRWMP).	All	Urban Forest, Mission Trail Nature Preserve, North Dunes, Carmel Beach, Water Supply	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.2. Increase Urban Forest Resilience. Update and implement the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g., native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration and engagement with stakeholders, such as the Monterey Pine Forest Watch, California State University, Monterey Bay, and vulnerable communities.	Drought, Increased Temp, Wildfire	Urban Forest	Forest Management Plan Updated	Near-term (by 2024) and Ongoing	Public Works Forestry Division / Forest and Beach Commission	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.3. Increase Resilience of the Mission Trail Nature Preserve. Update and implement the Mission Trail Nature Preserve Master Plan to consider the potential impacts of climate change and to reduce wildfire risk for neighboring private properties. Coordinate with CAL FIRE and the Monterey Fire Departments to incorporate Best Practices into an annual maintenance plan, including cost estimates for implementation and revenue sources for implementation.	All	Mission Trail Nature Preserve	Mission Trail Nature Preserve Master Plan updated	Mid-term (by 2027) and Ongoing	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.4. Increase Resilience of the North Dunes. Continue to fund maintenance and monitoring at the North Dunes to determine how the changing climate will affect dune habitats. Implement enhancement efforts to improve resilience of the North Dunes.	All	North Dunes	Regular maintenance and monitoring occurring at North Dunes	Ongoing	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.5. Increase Resilience to Stronger Storms. When designing projects in the city, including those recommended in the Mission Trail Stream Stability Study, size improvements to handle larger storms consistent with best available climate change projections.	Stronger Storms	Mission Trail Nature Preserve	Number of projects sizing improvements to handle larger storms.	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.6. Beach Sand Monitoring Program. Reinstate beach sand monitoring program described in the Shoreline Management Plan.	Sea Level Rise	Carmel Beach	Active beach sand monitoring program in place	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 2.1.7. Carmel Cove Sand Supply. Partner with local researchers (e.g., California State University Monterey Bay) or other sources to conduct Carmel Cove sand supply dynamics analysis.	Sea Level Rise	Carmel Beach	Carmel Cove sand supply dynamics analysis completed	Long-term (by 2032)	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Goal 3. Resilient Infrastructure and Built Environment							
Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 3.1.1. Underground Utilities in Fire Hazard Zones. Determine the feasibility of, and community support for, undergrounding power lines in the Mission Trail Nature Preserve, designated evacuation routes, and in other high priority areas in the Very High Fire Hazard Severity Zone. Develop a plan for undergrounding utilities based on results from the feasibility study and begin implementation in the most vulnerable communities.	Wildfire	Water Supply, Sanitary Sewer System, Power Grid, Overhead Communication, PG&E/Communication Underground Lines-gas, cable	Feasibility Study completed; Plan developed based on Feasibility Study; Number of utilities moved underground	Near-term (by 2024)	Community Planning & Building and Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)

Action 3.1.2. Increase Green Infrastructure. Modify Capital Improvement Program (CIP) project design to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city.	Stronger Storms, Increased Temp, Wildfire	Urban Forest, Storm Drain System	Change in impervious surface coverage.	Near-term (by 2024)	Public Works	$$	Adapted from the Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.1.3. Reduce Stormwater Runoff. Reduce stormwater runoff through implementation of stormwater diversion and infiltration projects that reduce pollution problems caused by more frequent and intense storms and more extreme flooding events.	Stronger Storms	Storm Drain System, Carmel Beach	Stormwater diversion project implemented	Long-term (by 2032)	Public Works	$$$	Suggested by Climate Committee Members
Action 3.1.4. Storm Drain Repair Funding and Improvements. Earmark Capital Improvement Program (CIP) funding for design, permitting and implementation of storm drain repairs. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) for potential regional funding. Upsize Storm Drain Master Plan (SDMP) improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.	Stronger Storms	Storm Drain System	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure. Conduct an evaluation of all first-responder and municipal facilities to determine retrofits that may be needed for long-term resilience to climate change hazards including sea-level rise related flooding and erosion, increased wind/storm events, an increase in high heat days, and/or wildfire depending upon location and risk factors. Develop a budget and schedule for retrofits based on the findings of the municipal facilities. Retrofit existing critical buildings as detailed in the program schedule.	All	Emergency Response Facilities – Fire station, EOC, PD, PW, City Hall, etc., Hospital and Emergency Medical Care Facilities	List of critical buildings and related infrastructure requiring retrofits	Near-term (by 2024)	Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 3.1.6. Water Conservation. Partner with the Monterey Peninsula Water Management District to reduce water demand and increase water recycling, such as stormwater capture and grey water reuse, through education and outreach. Provide information and incentives for residential water use reduction, focusing engagement on vulnerable communities first.	Drought	Water Supply	Water demand reduced, incentives for grey water reuse developed and shared	Near-term (by 2024)	Community Planning & Building and Public Works	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.1.7. Bluff Structural Monitoring Program. Implement bluff structural monitoring program and do follow-up monitoring post-storm to identify additional footing stability issues.	Sea Level Rise	Carmel Beach	Bluff structural monitoring program implemented	Mid-term (by 2027)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.1.8. Sea Level Rise Coastal Vulnerability Study. Hire coastal engineer with experience in planning for climate change to: 1. Conduct research and prepare a Sea-Level Rise Vulnerability Study to further assess the risks to the city's coastal assets, including the beach, sea walls, revetments, bluffs, stairs and access, public bathrooms, parking areas, drainage infrastructure, and utilities. 2. Determine adaptation measures and Local Coastal Program policy options, including but not limited to: a) Mostly natural, unarmored North Dunes area; b) mostly armored bluffs along Scenic Roach south of 8th Avenue; c) Unarmored dunes along private property between 8th Avenue and Del Mar Parking Lot; d) Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area). 3. Evaluate the use of thresholds for phasing adaptation projects based on changing coastal conditions. Consider applying an adaptive pathways approach which establishes trigger thresholds for different adaptive measures based on the severity of the impact from flooding and erosion associated with sea-level rise.	Sea Level Rise	Carmel Beach, Shoreline Access Infrastructure, Seawall and Revetments	Sea-level rise vulnerability study completed	Near-term (by 2024)	Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.1.9. Wastewater Treatment. Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms. Maintain staff/council personnel as liaisons to CAWD.	Sea Level Rise, Stronger Storms	Water Supply, Storm Drain System	Number of collaboration meetings with CAWD regarding facility's resilience	Near-term (by 2024) and Ongoing	Community Planning & Building and Public Works	$	Suggested by Climate Committee Members
Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions
Action 3.2.1. Development Standards. Evaluate City's development standards for consistency with best practices for reducing climate change risk (e.g., wildfire risk) for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines and permitting the use of fire-resistant building materials that may conflict with current Design Guidelines. Develop a project checklist for building and site adaptation measures. The checklist, included with permit applications, should serve to provide education to permit applicants on modifications to site plans and structures that can improve a project's resilience to existing and potential future climate change hazards.	All	Residents, Local Businesses, Second Homes	Number of projects implementing adaptation measures, City development standards consistent with best practices for reducing wildfire risk	Mid-term (by 2027)	Community Planning and Building	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.2.2. Update City Planning Guidelines. Update the City's municipal code to maintain consistency with current California codes (California Building Code Chapter 7 and California Residential Code R337) throughout the City.	Wildfire, Stronger Storms, Wildfire	Residents, Local Businesses, Second Homes	City municipal code consistent with current California codes	Near-term (by 2024)	Community Planning and Building	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.2.3. Incorporate Climate Change Adaptation into Local Plans. Prioritize the update of local plans, including the Climate Change Vulnerability Assessment, Local Coastal Program, General Plan, Mission Trails Nature Reserve Master Plan, Del Mar Master Plan, Shoreline Management Plan, and drought planning to promote climate change resilience as new information is available.	All	All	Number plans updated to incorporate adaptation	Mid-term (by 2027)	Community Planning & Building / Public Works	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies
Action 3.2.4. Update Shoreline Management Plan. Update Shoreline Management Plan and Local Coastal Program based on results of Sea-level Rise Vulnerability Study.	Sea Level Rise	Carmel Beach	Shoreline Management Plan and Local Coastal Program updated	Long-term (by 2032)	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)
Action 3.2.5. Multi-Jurisdictional Hazard Mitigation Plan. Maintain a comprehensive list of projects, based on existing plans and gaps identified in the Vulnerability Assessment, to provide to Monterey County during updates to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan in 2022 and beyond.	All	All	Number of adaptation projects included in the Multi-Jurisdictional Hazard Mitigation Plan	Near-term (by 2024)	Community Planning & Building, Police, and Public Works	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)

City of Carmel-by-the-Sea Near-Term/Ongoing Adaptation Strategies

Goal/Policy/Action	Climate Hazard	Asset	Metric	Timeframe	Implementation Lead	Cost	Source	Status	Notes
Goal 1. A Healthy, Safe, and Resilient Community									
Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters				Near-term (1-2 years); Mid-term (3-5 years); Long-term (5-10 years)		$-Low (<$50K); $$-Medium ($50K-$100K); $$$-High (>$100K)	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.1.1. Maintain and Update Evacuation Plan. Maintain and update an Evacuation Plan every 8 years at a minimum to account for all types of emergencies. The plan should focus on the most vulnerable groups including the elderly community and persons with disabilities.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Evacuation Plan updated every 8 years, with the first update by 2023	Near-term (by 2024) and Ongoing	Police & Fire	$	Suggested by Climate Committee Members		
Action 1.1.2. Update Emergency Preparedness. Incorporate climate change risk and impact considerations into Carmel-by-the-Sea CERT programming and materials to promote emergency preparedness at a neighborhood block-by-block scale. CERT to promote block-by-block scale emergency preparedness by organizing City by blocks and recruiting Block Captains.	All	Residents, Local Businesses, Second Homes	Number of block captains formed, climate change risk incorporated into	Near-term (by 2024)	Police & Fire	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.1.3. Collaborate with Monterey Fire. Collaborate with Monterey Fire on its inspection and outreach efforts to reduce fire risks. Continue to coordinate with the CERT program and reach out to new potential outreach partners such as local businesses, community groups, and utilities to help distribute information to increase resident and homeowner awareness and knowledge of how to prepare for emergencies.	Wildfire	Residents, Local Businesses, Second Homes	held with Monterey Fire and CERT program; educational materials distributed	Near-term (by 2024)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 1.1.4. Publicize Local Evacuation Routes. Publicize both City and Monterey County evacuation routes for the community on the City's website, and in the newsletter and brochures. Target additional outreach to the most vulnerable such as the elderly and people with disabilities in the event of a wildfire or other disaster.	All	Elderly Population and People with Disabilities. Residents	Educational materials distributed	Near-term (by 2024)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.2.1. Establish a Resilience Hub. Formally designate a physical resilience hub, such as the Youth Center or Public Library, and make it available during extreme heat events, poor air quality, severe weather events, and other highly hazardous conditions for use by the community. Provide the following essential resources in the resilience hub(s): health programming and resources, food, refrigeration, charging stations, basic medical supplies, and other emergency supplies. Electrified heating and cooling paired with backup power sources like battery storage provides redundancy and continues services in the event of a power outage. Designate a virtual resilience hub on the City website where residents can access information about the physical resilience hub and resilience efforts.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Resilience Hub established; Existing facilities upgraded to provide all essential resources	Near-term (by 2024)	Public Works / Police & Fire / Library	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.2.3. Engage the Community. Develop educational materials notifying the community about the resilience hub and how to access it by sharing updates across city and community channels. Partner with the CERT program and block captains, and community groups, to prioritize disadvantaged/marginalized communities including the elderly and individuals with disabilities.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Community engagement plan developed	Near-term (by 2024)	Library / City Hall / Police Department	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Policy 1.3. Minimize health impacts of climate change.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.3.1. Partner with Monterey County Health Department. Coordinate with Monterey County Health Department to develop and enhance disaster and emergency early warning systems to incorporate objective data and information for potential health threats such as heat-illness, and illnesses complicated by low air quality due to climate change hazards. Include information on early warning systems and other resilience efforts on the City's virtual resilience hub (Action 1.2.1.)	All	Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Emergency early warning systems updated	Near-term (by 2024)	Police & Fire	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.3.6. Promote Funding Opportunities. Work with partners like 3CE and PG&E to identify and promote potential resilience opportunities and accessible funding and financing mechanisms to pay for building electrification, weatherization, and battery backups.	All	Elderly Population and People with Disabilities, Residents, Local Businesses	Funding identified and promoted to community; Number of projects initiated with incentives	Near-term (by 2024)	Community Planning and Building/Police and Fire/Public Works	$	Inspired by the City of Pacifica All-Electric Reach Code		
Policy 1.4. Increase economic resilience.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.4.1. Develop Partnerhsips to Provide Support to Displaced Workers. Work in partnership with the Monterey County Workforce Development Board and the Carmel Chamber of Commerce to develop a plan to provide support for displaced workers that establishes education and training partnerships for workers displaced or workers negatively impacted by climate change or climate adaptation policies.	All	Service Industry Workers, Local Businesses	Commitment from business community to develop a plan to support displaced workers	Near-term (by 2024)	Community Planning & Building / City Hall	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.4.3. Business Resilience Outreach Program. Collaborate with businesses in the city to better understand shared climate risks and identify opportunities to advance shared climate resilience priorities. Partner with the Carmel Chamber of Commerce and Visit Carmel to pilot and implement a local business resilience initiative to build small business capacity before a time of crisis by increasing the awareness of, and preparedness for, business continuity risks faced by the city's local businesses, providing a toolkit of intervention to help local businesses manage risks and enhance business resilience, and conducting outreach campaigns to engage leaders from the business, government, and community sectors to enhance preparedness for economic resilience.	All	Service Industry Workers, Local Businesses	Toolkit of intervention developed to help support local businesses manage risks and enhance resilience	Near-term (by 2024)	Community Planning & Building / City Hall	$$	Adapted from Gateway Cities Climate Adaptation Model General Plan Language (December 2018)		
Action 1.4.4. Hire a Grant Writer/Climate Coordinator. Hire a grant writer/Climate coordinator to pursue available grants to fund climate adaptation implementation and track progress.	All	All	Grant writer/climate coordinator hired	Near-term (by 2024)	City Hall	$$$	Suggested at the 11/18/2021 public meeting		
Goal 2. A Natural Environment Resilient to Climate Hazards									
Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 2.1.1. Increase Funding for Climate Adaptation. Earmark Capital Improvement Program (CIP) funding for design, permitting, and implementation of adaptation projects and strategies, such as those in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and Integrated Regional Watershed Management Program (IRWMP).	All	Urban Forest, Mission Trail Nature Preserve, North Dunes, Carmel Beach, Water Supply	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 2.1.2. Increase Urban Forest Resilience. Update and implement the Forest Management Plan to: 1. Review and consider modifications to the preferred urbanized tree species that would result in improved resilience in the context of the expected climate of the second half of the century, reduce wildfire hazard, and that takes into account aesthetics and the ecological benefits of natives or near-native (e.g., native species from the Southwestern US or Mexico would likely be preferred to European species). 2. Include planting and maintenance guidelines to improve tree health, particularly in the public right-of-way 3. Incorporate tree species that have greater drought and wildfire resistance 4. In addition to drought-tolerant landscaping, include landscaping guidelines that reduce wildfire hazard on private property. 5. Enhance carbon sequestration potential Update of the Plan should include collaboration and engagement with stakeholders, such as the Monterey Pine Forest Watch, California State University, Monterey Bay, and vulnerable communities.	Drought, Increased Temp, Wildfire	Urban Forest	Forest Management Plan Updated	Near-term (by 2024) and Ongoing	Public Works Forestry Division / Forest and Beach Commission	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 2.1.4. Increase Resilience of the North Dunes. Continue to fund maintenance and monitoring at the North Dunes to determine how the changing climate will affect dune habitats. Implement enhancement efforts to improve resilience of the North Dunes.	All	North Dunes	Regular maintenance and monitoring occurring at North Dunes	Ongoing	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 2.1.5. Increase Resilience to Stronger Storms. When designing projects in the city, including those recommended in the Mission Trail Stream Stability Study, size improvements to handle larger storms consistent with best available climate change projections.	Stronger Storms	Mission Trail Nature Preserve	Number of projects sizing improvements to handle larger storms.	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 2.1.6. Beach Sand Monitoring Program. Reinstate beach sand monitoring program described in the Shoreline Management Plan.	Sea Level Rise	Carmel Beach	Active beach sand monitoring program in place	Near-term (by 2024)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Goal 3. Resilient Infrastructure and Built Environment									
Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.1.1. Underground Utilities in Fire Hazard Zones. Determine the feasibility of, and community support for, undergrounding power lines in the Mission Trail Nature Preserve, designated evacuation routes, and in other high priority areas in the Very High Fire Hazard Severity Zone. Develop a plan for undergrounding utilities based on results from the feasibility study and begin implementation in the most vulnerable communities.	Wildfire	Water Supply, Sanitary Sewer System, Power Grid, Overhead Communication, PG&E/Communication Underground Lines-gas, cable	Feasibility Study completed; Plan developed based on Feasibility Study; Number of utilities moved underground	Near-term (by 2024)	Community Planning & Building and Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.1.2. Increase Green Infrastructure. Modify Capital Improvement Program (CIP) project design to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city.	Stronger Storms, Increased Temp, Wildfire	Urban Forest, Storm Drain System	Change in impervious surface coverage.	Near-term (by 2024)	Public Works	$$	Adapted from the Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.1.4. Storm Drain Repair Funding and Improvements. Earmark Capital Improvement Program (CIP) funding for design, permitting and implementation of storm drain repairs. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) for potential regional funding. Upsize Storm Drain Master Plan (SDMP) improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.	Stronger Storms	Storm Drain System	Number of adaptation projects funded through CIP	Near-term (by 2024)	Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.1.5. Retrofit Existing Critical Buildings and Related Infrastructure. Conduct an evaluation of all first-responder and municipal facilities to determine retrofits that may be needed for long-term resilience to climate change hazards including sea-level rise related flooding and erosion, increased wind/storm events, an increase in high heat days, and/or wildfire depending upon location and risk factors. Develop a budget and schedule for retrofits based on the findings of the municipal facilities. Retrofit existing critical buildings as detailed in the program schedule.	All	Emergency Response Facilities – Fire station, EOC, PD, PW, City Hall, etc., Hospital and Emergency Medical Care Facilities	List of critical buildings and related infrastructure requiring retrofits	Near-term (by 2024)	Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 3.1.6. Water Conservation. Partner with the Monterey Peninsula Water Management District to reduce water demand and increase water recycling, such as stormwater capture and grey water reuse, through education and outreach. Provide information and incentives for residential water use reduction, focusing engagement on vulnerable communities first.	Drouaht	Water Supply	Water demand reduced, incentives for grey water reuse developed and shared	Near-term (by 2024)	Community Planning & Building and Public Works	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.1.8. Sea Level Rise Coastal Vulnerability Study. Hire coastal engineer with experience in planning for climate change to: 1. Conduct research and prepare a Sea-Level Rise Vulnerability Study to further assess the risks to the city's coastal assets, including the beach, sea walls, revetments, bluffs, stairs and access, public bathrooms, parking areas, drainage infrastructure, and utilities. 2. Determine adaptation measures and Local Coastal Program policy options, including but not limited to: a) Mostly natural, unarmored North Dunes area; b) mostly armored bluffs along Scenic Roach south of 8th Avenue; c) Unarmored dunes along private property between 8th Avenue and Del Mar Parking Lot; d) Armored private properties on the bluffs at the north end of the City (Pescadero Canyon area). 3. Evaluate the use of thresholds for phasing adaptation projects based on changing coastal conditions. Consider applying an adaptive pathways approach which establishes trigger thresholds for different adaptive measures based on the severity of the impact from flooding and erosion associated with sea-level rise.	Sea Level Rise	Carmel Beach, Shoreline Access Infrastructure, Seawall and Revetments	Sea-level rise vulnerability study completed	Near-term (by 2024)	Public Works	$$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.1.9. Wastewater Treatment. Collaborate with the Carmel Area Wastewater District (CAWD) to increase the facility's resilience to sea level rise and stronger storms. Maintain staff/council personnel as liaisons to CAWD.	Sea Level Rise, Stronger Storms	Water Supply, Storm Drain System	collaboration meetings with CAWD regarding facility's resilience	Near-term (by 2024) and Ongoing	Community Planning & Building and Public Works	$	Suggested by Climate Committee Members		
Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.2.2. Update City Planning Guidelines. Update the City's municipal code to maintain consistency with current California codes (California Building Code Chapter 7 and California Residential Code R337) throughout the City.	Wildfire, Stronger Storms, Wildfire	Residents, Local Businesses, Second Homes	City municipal code consistent with current California codes	Near-term (by 2024)	Community Planning and Building	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.2.5. Multi-Jurisdictional Hazard Mitigation Plan. Maintain a comprehensive list of projects, based on existing plans and gaps identified in the Vulnerability Assessment, to provide to Monterey County during updates to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan in 2022 and beyond.	All	All	Number of adaptation projects included in the Multi-Jurisdictional Hazard Mitigation Plan	Near-term (by 2024)	Community Planning & Building, Police, and Public Works	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		

City of Carmel-by-the-Sea Mid-Term Adaptation Strategies

Goal/Policy/Action	Climate Hazard	Asset	Metric	Timeframe	Implementation Lead	Cost	Source	Status	Notes
Goal 1. A Healthy, Safe, and Resilient Community									
Policy 1.1. Provide effective emergency preparedness and response in anticipation of potential climate-related disasters				Near-term (1-2 years); Mid-term (3-5 years); Long-term (5-10 years)		$-Low (<$50K); $$-Medium ($50K - $100K); $$$-High (>$100K)	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.1.5. Evaluate Evacuation Route Capacity. Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios and identify and implement mitigating actions in 2022, in accordance with Assembly Bill 747.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Analysis evaluating evacuation route capacity completed	Mid-term (by 2027)	Police & Fire	$$	Assembly Bill 747 Requirement		
Action 1.1.6. Evacuation Alternatives and Access. Identify neighborhoods that have single ingress/egress, pursuant to Senate Bill 99, and develop and employ evacuation alternatives, such as a gathering facility, and/or alternative emergency access routes in those neighborhoods. Evaluate potential congestion issues in the event of an evacuation and develop and maintain a list of residents who may have difficulty evacuating. Evaluate options to provide evacuation, such as a shuttle service, for residents with mobility challenges.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Analysis identifying neighborhoods that have single ingress/egress and evacuation alternatives completed; List of limited-mobility residents developed	Mid-term (by 2027)	Police & Fire	$$	Senate Bill 99 Requirement		
Action 1.1.7. Develop Local Partnerships to Increase Resistance to Wildfire Structural Damage. Work with local community groups to publicize the Firewise Community Certification program (e.g., on the City website and in the newsletter and brochures) and encourage resident involvement.	Wildfire	Residents, Second Homes	Number of meetings held to publicize Firewise Community Certification	Mid-term (by 2027)	Police & Fire	$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.2.2. Limit the Impacts of Climate Change on the Most Vulnerable Populations. Develop a framework to define equity in Carmel-by-the-Sea and develop adaptation approaches that are equitably implemented.	All	Elderly Population and People with Disabilities, Residents, Service Industry Workers	Carmel-by-the-Sea Equity Framework developed	Mid-term (by 2027)	Community Planning & Building	$	Inspired by the City of Berkeley Existing Building Electrification Strategy		
Action 1.2.4. Social Support Network. Collaborate with the Carmel Foundation and other community-based organizations (e.g., Carmel Residents Association) to develop an inventory of locations with isolated elderly residents and people with disabilities and develop a plan for a social support network to increase resilience to climate change, for example by promoting home electrification.	All	Elderly Population and People with Disabilities	Social support network created; Inventory of locations created	Mid-term (by 2027)	Police Department / CERT / Community Planning & Building	$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Policy 1.3. Minimize health impacts of climate change.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.3.2. Initiate a Heat Pump Retrofit Program. Create a program to help fund property owners to convert HVAC units to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality and community adaptation to extreme heat. Include a microgrid energy storage component to increase power reliability. Prioritize at-risk populations for retrofit incentives.	Wildfire, Increased Temperature	Elderly Population and People with Disabilities, Residents, Local Businesses, Service Industry Workers	Number of heat pumps installed; Number of heat pumps serving at risk residents	Mid-term (by 2027)	Community Planning & Building	$$	Inspired by the City of Berkeley Existing Building Electrification Strategy		
Action 1.3.3. Invest in Improving Resilience in Critical Facilities. Invest in sustainable backup power sources to provide redundancy and continued services for critical facilities, including City Hall, Carmel Police Department, Carmel Fire Department, the Libraries, and assisted living facilities, in the event of a power outage triggered by a climate event.	All	Elderly Population and People with Disabilities. Residents	Number of critical facilities with sustainable backup power sources.	Mid-term (by2027)	Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation and battery storage to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, potentially through a reach code, and building resilience to potential electrical grid shutoffs.	Wildfire, Increased Temp	Elderly Population and People with Disabilities. Residents	Feasibility Study for Existing Building Electrification and Back-up Power completed	Mid-term (by 2027)	Public Works	$$	Inspired by the City of Berkeley Existing Building Electrification Strategy		
Policy 1.4. Increase economic resilience.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 1.4.2. Establish Partnerships to Develop a Resilient Economy. Partner with the County of Monterey Economic Development Department, Carmel Chamber of Commerce, and the Monterey County Workforce Development Board, to develop more integrated strategies for protection of jobs, economic sustenance, and for the protection of vulnerable populations more at-risk of temporary or permanent job dislocation due to climate change.	All	Service Industry Workers, Local Businesses	Number of meetings held to develop strategies for job protection	Mid-term (by 2027)	Community Planning & Building / City Hall	$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Goal 2. A Natural Environment Resilient to Climate Hazards									
Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 2.1.3. Increase Resilience of the Mission Trail Nature Preserve. Update and implement the Mission Trail Nature Preserve Master Plan to consider the potential impacts of climate change and to reduce wildfire risk for neighboring private properties. Coordinate with CAL FIRE and the Monterey Fire Departments to incorporate Best Practices into an annual maintenance plan, including cost estimates for implementation and revenue sources for implementation.	All	Mission Trail Nature Preserve	Mission Trail Nature Preserve Master Plan updated	Mid-term (by 2027) and Ongoing	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Goal 3. Resilient Infrastructure and Built Environment									
Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.1.7. Bluff Structural Monitoring Program. Implement bluff structural monitoring program and do follow-up monitoring post-storm to identify additional footing stability issues.	Sea Level Rise	Carmel Beach	Bluff structural monitoring program implemented	Mid-term (by 2027)	Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.2.1. Development Standards. Evaluate City's development standards for consistency with best practices for reducing climate change risk (e.g., wildfire risk) for both new and existing development, including but not limited to incorporating defensible space design in landscaping guidelines and permitting the use of fire-resistant building materials that may conflict with current Design Guidelines. Develop a project checklist for building and site adaptation measures. The checklist, included with permit applications, should serve to provide education to permit applicants on modifications to site plans and structures that can improve a project's resilience to existing and potential future climate change hazards.	All	Residents, Local Businesses, Second Homes	implementing adaptation measures, City development standards consistent with best practices for reducing wildfire risk	Mid-term (by 2027)	Community Planning and Building	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Action 3.2.3. Incorporate Climate Change Adaptation into Local Plans. Prioritize the update of local plans, including the Climate Change Vulnerability Assessment, Local Coastal Program, General Plan, Mission Trails Nature Reserve Master Plan, Del Mar Master Plan, Shoreline Management Plan, and drought planning to promote climate change resilience as new information is available.	All	All	Number plans updated to incorporate adaptation	Mid-term (by 2027)	Community Planning & Building / Public Works	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		

City of Carmel-by-the-Sea Long-Term Adaptation Strategies

Goal/Policy/Action	Climate Hazard	Asset	Metric	Timeframe	Implementation Lead	Cost	Source	Status	Notes
Goal 1. A Healthy, Safe, and Resilient Community									
Policy 1.2. Focus adaptation efforts and engagement on the most vulnerable populations.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.2.5. Back-up Power for Vulnerable Populations. Coordinate with 3CE, PG&E, and emergency management services to establish backup power and emergency grid shutdown protocols that protect the most vulnerable populations.	All	Elderly Population and People with Disabilities	Number of households with backup power established	Long-term (by 2032)	Police & Fire / Public Works	$$$	Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Policy 1.3. Minimize health impacts of climate change.							Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies		
Action 1.3.5. Improve Resilience in Existing Building Stock. Develop a program for identifying funding and incentives to weatherize residential and commercial buildings that addresses severe weather protection, energy efficiency, indoor air quality improvements, and other housing improvements. Include an outreach campaign as part of this program to advertise the benefits of weatherizing and	All	Elderly Population and People with Disabilities, Residents	Nubmer of retrofitted structures	Long-term (by 2032)	Community Planning & Building	$$	Adapted from the Southern California Adaptation Planning Guide, Appendix F - General Plan and Local Coastal Plan Model Policies (City of Placentia policy) Passive House Principles		
Goal 2. A Natural Environment Resilient to Climate Hazards									
Policy 2.1. Protect and restore climate-vulnerable habitat and ecosystems.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 2.1.7. Carmel Cove Sand Supply. Partner with local researchers (e.g., California State University Monterey Bay) or other sources to conduct Carmel Cove sand supply dynamics analysis.	Sea Level Rise	Carmel Beach	Carmel Cove sand supply dynamics analysis completed	Long-term (by 2032)	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		
Goal 3. Resilient Infrastructure and Built Environment									
Policy 3.1. Support greater resilience, redundancy, and reliability of local and regional infrastructure and the built environment.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.1.3. Reduce Stormwater Runoff. Reduce stormwater runoff through implementation of stormwater diversion and infiltration projects that reduce pollution problems caused by more frequent and intense storms and more extreme flooding events.	Stronger Storms	Storm Drain System, Carmel Beach	Stormwater diversion project implemented	Long-term (by 2032)	Public Works	$$$	Suggested by Climate Committee Members		
Policy 3.2. Incorporate climate change adaptation into relevant plans and standards.							Adapted from the Southern California Adaptation Planning Guide, Appendix B Matrix of Adaptation Strategies and Actions		
Action 3.2.4. Update Shoreline Management Plan. Update Shoreline Management Plan and Local Coastal Program based on results of Sea-level Rise Vulnerability Study.	Sea Level Rise	Carmel Beach	Shoreline Management Plan and Local Coastal Program updated	Long-term (by 2032)	Community Planning & Building and Public Works	$$	Carmel-by-the-Sea Vulnerability Assessment (July 2021)		

Appendix E
Implementation Case Studies

Implementation Case Studies

This appendix illustrates adaptation examples that align with a selection of adaptation actions and show how adaptation policies and actions can be effectively implemented.

West Oakland Resilience Hubs

Photo: West Oakland Resilience Hub Planning Meeting https://norcalresilience.org/case-study-west-oakland-resiliency-hub/

Location: West Oakland, CA

The City of Oakland identified three facilities owned and operated by the City that were in need of physical infrastructure upgrades which could serve as climate resilience hubs: West Oakland Senior Center, West Oakland Branch of the Oakland Public Library, and the DeFremery Recreation Center and Park. The facilities were upgraded to offer the following services: cooling, warming, sanitation, communication, transportation, medical area, filtered indoor spaces during forest fires and high air pollution times, and renewable and non-polluting energy sources, including solar energy, and back-up power to run critical operations when the power grid is down. The upgrades involved partnerships between the City, PG&E, and the Bay Area Air Quality Management District. Design phase costs are estimated to be $500,000 and initial known implementation estimates amount to approximately $1.6 million. Funding was provided by a combination of stakeholder financing, funding through California Air Resources Board, and the City of Oaklands Capital Improvement Plan.

Related Action 1.2.1. Establish a Resilience Hub. Formally designate a physical resilience hub, such as the Youth Center or Public Library, and make it available during extreme heat events, poor air quality, severe weather events, and other highly hazardous conditions for use by the community. Provide the following essential resources in the resilience hub(s): health programming and resources, food, refrigeration, charging stations, basic medical supplies, and other emergency supplies. Electrified heating and cooling paired with backup power sources like battery storage provides redundancy and continues services in the event of a power outage. Designate a virtual resilience hub on the City website where residents can access information about the physical resilience hub and resilience efforts.

Berkeley Existing Buildings Electrification Strategy

Location: Berkeley, CA

Photo: Existing Buildings Electrification Strategy https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Draft_Berkeley_Existing_Bldg_Electrification_Strategy_20210415.pdf

Berkeley's Existing Buildings Electrification Strategy analyzes the existing building stock of the City, with a focus on low-rise residential, and identifies a pathway for an equitable transition to all-electric buildings. To model electrification costs for Berkeley's existing homes, the project team estimated Berkeley's building stock, using Alameda County Assessor data, to better understand the distribution of building types and existing conditions. The analysis was followed by research into electrification measures and costs and the data was used to model different retrofit packages to identify the most cost-effective options. To ensure Berkeley's pathway to all-electric buildings avoids negative impacts to equity and improves current conditions, the City developed an Equity Framework called Equity Guardrails with stakeholder and community feedback. The Equity Guardrails reflected priorities and concerns of marginalized communities, highlighting the need to protect people against potential unintended consequences of building electrification like gentrification and displacement. The City developed four equity guardrails that each potential policy was assessed against and will be used in the future as new policies are developed. The four equity guardrails are:

- Access to health and safety benefits
- Access to economic benefits
- Maximize ease of installation
- Promote housing affordability & anti-displacement.

Related Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation and battery storage to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, potentially through a reach code, and building resilience to potential electrical grid shutoffs.

Related Action 1.2.2. Limit the Impacts of Climate Change on the Most Vulnerable Populations. Develop a framework to define equity in Carmel-by-the-Sea and develop adaptation approaches that are equitably implemented

2500 R Midtown Development

Photo: Rooftop solar panels at the 2500 R Street Community Development. Sunverge Energy https://cdn.cleanegroup.org/wp-content/uploads/2500R-solar-on-roof-900x675.jpeg

Location: Sacramento, CA

Sacramento Municipal Utility District (SMUD) partnered with Sunverge Energy, and Pacific Housing to create a net zero energy (ZNE) community within a single-family home affordable housing development.[1] The incorporation of solar PV as well as battery storage demonstrates the feasibility of microgrid level projects in using alternative energy while still ensuring power reliability. The project was funding through the US Department of Energy ARRA, Solar SMART program, California SGIP incentives, and private capital leveraging special financial structures that take advantage of Pacific Housing's non-profit status.

Related Action 1.3.2. Initiate a Heat Pump Retrofit Program. Create a program to help fund property owners to convert HVAC units to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality and community adaptation to extreme heat. Include a microgrid energy storage component to increase power reliability.

Related Action 1.3.4. Conduct a Feasibility Study for Existing Building Electrification and Back-up Power. Perform an electrification feasibility study/existing building analysis in order to understand the potential for, and associated costs of, electrification retrofitting, including heat pumps, along with on-site energy generation and battery storage to provide a more resilient back-up power supply. Establish a plan for reducing or eliminating natural gas from existing buildings, potentially through a reach code, and building resilience to potential electrical grid shutoffs.

[1] California Energy Commission. Microgrid Analysis and Case Studies Report California, North America, and Global Case Studies: Page 19-23. 2018. Available: <https://www.energy.ca.gov/sites/default/files/2021-06/CEC-500-2018-022.pdf>. Accessed February 4, 2022

Marina Dune Preserve Restoration

Location: Marina, CA

Photo: Monterey Peninsula Regional Park District, Marina Dunes Preserve https://www.mprpd.org/marina-dunes-preserve

The Marina Dunes encompass part of the Monterey Bay dune complex spanning Moss Landing to Seaside California. This dune restoration project was a collaborative effort between project partners of the Monterey Peninsula Regional Parks District, Return of the Natives, Burleson Consulting Inc/Terracon, and Native Solutions.[2] Restoration activities included control and eradication of non-native species, sand stabilization, and re-vegetation efforts. Re-vegetation of native species included the collection of site-specific seed, broadcast seeding, hydroseeding, and the out planting of propagated seedlings. Restoration through the eradication of non-natives and re-vegetation of native species increases dune resilience to climate stress.[3] Structural improvement activities included delineation of pathways and fences to protect restoration areas as well as signage to educate the community on dune habitat restoration.

Related Action 2.1.4. Increase Resilience of the North Dunes. Continue to fund maintenance and monitoring at the North Dunes to determine how the changing climate will affect dune habitats. Implement enhancement efforts to improve resilience of the North Dunes.

[2] California Coastal Dune Science Network. Marina Dune Preserve Restoration. 2021. Available: <https://www.resilientcoastlines.com/projects/marina-dune-preserve-restoration>. Accessed February 4, 2022

[3] National Oceanic and Atmospheric Administration (NOAA). Office for Coastal Management. Peer-to-Peer Case Study: Dune Restoration Increases Flood Protection and Access for Community. Available: < https://coast.noaa.gov/digitalcoast/training/cardiff-state-beach.html >. Accessed February 8, 2022.

San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook

Photo: San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook https://nnala.com/san-mateo-county-sustainable-green-streets-and-parking-lots-design-guidebook/

Location: San Mateo County, CA

The county of San Mateo created a guidebook to address green infrastructure and stormwater management.[4] With a specific focus on green streets and parking lots, the San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook was developed with input from the City/County Association of Governments of San Mateo County, the Program's New Development Subcommittee, and the City/County Engineers' Association of San Mateo County. The recommended actions include site layout strategies, stormwater facility strategies, pervious pavements, and urban tree canopy additions.[5] The final chapter of the guidebook is dedicated to implementation considerations. The topics covered include reducing project costs, changing municipal code/policy, and public education and outreach. Additionally, there are four example projects listed to demonstrate feasibility. The main takeaway for implementation was to bundle stormwater management solutions with general street improvements. Funding was sourced by vehicle registration fees collected in San Mateo County for congestion and stormwater management authorized by California Assembly Bill 1546 and California Senate Bill 348.

Related Action 3.1.2. Increase Green Infrastructure. Modify Capital Improvement Program (CIP) project design to consistently evaluate the potential for green infrastructure to be incorporated in CIP projects in the public right-of-way and on public lands. Identify and develop a green infrastructure pilot project that will reduce runoff volume and capture and infiltrate stormwater, based on projected changes in precipitation amounts due to climate change, and incorporates tree and shrub planting to increase carbon sequestration in the city.

Related Action 3.1.3. Reduce Stormwater Runoff. Reduce stormwater runoff through implementation of stormwater diversion and infiltration projects that reduce pollution problems caused by more frequent and intense storms and more extreme flooding events.

Related Action 3.1.4. Earmark Capital Improvement Program (CIP) funding for design, permitting and implementation of storm drain repairs. Include strategies in the 2021 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) for potential regional funding. Upsize Storm Drain Master Plan (SDMP) improvements, especially when making repairs in the lower reaches of watersheds, to handle larger storms.

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[4] American Society of Landscape Architects. Green Infrastructure and Stormwater Management Case Study. 2009. Available: <https://www.asla.org/uploadedFiles/CMS/Advocacy/Federal_Government_Affairs/Stormwater_Case_Studies/Stormwater%20Case%20081%20San%20Mateo%20County%20Sustainable%20Green%20Streets,%20San%20Mateo,%20CA.pdf>. Accessed February 2, 2022

[5] San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook. Available: <https://www.flowstobay.org/documents/municipalities/sustainable%20streets/San%20Mateo%20Guidebook.pdf>. Accessed February 2, 2022

Pajaro Dunes Geologic Hazards Abatement District

Location: Santa Cruz County, CA

Photo: Pajaro Dunes. https://www.resortsandlodges.com/lodging/usa/california/central-coast/pajaro-dunes-resort.html

The Pajaro Dunes Geologic Hazards Abatement District (GHAD) is one example of an abatement district formed to mitigate sea level rise and storm impacts. The Pajaro Dunes community includes private single-family residences as well as townhouses and condominiums. These residences were built along a narrow strip of land bounded by the Pacific Ocean on the southwest and by the Pajaro River on the northeast and southeast. The development is protected by an approximately 6,000-foot-long seawall constructed of large riprap along the ocean-side of the development and a steel sheet wall along the inland Pajaro River side of the development. The rock revetment has been repeatedly damaged by coastal erosion, occurring during server winter storms.[6] The GHAD is working to fund repairs to the seawall.

Related to funding and financing mechanisms.

[6] Pajaro Dunes Geologic Hazard Abatement District. N.d. 2020 Grading Overview Document. Available: <https://pdghad.org/bg_pdghad.org/reports/>. Accessed February 11, 2022.

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
ORDERS OF BUSINESS

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Agnes Martelet, Manager, Environmental Compliance
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Resolution 2022-050 approving a 2.14 percent rate increase to charges by the City's franchised hauler, GreenWaste Recovery, for the collection of solid waste, recycling and organics, effective July 1, 2022, and approving an Amendment to the Memorandum of Understanding between the Monterey Regional Waste Management District and Member Agencies for Fiscal Year 2022/23 regional costs

RECOMMENDATION:

Adopt Resolution 2022-050 (Attachment 1) approving a 2.14 percent rate increase to charges by the City's franchised hauler, GreenWaste Recovery, for the collection of solid waste, recycling and organics, effective July 1, 2022, and approving an Amendment to the Memorandum of Understanding between the Monterey Regional Waste Management District and Member Agencies for Fiscal Year 2022/23 regional costs.

BACKGROUND/SUMMARY:

Solid Waste, Recycling, and Organics Collection Rate Adjustment Calculation
On June 17, 2014, Council approved a Franchise Agreement (Agreement) with GreenWaste Recovery (GWR) for the collection of solid waste, recycling and organics, subsequent to a competitive Request for Proposals selection process. The Agreement became effective on July 1, 2015 and expires on June 30, 2030. The Agreement includes a prescribed formula to determine annual rate adjustments by GWR, effective each year on July 1. This index-based formula includes the cost of disposal and processing ("tipping fee") at the Monterey Regional Waste Management District (MRWMD) facility in Marina, inflationary indexes for adjustments to GWR labor and operating costs, regional implementation of SB 1383 (further discussed below), and the City's Franchise Fee of 13%.

HF&H Consultants, LLC (HF&H) was retained by the MRWMD to review GWR's request for an adjustment to customer rates, effective July 1, 2022 (see Attachment 2). The rate review resulted in a 2.14% rate increase due primarily to a 7% increase to material disposal fees (tipping fees) charged by the Monterey Regional Waste Management District, as well as increases to labor and material inflationary indices for the period reviewed.

Rate Adjustment Approval

While the Agreement requires the City Council to approve annual rate adjustments, the rate adjustment is based upon disposal fees and actual tonnage, inflationary indexes for GWR labor and operational costs, and cost for the City's Franchise Fee and other regulatory fees. City staff, in tandem with the MRWMD staff and HF&H, finds the rate calculation methodology to be consistent with the Agreement. Therefore, staff recommends Council approve the rate adjustment, which becomes effective on July 1, 2022, in accordance with the Agreement.

Memorandum Of Understanding (MOU) for Regional SB1383 Implementation
In November 2020, CalRecycle issued regulations to implement Senate Bill (SB) 1383, with the goal to reduce the amount of organic material being landfilled by 75% by 2025. CalRecycle regulations place significant responsibility for implementation on local municipalities, including food waste collection from all residential and commercial customers, public education and outreach, enforcement, developing or increasing the capacity of edible food recovery programs, and purchasing recycled organic material such as compost.

In response to the new regulations, the MRWMD's Technical Advisory Committee (TAC), which is comprised of staff from each Member Agency including the City, waste haulers in the MRWMD service area, and MRWMD, have been working collaboratively to implement program changes to meet the new regulations.

The Member Agencies determined that the MRWMD has the expertise and resources necessary to implement shared activities on the Member Agencies' behalf, and agreed to reimburse the MRWMD for proportionate shares of designated annual costs incurred by the MRWMD for these activities under the MOU regarding assistance with compliance with SB 1383. Elements of the new regulations that are being managed by the MRWMD under guidance of the TAC include public outreach, contamination monitoring, enforcement, reporting, and edible food recovery programs. The regional costs for implementation of SB 1383 under this MOU are included in the collection rates charged by GWR.

The MOU currently contains Exhibits A, B & C detailing annual implementation costs for each fiscal year. The Exhibits were designed to be updated annually based upon estimated future costs. The updated MOU with revised Exhibits A, B, C, and D is included in Attachment 3.The exhibits are as follows:

- Exhibit A - Detailed Activities and Costs: Contains the scope of work and associated costs related to general SB 1383 activities. This Exhibit is updated annually to meet SB 1383 implementation requirements.
- Exhibit B - Member Agencies' Annual Proportionate Shares and Costs: Allocates SB 1383 regional costs to the Member Agencies. This Exhibit is updated annually to meet SB 1383 implementation requirements.
- Exhibit C - Member Agencies' Estimated Allocation of CalRecycle Local Assistance Grant Program Funding: Details proposed programs funded by the CalRecycle Local Assistance Grant that was awarded to Peninsula municipalities, including the City, in March 2022. This Exhibit was developed when the CalRecycle Grant was awarded and will be be updated if future funding becomes available.
- Exhibit D – Member Agencies' Estimated Procurement Requirements of Organic Material: The addition of Exhibit D details the SB 1383 organic materials (compost or mulch) procurement requirements and estimated costs for each Member Agency for reference.

The City's share of regional costs for implementation of SB 1383 in FY 2022/23 is $7,500. This amount is reflected as an agency fee in the solid waste, recycling, and organics collection rate adjustment.

FISCAL IMPACT:

The new collection rates reflect an increase of 2.14% and are included as Exhibit A in Resolution 2021-050 (see Attachment 1). The 2.14% rate increase is primarily due to a 7% increase in material disposal fees at the MRWMD facility and increases to labor and material inflationary indices for the period reviewed. The cost of SB 1383 implementation is also included in the fees.

For context, a residential customer with a 32-gallon trash cart will now pay $50.05 a month for solid waste, recycling and yard trimming service, as compared to the current rate of $49.00 a month, or $12.60 more per year. Commercial rates vary based upon size of the cart, frequency of collection, and type of collection service.

PRIOR CITY COUNCIL ACTION:

On June 8, 2021, Council approved GWR's imposition of a 2% formula-based rate adjustment for the collection of solid waste, recycling and organics. GWR's rate increase was primarily due to the creation of a $72,600 fund to buffer anticipated costs of SB 1383.

In November 2021, Council amended the City's Solid Waste and Materials Recovery Ordinance (Chapter 8.16) to address the new requirements of SB 1383. In December 2021, Council amended the Franchise Agreement with GWR to comply with SB 1383 and approved a 3.76% extraordinary rate increase to cover the additional operational costs associated with SB 1383.

ATTACHMENTS:

Attachment 1: Resolution 2022-050
Attachment 2: Review of GreenWaste Recovery's 2022/23 Rate Request
Attachment 3: Amended MOU between MRWMD and Member Agencies

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL

RESOLUTION NO. 2022-050

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA APPROVING A 2.14 PERCENT RATE INCREASE TO CHARGES BY THE CITY'S FRANCHISED HAULER, GREENWASTE RECOVERY, FOR THE COLLECTION OF SOLID WASTE, RECYCLING AND ORGANICS, EFFECTIVE JULY 1, 2022, AND APPROVING AN AMENDMENT TO THE MEMORANDUM OF UNDERSTANDING BETWEEN THE MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT AND MEMBER AGENCIES FOR FISCAL YEAR 2022/23 REGIONAL COSTS

WHEREAS, the City of Carmel-by-the-Sea (City) entered into a Franchise Agreement with GreenWaste Recovery, Inc. (GWR) on June 17, 2014 for solid waste, recycling, and organics collection services for the period of July 1, 2015 through June 30, 2030; and,

WHEREAS, Section 8.2 of the Franchise Agreement requires annual inflationary adjustments to customer rates on July 1 of each year, as described in Exhibit E1 to the Agreement, based on agreed-upon cost indices, changes in tipping fees at the Monterey Regional Waste Management District landfill, City fees, and actual tonnage of materials collected by GWR; and,

WHEREAS, HF&H Consultants, LLC (HF&H) was retained by the Monterey Regional Waste Management District on behalf of all its member agencies to review GWR's request for an adjustment to customer rates, submitted to the City on April 1, 2022; and,

WHEREAS, HF&H's calculation of the rate adjustments have been reviewed by City staff, and staff finds the calculations to be consistent with the methodology and requirements of the Franchise Agreement; and,

WHEREAS, the rate review resulted in a 2.14 percent rate increase; and,

WHEREAS, in September 2016, Governor Brown signed into law Senate Bill 1383 (SB 1383) establishing methane emissions reduction targets, and in November 2020, CalRecycle issued regulations to implement SB 1383; and

WHEREAS, the Monterey Regional Waste Management District's Technical Advisory Committee developed a Memorandum of Understanding to conduct tasks to comply with CalRecycle SB 1383 regulations on a regional basis; and

WHEREAS, regional implementation costs included in the Memorandum of Understanding must be updated annually; and

WHEREAS, the City's share of regional implementation costs is reflected as an agency fee in the solid waste, recycling, and organics collection rate adjustment.

NOW THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA DOES HEREBY:

- Approve a 2.14 percent rate increase to charges by the City's franchised hauler, GreenWaste Recovery, for the collection of solid waste, recycling and organics, effective on July 1, 2022, as shown in the attached Exhibit A

- Approve an amendment to the Memorandum of Understanding between the Monterey Regional Waste Management District and Member Agencies for Fiscal Year 2022/23 regional costs associated with SB 1383.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA this 7th day of June, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

_____
Dave Potter
Mayor

_____
Yashin Abbas
Interim City Clerk

EXHIBIT A

Franchise Agreement Exhibit G-3
Rates Effective July 1, 2022
(All rates are monthly unless stated otherwise)

Rates Effective July 1, 2022

Attachment 1

Note: All rates are monthly unless stated otherwise.

Residential Solid Waste Collection Rates

Service Level	Solid Waste	Recycling	Organics
20 Gal Back/Side	$ 45.05	Included	Included
32 Gal Back/Side	$ 50.05	Included	Included
64 Gal Back/Side	$ 79.11	Included	Included
96 Gal Back/Side	$ 100.28	Included	Included

Notes:
See Exhibit B1 for specific service availability

Commercial/Multi-Family Solid Waste Collection Rates

	Frequency					
Service Level	1x/week	2x/week	3x/week	4x/week	5x/week	6x/week
32-Gallon Cart	$ 50.40	$ 100.84	$ 127.86	$ 155.44	$ 182.85	$ 246.69
64-Gallon Cart	$ 97.08	$ 158.00	$ 219.17	$ 280.36	$ 413.36	$ 524.87
96-Gallon Cart	$ 119.74	$ 225.18	$ 334.25	$ 421.44	$ 541.18	$ 686.84
1-Cubic Yard Bin	$ 276.48	$ 520.00	$ 711.59	$ 894.48	$ 1,077.39	$ 1,369.62
2-Cubic Yard Bin	$ 406.27	$ 811.95	$ 1,218.25	$ 1,626.19	$ 1,915.58	$ 2,039.20
3-Cubic Yard Bin	$ 575.23	$ 1,014.93	$ 1,420.96	$ 1,758.68	$ 2,030.35	$ 2,436.03
4-Cubic Yard Bin	$ 765.32	$ 1,259.51	$ 2,030.18	$ 2,529.66	$ 2,753.89	$ 2,978.13
2-Cubic Yard Compactor	$ 444.42	$ 888.25	$ 1,332.68	n/a	n/a	n/a
3-Cubic Yard Compactor	$ 632.44	$ 1,129.38	$ 1,592.63	n/a	n/a	n/a
4-Cubic Yard Compactor	$ 841.61	$ 1,412.09	$ 2,259.06	n/a	n/a	n/a

Commercial/Multi-Family Recycling Collection Rates

	Frequency					
Service Level	1x/week	2x/week	3x/week	4x/week	5x/week	6x/week
64-Gallon Cart	$ 14.56	$ 23.70	$ 32.87	$ 42.05	$ 62.00	$ 78.73
96-Gallon Cart	$ 17.97	$ 33.78	$ 50.14	$ 63.22	$ 81.19	$ 103.02
1-Cubic Yard Bin	$ 41.47	$ 78.00	$ 106.74	$ 134.16	$ 161.61	$ 205.44
2-Cubic Yard Bin	$ 60.94	$ 121.79	$ 182.74	$ 243.93	$ 287.34	$ 305.89
3-Cubic Yard Bin	$ 86.29	$ 152.24	$ 213.15	$ 263.80	$ 304.56	$ 365.40
2-Cubic Yard Compactor	$ 16.47	$ 32.84	$ 49.33	n/a	n/a	n/a
3-Cubic Yard Compactor	$ 19.57	$ 18.83	$ 13.02	n/a	n/a	n/a
4-Cubic Yard Compactor	n/a	n/a	n/a	n/a	n/a	n/a

Commercial/Multi-Family Food Waste Collection Rates

	Frequency					
Service Level	1x/week	2x/week	3x/week	4x/week	5x/week	6x/week
64-Gallon Cart	$ 72.80	$ 118.49	$ 164.38	$ 210.28	$ 310.02	$ 393.66
96-Gallon Cart	$ 89.80	$ 168.88	$ 250.69	$ 316.09	$ 405.90	$ 515.13
1-Cubic Yard Bin	$ 207.36	$ 390.01	$ 533.69	$ 670.85	$ 808.05	$ 1,027.22
2-Cubic Yard Bin	$ 304.70	$ 608.96	$ 913.69	$ 1,219.64	$ 1,436.69	$ 1,529.39

Rates Effective July 1, 2022

Attachment 1

Commercial/Multi-Family Yard Trimmings Collection Rates						
	Frequency					
Service Level	**1x/week**	**2x/week**	**3x/week**	**4x/week**	**5x/week**	**6x/week**
64-Gallon Cart	$ 72.80	$ 118.49	$ 164.38	$ 210.28	$ 310.02	$ 393.66
96-Gallon Cart	$ 89.80	$ 168.88	$ 250.69	$ 316.09	$ 405.90	$ 515.13
1-Cubic Yard Bin	$ 207.36	$ 390.01	$ 533.69	$ 670.85	$ 808.05	$ 1,027.22
2-Cubic Yard Bin	$ 304.70	$ 608.96	$ 913.69	$ 1,219.64	$ 1,436.69	$ 1,529.39
3-Cubic Yard Bin	$ 431.42	$ 761.20	$ 1,065.71	$ 1,319.01	$ 1,522.76	$ 1,827.02

Roll-Off Collection Rates (Per Pull)					
	Material				
Service Level	**MSW**	**REC**	**FW**	**YT**	**C&D**
10 YD	$ 707.78	$ 707.78	$ 707.78	$ 707.78	$ 707.78
20 YD	$ 778.10	$ 778.10	$ 778.10	$ 778.10	$ 778.10
30 YD	$ 966.85	$ 966.85	$ 966.85	$ 966.85	$ 966.85
40 YD	$ 1,155.61	$ 1,155.61	$ 1,155.61	$ 1,155.61	$ 1,155.61
Per Ton	$ 80.46	$ 49.43	$ 70.11	$ 51.72	$ 80.46

Additional Service Rates		
Service	**Sector**	**Charge Per Event***
Cart Rental - All Sizes	RES	$ 4.79
Cart Replacement	RES	$ 95.83
Re-Delivery or Re-Start	RES	$ 39.93
Cart Cleaning	RES	$ 39.93
Non-Scheduled Collection	RES	$ 30.35
Cardboard Sticker	COM	$ 14.85
Difficult to Service Cart	COM	$ 1.60
Difficult to Service Bin	COM	$ 4.79
Locking Bin	COM	$ 79.85
Cart Replacement	COM	$ 95.83
Cart Cleaning	COM	$ 39.93
Bin Swap- Cleaning or Repainting	COM	$ 119.78
Bulky - Recyclable	RES/COM	$ 31.94
Bulky - Non Recyclable	RES/COM	$ 39.93
Bulky - Event	RES/MFD	$ 47.91
Covered Box	RO	$ 119.78
Driver Time per Hour	RO	$ 175.68
Dry Run or Relocation	RO	$ 119.78
Extra Days	RO	$ 39.93

*Note: Application of fees shall be as described in Franchise Agreement

HF&H CONSULTANTS, LLC
Managing Tomorrow's Resources Today

201 N. Civic Drive, Suite 230
Walnut Creek, California 94596
Telephone: 925/977-6950
Fax: 925/977-6955
www.hfh-consultants.com

Robert D. Hilton, Emeritus
John W. Farnkopf, PE
Laith B. Ezzet, CMC
Richard J. Simonson, CMC
Marva M. Sheehan, CPA
Robert C. Hilton, CMC

May 13, 2022

Ms. Agnes Martelet
Environmental Compliance Manager
City of Carmel-by-the-Sea

Sent via E-mail

Subject: Review of GreenWaste Recovery's 2022/23 Rate Request – Draft Report

Reference Number: S5065

Dear Ms. Martelet:

HF&H Consultants, LLC (HF&H) was retained by the Monterey Regional Waste Management District (District) to assist with a review of GreenWaste Recovery's (GWR) request for an adjustment to customer rates, effective July 1, 2022, submitted to the City of Carmel-by-the-Sea (City) on April 1, 2022. This report presents our findings and recommendations.

EXECUTIVE SUMMARY

HF&H's review of GWR's Rate Period 8 (RP8) rate request to the City and subsequent negotiations with GWR resulted in the following outcomes:

1. A 2.14% increase (the result of a $68,969 shortfall) to rates as calculated for RP8. Refer to **Figure 1** for the impact to sample residential rates.

Figure 1 – Example Rate Impact of Adjustment

Carmel Rate Adjustment		
	Current Rates (RP7)	RP8
Adjustment	N/A	2.14%
Residential 32-gallon rate	$ 49.00	$ 50.05

BACKGROUND

In 2012, the City, participating with other members of the District, issued a competitive request for proposals for collection services and entered into the new Agreement with GWR effective July 1, 2015. The Agreement provides for the following, related to the adjustment of rates:

- Rates are to be adjusted annually throughout the term of the Agreement, using various inflationary indices, actual tonnage, and changes in the tipping fees at the District, unless either the City or GWR request a Cost Based Rate Adjustment (CBRA).
- The City and GWR may mutually agree upon alternative approaches to structuring rates without amendment to the Agreement (Section 8.2.D).
- During the CBRA review in RP5, a number of issues surrounding the process for setting rates and the resulting rate relationships amongst sectors and materials was identified. As such the City and GWR have negotiated an amendment to the prescribed methodology for the CBRA and index adjustments so as to not alter rate relationships between service sectors and material types.
- Through negotiations of the amendment and as a result of the desire to maintain current rate relationships between sectors and service levels, the City and GWR have prescribed a uniform rate adjustment to be applied to all sectors.

RATE CALCULATION REVIEW

HF&H Scope of Work

HF&H performed this review of the rate request in accordance with Exhibit E1 (for the index based rate adjustment). These procedures included:

1. Review of the rate request for completeness and compliance with the procedures contained in Exhibit E1 of the Agreement.
2. Review for mathematical accuracy and logical consistency to determine that the rate request is mathematically correct, that the rows and columns of numbers add down and across as intended, and that the stated assumptions were, in fact, used. Also, to determine that the rate request is internally consistent and that any summary schedules agree to the supporting schedules and worksheets.
3. Verification of the inclusion of the franchise fee calculation in the adjustment.
4. Verification of contract compliance with regard to:

   A) The indices used in the adjustment;

   B) The tip fees reported for the disposal/processing components of the rates;

   C) The use of quarterly-reported tonnage data and allocations among agencies. A detailed audit of tonnage and allocations of tonnage reported by GWR was not a part of this scope of work. HF&H discussed GWR's allocation methodology with them and the methodology appears reasonable and consistent with standard practices within the industry.

   D) Any changes in governmental fees on the fee component of the rates; and, the accurate application of the resultant percentage changes in the various rate components to the rate schedule approved by the City through the Agreement.

E) The addition of anticipated costs related to identified program changes resulting from SB 1383.

Review of Rate Request

Rate Period 8 Application

HF&H reviewed the rate application for RP8. The results of the calculation of RP8 per methodology of Exhibit E1 of the amendment can be seen in **Figure 2** below.

Figure 2 – City of Carmel Application of Index Based Adjustments to RP8

		Rate Period Seven	SB 1383 Costs	Rate Period Seven	Adjustment Factor	Rate Period Eight
Annual Cost of Operations		A	B	C = A + B	D	E = C x D
	Labor-Related Costs	$ 753,465	$ 87,058	$ 840,523	1.027	$ 867,420
	Vehicle-Related Costs	$ 111,575	$ 2,866	$ 114,441	1.017	$ 120,048
	Fuel Costs	$ 115,552	$ 10,748	$ 126,300	1.00	$ 126,300
	Other Costs	$ 210,242	$ 12,506	$ 222,748	1.017	$ 233,662
	Direct Depreciation	$ 128,295	$ 22,969	$ 151,264	N.A.	$ 151,264
	Total Allocated Costs - Labor, Vehicle, Fuel & Other	$ 478,428	$ -	$ 478,428	1.017	$ 501,871
	Total Allocated Costs - Depreciation & Start-Up	$ 25,726	$ -	$ 25,726	N.A.	$ 25,726
Total Annual Cost of Operations		$ 1,823,283	$ 136,146	$ 1,959,429	N.A.	$ 2,026,291
Profit		$ 302,747	$ 22,606	$ 325,353	OR=85.76	$ 336,455
Pass-Through Costs						
	Disposal Costs	$ 180,577	$ -	$ 180,577	Tons*Tip Fee	$ 211,442
	Curbside Supplemental	$ (7,152)	$ -	$ (7,152)	1.00	$ (7,152)
	Recycling Processing Costs	$ 61,014	$ -	$ 61,014	Tons*Tip Fee	$ 75,031
	Residue Processing Costs	$ 13,980	$ -	$ 13,980	Tons*Tip Fee	$ 15,756
	Yard Trimmings Processing Costs	$ 85,919	$ -	$ 85,919	Tons*Tip Fee	$ 89,526
	Food Waste Processing Costs	$ 15,426	$ -	$ 15,426	Tons*Tip Fee	$ 19,789
	C&D Processing Costs	$ -	$ -	$ -	Tons*Tip Fee	$ 1,155
	Interest Expense	$ 40,815	$ 3,456	$ 44,270	N.A.	$ 44,270
	Direct Lease Costs	$ -	$ -	$ -	N.A.	$ -
	Total Allocated Costs - Lease	$ 38,993	$ -	$ 38,993	N.A.	$ 38,993
Total Pass-Through Costs		$ 429,571	$ 3,456	$ 433,027	N.A.	$ 488,810
Total Costs before Agency Fees		$ 2,555,601	$ 162,208	$ 2,717,809	N.A.	$ 2,851,556
Agency Fees/Payments		$ -	$ -	$ -		
	Franchise Fee	$ 394,011	$ 24,238	$ 418,249	13.00%	$ 427,215
	AB 939 Fee	$ 72,600	$ -	$ 72,600	N.A.	$ -
	Rate Application Review and District Costs	$ 8,259	$ -	$ 8,259	Actual	$ 7,500
Other Adjustments (as needed from time to time)						
	Residue Processing Costs (Back Pay for 2019-2020)	$ -		$ -	N.A.	$ -
	Adjustment from MRWMD Tip Fee Estimates	386		386		$ -
Total Calculated Costs		$ 3,030,857	$ 186,445	$ 3,217,302		$ 3,286,271
	Prior Year Revenue					$ 3,217,302
	Surplus/(Shortfall)					$ (68,969)
	Increase/Decrease					2.14%

Review of GWR Costs

There are four major components to GWR's rate application: 1) calculation and application of the inflationary indexes as prescribed in the Agreement; 2) the disposal and/or processing component; 3) the Agency Fees; and, 4) other one-time adjustments.

There are three indexes used in the index adjustment; CPI, fuel index, and labor index. The annual percent change in each of the indices is used to calculate the coming years projected cost for the line items to which these indexes are applied.

HF&H has reviewed and GWR has confirmed the accuracy of each of these indexes, and notes that the fuel index remains unchanged, as reported by management staff at the District.

Review of Disposal/Processing Component

Calendar Year 2021 collected tons were used for the RP8 review in accordance with the amendment. The disposal and processing components also consider the tipping fees charged by the District in order to project anticipated disposal and processing costs at the District. The following table describes the changes in the City's disposal and processing costs for each material type based on the tip fees at the District which have been incorporated into our RP8 review.

Figure 3 - Impact of District Tip Fee Changes

Material	2021 Tons	Current Per Ton Tip Fee	Rate Period 8 Costs
	A	B	A x B
Solid Waste	3,021	$ 70.00	$ 211,442
Recycling	1,745	$ 43.00	$ 75,031
Yard Trimmings	1,989	$ 45.00	$ 89,526
Food Waste	324	$ 61.00	$ 19,789
C&D*	16.5	$ 70.00	$ 1,155

*The C&D per ton tip fee reflects an average weighted cost for multiple types of C&D materials

Review of Fee Component

HF&H ensured that the fee component of each rate matches the contractual percentage of 13% for franchise fees, remitted to the City by GWR.

Additionally, rate application review costs and other identified District costs totaling $7,500 were added as a one-time adjustment to cover the rate review, franchise management, and other identified District costs such as staff time, public education and outreach.

Review of Other One-Time Adjustments

There was no change in RP6 and RP7 actual tip fees. Therefore, no reconciliation of actual tip fee amounts was necessary for RP8.

New Rates

Attached hereto is a table of all new rates recommended for RP8 based on the adjustments described in this memo (Attachment B). HF&H recommends adopting these rates by resolution to be effective July 1, 2022.

* * * * *

We would like to express our appreciation to GWR staff for their assistance and cooperation in this process. Should you have any questions, please call me at 925/977-6959 or RCHilton@HFH-Consultants.com.

Very truly yours,
HF&H CONSULTANTS, LLC

Rob Hilton, CMC
President

MEMORANDUM OF UNDERSTANDING

BETWEEN THE MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT AND ITS MEMBER AGENCIES REGARDING ASSISTANCE WITH COMPLIANCE WITH CALIFORNIA SENATE BILL 1383

This Memorandum of Understanding ("MOU") is made and entered into as of the date of the signatures set forth below by and between the MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT ("District", "MRWMD"), a California Garbage and Refuse Disposal District, and its member agencies including the cities of CARMEL-BY-THE-SEA, DEL REY OAKS, MARINA, MONTEREY, PACIFIC GROVE, SAND CITY, and SEASIDE; THE PEBBLE BEACH COMMUNITY SERVICES DISTRICT; and THE COUNTY OF MONTEREY ("Member Agencies"). Collectively these entities shall be known herein as "Parties" or individually as a "Party."

Recitals

A. The State of California has passed legislation, known as Senate Bill 1383, California's Short-Lived Climate Pollutants regulation. The regulation will have significant impact on each Member Agency, with the goal of reducing organic material being landfilled by 75% by 2025, compared to a 2014 basis. The legislation mandates that Member Agencies undertake certain activities around the handling of organic waste materials collected within their jurisdictions. The regulation also requires 20% recovery of edible food by 2025 to direct it to a beneficial use and thus prevent it from entering the waste stream. Regulations take effect, and local program implementation will begin, on January 1, 2022.

B. The Member Agencies have determined that it is in their best interest to coordinate their activities related to this legislation. This coordination is being facilitated by the District's Technical Advisory Committee (TAC) comprised of staff from each Member Agency, the three Haulers in the District service area (Haulers), Salinas Valley Recycles (SVR) and MRWMD.

C. The Member Agencies have further determined that the District has the expertise and resources necessary to implement some of these activities on the Member Agencies' behalf and have now requested that the District incur costs to provide these activities.

D. The Member Agencies have agreed to reimburse the District for proportionate shares of certain designated annual costs incurred by the District for these activities.

E. The form and content of this MOU have been presented to the TAC, and the TAC has recommended it for approval by the Parties

NOW THEREFORE, in consideration of the mutual benefits to be derived by the District and the Member Agencies, and of the promises contained in this MOU, the Parties agree as follows:

Section 1. Recitals: The recitals set forth above are incorporated into this MOU.

Section 2. Purpose: The purpose of this MOU is to provide a structure for the Member Agencies to reimburse the District for SB 1383 related activities it performs on behalf of the Member Agencies.

Section 3. Voluntary: This MOU is voluntarily entered into by the Parties for the purpose of facilitating the implementation of SB 1383.

Section 4. Term: This MOU shall become effective on the last day of its execution by a Party and shall remain in effect until terminated by the Parties.

Section 5. Scope of Work, Costs & Cost Sharing: The scope of work, and associated costs, are set out in Exhibit A, entitled Detailed Activities and Costs, attached hereto and incorporated herein. Allocation of such costs to the Member Agencies is set out in Exhibit B, entitled Member Agencies' Annual Proportionate Shares and Costs, attached hereto and incorporated herein. Exhibit C outlines estimated individual Member Agencies' allocations related to the Department of Resources Recycling and Recovery (CalRecycle) SB 1383 Local Assistance Grant Program (OWR1: 2021-22), attached hereto and incorporated herein. Exhibit D defines the estimated annual procurement requirements of organic material and estimated cost per ton of compost for each Member Agency, attached hereto and incorporated herein.

No later than March 1 of each year, and at such other times as directed by the Parties, the TAC shall meet to consider and, if deemed necessary, modify Exhibits A, B, ~~and/or~~ C, and/or D subject to direction from the governing bodies of each Member Agency to its TAC representative.

Section 6. The District Agrees:

(a) District staff will manage activities as identified in Exhibit A, ~~and~~ C, and D which activities include contracting with third party vendors when reasonably necessary and paying those vendors for contracted costs.

(b) Two times per year, on dates to be determined by the TAC, District will invoice Member Agencies for each Member Agency's proportionate share of costs as shown in Exhibit B with each invoice to be fifty percent (50%) of the Member Agency's share of costs.

(c) Upon award of CalRecycle SB 1383 Local Assistance Grant Program funds, the District will invoice Member Agencies for their full allocation of grant funds as shown in Exhibit C. Four times during the grant term, aligned with dates identified by CalRecycle grant Terms & Conditions, the District shall report to Member Agencies a summary of actual grant expenditures and progress toward grant tasks to date.

(d~~c~~) District will maintain an accounting of activities and expenses and provide reconciliation of payments annually. Material differences between estimated costs and actual

incurred costs will result in either: 1) an adjustment made to the final annual payment for each Member Agency, or 2) such cost difference shall be incorporated into the subsequent year cost allocation.

(e~~d~~) In year one only, in recognition of expected continuation of improved recycling revenues for the District from recyclable material sales, the District will off-set $140,000 of the costs identified in Exhibit A. This off-set is reflected in the cost allocations set out in Exhibit B for FY 2021-22.

Section 7. The Member Agencies Agree:

(a) To reimburse the District for all expenses incurred by the District under this MOU in accordance with each Member Agency's proportionate share as shown on Exhibit B, ~~and~~ C, and D.

(b) To make a full-faith effort to cooperate with one another and with the District to achieve the purposes of this MOU by providing information, reviewing information in a timely manner, and informing their respective administration and governing bodies.

Section 8. Termination. Any Party may terminate its participation in this MOU upon giving written notice to the District no later than April 1 of any calendar year during the term of this MOU. Within ten days following a Party's termination date, such party shall pay District all charges then due and payable and shall pay when determined any additional charges that shall later come due under the MOU, subject to the limits set out in Exhibits A, B, ~~and~~ C, and D.

Section 9. General Provisions.

(a) This MOU is binding and for the benefit of the respective successors, heirs, and assigns of each Party and the District; provided however, no Party may assign its respective rights or obligations under this MOU without the prior written consent of the District.

(b) This MOU is governed by, interpreted under, and construed and enforced in accordance with the laws of the State of California.

(c) If any provision of this MOU is determined by any court to be invalid, illegal, or unenforceable to any extent, then the remainder of this MOU will not be affected, and this MOU will be construed as if the invalid, illegal, or unenforceable provision had never been contained in this MOU.

(d) Waiver by the District or any Party to this MOU of any term, condition, or covenant of this MOU will not constitute a waiver of any other term, condition, or covenant. Waiver by the District or any Party of any breach of the provisions of this MOU will not constitute a waiver of any other provision, nor a waiver of any subsequent breach or violation of any provision of this MOU.

(e) This MOU may be executed in any number of counterparts, each of which is an original but all of which taken together will constitute one and the same instrument, provided, however, that such counterparts have been delivered to all parties to this MOU.

(f~~f~~) All parties acknowledge they have been represented, or have had the opportunity to be represented, by counsel in the preparation and negotiation of this MOU. Accordingly, this MOU will be construed according to its fair language. Any ambiguities will be resolved in a collaborative manner by the District and the Parties and must be rectified by amending this MOU.

IN WITNESS WHEREOF, the District and the Parties have caused this MOU to be executed by their duly authorized representatives as of the date of their respective signatures.

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF CARMEL-BY-THE-SEA

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF DEL REY OAKS

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF MARINA

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF MONTEREY

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF PACIFIC GROVE

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

SAND CITY

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

CITY OF SEASIDE

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

PEBBLE BEACH COMMUNITY SERVICES DISTRICT

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

COUNTY OF MONTEREY

By: _____ DATE: _____

APPROVED AS TO FORM:

_____

EXHIBIT A

DETAILED ACTIVITIES & COSTS
FY 2022-2023

Scope of Work

The activities related to the implementation of SB 1383 may include contracting and policy development; public education; materials purchasing and distribution; reporting; contamination monitoring; edible food recovery; enforcement; procurement; organics processing; rate setting; cost monitoring; and any other related activities the Parties choose to address.

The District will take the lead producing public education campaigns in concert with the already-provided Hauler and/or Member Agency resources. The Member Agencies will be responsible for production and mailing fees associated with outreach. The District will also contract with a vendor to administer contamination monitoring in the form of curbside lid flipping within each Member Agency, except for the County of Monterey, where the County of Monterey will decide how to proceed. The District will also provide CalRecycle reporting services to the Member Agencies. In addition, funds will be allocated to edible food recovery support.

Costs

SB 1383 Shared Costs MOU - Exhibit A

SB 1383 Fee Category	Detail	FY 22/23 Cost	Notes
HF&H General Support & TAC meetings	Task #5 (SB 1383 general support) & task #6 (monthly TAC meetings) of HF&H CY 2022 proposal	$ 22,500	
Edible Food Recovery Capacity Building		$ 60,000	Joint grant or applicaion process w/ SVR to determine need. SVR also allocating $60k.
Edible Food Recovery Program Administration	Assessment Living Document EFR Network Capacity Building (Grant Program) Implementation Schedule CalRecyling Capacity Planning Generation Calculation Tool Refined Survey Tool	$ 47,006	MRWMD member agency portion, split with SVR
Public Education		$ 50,000	Covers creation of materials, but not production or distribution
Recyclist Fees		$ 11,711	Omits County & City of Monterey
MRWMD Staff Time	TAC/SB 1383 Coordination/CalRecycle Reporting	$ 20,000	
		$ 211,217	
Reduction from MRWMD from recycling revenues		$ (100,000)	
		$ 111,217	
Contamination Monitoring (Lid Flipping)	RFP to determine vendor	$ 15,000	Estimate —exact cost based on results from RFP. / Omits County due to WM Smart Truck
Total		**$ 126,217**	

EXHIBIT A
(Continued)

HF&H Franchise Management Fees

Task #	Detail	CY 2022	
1	Review Contractor's Quarterly Reports	$	12,500.00
2	Review Contractor's Annual Report	$	2,500
3	Review Franchise Fee Payments	$	2,500
4	Review Contractor's Annual Rate Adjustments	$	50,000
	Total	**$**	**67,500**

EXHIBIT B

MEMBER AGENCIES' ANNUAL PROPORTIONATE SHARES & COSTS*
FY 2022-2023

Public Education - Shared With County

	Population			
	#	%	Per Agency Cost/Year	With $2,500 Minimum
Carmel	3,830	2.4%	$ 1,196	$ 2,500
DRO	1,525	1.0%	$ 476	$ 2,500
Marina	21,981	13.7%	$ 6,863	$ 6,048
PG	15,522	9.7%	$ 4,847	$ 4,271
PBCSD	4,531	2.8%	$ 1,415	$ 1,247
Sand City	310	0.2%	$ 97	$ 2,500
Seaside	33,956	21.2%	$ 10,602	$ 9,342
Monterey City	28,352	17.7%	$ 8,853	$ 7,801
County	50,128	31.3%	$ 15,652	$ 13,792
TOTAL	**160,135**		**$ 50,000**	**$ 50,000**
		96.5%		$ 42,500

Other TAC Costs - Excluding County

	Population			
	#	%	Per Agency	With $2,500
Carmel	3,830	3.5%	$ 2,654	$ 2,500
DRO	1,525	1.4%	$ 1,057	$ 2,500
Marina	21,981	20.0%	$ 15,229	$ 14,476
PG	15,522	14.1%	$ 10,754	$ 10,222
PBCSD	4,531	4.1%	$ 3,139	$ 2,984
Sand City	310	0.3%	$ 215	$ 2,500
Seaside	33,956	30.9%	$ 23,526	$ 22,363
Monterey City	28,352	25.8%	$ 19,643	$ 18,672
TOTAL	**110,007**		**$ 76,217**	**$ 76,217**
		94.9%		$ 68,717

Contract Management

	Population			
	#	%	Per Agency Cost/Year	With $2,500 Minimum
Carmel	3,830	4.7%	$ 3,166	$ 2,500
DRO	1,525	1.9%	$ 1,261	$ 2,500
Marina	21,981	26.9%	$ 18,171	$ 17,356
PG	15,522	19.0%	$ 12,831	$ 12,256
PBCSD	4,531	5.5%	$ 3,746	$ 3,578
Sand City	310	0.4%	$ 256	$ 2,500
Seaside	33,956	41.6%	$ 28,070	$ 26,811
TOTAL	**81,655**		**$ 67,500**	**$ 67,500**
		93.1%		$ 60,000

Total Costs

	Population			
	#	%	Per Agency Cost/Year	With Minimums
Carmel	3,830	2.4%	$ 7,015	$ 7,500
DRO	1,525	1.0%	$ 2,793	$ 7,500
Marina	21,981	13.7%	$ 40,263	$ 37,880
PG	15,522	9.7%	$ 28,432	$ 26,749
PBCSD	4,531	2.8%	$ 8,300	$ 7,808
Sand City	310	0.2%	$ 568	$ 7,500
Seaside	33,956	21.2%	$ 62,198	$ 58,516
Monterey City	28,352	17.7%	$ 28,496	$ 26,473
County	50,128	31.3%	$ 15,652	$ 13,792
TOTAL	**160,135**		**$ 193,717**	**$ 193,717**

*Member Agencies' proportionate costs subject to adjustment annually in accordance with any change in scope and total costs.

EXHIBIT C

MEMBER AGENCIES' ESTIMATED ALLOCATION OF CALRECYCLE LOCAL ASSISTANCE GRANT PROGRAM FUNDING (OWR1: 2021-22)**

The Member Agencies of Carmel, Del Rey Oaks, Marina, Monterey, Sand City, Seaside, Pacific Grove, and the Pebble Beach Community Services District (PBCSD) join the Local Assistance Grant Program as a regional collaborative project for the implementation of regulation requirements associated with SB 1383, in coordination with other jurisdictions of the Monterey County region to maximize project impact and cost-effectiveness across the countywide area. This regional grant-funded project will be coordinated through the two local waste management governmental agencies within Monterey County, Monterey Regional Waste Management (MRWMD), and Salinas Valley Solid Waste Authority (SVSWA).

The Member Agencies, along with each of the MRWMD and SVSWA member agencies are applying individually to this grant program using a unified regional project design, budget and implementation approach. All participating jurisdictions' individual grant funding will be pooled together and expended in a cooperative manner by their agencies' respective waste districts, MRWMD and SVSWA. The County of Monterey is applying separately and will manage its budget and project implementation independently, in coordination with broader regional planning efforts.

Based on current regional needs and findings to date related to SB 1383 in Monterey County, the following four major components will comprise the principal focus areas of program expenditures under the proposed regional project approach:

1) Grant Management, Tracking & Reporting
2) Agency Procurement Support
3) Edible Food Recovery Implementation and Capacity Building
4) Organics & Edible Food Recovery Education, Outreach and Technical Assistance

Each element will be informed by regional coordination through the established MRWMD and SVSWA Technical Advisory Committee forums, Capacity Planning Assessments and related studies completed or in process throughout the region, and new data and information obtained through program implementation trials, stakeholder feedback and best practices as identified. All expenditures will be incurred jointly, facilitated through each respective waste agency, and tracked and reported by each jurisdiction, based on the percentage of grant funds received by each agency compared to the full funding received collectively by all participating member agencies. CalRecycle, based on per capita calculations, using the Department of Finance's January 2021 population statistics, estimates jurisdictions' proportionate grant allocations. A summary of individual and collective agency grant allocations is presented below as **Table 1**.

EXHIBIT C
(Continued)

MEMBER AGENCIES' ESTIMATED ALLOCATION OF CALRECYCLE LOCAL ASSISTANCE GRANT PROGRAM FUNDING (OWR1: 2021-22)**

Table 1. Thirteen Agency Collaborative Approach Budget Summary

Agencies	Estimated Funding	% of District Subtotal	% of Region Total	Waste District
Carmel-by-the-Sea	$20,000	9%	4%	MRWMD
Del Rey Oaks	$20,000	9%	4%	MRWMD
Marina	$29,771	14%	6%	MRWMD
Monterey	$38,247	18%	7%	MRWMD
Pacific Grove	$21,398	10%	4%	MRWMD
Sand City	$20,000	9%	4%	MRWMD
Seaside	$43,151	20%	8%	MRWMD
Pebble Beach Community Services District	$20,000	9%	4%	MRWMD
Subtotal (MRWMD):	**$212,566**	**100%**	**41%**	
Gonzales	$20,000	6%	4%	SVSWA
Greenfield	$25,157	8%	5%	SVSWA
King City	$20,665	7%	4%	SVSWA
Salinas	$211,143	68%	40%	SVSWA
Soledad	$33,095	11%	6%	SVSWA
Subtotal (SVSWA):	**$310,060**	**100%**	**59%**	
TOTAL (13 Agency Regional Approach):	**$522,626**		**100%**	

** Working in coordination with the designated CalRecycle grant manager or other agency representatives as appropriate, the region may adjust these proposed expenditure areas, amounts, or priorities, consistent with grant expenditure eligibility requirements, as needed during the course of the grant term based on the needs of the region.

EXHIBIT D
MEMBER AGENCIES' ESTIMATED PROCURMENT REQUIRMENTS OF ORGANIC MATERIAL

The list below indicates the annual recovered organic waste product procurement targets for each jurisdiction (city, county, or city and county) that will be in effect from January 1, 2022 through December 31, 2026 per CalRecycle.

Member Jurisdiction	Population (1/1/21 estimate)	% of Population	Annual Procurement Target (Tons of Organic Waste)	Tons of Compost (.58)	Cost /Ton Compost	Cost of Compost
Carmel-by-the-Sea	4,023	1%	322	187	$ 28.00	$ 5,229.28
Del Rey Oaks	1,670	0%	134	78	$ 28.00	$ 2,176.16
Marina	21,920	7%	1,754	1,017	$ 28.00	$ 28,484.96
Monterey	28,382	8%	2,271	1,317	$ 28.00	$ 36,881.04
Pacific Grove	15,536	5%	1,243	721	$ 28.00	$ 20,186.32
Sand City	385	0%	31	18	$ 28.00	$ 503.44
Seaside	32,121	10%	2,570	1,491	$ 28.00	$ 41,736.80
Pebble Beach CSD	4531	1%	362	210	$ 28.00	$ 5,878.88
Unincorporated County*						$ -
Total MRWMD	**108,568**	**32%**	**8,687**	**5,038**		**$ 141,076.88**

*Unincorporated County not participating in procurement portion of MOU
All product quoted as unbagged F.O.B MRWMD site.
Transportation costs are not included.

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
ORDERS OF BUSINESS

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Yashin Abbas, Interim City Clerk
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Resolution 2022-036 ratifying appointments to the Harrison Memorial Library Board of Trustees, Historic Resources Board, and Planning Commission

RECOMMENDATION:

1) Adopt Resolution 2022-036 ratifying appointments to the Harrison Memorial Library Board of Trustees, Historic Resources Board, and Planning Commission.
2) Re-open the recruitment process for the Forest and Beach Commission.

BACKGROUND/SUMMARY:

City Boards and Commissions perform a valuable service to the City by providing means by which the City Council can obtain advice, opinions, and recommendations of City residents and other members of the community. The Boards and Commissions terms that were originally expiring on October 30 were extended to May 30 at the December 6, 2021 City Council Special Meeting, and the new term expiration date will be May 30 of each year going forward. Per the City's Municipal Code regarding Boards and Commissions appointment process, "In the event an appointment cannot be made in a timely manner, the incumbent may continue to serve until a new member is appointed."

The City Council will be filling seven (6) anticipated vacancies for seven (6) terms expiring May 30, 2022: two full-term seats on the Harrison Memorial Library Board of Trustees, two full-term seats on the Historic Resources Board, and two full-term seats on the Planning Commission. The recruitment period opened on February 14, 2022 and ended on April 11, 2022. A total of thirteen applications were received.

<u>Community Outreach during the recruitment period</u>

- The Pine Cone published the recruitment on February 11, March 18, and April 8
- The City's website has a dedicated page regarding the recruitment and application to the Boards and Commissions
- Regular publication in the City Administrator's Friday Letter
- Regular announcement during the Friday Vlogs
- Commission staff notified current members of Boards and Commissions

Mayor Potter and Mayor Pro Tem Richards comprised the Ad Hoc Committee and interviewed the applicants for the Boards and Commissions vacancies. The following individuals have been identified as qualified to fill the vacancies and are being recommended for appointment effective June 7, 2022:

Harrison Memorial Library Board of Trustees for a three-year term ending May 30, 2025:
1) John Krisher
2) Phil Pardue

Historic Resources Board for a four-year term ending May 30, 2026:
1) Jordan Chroman
2) Erik Dyar

Planning Commission for a four-year term ending May 30, 2026:
1) Michael LePage
2) Erin Allen

FISCAL IMPACT:

None.

PRIOR CITY COUNCIL ACTION:

The City Council periodically ratifies appointments to vacancies of Boards and Commissions.

ATTACHMENTS:

Attachment 1: Resolution 2022-036
Attachment 2: Recommended Applicants
Attachment 3: Applications

Attachment 1

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL

RESOLUTION NO. 2022-036

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA RATIFYING APPOINTMENTS TO THE HARRISON MEMORIAL LIBRARY BOARD OF TRUSTEES, HISTORIC RESOURCES BOARD, AND PLANNING COMMISSION

WHEREAS, City Boards and Commissions perform a valuable service to the City by providing means by which the City Council can obtain advice, opinions, and recommendations of City residents and other members of the community; and

WHEREAS, seven (6) vacancies exist on City Boards and Commissions for seven (6) extended terms ending May 30, 2022, and per the City's Municipal Code regarding the Appointment Process, "in the event an appointment cannot be made in a timely manner, the incumbent may continue to serve until a new member is appointed; and

WHEREAS, the Mayor and Mayor Pro Tempore comprised the Ad Hoc Committee and interviewed the applicants for the Board and Commission vacancies; and

WHEREAS, the applicants demonstrated a strong commitment to service and a desire to serve the Carmel-by-the-Sea community; and

WHEREAS, the Ad Hoc Committee is appreciative of all community members who filled out an application and participated in the interview process.

NOW THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA DOES HEREBY:

Appoint the following individuals to fill seven (7) vacancies on the following City Boards and Commissions effective June 7, 2022:

Harrison Memorial Library Board of Trustees for a three-year term ending May 30, 2025:
1) John Krisher
2) Phil Padue

Historic Resources Board for a four-year term ending May 30, 2026:
1) Jordan Chroman
2) Erik Dyar

Planning Commission for a four-year term ending May 30, 2026:
1) Michael LePage
2) Erin Allen

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA this 7th day of June, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

Dave Potter
Mayor

ATTEST:

Yashin Abbas
Interim City Clerk

Carmel-
by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>
Attachment 2

Reappointment to the Historic Recourses Board

1 message

Jordan Chroman [redacted] Thu, Mar 24, 2022 at 1:35 PM
To: yabbas@ci.carmel.ca.us
[redacted]

Dear Yahsin,

Thank you for the chat today.

Just to confirm, I am requesting a reappointment for another term as a member of the Historic Resources Board.

Please use my previous application as discussed and let me know if there is anything else you need from me.

Thank you for your time.

Sincerely,

Jordan Chroman

Attachment 2

City of Carmel-by-the-Sea

MAR 01 2019

Received by City Clerk

2:40 pm

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME Jordan S. Chroman DATE March 1, 2019

RESIDENCE ADDRESS [redacted] CITY Carmel-by-the-Sea ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel-by-the-Sea ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE _____

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? Relocated two months ago

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	☒
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	☒
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	☒
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	☐
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	☒

Will you be available to attend board/commission meetings regularly? Yes

Revised May 13, 2016

All members of boards and commissions are subject to the Conflict of Interest Laws of the State of California and are required to submit Form 700, "Statement of Economic Interest," within 30 days of assuming office. Form 700 must be filed annually thereafter, and within 30 days of leaving office as well.

In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES ☒ NO ☐

Reason for Interest in the Position:
Permanently returned home to Carmel-by-the-Sea and have a strong desire to continue to integrate into the community and provide meaningful service to our neighbors, city, and its visitors.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:
Recently completed 29 (+) years of service to our nation as a senior leader in the United States Army. Looking forward to applying a fresh perspective to our city while capitalizing on nearly three decades of leadership, management, and planning experience. Will bring a tremendous amount of energy and enthusiasm to the Historic Board, have a strong background in history and consider myself to be an enthusiast in that field. Additionally, truly appreciate the study of architecture, the preservation of historic buildings, and am focused on lifelong learning for both myself and for others. I have served in a board advisory capacity on a number of occasions, have served as the "mayor" of two different Forward Operating Bases overseas, and as an amateur historian and lover or architecture would be honored to serve.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
None

Education:

Institution	Course of Study	Degree Year (s)
University of Southern California	Organizational Change & Leadership	Doctoral Candidate
National War College National	Security & Strategic Studies	MS 2010
Florida Institute of Technology	Logistics Management & Engineering	MS 1997

*Other educational information can be provided upon request.

Employment Experience (Start with Most Recent):

Organization: Naval Postgraduate School	
Position: Senior Lecturer	Year: 2018 - Present
Organization: Warrior Transition Network	
Position: Board Member	Year: 2017 - Present
Organization: United States Army	
Position: Colonel	Year: 1988 - 2017

Prior public service, civic or volunteer activities:

Organization: Extensive Civilian/Military Interface throughout my career as a key community leader	
Position: Junior to Senior Leader, US Army	Year: 1988 - 2017
Organization: Carmel-by-the-Sea Police Department	
Position: Volunteer Police Officer	Year: 2018 - Present
Organization:	
Position:	Year:

You are encouraged to attach a cover letter and/or resume further explaining your qualifications for the positions and why you are interested in serving.

[redacted]

Signature

1 Mar 19

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

RECEIVED MAR 0 1 2019

JORDAN CHROMAN

[redacted]

ttachment 2

Available – Spring 2019

LinkedIn:
https://www.linkedin.com/in/jordan-chroman

March 1, 2019

Leadership of Carmel-by-the-Sea
P.O. Box CC
Carmel-by-the-Sea, CA 93921

Dear Mayor Potter and Mayor Pro Tem Richards,

As a native Californian and recently retired Regular Army Soldier - who after almost three decades of service chose, amongst all other places in the world, to make Carmel-by-the-Sea our home, I am looking forward to applying my leadership and organizational experience in ways that make positive differences in our great village. I am excited about serving on our village's Historic Resources Board!

I believe that I would be a strong asset to this Board, am excited about joining the other members of the team, and would be honored to serve. This board is of significant interest as I consider myself an amateur historian with a lifelong passion for learning in this area and am very interested in architecture as well – fueled by exposure to amazing buildings while living around the country and around the globe.

The City of Carmel-by-the-Sea is clearly focused on caring for and improving the life of its residents, while remaining mindful of the sense of community, in embracing forest, beach, and urban environmentalism, furthering the business and hospitality that is vital to local tourism, while preserving the city's unique history. The city's culture aligns perfectly with my proven track record of innovation, achievement, and dedication – along with my desire to continue to serve and give back to others.

I have extensive experience in leading and being a member of teams of all sizes, motivating people, performing meticulous administrative duties, enhancing community outreach, improving and expanding operations, finding innovative solutions to thorny problems, and in the legislative arena - all while remaining cost conscious.

I fully understand the importance of ensuring that residents and visitors alike remain our key focus, of the need for administrative and planning excellence, managing and growing talent, maximizing outputs, harnessing innovative technology, and improving the customer experience. I look forward to focusing my energy on serving as an active board member – and look forward to becoming a valuable addition to your team.

Sincerely,

Jordan S. Chroman

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Erik Dyar Re-application/appointment to Historic Resources Board

2 messages

[redacted] Mon, Mar 28, 2022 at 4:01 PM

To: Ashlee Wright <awright@ci.carmel.ca.us>, yabbas@ci.carmel.ca.us

Hi Ashley and Yashin,

Per my phone conversation with Ashlee, she was going to resubmit my previous HRB application on file for my reappointment to the HRB for another term.

I know the deadline is April 11, so can you please confirm this has been done and officially submitted to Council?

Thank you!

Erik.

--

Erik D. Dyar, AIA

DYAR Architecture

P.O. Box 4709

Carmel, CA 93921

[redacted]

www.dyararchitecture.com

Attachment 2

City of Carmel-by-the-Sea

SEP 12 2017

Received by City Clerk

1:45 P

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME Erik Dyar DATE Sept. 6, 2017

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93923

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE 831 915 5602

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 26 years incl sphere

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	☐
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	☐
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	☐
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	☐
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	☑

Will you be available to attend board/commission meetings regularly? yes

Revised May 13, 2016

All members of boards and commissions are subject to the Conflict of Interest Laws of the State of California and are required to submit Form 700, "Statement of Economic Interest," within 30 days of assuming office. Form 700 must be filed annually thereafter, and within 30 days of leaving office as well.

In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES ☑ NO ☐

Reason for Interest in the Position:
Having had the honor and opportunity to serve the City of Carmel-by-the-Sea on its Historic Resources Board for many years and as its Chairperson, I still feel the same passion for Carmel-by-the-Sea, its history and its architecture. In fact, my appreciation has only increased with the years. The HRB plays a critical role in maintaining the character of the village and I feel volunteering in this way, especially in an area which is so well suited to my experience and knowledge, is my responsibility to the town I love.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:
We have a truly excellent, well rounded group of Board members now on the HRB, but many are new. I feel maintaining some institutional memory is important to any organization and I am now, by far, the most experienced member of the present board. I, therefore, bring a knowledge and understanding of the history of the HRB, its decision making process that helps bring continuity. Beyond my history with the HRB, I have lived in or in the sphere of influence of Carmel-by-the-Sea for over 26 years. This gives me a broad, cohesive understanding of the town through seeing it evolve of time. This experience of living here is also filtered through the lens of my profession as an architect. It obviously allows me to quickly understand the documents we review as a Board and zero in on critical issues that may not be as conspicuous to others, but it also gives me the ability to see the applicant's point of view and needs. I take the responsibility of making decisions that affect people's valuable property VERY seriously, and my experience, I feel, allows me to strike the right balance between the rights of the applicants and the importance to the City to maintain its history and character. I also always try to find solutions that are a win-win for everyone.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
Carmel Music Society
Dyar Architecture

Education:

Institution	Course of Study	Degree Year (s)
University of Oregon	Bachelor of Architecture	1990

Employment Experience (Start with Most Recent):

Organization:	Dyar Architecture	
Position:	Principal, Owner	Year: 2006 - Present
Organization:	John Thodos Architect FAIA	
Position:	Designer, Architect	Year: 1991 - 2009
Organization:		
Position:		Year:

Prior public service, civic or volunteer activities:

Organization:	City of Carmel-by-the-Sea Historic Resources Board	
Position:	Board Member, Chair	Year: 2006 - Present
Organization:	Carmel Music Socity	
Position:	Board Member	Year: 2002- Present
Organization:	City of Carmel-by-the-Sea Recreation Commission	
Position:	Commissioner	Year: 1993 - 1999

You are encouraged to attach a cover letter and/or resume further explaining your qualifications for the positions and why you are interested in serving.

[redacted]

Signature

Sept. 11, 2017

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

City of Carmel-by-the-Sea
MAR - 3 2020
Received by City Clerk

Attachment 2

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME John Krisher DATE March 1, 2020

RESIDENCE ADDRESS [redacted] CITY Carmel-by-the-Sea ZIP 93923

MAILING ADDRESS Same CITY _____ ZIP _____

RESIDENCE PHONE [redacted] BUSINESS PHONE None

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 26 years

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	X
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	X
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

Revised July 16, 2019

All members of boards and commissions are subject to the Conflict of Interest Laws of the State of California and are required to submit Form 700, "Statement of Economic Interest," within 30 days of assuming office. Form 700 must be filed annually thereafter, and within 30 days of leaving office as well.

In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [X] NO [ ]

Reason for Interest in the Position:

Since retiring, I now have time to devote to community service. Our library has always been very important to me, actually supplementing my education and most definitely enriching my life. During countless hours driving, I listened to many inspiring books-on-tape with diverse topics including history, biographies and travel. Our library opened the world to me.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

Throughout my trucking career, I was accountable for purchasing equipment, supervising maintenance costs and assuring compliance with environmental and state regulations. I applied for, negotiated and received grants from the Air Resources Board for new equipment that would exceed clean air directives.
From 1973 to 1986, I managed and operated my own successful trucking business being responsible for all decisions and financial considerations.
Through these business experiences, I have learned good judgment, problem solving and fiscal competence.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

None. However, I have been a contributor to the Carmel Library Foundation for many years.

Education:

Institution	Course of Study	Degree Year (s)
Warrior Run High (PA)	Technical	1968

Employment Experience (Start with Most Recent):

Organization:	Beverly's Fabrics	
Position:	Transportation Driver/Manager	Year: 2015
Organization:	Frito-Lay	
Position:	Tractor Trailer Driver	Year: 2005
Organization:	Trucking Business Owner	
Position:	Owner/Driver	Year: 1986

Prior public service, civic or volunteer activities:

Organization:	Church of the Wayfarer	
Position:	Trustee and Volunteer	Year: 2015-2018
Organization:	AT&T Golf Tournament at Pebble Beach	
Position:	Marshal	Year: 2000-2020
Organization:	Carmel Heritage Society	
Position:	Docent and Volunteer	Year: 2016-2020

[redacted]

Signature

03/02/20

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

Employment Experience (Start with Most Recent):

Organization:	**Beverly's Fabrics**	
Position:	**Transportation Driver/Manager**	Year: **2015**
Organization:	**Frito-Lay**	
Position:	**Tractor Trailer Driver**	Year: **2005**
Organization:	**Trucking Business Owner**	
Position:	**Owner/Driver**	Year: **1986**

Prior public service, civic or volunteer activities:

Organization:	**Church of the Wayfarer**	
Position:	**Trustee and Volunteer**	Year: **2015-2018**
Organization:	**AT&T Golf Tournament at Pebble Beach**	
Position:	**Marshal**	Year: **2000-2020**
Organization:	**Carmel Heritage Society**	
Position:	**Docent and Volunteer**	Year: **2016-2020**

Sign[redacted]

03/02/20
Date
03/24/22

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

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Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Phil Pardue

1 message

Ashlee Wright <awright@ci.carmel.ca.us> Thu, Apr 7, 2022 at 8:28 AM
To: Yashin Abbas <yabbas@ci.carmel.ca.us>
Cc: Leslie Fenton <lsfenton@ci.carmel.ca.us>

Hi Yashin,

This is to confirm that Phil Pardue and I spoke on the phone and he verbally requested resubmission of his application to serve on the Library Board of Trustees.

Please let me know if you have any questions.

Ashlee Wright
Library and Community Activities Director
(831) 624-1366
P.O. Box 800
Carmel-by-the-Sea, CA 93921
https:/ci.carmel.ca.us/library

City of Carmel-by-the-Sea
SEP 13 2017
Received by City Clerk
3:15 PM

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME Phillip C Pardue DATE 12 September 2017

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93923

MAILING ADDRESS [redacted] CITY Carmel ZIP 93923

RESIDENCE PHONE [redacted] BUSINESS PHONE 240-228-6968

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 1yr 3mos – Hatton Fields

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	☐
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	☒
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	☐
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	☐
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	☐

Will you be available to attend board/commission meetings regularly? Yes

Revised May 13, 2016

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In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES ☒ NO ☐

Reason for Interest in the Position:

At a time when Public Libraries are under increasing pressure to justify their existence, the Harrison Memorial Library (a rare gem) remains an intellectual hub in our community and serves as a much-needed social center of focus for a significant segment of our residents. Where else can you walk through the stacks of publications and discover new interest in the very next book, magazine, newspaper, library program, or lecture series. This is not to say that the Harrison Memorial Library should not change with the times and provide increased access to information on the web, just that with management and oversight the best of both worlds can be preserved. As we take care of our current patrons we must plan for the future ones, otherwise they will stay home.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

Summary – Over 20 years experience in Naval and Joint Operations. Over 11 years experience leading and participating in teams conducting Navy and Joint Analysis. A proven record of achieving the highest levels of productivity and efficiency. An experienced manager and effective communicator with exceptional organizational skills.

Experiece includes:

- Coordinated the workload for and managed the execution of a diverse group of issues ranging from supply chain logistics, fleet readiness, and shore infrastructure to energy and environmental regulations.
- Manpower Analyst for the Chief of Naval Personnel Command
- Established and led a cost/budget cell to provide rapid and accurate capabilities vs. cost vs. risk analysis.
- While at Johns Hopkins University Applied Physics Laboratory continued to manage the design, quality of work, and budget execution of various analytic studies over the past six years.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

None

Education:

Institution	Course of Study	Degree Year (s)
Vanderbilt University	B.S. Engineering	1983
Naval Postgraduate School	M.S. Operations Research	1990

Employment Experience (Start with Most Recent):

Organization:	RAND Corporation	
Position:	Adjunct Staff – Conducting research on the Life-Cycle-Cost of US Naval Vessels	Year: Dec 2016 - Present
Organization:	Johns Hopkins University Applied Physics Laboratory	
Position:	Program Manager, Program Area Manager, and Acting Mission Area Executive	Year: 2011 - Present
Organization:	U.S. Navy	
Position:	Surface Warfare Officer	Year: 1983 - 2011

Prior public service, civic or volunteer activities:

Organization:	U.S. Navy	
Position:	Surface Warfare Officer	Year: 1983 - 2011
Organization:		
Position:		Year:
Organization:		
Position:		Year:

You are encouraged to attach a cover letter and/or resume further explaining your qualifications for the positions and why you are interested in serving.

[redacted]
Signature

12 SEP 2017
Date

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Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

City of Carmel-by-the-Sea Attachment 2

APR 05

Received by City Clerk

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Michael LePage DATE 3-31-22

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93923

MAILING ADDRESS same CITY _____ ZIP _____

RESIDENCE PHONE [redacted] BUSINESS PHONE (831) 995-1374

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 45 yr.

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	X
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? _____

Revised July 16, 2019

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Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [X] NO [ ]

Reason for Interest in the Position:
Current member of the planning commiston reappling because term will expire.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

Volunteering for the city since 2000.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

Education:

Institution	Course of Study	Degree Year (s)
CSUMB	GIS - BA Social Behavior Science	2016

Employment Experience (Start with Most Recent):

Organization: LePage Construction - General Contractor	
Position: Owner	Year: 1978 to present
Organization:	
Position:	Year:
Organization:	
Position:	Year:

Prior public service, civic or volunteer activities:

Organization: Carmel Residents Asso.	
Position: Board member / Treasurer	Year: 2012 to 2016
Organization: Design Review Board (Carmel)	
Position: Board member / Chair	Year: 2000 to 2008
Organization:	
Position:	Year:

Sig[redacted]

3-31-22
Date

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APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Erin Allen DATE February 14, 2022

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE same

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 8 months- June 2021

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	1
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	3
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	2
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

Revised July 16, 2019

I'm happy to sit on any of the Commissions. I'd like to help where I'm needed. My top 3 preferences are identified above.

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Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES X **NO**

Reason for Interest in the Position:

I really want to be a part of this community- that means being involved. VSP encourages their executives to participate in their community and allows us the flexibility to do so. These commissions are extremely important to our city and will define our future so I believe its my responsibility to be a part of that.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

See attached resume

Sole Proprietor- retail establishment: I understand what challenges small business owner face.

Board Member of Boys and Girls Club, Sacramento: I'm experienced in networking and execution of Board initiatives

At VSP- I'm known for being an agile leader with the ability to quickly understand complex situations and execute collaborative solutions.

Executive Rotation: I'm currently tasked with helping to develop and implement DE&I initiatives at VSP in conjunction with our Chief Diversity Officer.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director: No local participation

Education:

Institution	Course of Study	Degree Year (s)
Cal State- Fresno	BS Industrial Technology	1987

Employment Experience (Start with Most Recent): See attached resume

Organization:	VSP		
Position:	Vice President	Year:	Present
Organization:			
Position:		Year:	
Organization:			
Position:		Year:	

Prior public service, civic or volunteer activities:

Organization:	Board Member Boys and Girls Club, Sacramento		
Position:	Fundraising Chairman	Year:	2013-2015
Organization:			
Position:		Year:	
Organization:	Sacramento Fire Department		
Position:	Volunteer Coordinator	Year:	2000-2004

[redacted]

Signature

2.14.22

Date

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ERIN ANNE ALLEN

[redacted]

Results-driven professional with extensive experience in team leadership and execution. Proven track record in strategy creation, program development, exceeding forecasts, leading strong team performance and delivering results. Highly adept in building strong cross functional teams.

PROFESSIONAL EXPERIENCE:

VSP Vision Care, Rancho Cordova, California **2020- Present**

Vice President Business Enablement and Integration

Executive Rotation

Responsible for business enablement and analytics with 1 Sr. Director, 6 managers and 64 team members

Lead BEI team in the development of solutions to maximization operational efficiencies to achieve company and enterprise goals. Ensure close strategic alignment with Customer Experience Center to improve member retention and decrease OON claims. Deliver sales and service platform stability at 95% system up time. Align BEI team and activities with all other enterprise analytics business units. Ensure analytic applications are aligned with business need and strategy. Direct all Vision Care Analytics and Reporting activities to grow and evolve capabilities resulting in 95% satisfaction rating within business stakeholder surveys. Implement new software within department to improve compliance reporting and reduce client data inquiries by 25% each quarter. Consult with Insurance Business Transformation project Executive Sponsor team to meet and exceed scheduled deliverables. Lead special projects and strategic initiatives as assigned. Responsible for the creation of Vision Care's DE&I strategy in alignment with VSP's global strategy. Coordinate and align DE&I strategy with other pillar lead efforts across enterprise. Initiate and oversee all VC DE&I workstream efforts to increase communication, improve RFP information, provide resources and training, align team AAP to achieve VC diverse representation and create leadership development program in conjunction with HR.

VSP Global, Provider Solutions, Rancho Cordova, California

Vice President of Business Development **2018-2020**

Responsible for business development and sales enablement with 1 Director, 4 managers and 35 team members

Reorganized and structured GBDM team to meet business needs and ensured Premier success within the market. Coordinated all CLOB activities and targeting for Premier growth and retention. Developed Premier sales strategy. Responsible for enterprise Premier sales training. Coordinated and conducted monthly sales leadership strategy meetings and communications. Managed Sales Collaboration Project. Directed POC in Florida and Ohio to ensure successful January roll out. Initiated and conducted sales methodology search in order to propose and secure enterprise solution. Developed Pathways Expansion Program. Initiated successful POC in order to refine program for October launch. Responsible for annual CLOB SEE meetings. (See attached page for additional responsibilities.)

VSP Global, Marchon, Altair Division, Rancho Cordova, California

Director of Sales **2016-2017**

Responsible for over 80 million in sales with 4 managers and 44 team members

Exceeded 2016 and 2017 sales goal to achieve over 80 million in revenue. Responsible for strategy in all areas of business including core independent ECPs and Key Accounts. Developed and implemented key strategic sales business initiatives to elevate team. Oversaw all strategic business relationships with Altair customers. Developed sales strategy that addresses the changing marketplace. Initiated collaborative programs to engage all areas of the business unit. Worked across key business areas to leverage resources and support global initiatives. Worked closely with Finance team to develop yearly budget and forecasting. Improved communications within business unit to build cohesive, efficient processes. Launched data driven initiative utilizing claims to provide frame board inventory insights to our doctors.

VSP Global, Optics Group, Rancho Cordova, California

Director of Sales, West Zone **2012- 2016**

Responsible for over 125 million in lab sales with 3 managers and 21 team members

Achieved 27.5% growth in 2013 with EBITDA of 4.7 million. Achieved 28% growth in sales of over 125 million in 2014 to a goal of 108 million with 3 million in EBITDA. Responsible for all sales and marketing implementation within West Zone to ensure successful Optics Group initiatives and programs. Demonstrated strong personal leadership and process management skills to rectify situation during difficult time with opening of new lab. Continued to deliver strong sales to impact and regain market position. Responsible for implementation of Optics Group Recognition Program in conjunction with Global HR program. Represented Optics Group on Global Recognition Team to evaluate and reward outstanding performance throughout the company

Essilor of America- Brand Division, Dallas, Texas

West District Sales Manager **2007 - 2012**

Responsible for 32 million in Brand sales with nine Sales Consultants in seven states.

Grew District sales by 10% with a 5% sales goal and a 2.5% Industry growth average. Planned and directed all strategies to achieve sales objectives. Analyzed market potential and trends within West District. Led national competitive intelligence team to create extensive strategy to combat industry competitors. Implemented company strategic business sales and marketing plans and programs while maintaining appropriate levels of sales coverage and proper adherence to budget projections. Assessed performance and development needs. Managed and built effective development plans for individuals with varying levels of skills, potential and motivation.

The Pink House, Sacramento, California

Sole Proprietor **2007 -2010**

Responsible for all sales, marketing and operational activities necessary for the introduction of a new retail location.

Achieved sales of over $100,000 in first year.

Awarded Best in Sacramento from KCRA A List 2010

Shamir Insight Inc., San Diego, California

Western Regional Sales Manager **2004 -2007**

Responsible for 12 million dollars in sales with ten Account Executives in eleven states.

Created sales team to introduce new technology into the industry.

Trained and developed Account Executives to create and implement strategic business plans for each of the Western territories. Developed and trained Account Executives on call cycle creation and implementation. Trained Account Executives to develop and maintain strong business relationships with independent laboratories and ECPs within each territory and in Central and Western regions. Trained Account Executives to educate and develop staff within territory account base. Responsible for special projects including national Sandler Sales Training and targeted Key Account activities. Implemented Marketing programs within the region. Secured lab representation in all western states. Exceeded all sales, revenues and market penetration goals.

Hoya Vision Care, Modesto, California

Sales and Marketing Manager **2001-2004**

Responsible for 12 million dollars in sales with Sales Consultants and Marketing

Planned and directed all sales and marketing strategies. Identified target market development within region and produced incentive programs to support growth. Initiated and implemented marketing programs to obtain di stribution objectives. Developed creative new product marketing to ensure successful launch of new materials and designs in the Northern California market. Exceeded company goal of 50% Hoya product penetration in all assigned territories.

Essilor of America, Dallas, Texas

Essilor Laboratories of America Sales Representative **1996-2001**

Silor Sales Representative **1990-1993**

EDUCATION:
Bachelor of Arts- Industrial Technology
Minor in Business Administration
California State University, Fresno
June 1987

AWARDS & RECOGNITION:
Most Influential Women in Optical 2018
Zone Director of the Year 2015
Zone Director of the Year 2013
Zone Director of the Year 2012
Recognized for Outstanding Sales and Marketing Performance 2002
Sales Consultant of the Year 1999

ACCOMPLISHMENTS:

Boys and Girls Club of Greater Sacramento Board Member	2013- 2015
Member of Optical Women's Association	2007- Present
Volunteer Coordinator for the Sacramento City Fire Department	2000- 2004
California International Marathon	1998

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME David DiGirolamo DATE 4/9/2022

RESIDENCE ADDRESS [redacted] Carmel ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE _____

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 7 Years

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	X
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	X
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

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Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [X] NO [ ]

Reason for Interest in the Position:
I have a passion for our unique city, community, architecture, and resources. A resident since 2015, I have spent my free time here since 1997. I first came for the natural beauty, but soon discovered an equally vibrant community which I sought to join and contribute to. I have been supporting Carmel via Carmel Cares, and our coastal resources via The Marine Mammal Center, but seek more direct participation in Carmel's journey. Carmel is under increasing pressure to follow neighboring communities, which regret their lost resources and unique community. I am recently retired and would like to apply my diverse skills to help Carmel evolve into the future, while preserving that which makes us special.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

Professionally I have over 35 years of business, operational, and legal experience - running organizations, overseeing mission-critical programs, and executing complex change management. As a private individual, I have direct experience with Carmel's planning and historic preservation process, and our local historical & natural resources.

I recently restored the historic Henry Hill house on Lopez Ave (shown on the 2021 Home Tour). I worked early with the Planning Dept., Historic Resources Board, and a local architect to develop a modern renovation plan which was fully respectful to both Carmel and Henry Hill. I learned firsthand of Carmel's planning rules, Secretary of the Interior's Standards for the Treatment of Historic Houses, and the development process. I know what it takes to build within the rules in a way that balances personal and community needs.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
None

Education:

Institution	Course of Study	Degree Year (s)
University of Michigan	MBA Finance / Marketing / Law	1988-90
University of Michigan	BSE Computer Engineering	1982-86

Employment Experience (Start with Most Recent):

Organization: Currently Retired	
Position:	Year:
Organization: Cisco Systems	
Position: Sr. Director Product Management, Operations, Monetization	Year: 1997-2021
Organization: APPA Computers	
Position: VP / GM	Year: 1986-1997

Prior public service, civic or volunteer activities:

Organization: Carmel Cares	
Position: Volunteer	Year: 2021 - present
Organization: The Marine Mammal Center	
Position: Rescue and Animal Husbandry	Year: 2019 - present
Organization:	
Position:	Year:

[redacted]

Signature

4 / 9 / 2022

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Gail Lehman DATE 3.14.2022

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE - BUSINESS PHONE 831.277.2770

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 47 years

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	X
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? yes

Revised July 16, 2019

All members of boards and commissions are subject to the Conflict of Interest Laws of the State of California and are required to submit Form 700, "Statement of Economic Interest," within 30 days of assuming office. Form 700 must be filed annually thereafter, and within 30 days of leaving office as well.

In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [x] NO [ ]

Reason for Interest in the Position:
I am re-applying to the position. I am interested to continue to contribute to the revisions of the guidelines and to the general plan that I may continue my service to our City.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:
In addition to my 6+ years on the Planning Commission, I was personally responsible for over two and one-half million square feet of commercial buildings and hospitals. I have renovated or built 36 homes, the majority of which are in Carmel by-the-Sea.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
Planning Commission vice chair
O.S.B.T. Investments, partner
The Golden Mean, LLC managing member

Education:

Institution	Course of Study		Degree Year (s)
Cornell University	Government	1957 - 60	
Harvard University	Government	1960	
New York School of Design	Design	1963 - 65	NYSD certificate

Employment Experience (Start with Most Recent):

Organization: Please see attached C.V.	
Position:	Year:
Organization:	
Position:	Year:
Organization:	
Position:	Year:

Prior public service, civic or volunteer activities:

Organization: Planning Commission, Carmel by-the-Sea	
Position: Vice-chair / Commissioner	Year: 2016 - present
Organization: City of Monterey	
Position: Design Review Commission	Year: 1976 - 77
Organization: United Nations Center	
Position: Teacher / Hospitality Organizer	Year: 1962 - 65

[redacted]

Signature

3.14.2022

Date

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Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

GAIL LEHMAN

[redacted]

PROFILE

EDUCATION:
Cornell University 1957-1960
Harvard College 1959
New School for Social Research 1960-1961
New York School of Interior Design 1963-65

PROFESSIONAL AFFILIATIONS:
American Institute of Architects, (affiliate member)
Institute of Business Designers
Design International
Central Coast Art Association
National Society of Acrylic Painters
Women Artists of the West

SERVICE:
Interior Design Guild of Monterey Bay,1980-84, President, 1983-84
Soroptomist International
Chamber of Commerce, Santa Cruz, San Francisco, Monterey
City of Monterey, Design Review Board 1977-78
Democratic Club of the Monterey Peninsula, Vice-President 2008-2016

HONORS AND AWARDS:

- Design International award winner 1983,1984, for "Excellence in the field of Interior Design and Space Planning."
  Design projects included in the Compendium of women in Design International
  "Prix des Femmes International" award for excellence in commercial office design.

EMPLOYMENT HISTORY:

1/2000-Present **GAIL LEHMAN FINE ART**
Carmel by The Sea, California

Abstract Artist
See : Artist Bio at: www.gaillehmanfineart.com

1/1988-Present **THE GOLDEN MEAN, LLC**
Carmel by the Sea, California

Position: Owner, Designer, Project Manager

Responsibilities: Supervised the design and construction of thirty five homes in California and Washington, majority in Carmel by the Sea.

2/1977 to 2005 **GAIL LEHMAN AND ASSOCIATES**

Carmel By The Sea, California
Position: Owner. Project Director/Designer
Responsibilities: Principal Designer, Long range feasibility planning, space evaluations for lease negotiations, project coordination, project design, marketing, coordination and direction of office personnel.

Major Clients:

American Tin Cannery
Bayou Cafe
Crocker National Bank Building
Dalgety Foods
Dominican Santa Cruz Hospital
Fort Ord (dining room, disco, modular units, barracks)
Fortuna Communications
Hartnell College
Hudson, Martin, Ferrante & Street
IBM Corporation (on call field consultant
Lakin-Spears, law office
Lavorato & House, law building
Robert Louis Stevenson School
Salinas Public Library
University of California San Francisco
UCSF/ Stanford Health Care
UCSF/Lucille Packard Children's Health Services
UCSF Long Hospital/ Pediatric (Floors six and seven)

5/76 to 2/77 **MILTON SWIMMER PLANNING AND DESIGN**
Beverly Hills, California

Position: Project Director, Senior Designer
Responsibilities: Coordinate and direct projects for major corporations. Supervise initial space planning, working drawings and construction in progress.

Major Clients:

Buckeye Realty & Construction
Columbia Savings & Loan
Freedman & Low
Korean Exchange Bank
National Distillers & Chemical Corporation

3/75 to 5/76 **ENVIRONMENTAL RESEARCH AND DEVELOPMENT**
Beverly Hills, California

Position: Project Director/Designer
Responsibilities: Identical to previous position

Major Clients:

Ayre Jorgensen MacDonald
Billy Jack Productions
The Colwell Company

Ernst & Ernst (Salt Lake City)
Kellog & Andelson
National Medical Enterprises
Peat, Marwick, Mitchell (New Orleans)
Prudential Insurance Company
Rosenfeld, Horn, Denton & Harrell
Shapiro, Robin, Cohen & Powell

9/73 to 2/75 **SAPHIER LERNER SCHINDLER ENVIRONETICS**
West Los Angeles, California

Position: Project Director
Responsibilities: The same as above.

Major Clients:

Gate Realty, Inc.
Harbor Insurance Building
Johnson & Higgins
Monogram Industries
Tishman Reality & Construction
Unionamerica Insurance (Los Angeles, San Francisco, Dallas, Houston and New York)
Urban Projects, Inc.

Position: Director of Technical Services
Responsibilities: Supervised production control operation. Duties included direct supervision of Draftsmen, Detailers and Tenant Development Project Directors. Responsible for job scheduling, determining building standards for construction, final approval of working drawings, building permits and computer operation. Acted as major contact between company, tenant and construction coordinators.

Major clients:

Avco Center
Charles Dunn Company
Dillingham Development Company
S. Jon Kreedman Company
Matlow-Kennedy Corporation
The Realty Group
The State of California
Shell Oil
Tishman Realty & Construction

9/70 to 9/73 **COUNTY OF LOS ANGELES**
Department of Health Services
LAC-USC Planning Division
Los Angeles, California

Position: Senior Project Planner
Responsibilities: Design, plan and execute schematics and working drawings for major county hospitals. Write service and facility programs for capital projects. Conduct feasibility studies to determine optimum utilization of facilities.

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME Janet Reimers DATE March 25, 2022

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel [redacted]P 93921

RESIDENCE PHONE [redacted]

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 21

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	✓
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? _____

Revised July 16, 2019

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In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES ☑ NO ☐

Reason for Interest in the Position:

I care about all of the eco systems in Carmel-by-the-Sea. the forest and the beach require equal oversite.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

I understand the need for replacement trees to keep the forest healthy. And have followed the process of the North Dune Restoration

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

I have served on the Design Review Commission, the Planning Commission & the City Council for Carmel-by-the-Sea

Education:

Institution	Course of Study	Degree Year (s)
Oregon State University	Education	Bachelor degree

Resume'

Janet N. Reimers
[redacted]

January 8, 2021

Education:

San Jose State College: Graduate courses (Summer 1963)
Oregon State University: B.S. Home Economics Education, 1959

Employment:

Pan American World Airways: Stewardess 1959-1962
Palo Alto Unified School District, Palo Alto, CA: Teacher 1963-1964
Substitute teacher: 1972-1982
Grace Lutheran Church Preschool teacher: Palo Alto, 1982-1984
Stanford Medical School Blood Center: Recruitment Department and
Special Events coordinator: 1987- about 1993

Volunteer Commitments:

Carmel-by-the-Sea City Council member: 2016-2020
Carmel-by-the-Sea Planning Commission: 2007-2016
Chairman for two or three years
Carmel-by-the-Sea Design Review Commission: 2006
Quail Lodge & Golf Club:
Woman's Golf Association Captain: 2005, 2007, 2014
Woodside-Atherton (now Allied Arts Auxiliary) to Lucile Packard
Children's Hospital at Stanford 1975 to present
Positions held:
Allied Arts Guild Director (property manager): 1984-1985
Public Relations Director: 1987
(primarily for the major fundraiser: Tally Ho)
President: 1991
Gunn (High School) Foundation Board of Directors: 1983-1985
(organization to assist funding high school student's
needs and additional educational opportunities)
Positions held: Fund raising chairman 1984
Chairman: 1985

Additional volunteer commitments:

Girl Scout leader, PTA officer and other support positions for the children's schools.

Family:

Married to Niels J. Reimers: 1962

Children:		Grandchildren:
Niels, III	born 1964	Dane born 1999; Kai born 2001; Anna born 2006
John	born 1967	Molly born 2002, Stuart born 2004, William born 2005,
Kari Anne	born 1971	Tor born 2001, Margaux born 2004, Gwendolyn born 2010, James born 2011

Employment Experience (Start with Most Recent): Please see attached page

Organization: Stanford Medical School Blood Center
Position: Year:
Organization:
Position: Year:
Organization:
Position: Year:

Prior public service, civic or volunteer activities:

Organization: Woodside Athletic auxiliary to Packard Children Hospital
Position: President Year: 1991
Organization: Nixon Elementary School PTA
Position: President Year: 1981
Organization:
Position: Year:

[redacted]
Signature

3/25/22
Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Michael J. Kovac DATE April ,11,2022

RESIDENCE ADDRES[redacted] CITY Carmel by trhe Sea ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel by the Sea ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE 831 2122222

EM[redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 47 years

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)		
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)		
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)		
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	X	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)		

Will you be available to attend board/commission meetings regularly? _____

Revised April 29, 2016

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In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [x] NO [ ]

Reason for Interest in the Position:

I love Carmel and have always done my best to support this little part of Heaven to stay with our mission statement..

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

I tend to think outside the box and come up with different solutions to a problem that have not been proposed.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

Education:

Institution	Course of Study	Degree Year (s)
Long Beach State	marketing	three years

Employment Experience (Start with Most Recent):

Organization: A&S Metals materials buyer	
Position:	Year: 2015
Organization:	
Position:	Year:
Organization:	
Position:	Year:

Prior public service, civic or volunteer activities:

Organization:	
Position:	Year:
Organization:	
Position:	Year:
Organization:	
Position:	Year:

[redacted]

Signature

April 11,2022

Date

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APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Roxanne Lanser DATE April 11 2022

RESIDENCE ADDRESS [redacted] Y Carmel ZIP 93923

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE _____

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 1.5 years

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	1
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	
Forest & Beach Commission (meets the second Monday of the month at 9:30 a.m., tour of inspection at 3 p.m.)	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	2
Board of Appeals (serve annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

Revised July 16, 2019

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Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [X] NO [ ]

Reason for Interest in the Position:

I believe in community support and giving of one's time back to the community in which one resides.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:

Executive Director Northwest Wine Coalition
Marketing Director Napa Valley Vintners
President Sacramento chapter Women for WineSense
Board member Les Chaines de Rotisseurs

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:

Lady Somm, LLC

Education:

Institution	Course of Study	Degree Year (s)
University of Pacific	International Comm	MA
" "	Comm	BA
UCD	Vit & Enology Comm Ed	Certificate

Revised July 8, 2010

Employment Experience (Start with Most Recent):

Organization: Lady Somm & Carmel Wine School	
Position: Founder	Year: 2022
Organization: Morgan Bel Air Winery	
Position: Director of Sales + Marketing	Year: 2016-2020
Organization: Wine Fundamentals	
Position: Founder	Year: 2007-2016

Prior public service, civic or volunteer activities:

Organization: Various Women / Mother-Daughter organizations	
Position:	Year:
Organization:	
Position:	Year:
Organization:	
Position:	Year:

[redacted]

Signature

April 11 2022

Date

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Revised July 16, 2019

Roxanne Langer

[redacted]

WINE INDUSTRY EXECUTIVE

High-energy proven leader with expertise in building, leading, mentoring, and championing teams that produce revenue. An out-of-the-wine-box trailblazer that will create successful sales and hospitality programs driving new wine customers to owned wine brand. Able to educate and get broader winery teams on board to know what it takes to deliver differentiated products to the luxury wine consumer.

- P&L responsibility
- General management
- Business development
- Marketing/brand management
- Domestic & international team management
- Cult wine level experience
- Launching and rebranding experience
- Relationships with top somms/buyers
- Relationships with top luxury purveyors
- Hired personnel, trained, supervised, and inspired personnel

PROFESSIONAL EXPERIENCE

LadySomm: WineForward & Carmel Wine School
Carmel-by-the-Sea
Founder **November 2020 -**

Restarted wine edutainment company, started a wine marketing and sales company, assisting clients with marketing, public relations, wine clubs and sales. Currently work with wineries and one luxury brand cognac. Opened local wine school.

Moraga Bel Air (owned by Rupert Murdoch), Los Angeles, California
Director of Sales and Marketing and Winery Sommelier **May 2016–April 2020**

- Successfully created unique sales strategy for the luxury demographic by relaunching wine brand as a Southern California "Cult" wine with a retail price per bottle of $115.00 for Sauvignon blanc & $175.00-$350.00 for Bordeaux blend
- Doubled sales in first year with sales increasing 30% year over year
- Set the cultural bar for winery by developing high-net-worth wine club membership; created luxurious, successful and sought-after wine club events (club mentioned in *Reside*, Sotheby's International Realty magazine, as one of the most exclusive wine clubs in the US)
- Considered the luxury wine guru for initiating and creating luxury marketing initiatives by developing co-marketing partnerships for winery with non-wine luxury brands including Channel, Vacheron Constantin, Louis XIII, Barron's, Mansions Global and others
- Developed public relations and social media campaigns for winery with articles in *Town & Country*, *WE*, *WS*, *Forbes*, *The Hollywood Reporter*, *GQ*, *Bloomberg*, *The Somm Journal*, etc., as well as interviews on national and local radio shows
- Created and facilitated new social presence on Facebook, Instagram and Twitter
- Developed compelling social media campaigns resulting in high traffic and significant likes
- Created winery's first e-commerce platform and redesigned website to attract high-net-worth clientele
- Established a network of celebrity and wine-oriented influencers

- Opened new trade markets in California, New York, Nevada, Arizona, Florida, Texas, and Tennessee, including placements into several Michelin-starred restaurants
- Curated high value DTC list and opened 15 states
- Created and facilitated revenue and expense budgets
- Represented winery at high-profile events, conferences and tastings
- Created "Salon du Vin" venue as new and highly successful profit center

WineFUNdamentals, Rocklin, California
Founder, Luxury Direct to Corporation & Consumer **July 2006–April 2016**
Wine Events and Experience Company

- DTC wine edutainment and experience company. Worked with meeting planners and CEO's to provide wine programs to corporations, associations and universities across the US. Programs included culinary, food and wine pairing, wine team building, wine receptions, wine dinners, and wine incentive travel
- Frequent wine speaker at conventions and Epcot's International Food & Wine Festival
- Actively sold company on social media: Facebook, LinkedIn, Pinterest, Twitter, Instagram, Tumblr, Vine, etc. Communicated with client base via digital monthly newsletter with excellent "open" numbers. Developed branding program by creating "target specific" programs

Grgich Hills Cellar
Sales Representative **April 1996–March 2006**

- Developed sales for Grgich Hills Cellar in high-end restaurants, wine stores, supermarkets, box stores, country clubs, etc.
- Promoted sales by presenting at distributor/retailer meetings, conducting wait staff training, wine dinners, participating in wine tastings and charity events

Napa Valley Vintners Association, St. Helena, California **September 1995–August 1996**
Marketing Director

- In charge of both the domestic and international marketing as well as special events for the 300+ winery members of the NVVA
- Assisted wineries in finding sales agents domestically and internationally
- Developed marketing plans, organized and facilitated special events, organized domestic and international promotional tours for wineries with trade tastings during the day and charity events in the evening
- Developed and/or worked with designers for promotional materials, presented at board meetings, ran marketing and international association meetings, developed trade lists of buyers and press
- Managed sub-contractors for advertising, design and events
- Worked with charity groups around the country to organize consumer tastings, developed regional wine maps

Northwest Wine Coalition
Executive Director **February 1992–August 1995**

- Quasi government and winery association formed to promote exports of Northwest Wineries in Europe, Asia and Canada
- Increased Northwest wine exports by 30%
- Set up wineries with foreign distributors and agents
- Developed special events
- Created promotional materials for wine region

- Facilitated blind tastings
- Presented educational seminars
- Organized trade show participation
- Conducted familiarization tours with foreign press and wine buyers of the Northwest wine region
- Hired foreign *In-Country* trade representatives and marketing specialists
- Ran association, facilitated board meetings, established memberships

University of the Pacific & Art Institute
Adjunct Wine Professor **December 2009–2016**

- Adjunct wine professor for University of the Pacific's Master of Arts in Food Studies and the Culinary Academy at Art Institute Sacramento
- Developed three-year wine course of study, for wine and culinary professionals
- Wrote class syllabi
- Created class competencies and objectives
- Taught classes

Rutherford Hill Winery
Director of Sales and Marketing **August 1990–February 1992**

- Presented wines at wine wholesaler meetings
- Worked with distributor representatives and retailers throughout the United States. Developed programs for wineries sales teams. Called on restaurant and retail accounts. Represented winery at trade and consumer tastings. Created marketing promotions, cross merchandising opportunities, case cards, bottle neckers, shelf talkers, displays, brochures, trade incentive programs, etc.
- Created wait-staff training for restaurants
- Worked with Rutherford Hill sales representatives around the country
- Directed sales meetings at winery

Concannon Vineyards
Director of Sales and Marketing **May 1988–August 1990**

- Called on restaurant and retail accounts
- Represented winery at trade and consumer tastings
- Initiated winery's corporate gift program
- Developed staff training for winery employees, restaurant wait staff, distributor and retail outlet employees
- Created DTC program
- Wrote tasting room and special event marketing plan

EDUCATION

M.A. in International Communications, University of the Pacific; 1986

B.A. in Communications, University of the Pacific; 1983

Higher Certificate WSET (pre-dates diploma)

University of California at Davis Winemaking Program (Community Education Department)

United States Foreign Agriculture Program on Exporting Wine

Certified Level 2 Sommelier

INDUSTRY ROLES

Langer serves as Vice Enchansson for the Los Angeles Chapter of Chaîne des Rôtisseurs, is a member of Women of the Vine & Spirits, Women for WineSense (past Sacramento president), CMO Club (Chief Marketing Officers), Les Dames d'Escoffier International, American Institute of Food and Wine, and Women in Wine, Monterey, CA.

ADDITIONAL INFORMATION

Author of Churchill, A Drinking Life: Champagne, Cognac & Cocktails (pub date July, 2022), An Up-Close Look at Liechtenstein: This Emerging Wine Region is Ready For It's Big Reveal (Somm Journal, Dec/Jan 2021-22), additional articles on wine and spirits for *The Somm Journal*, *The Tasting Panel, Wine Geographic* and numerous other newspapers and wine blogs. In addition, as a wine expert she has been quoted in more than 20 nationally released books.

Attachment 3

City of Carmel-by-the-Sea

APR 01

Received by City Clerk

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

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NAME Steven A. White DATE 3/15/22

RESIDENCE ADDRES [redacted] CITY Carmel ZIP 93921

MAILING ADDRESS [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE "

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 2 years, but grew up on Monterey Peninsula before going to college.

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	✓
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

Revised July 16, 2019

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In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES [X] NO [ ]

Reason for Interest in the Position:
I have a deeply personal relationship with this area, having grown up here. I also have a passion for conservation and environmental matters, as evidenced by my work with several non-profits, such as HSUS, HSI, NRDC and the SPCA of Monterey County. I see this position as an opportunity to combine those two interests as I moved back to the Peninsula and bought a home in Carmel two years ago.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:
Angelo-Gordon: I have been part of the leadership team of the real estate group within a $50bn private equity investment firm, involved in all aspects of running a large real estate investment manager. I have a deep understanding of real estate issues from over 20 years in the business. I also work with multiple NGOs and sit on the board for HSUS and HSI to oversee and approve budgets, program work, the executive team and staff, etc. My work with these organizations, plus NRDC and the Center for Biological Diversity, highlight a keen interest in maintaining and developing ecological health and vibrancy in tandem with built environments in our local communities.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
Volunteer at the wildlife center at the SPCA of Monterey County. No local real estate investments or officer/director positions, other than a family home at 6th & Santa Fe.

Education:

Institution	Course of Study	Degree Year (s)
RLS HS		1990
Dartmouth College	Philosophy	1994
Wharton School at U Penn	MBA	2002

Employment Experience (Start with Most Recent):

Organization: Angelo, Gordon & Co.	
Position: Managing Director	Year: 2004 - Present
Organization: Goldman Sachs	
Position: Associate	Year: 2002 - 2004
Organization:	
Position:	Year:

Prior public service, civic or volunteer activities:

Organization: Humane Society of the United States + Humane Society Intl.	
Position: Board of Directors	Year: 2020 - present
Organization: SPCA of Monterey County	
Position: Wildlife Center volunteer	Year: 2021 - present
Organization: NRDC - Natural Resources Defense Council	
Position: California Leadership Council member	Year: 2018 - present

[redacted]

Signature

7/15/22

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

APPLICATION TO SERVE ON A CARMEL-BY-THE-SEA CITY BOARD OR COMMISSION

In accordance with the Public Records Act, submitted applications and attachments are considered public records and will be disclosed upon receipt of a public records request. Applications may also be published (with signatures and personal contact information redacted) in the agendas of relevant meetings of the City Council, boards and commissions.

NAME Terry Hallock DATE 4-8-22

RESIDENCE ADDRESS [redacted] CITY Carmel ZIP 93921

MAILING ADDRESS PO [redacted] CITY Carmel ZIP 93921

RESIDENCE PHONE [redacted] BUSINESS PHONE —

EMAIL [redacted]

HOW LONG HAVE YOU LIVED IN CARMEL-BY-THE-SEA? 1995 - 27yrs.

Board or Commission Selection:

You may apply for more than one Board or Commission. Please note, however, that members shall not serve simultaneously on more than one Council-appointed Board or Commission.

Community Activities & Cultural Commission (meets the second Tuesday of the month at 9:30 a.m.)	
Harrison Memorial Library Board of Trustees (meets the fourth Wednesday of the month at 9:00 a.m.)	
Planning Commission (meets the second Wednesday of the month at 4:00 p.m., tour of inspection at 2:00 p.m.)	✓
Forest & Beach Commission (meets the second Thursday of the month at 3:30 p.m., tour of inspection at 3 p.m.)	
Historic Resources Board (meets the third Monday of the month at 4:00 p.m., tour of inspection at 3:15 p.m.)	
Board of Appeals (once annually and on an as-needed basis)	

Will you be available to attend board/commission meetings regularly? Yes

Revised July 16, 2019

All members of boards and commissions are subject to the Conflict of Interest Laws of the State of California and are required to submit Form 700, "Statement of Economic Interest," within 30 days of assuming office. Form 700 must be filed annually thereafter, and within 30 days of leaving office as well.

In accordance with Assembly Bill (AB) 1234 appointed members are required to attend Public Service Ethics Education upon appointment and every two years thereafter.

Do you agree to file all required statements in a timely manner as prescribed by law or the City's Conflict of Interest Code? YES ☑ NO ☐

Reason for Interest in the Position:
I am interested in learning the functions of the local government's budgeting, planning + developing a vision for the future.
I have lived in the village + owned property here since 1994. I call Carmel my home - not second home.
It is important to provide that vision for future generations.

Please list any relevant qualifications or experience you possess that would enhance the mission and goals of the board(s) or commission(s) for which you are applying:
Most recently, I have 15 years of experience in forecasting, budgeting + planning in hospitality accounting.
For 10 years I consulted with local nonprofits in strategic planning, development + outreach.
As a grantwriter, I was successful in obtaining over $4 million in equipment + training for Big Sur Fire and CERT.
I have been active in the community and am familiar with some city functions + issues.

Please list any local area associations, boards, commissions, foundations, or companies in which you have an investment, or serve as an officer or director:
Volunteer only - Friends of Sunset. In the process of retiring.

Education:

Institution	Course of Study	Degree Year (s)
Jacksonville University	Math	1972
Florida State	Ms. Math + Comp Sci	1974
" "	MBA: Operations + Finance	1976

Employment Experience (Start with Most Recent):

Organization: Mirabel Hotel + Rest. Group	2016 - current
Position: Controller	Year:
Organization: Nepenthe Restaurant	2006 - 2016
Position: Accounting Mgr	Year:
Organization: IBM	1976 - 2000
Position: Many - Tech Marketing	Year:

Product Design + Development for software.

Prior public service, civic or volunteer activities:

Organization: Big Sur Fire Brigade	2005 - 2010
Position: Board + Grant Writer	Year:
Organization: Friends of Sunset	2013 - 2019
Position: Board Secretary	Year:
Organization: Monterey Pops	2013 - 2017
Position: Board Member	Year:

[redacted]

Signature

4-8-22

Date

Citizen knowledge, interest and participation are vital ingredients to the delivery of high-quality public services. The richness that comes from citizens serving in advisory roles to the City Council contributes to making Carmel by the Sea the special place it is. The City of Carmel-by-the Sea thanks you for your interest in serving on a City board or commission.

I would be so proud to serve.

JH

Return application to the City Clerk's Office, East side of Monte Verde Street, between Ocean and Seventh Avenues or mail to PO Box CC, Carmel-by-the-Sea, 93921, attention: City Clerk's Office.

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
PUBLIC HEARINGS

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Robin Scattini, Acting Director of Budget and Contracts
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Resolution 2022-047 Adopting the Fiscal Year 2022-2023 Appropriations Limit

RECOMMENDATION:

Adopt Resolution 2022-047 approving the FY22-23 Appropriations Limit

BACKGROUND/SUMMARY:

The State Constitution (Article XII IB) places a limit on the amount of monies that a governmental entity is able to spend based upon projected tax revenues. In accordance with State law, the government entity must adopt an annual appropriations limit. This limit is calculated using a prescribed methodology outlined by the State. The limit is adjusted by the change in the cost of living and the change in population, using the California Department of Finance figures.

In calculating the appropriations limit, the City Council has the option to use either the change in per capita income or the percentage change in the local assessment roll. In addition, the Council may either use the change in population within the City or within the County. For consistency purposes, staff recommends using the California per capita personal income of 7.55% and the population growth for the City of Carmel by the Sea of -1.74%. The Department of Finance uses a formula that converts the percent change in income and population growth into a ratio and thus the adjustment factors for calculating the GANN limit are 1.0755 for income and 0.9826 for population growth.

These adjustment factors are applied to the current fiscal year (Fiscal Year 2021-2022) GANN limit in order to determine the appropriation limit for the upcoming fiscal year (Fiscal Year 2022-2023). Using this formula, the City's appropriation limit for Fiscal Year 2022-2023 is $39,201,580. The appropriations subject to the GANN limit is $24,983,200; thus, the City is well within its GANN limit.

FISCAL IMPACT:

The appropriation limit for fiscal year 2022-2023 is based upon budgeted revenues for property tax, sales tax, transient occupancy tax, motor vehicle in lieu and business license tax. Together these revenues are budgeted at $24,983,200.

PRIOR CITY COUNCIL ACTION:

Council adopted the Fiscal Year 2021-2022 Appropriations Limit on June 8, 2021.

ATTACHMENTS:

Attachment #1 - Resolution 2022-047 FY22-23 GANN Appropriation Limit
Attachment #2 - DOF Calculations

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL

RESOLUTION NO. 2022-047

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA ADOPTING THE FISCAL YEAR 2022-2023 APPROPRIATIONS LIMIT

WHEREAS, under Article XIIIB of the State Constitution, public agencies are required to annually establish maximum appropriations limits referred to as the GANN limit (Limit); and

WHEREAS, since fiscal year 1991, the City is permitted to adjust its Limit in accordance with inflation and population adjustment factors; and

WHEREAS, the annual adjustment factors that were selected to calculate the Fiscal Year 2022-2023 Limit were the California per capita personal income adjustment factor of 1.0755 and the Carmel by the Sea population growth factor of 0.9826; and

WHEREAS, in accordance with California Government Code Section 7910, a notice of the public hearing was published in the Carmel Pine Cone on May 20, 2022; the documentation used in determining the Limit has been made available to the general public for fifteen days prior to the date of the adoption; and Council conducted a public hearing on the Limit on June 7, 2022; and

WHEREAS, the City may not appropriate any proceeds of taxes in excess of its Limit.

NOW THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA DOES HEREBY:

1. Adopts the final calculation of the Appropriation Limit for Fiscal Year 2022-2023 as $39,201,580, which is attached hereto as Exhibit A.

2. Certifies the Fiscal Year 2022-2023 Adopted Appropriations Subject-To-Limit of $24,983,200 does not exceed the GANN limit, which is attached hereto as Exhibits A and B respectively.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA this 7th day of June 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:	ATTEST:
_____	_____
Dave Potter Mayor	Yashin Abbas Interim City Clerk

Exhibit A

City of Carmel-by-the-Sea
Spending Limit Calculations
Fiscal Year 2022-2023

Appropriations Subject to Limit		
Fiscal Year 2022-2023 General Tax Revenues	$	24,983,200
Less Non proceeds of Tax	$	-
Total appropriations subject to limits	$	24,983,200
Appropriations Limit		
Fiscal Year 2021-2022 Appropriations limit	$	37,094,607
Plus change factors		
A. Cost of Living adjustment/Per Capital Income		1.0755
B. Population Adjustment		0.9826
Total Change Factor		1.0568
Increase in appropriations limit	$	2,106,974
Fiscal Year 2022-2023 Appropriations Limit	$	39,201,580
Remaining appropriations capacity	$	14,218,380
Availability capacity as a percent of appropriations limit		36%

Exhibit B

City of Carmel-by-the-Sea
Spening Limit Calculation
Fiscal Year 2022-2023

Revenue Source		Fiscal Year 2022-2023 Budget
Property Tax	$	8,299,100
Sales and Use Tax	$	8,925,100
Transient Occupancy Tax	$	6,667,000
Business License Tax	$	540,800
Motor Vehicle in Lieu	$	551,200
Total Budgeted Tax Revenues	**$**	**24,983,200**

DEPARTMENT OF
FINANCE
OFFICE OF THE DIRECTOR

Gavin Newsom ▪ Governor
1021 O Street, Suite 3110 ▪ Sacramento CA 95814 ▪ www.dof.ca.gov

May 2022

Dear Fiscal Officer:

Subject: Price Factor and Population Information

Appropriations Limit
California Revenue and Taxation Code section 2227 requires the Department of Finance to transmit an estimate of the percentage change in population to local governments. Each local jurisdiction must use their percentage change in population factor for January 1, 2022, in conjunction with a change in the cost of living, or price factor, to calculate their appropriations limit for fiscal year 2022-23. Attachment A provides the change in California's per capita personal income and an example for utilizing the price factor and population percentage change factor to calculate the 2022-23 appropriations limit. Attachment B provides the city and unincorporated county population percentage change. Attachment C provides the population percentage change for counties and their summed incorporated areas. The population percentage change data excludes federal and state institutionalized populations and military populations.

Population Percent Change for Special Districts
Some special districts must establish an annual appropriations limit. California Revenue and Taxation Code section 2228 provides additional information regarding the appropriations limit. Article XIII B, section 9(C) of the California Constitution exempts certain special districts from the appropriations limit calculation mandate. The code section and the California Constitution can be accessed at the following website: http://leginfo.legislature.ca.gov/faces/codes.xhtml.

Special districts required by law to calculate their appropriations limit must present the calculation as part of their annual audit. Any questions special districts have on this requirement should be directed to their county, district legal counsel, or the law itself. No state agency reviews the local appropriations limits.

Population Certification
The population certification program applies only to cities and counties. California Revenue and Taxation Code section 11005.6 mandates Finance to automatically certify any population estimate that exceeds the current certified population with the State Controller's Office. **Finance will certify the higher estimate to the State Controller by June 1, 2022.**

Please Note: The prior year's city population estimates may be revised. The per capita personal income change is based on historical data.

If you have any questions regarding this data, please contact the Demographic Research Unit at (916) 323-4086.

KEELY MARTIN BOSLER
Director
By:

ERIKA LI
Chief Deputy Director

Attachment

A. **Price Factor**: Article XIII B specifies that local jurisdictions select their cost of living factor to compute their appropriation limit by a vote of their governing body. The cost of living factor provided here is per capita personal income. If the percentage change in per capita personal income is selected, the percentage change to be used in setting the fiscal year 2022-23 appropriation limit is:

Per Capita Personal Income

Fiscal Year (FY)	Percentage change over prior year
2022-23	7.55

B. Following is an example using sample population change and the change in California per capita personal income as growth factors in computing a 2022-23 appropriation limit.

2022-23:

Per Capita Cost of Living Change = 7.55 percent
Population Change = -0.30 percent

Per Capita Cost of Living converted to a ratio: $\frac{7.55 + 100}{100} = 1.0755$

Population converted to a ratio: $\frac{-0.30 + 100}{100} = 0.997$

Calculation of factor for FY 2022-23: $1.0755 \times 0.997 = 1.0723$

Fiscal Year 2022-23

Attachment B
Annual Percent Change in Population Minus Exclusions*
January 1, 2021 to January 1, 2022 and Total Population, January 1, 2022

County City	Percent Change 2021-2022	--- Population Minus Exclusions --- 1-1-21	1-1-22	Total Population 1-1-2022
Monterey				
Carmel-By-The-Sea	-1.74	3,095	3,041	3,041
Del Rey Oaks	-1.22	1,558	1,539	1,539
Gonzales	-1.79	8,492	8,340	8,340
Greenfield	4.97	18,705	19,634	19,634
King City	-1.08	13,476	13,331	13,331
Marina	0.87	21,271	21,457	21,457
Monterey	-1.69	24,283	23,872	28,082
Pacific Grove	-1.21	14,942	14,761	14,761
Salinas	-1.14	161,777	159,932	159,932
Sand City	-1.59	378	372	372
Seaside	2.64	26,891	27,600	32,068
Soledad	-1.15	19,226	19,004	26,308
Unincorporated	-1.32	105,741	104,341	104,851
County Total	-0.62	419,835	417,224	433,716

*Exclusions include residents on federal military installations and group quarters residents in state mental institutions, state and federal correctional institutions and veteran homes.

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
PUBLIC HEARINGS

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Robin Scattini, Acting Director of Budget and Contracts
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Resolution 2022-048 Adopting the Fiscal Year 2022-2023 Annual Operating and Capital Budget

RECOMMENDATION:

Adopt Resolution 2022-048 Adopting the Fiscal Year 2022-2023 Annual Operating and Capital Budget

BACKGROUND/SUMMARY:

In accordance with Carmel Municipal Code Section 3.06.020, prior to the beginning of each fiscal year, the City Administrator shall prepare and submit to the City Council a proposed operating and capital budget for the forthcoming fiscal year. The proposed budget, referred to as the Fiscal Year 2022-2023 (FY 22-23) Recommended Budget of $32.4 million is submitted for Council's consideration. The proposed expenditures totaling $32.4 million, include the General Fund operating budget ($23.3 million), debt service ($878,000), pension mitigation and unfunded liability ($3.1 million), capital budget ($5.0 million), and workers compensation ($148,000). The proposed revenues totaling $30.3 million include property taxes ($8.3 million), sales tax ($8.9 million), transient occupancy tax ($6.7 million), and other revenue ($6.4 million). The FY 22-23 Recommended Budget requires the use of $2.1 million in prior years' savings ("fund balance") specifically to fund deferred Capital projects.

FY22-23 Recommended Revenue	**$30,277,000**
General Fund Operating Expenditures	23,234,415
Debt Service	878,303
Pension Mitigation / Unfunded Liability	3,082,464
Capital Outlay	5,029,000
Workers Compensation	148,160
FY22-23 Recommended Expenditures	**$32,372,342**
Revenues Over (Under)	(2,095,342)
Use of Fund Balance	**$2,095,342**

As the economy continues to rebound from the economic impacts associated with the coronavirus pandemic, the City anticipates an increase in revenues for FY 22-23. Conversely, the City also expects its expenditures to grow in FY 22-23, primarily related to increased staffing, pension costs, general operating costs, and a robust Capital Improvement Plan. Highlights of the budget include:

- Salary and benefit costs of approximately $13.5 million, which include funding for an additional 2.0 full-time equivalent (FTE) positions comprised of one restored position and one brand new position to support daily citywide operations, Council prioritized projects, capital projects and the full reopening of City facilities (96.23 FTE total).

- Pension costs of approximately $3.1 million, which includes $2.1 million for the City's annual unfunded accrued liability ("UAL") payment to CalPERS and $1.0 million investment into the City's established Section 115 Trust.

- Services and supplies costs of approximately $9.7 million to fund contractual services, fuel and vehicle maintenance, supplies and materials, utilities, fire services, insurance premiums, Sunset Center, staff training, marketing and other operational costs.

- $5.0 million for capital projects and vehicle and equipment purchases in the following categories: public safety ($1.4 million), streets/sidewalks ($1.0 million), facilities ($880,000), drainage ($500,000), green infrastructure ($400,000), environment ($752,000), IT/Planning ($87,000).

- $878,000 for debt service payments on the City's three existing bonds and $148,000 for workers compensation claim administration, potential claims and costs associated with the implementation of preventive measures.

Staff provided a brief overview of the budget as part of the May 3, 2022 Council meeting. At the May 17, 2022 budget workshop, staff presented a detailed review of the budget and received direction from Council on the budget. Two items of direction were given by Council as follows:

1) Approval of $24,000 in discretionary grant funding, resulting in an increase of $4,000 from the original recommended amount of $20,000. The additional $4,000 has been added to the City Council budget.

2) Approval of $30,000 in funding for the Carmel Chamber of Commerce, resulting in an increase of $15,000 from the original recommended amount of $15,000. The additional $15,000 has been added to the Marketing & Economic Development budget.

The expenses increase total of $19,000 ($4,000 + $15,000) has been offset by a corresponding increase in the budgeted amount of Charges for Services, resulting in no additional increase in the use of fund balance from the original recommended budget.

The revised budget book also has been updated to include the full listing of City Council priorities (page 24). More detailed information (chart and graph) regarding the contract services and materials and supplies budgeted for the Public Works Forest & Beach division has been added to page 49.

FISCAL IMPACT:

The FY 22-23 Recommended Budget totals $32.4 million and uses $2.1 million in prior years' savings ("fund balance") specifically to fund deferred Capital projects.

PRIOR CITY COUNCIL ACTION:

Council received a presentation regarding the Five-Year Financial Forecast and Five-Year CIP on March 22, 2022. Council received a presentation regarding the FY 22-23 Recommended Budget, inclusive of the Capital budget, on May 3, 2022. Council held a FY22-23 budget workshop on May 17, 2022.

ATTACHMENTS:

Attachment #1 - Resolution Adopting the FY22-23 Operating and Capital Budget
Attachment #2: FY22-23 Proposed Budget Book
Attachment #3: FY22-23 Budget Questions June 7, 2022

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL

RESOLUTION NO. 2022-048

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA ADOPTING THE FISCAL YEAR 2022-2023 ANNUAL OPERATING AND CAPITAL BUDGET

WHEREAS, on February 1, 2022, the City Council of the City of Carmel-by-the-Sea adopted the budget schedule for Fiscal Year 2022-2023 in accordance with Carmel Municipal Code Section 3.060.020; and

WHEREAS, the City Council held public meetings on the proposed Fiscal Year 2022-2023 capital projects and Five Year Capital Improvement Program on March 22, 2022 and May 3, 2022; and

WHEREAS, in accordance with Section 3.06.020 of the Carmel Municipal Code and Section 65103 of the State Government Code, the City's Planning Commission held a hearing on April 13, 2022 and determined that the Capital Improvement Program is consistent with the City's General Plan; and

WHEREAS, the City Council has received and completed its review of the proposed Fiscal Year 2022-2023 Operating and Capital Improvement Program Budgets during the budget hearing held on May 17, 2022 and gave general direction on the recommendations contained therein during a public meeting; and

WHEREAS, the City Council held a public hearing on June 7, 2022 for consideration of adoption of the proposed Fiscal Year 2022-2023 Operating and Capital Budget; and

WHEREAS the City's budget totals $47,598,878 for Fiscal Year 2022-2023 consisting of appropriations, inter-fund transfers, General Fund expenditures of $26,316,879, Capital expenditures of $5,029,000 (Capital Projects and Vehicle and Equipment Funds), Debt Service expenditures of $878,303 and Workers Compensation expenditures of $148,160.

WHEREAS the City's budgeted revenue totals $45,503,536 for Fiscal Year 2022-2023, including General Fund revenue of $16,639,200.

WHEREAS, in accordance with Carmel Municipal Code Section 3.06.010, the City Council shall adopt a budget for expenditures and anticipated revenues prior to the beginning of the fiscal year and the City Council now desires to adopt the Operating and Capital Budgets for Fiscal Year 2022-2023.

NOW THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA DOES HEREBY:

Authorize the City Administrator to make ministerial changes to budgeted transfers and adjust appropriations to or from designated funds for Fiscal Year 2021-2022 as necessary as part of the fiscal year-end process on June 30, 2022.

Approves and adopts the City of Carmel-by-the-Sea's Fiscal Year 2022-2023 Recommended Operating Budget and Capital Improvement Program Budget.

Authorize the City Administrator to make ministerial changes to budgeted transfers and adjust appropriations to or from designated funds as necessary during Fiscal Year 2022-2023.

Approve and adopts establishing the General Fund Reserve based upon fifteen percent (15%) of the General Fund Operating Expenditures for Fiscal Year 2022-2023.

A copy of the adopted budget, signed by the Mayor and attested to by the City Clerk, shall be kept on file with the City Clerk of the City of Carmel-by-the-Sea as the official budget of the City of Carmel-by-the-Sea for Fiscal Year 2022-2023.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CARMEL-BY-THE-SEA this 7th day of June, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

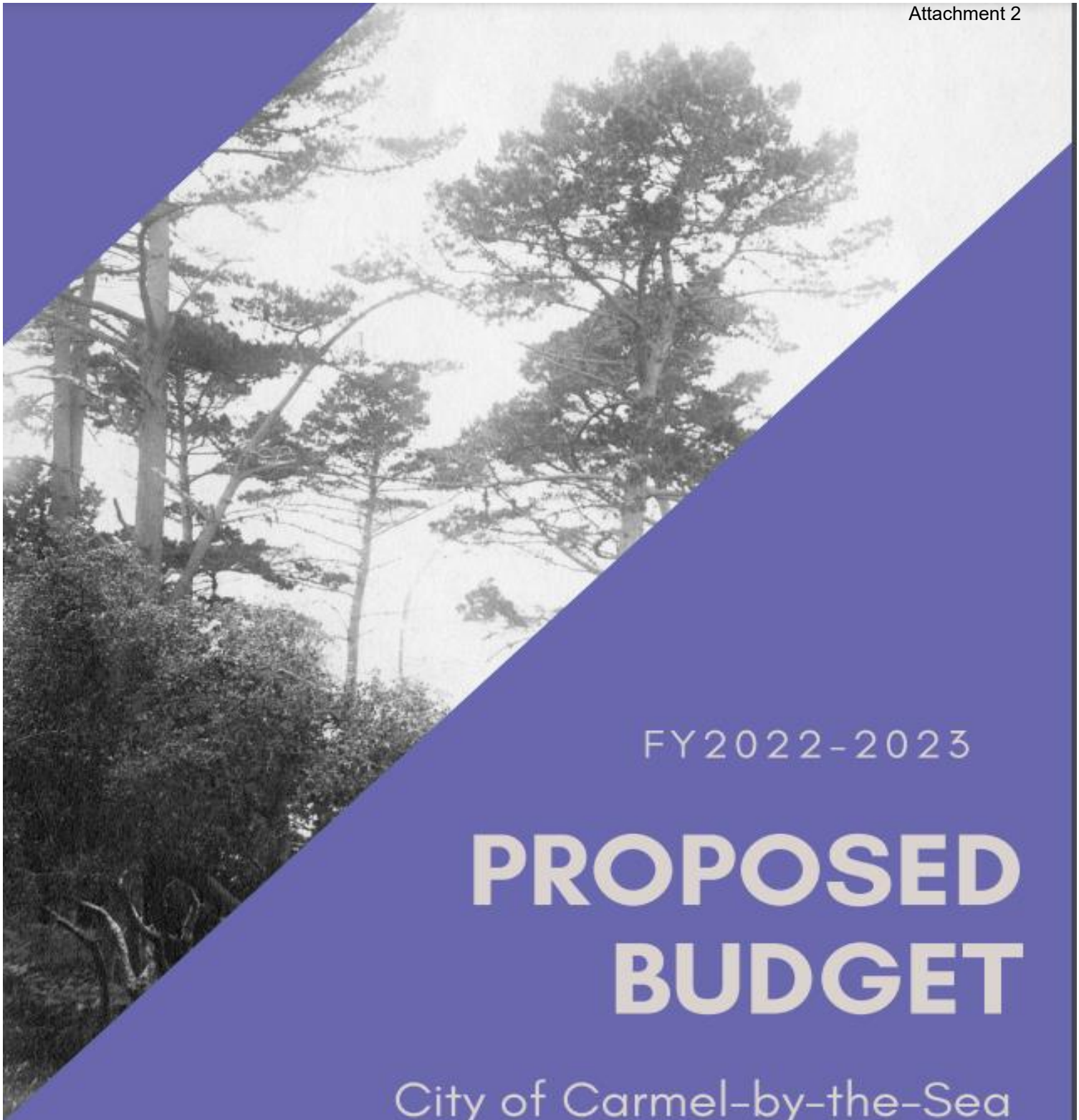
APPROVED:

ATTEST:

_____
Dave Potter
Mayor

_____
Yashin Abbas
Interim City Clerk

Attachment 2



FY2022-2023

PROPOSED BUDGET

City of Carmel-by-the-Sea

Revised: June 7, 2022

CITY OF CARMEL-BY-THE-SEA

P.O. BOX CC

CARMEL-BY-THE-SEA, CA 93921

TELEPHONE: 831.620.2000

WWW.CI.CARMEL.CA.US

CITY COUNCIL

DAVE POTTER, MAYOR

BOBBY RICHARDS, MAYOR PRO TEMPORE

CARRIE THEIS, COUNCILMEMBER

JEFF BARON, COUNCILMEMBER

KAREN FERLITO, COUNCILMEMBER

CITY ADMINISTRATOR
CHIP RERIG

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INTRODUCTION

RECOMMENDED BUDGET MESSAGE

3 May 2022

Honorable Mayor Dave Potter, City Councilmembers, and Community Members

Staff is pleased to present the proposed operating and capital budget for the City of Carmel-by-the-Sea for Fiscal Year (FY) 22-23 which commences on 1 July. Presented herein is a Recommended Budget that has evolved and transitioned through the unprecedented period of disruption brought on by COVID-19. The resulting worldwide pandemic sparked a public health and economic crisis that left no organization or municipality untouched. Yet, after years of acute economic interruption, logistical challenges and forfeiture of resources, our village has endured. More than endure, we have collectively upheld the safety and health of our community, continued our tradition of securing a sound fiscal posture, and remained attentive to the vitality, uniqueness and fragility of our local economy.

The creation of this year's proposed plan has not been easy and was only possible through the remarkable efforts of many. The decisions executed in response to the challenges we have faced were trying, but certainly necessary, prudent and courageous. Now, two years after the first signs of COVID-19, we can confidently say, as this budget will convey, that we are recovering organizationally, economically and socially. In the end result, there is much to be grateful for and many to thank in getting us where we are today. The combination of sound legislative stewardship, judicious operational management, invaluable community support, humbling volunteerism, staff's nimbleness, and inter-governmental collaboration, has served our jurisdiction and community well.

I am pleased to report to the City Council and community that the Recommended Budget is operationally balanced, meaning total incoming revenue (sources) equal planned expenditures (uses). It also strategically proposes the use of available fund balances, accumulated from prior year savings, to specifically address important capital improvement needs that have been deferred. The proposed fiscal plan is also forward-looking as it continues the restoration of resources foregone during the pandemic. Although much work remains to be done in reestablishing the full organizational momentum we enjoyed pre-pandemic, this document demonstrates our full commitment in doing just that.

Many times the prevailing themes that accompany an annual budget can be lost in untold numeric columns, rows and charts. Before diving into the numbers, be assured that this Recommended Budget continues core City services drawing upon a strengthened financial position secured by the prior year sacrifices. As one reads this budget from front to back, we hope this overarching message, as highlighted below, is apparent.

Staffing

The primary increase in FY 22-23 operational expenditures can be attributed to the reestablishment of staff positions that remained unavoidably forgone since FY 20-21. This furthers the partial build back of authorized positions, a total of 7.73, started in FY 21-22. Hence, a total of 12.02 positions, both full and part-time, were restored in the mid-year budget adjustment in December 2021. This budget goes further in addressing deferred service areas and upkeep with restoring funding to 2.0 Administrative Coordinator positions and creating 1.0

new position in the Public Works department. Considering that nearly 50% of citywide costs support the retention and procurement of people, these cost increases are the most notable change in the departmental salary and benefit line items. They also will have the greatest impact in achieving the strategic priorities and goals that the City Council has defined.

A detailed listing of both the restored and new positions proposed in this budget can be found on the Position Summary section. These additions focus on bolstering the key areas of service that experienced abridged resources in past months specifically, police safety, capital project improvements, facility maintenance, library, community activities, public engagement and environmental stewardship. This budget also recognizes the importance of augmenting staffing for key support functions within finance and administration.

State driven changes in health insurance and pension cost, as a component of salary and benefit costs, are also built into this budget. We are pleased to report, much to the credit of the California pension reform enacted in 2013 (PEPRA), that municipalities are finally seeing a moderation of rate increases making this expenditure more predictable, an important objective of the change in state law. That said, pension rates are always at the mercy of the investment markets and must be anticipated with great care and caution. As our CalPERS annual reports reveal, changes in actuarial forecast assumptions factor significantly in the determination of annual contribution rates and, most pointedly, long term unfunded liabilities. This area of significant cost is discussed in more detail below.

Last, but not least, a conscious effort was made to replenish training budgets available to staff. Although the dollar values involved may not be relatively material, each department embraces the importance of promoting resource training as the working environment springs fully back into action.

We Remain Focused

We are proud to say that the budget is unchanged and remains focused on the key deliverables that make Carmel unique. A view of the City budget from thirty-thousand feet reveals that tax dollars are primarily allocated to the safety, health, infrastructure and community character. This is apparent in the breakdown of expenditures by department that tells us what the community receives for the dollars it spends. The vast majority of expenditures are found in police safety, fire and ambulance services, public works maintenance, neighborhood planning and library/community services. Furthermore, the City invests significantly in maintenance and beautification initiatives by funding the capital improvement projects discussed below and detailed within. We trust that you will agree that this Recommended Budget allocates tax dollars to the service areas of highest priority.

Capital Improvements & Maintenance

Although the annual comprehensive financial report (ACFR) tends to be overshadowed by the budget process, it is nonetheless a critically important document that presents both operating results and fiscal status. Among other things, the ACFR tells us that the City carries $65 million in fixed assets comprised primarily of building & improvements, infrastructure, and equipment. For private and public entities alike, these assets have real value and require resources annually for upkeep, repair and safety compliance. They represent not only the buildings that house City service centers but also essential infrastructure including roadways, sidewalks, signage, drainage systems and park sites. They are the things that make a city a livable space. Using twenty-five years as the mid-point for the expected life of these assets,

one arrives at an annual maintenance or replacement funding of $2.6 million, an amount that is historically much higher than the City has been able to fund. Because infrastructure is as equally expensive as it is important, it remains a fiscal hurdle for many cities.

In FY 20-21, the City made the difficult decision to defer investments in capital projects. The undefined economic impacts of COVID-19 led to this necessary action knowing that spending postponements would bring future increased costs and interrupt progress made. This Recommended Budget, and the accompanying five-year Capital Improvement Plan (CIP), confirms this reality that is the single highest challenge in crafting a fiscal plan. In tackling this staff quickly realized that the push-pull inertia between capital improvement needs and revenue levels is at play. We have quantified that a FY 22-23 capital expenditure level of $2.93 million would enable funding within the bounds of new year revenue only, clearly a sound fiscal policy standard. We also recognized that the pandemic has necessarily curtailed project completion intensifying the need to address citywide maintenance and improvements. It is exactly this need to “catch up” for CIP deferrals that results in the proposed expenditure of $5.03 million in capital identified herein. It is important to note that the proposed use of available fund balances from prior year savings, totaling $2,095,342, is wholly due to this increased level of capital project expenditure. Put another way, absent the accelerated level of capital spending, this Recommended Budget is operationally balanced without the need to draw on fund balance savings. Should City Council desire to lower the use of fund balance, this can be done directly by lowering the level of capital project expenditures under the proposed $5.03 million.

As we look ahead, in years two through five of the CIP, we grapple with the same predicament of capacity, affordability and need we did in year one. To aid this discussion, the CIP presents estimated costs of identified annual projects alongside estimated capital expenditure levels the City could expend if relying solely on annual revenues. These projections have been conservatively derived and are subject to change as actual annual results come in. What is clear is that the City’s infrastructure needs far exceed available resources in the long term andbecome a subject of policy discussions as we proceed. Ultimately, the selection of CIP projects occurs at the discretion of City Council in the context of organizational priorities and within the revenue constraints of any one year.

As the five-year CIP is considered, it is understood that identified projects are subject to modification, inclusion, exclusion, deferral and staging over time. To the extent that City Council agrees with the use of prior year savings as proposed in the Recommended FY 22-23 Budget, formal authorization will be necessary and codified in the resulting legislative resolution.

Other Trends & Highlights

This budget document is purposefully organized to flow from summary to detailed levels of information. The opening sections of this budget message communicate the highest level of strategy. This is followed in the budget document by several key sections, revenue & expenditure summaries, operating budgets by department, debt schedules, capital improvements and fund balance projections. It is in these subsequent document sections that the reader can peruse the budget detail that describes where the City gets its money from and how it is utilized by the City departments. The budget process is created in a distributed fashion, meaning that all departments are integrally involved in its creation commensurate with their level of control and responsibility.

The next few pages of this message provide high level fiscal trends as a preamble to the summary and detail sections that follow. It begins with a ***"Recommended Budget-at-a – Glance"*** chart which rolls the numbers into one combined presentation of sources and uses of funds. It next provides a narrative snapshot of other aspects of the budget that are of keen interest to the community and policy discussions. A discussion of City revenues can be found in the beginnings of the summary section.

FY 22-23 Recommended Budget at a Glance

FY 22-22 Recommended Revenues	***$30,277,000***
General Fund Operating Expenditures	$25,316,879
Capital Outlay Expenditures	5,029,000
Pension Unfunded Liability Mitigation	1,000,000
Debt Service	878,303
Workers Compensation	148,160
FY 22-23 Total Recommended Expenditures	***$32,372,342***
Use of Fund Balance for Deferred Capital Projects	***2,095,342***
Funded Full Time Equivalent (FTE) positions	***96.23***

The FY 22-23 Recommended Budget totals $32.4 million in planned expenses, which includes $25.3 million for the Operating Budget, $1 million in pension unfunded liability mitigation and $5.03 million for the Capital Budget. In comparison, the FY 21-22 Amended Operating Budget totaled $21.9 million excluding pension mitigation. The primary reasons for the proposed increase of $3.3 million includes:

- $2.3 million increase in personnel costs arising from routine salary adjustments, step increases for existing staff, healthcare, and other benefits. This also includes funding for 2.0 additional full-time equivalent positions and reflects 12.02 FTE restored staffing positions authorized and added during the course of FY 21-22.

- $250,000 increase in CalPERS unfunded actuarial liability (UAL) costs. The City will be making the annual UAL payment in July, for a savings of approximately $70,000.

- $132,000 increase in the Public Works contract budget for landscape maintenance, tree trimming, pruning and stump removal citywide, a service in need of more focus given drought conditions and their impact on our urban forest.

- $87,000 increase in the Planning department contract services to fund a variety of priority initiatives including affordable housing (with SB2 grant funding), professional services to assist in plan reviews, plan document digitization and designing guidelines and zoning code updates approved during the year.

- $52,000 increase in community marketing costs for citywide visitor bureau and sunset center promotions
- $123,000 increase in liability insurance costs
- $ 168,000 increase in Fire Contract services
- $ 50,000 in specialized Police department contract services
- $ 58,000 in specialized IT department contract services and supplies
- $ 30,000 in increased fuel costs
- $ 50,000 in specialized Administration/HR/Finance contract services

Of the $25.30 million in operating expenditures, approximately $15.5 million, or 61%, pays for staffing salary, benefits and normal pension payments. If pension liability mitigation is included that percentage changes to 65%. The key reasons for the change in this expenditure this budget year was explained in the preceding section entitled Staffing.

Pension Costs & Mitigation Efforts

The proposed budget includes a payment of $2.1 million to the California Public Employees' Retirement System ("CalPERS") for the required minimum annual contribution. This amount is actuarially calculated by the State and flows through the dedicated benefit line item in the budget. Although CalPERS rates have remained relatively stable for the reasons mentioned above, the increase of $250,000 is directly associated with the annual unfunded actuarial liability (UAL) costs.

A variety of factors are in play when projecting future contribution rates. The performance of investment markets and assumed the discount rates assumed by CalPERS have been the center of focus in recent years and will remain so. What has changed is the need to play close attention the rate of inflation (CPI) that plays a role in the overall pension rate determination. The latest CalPERS reporting reveals that they utilize an underlying CPI assumption of 2.5% (a component of its discount rate), a data point that we are trending well above in 2022 and may continue into 2023. Although the rate impact of inflation is not yet clear, we would be prudent to keep a watchful eye on its progression.

As of the latest available CalPERS actuarial reports (2020) the current funded status of the City's most significant city plans is 65.4% for safety and 69.4% for miscellaneous members. This translates into these plans being underfunded by 36.4% and 31.6% respectively. Consequently, the City's projected Unfunded Accrued Liability (UAL) is $25.9 million as of 6/30/2022. Although this is a long term liability subject to changing conditions, it remains a significant financial obligation to address going forward basis. This budget recommends the continued funding an additional $1 million in UAL mitigation efforts to be placed in the section 115 trust established last year. Although this funding amount is discretionary, it is proposed to mitigate potential future rate increases and long term pension liabilities.

Capital Outlay

Further to the strategic discussion noted above, capital improvements are detailed later in this

document. Recognizing the deferred capital needs of our facilities and the postponements caused by COVID-19, the budget includes funding for many key improvements including additional funding of the police facility renovation, street paving and concrete repair, maintenance for the Sunset Center, City Hall, Library & Vista Lobos, Mission Trail Nature Preserve stream stability, and a coastal engineering needs study. The capital plan also includes important vehicle replacements with an eye on clean energy including, an electric street sweeper with potential grant subsidies and the installation of three residential electricvehicle charging stations also with partial grant funding.

Other Expenditures

The FY 22-23 Recommended Budget reflects no new debt and includes existing debt service of $878,000 for the Countywide Monterey County Next Generation Radio project (NGEN), the Sunset Center 2020 Refunding Lease Bond and the 2012 Pension Obligation Bond. We are pleased to report that Pension Obligation Bonds, with a principal amount of $680,000, mature at the end of 2023.

Policy Options

Coming off of FY 21-22, this Recommended Budget was developed to further restore normal service levels and make up lost ground for maintenance & improvements projects that were deferred. Our ability to propose this restorative spending plan has everything to do with the proactive measures taken in time of need and the welcome projected recovery of the City's major revenue sources. It can also not be understated that the passage of Measure C in March of 2020 could not have been more timely and critical in providing the resources needed to both cover operations and weather these unpredictable economic events. We remain ever conscious of the support and wisdom of our community in this effort.

The Recommended Budget projects that we will end FY21-22 in good form fiscally. Nonetheless we remain ever diligent and cautious as our services become fully actuated and the marketplace adjusts to the eventuality of a new post pandemic normal. What that new reality is only remains to be seen. Some might contend that the strength in sales tax and hostelry experienced may be reflective of a reactive surge that emanated from a world that saw altered travel plans and vacationing alternatives. Others might contend that these trends will continue unabated as an indication of permanently modified habits. In any case, our obligation from a fiscal perspective is to not weigh too heavily on either extreme of that argument. As such, remaining conservative and playing the middle-ground is most prudent at this time. In this way we can safely await the ultimate answer that surely will be provided by that age old soothsayer, the economy.

In evaluating the current state of things, we also cannot ignore the unfortunate instability that the world is facing. The persistence of supply-chain slowdowns, the rising costs of commodities, higher rates of inflation, the potential of increased lending rates and, most concerning, the uncertainties surrounding the Ukraine conflict, all give us good reason to pause and prepare. For this reason, maintaining a posture of calculated cost control, minimizing debt, taking advantage of the process efficiencies, and continuing to effectively prioritize needs is critical.

Planning for the funding and delivery of Capital Improvements has been and remains a significant challenge. As we look beyond FY 22-23, the fiscal chasm between identified capital needs and available funding is readily apparent. As such, the five year CIP becomes

one the most important and fiscally impactful tools worthy of attention. As constructed the Five-Year CIP presents an uncluttered list of what is required to maintain infrastructure as a foundation for discussion, prioritization, staging and status.

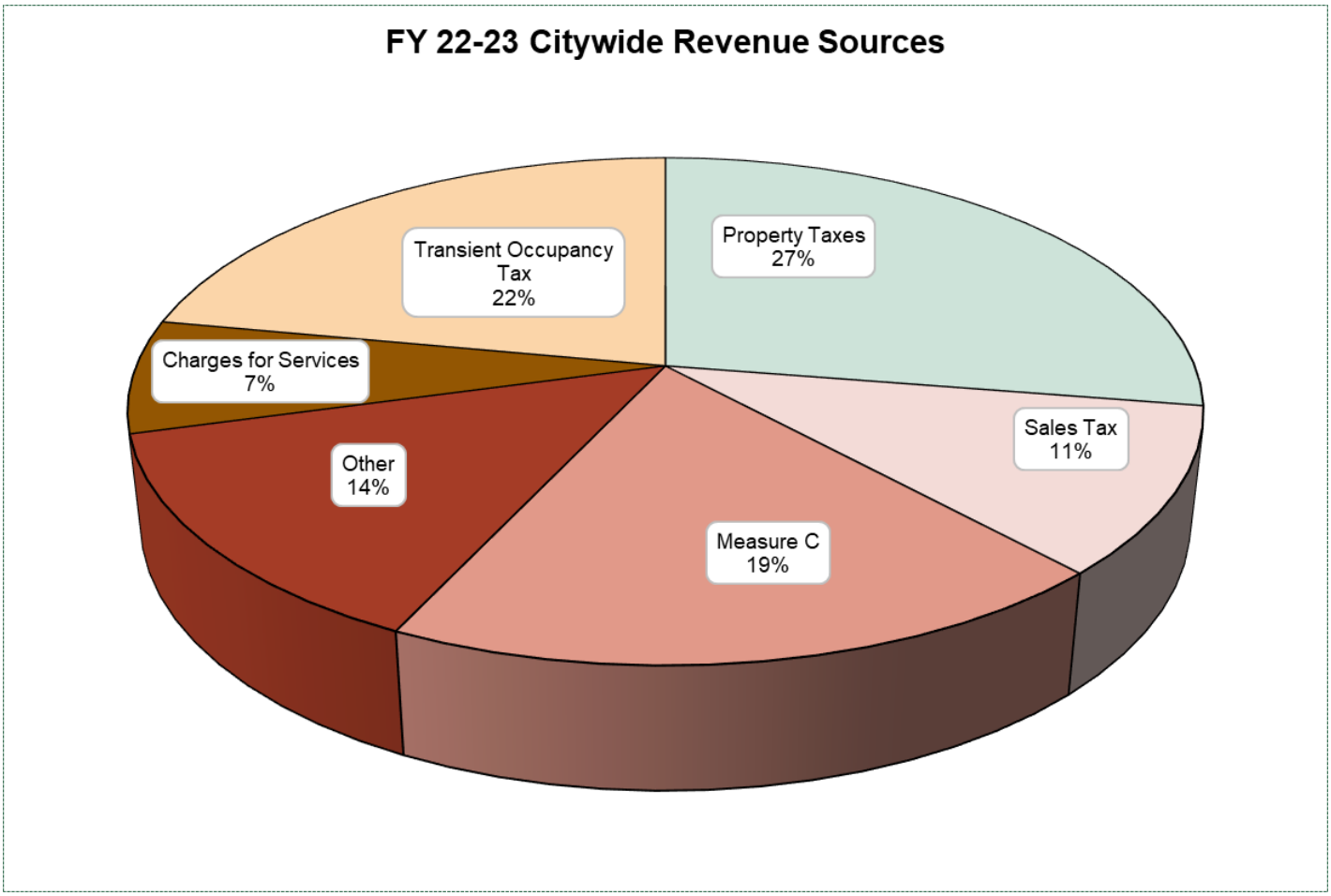
I wish to acknowledge the collaboration by my department heads in putting forth pragmatic and realistic Recommended Budget that marks our entry back into full operations. I also extend my appreciation to my Finance team for stewarding the budgeting process. I look forward to Council's guidance and leadership as we work to adopt a budget that funds services and projects for our community while also balancing fiscal sustainability.

Respectfully submitted,

Chip Rerig
City Administrator

REVENUE

The FY 22-23 Recommended Budget includes $30.26 million in new revenue. As illustrated in the chart below, statewide sales tax (Sales Tax) and local Measure C district tax (Measure C), contribute 30% and have taken over Property Tax as the largest City revenue source. This shift reveals the importance and impact of the voter approval of Measure C in 2020. With the occurrence of the pandemic, the benefits of the Measure C revenues began to emerge in FY21-22 and mature fully in this budget. Property Tax reflects its customary stable growth accounting for 27% of the budgeted revenue. Coming off of a strong year, Hotel Tax (TOT) has grown to 22% of budgeted revenue, as compared to 21% in FY 21-22 followed by Other revenues and Charges for Services at 21%.



Source	Recommended Budget
Property Taxes	$8,326,600
Sales Tax	3,204,100
Measure C	5,721,000
Other	4,154,500
Charges for Services	2,203,800
Transient Occupancy Tax	6,667,000
Total	**$30,277,000**

REVENUE

Property taxes are estimated at $8.3 million reflecting a 3.2% projected growth over current year amended budget. The City's portion of the Sales Tax is $3.2 million and Measure C $5.7 million, or 11% and 19% of revenue respectively. The significance of the March 2020 Carmel voter approval of Measure C at a renewed rate of 1.5%, cannot be understated. In the midst of COVID-19 it provided a financial lifeline allowing for the continuance of core services. Measure C continues to play significantly in seeding both operational and capital needs. Sales Tax has fared well also. The FY 22-23 Recommended Budget projects an 8% growth in Sales Tax and a 22% growth in Measure C over the current year amended budget. The difference in the growth rates of these two retail based revenues is explained by the timing of Measure C voter approval, its higher approved rate of 1.5%, and distinct nuances in how these tax revenues flow to the City. Given a March 2020 approval date, the benefit of Measure C was not effective until mid FY 20-21 with its full year impact not realizeduntil this year. Considering that its renewed 1.5% rate is 50% higher than the prior 1% rate, it is understandablethat the rate of growth exceeds that of the unchanged statewide tax. Furthermore, the correlation between a statewide sales tax and district sales tax is not a direct one. Sales Tax rates are applied to retail activity by business location and then processed through a County managed allocation model. On the other hand, districttaxes, like Measure C, follow the locality of the merchandise and accrue directly to the jurisdiction. This plays heavily when considering e-commerce and on-line automobile sales. The FY 22-23 Recommended Budget reflects the full maturation of Measure C and Sales Tax trends that are now unclouded and better known.

Although just getting back to pre-COVID levels, TOT (at 10% of the rent charged by a hostelry operator) has done unexpectedly well, a tribute to Carmel's claim as a unique destination place. Recommended at $6.7 million, TOT accounts for 22% of revenues as compared to 21% in FY 21-22. Charges for Services are fees collected from a specific user of a service, such as plan review, building inspection and ambulance transports and account for $2.2 million, or 7% of the budget consistent with the prior year. The category of "Other" revenue includes General Fund revenues from business license tax, franchise fee and other intergovernmental revenue as well as restricted revenue for Community Oriented Policing Services (COPS), road maintenance and transportation-related projects and federal and State grants for planning, parks and radio communications.

Table1: Estimated Performance and Recommended Budget for Major Revenue Sources

Key Revenues	18-19 Actual	19-20 Actual	20-21 Actual	21-22 Estimate	22-23 Proposed
Property	6,524,330	6,690,947	7,389,656	8,142,320	8,326,600
Sales- Bradley Burns	2,652,971	2,154,961	3,020,937	3,198,065	3,204,100
Sales- Local Measure	3,079,914	2,611,802	4,007,104	5,698,173	5,721,000
Transient Occupancy Tax	6,882,015	5,115,271	5,339,285	6,972,057	6,667,000

REVENUE

As shown in Table 1, ***Estimated Performance and Recommended Budget for Major Revenue Sources*****,** the City's major revenues indicate a notable recovery. This time last year the City was just coming off of double digit declines in key revenues (26% drop in Hotel Tax and 17% drop in Sales Tax). Projecting future trends in that environment was akin to looking into the great unknown. More than that, the City was faced with forecasting something that, in many respects, was a one-of-a-kind event providing no trail or precedent to follow.

In the last budget cycle we reported that sales and hotel taxes were outperforming budget expectations. Both of these major revenues exceeded pre-pandemic levels in FY 20-21 while TOT was still $1.5 million under for this same year. FY 21-22 brings much of the same with a 5.9% increase in Sales Tax estimated at $3.2 million and a resounding 42% increase in Measure C coming in at $5.7 million. Most significantly, TOT will finally reach pre-pandemic levels at $6.9 million this year end.

General consumer goods (retail) and restaurants & hotels made up the bulk of the Carmel sales tax activity followed by County/State pools, industry and food & drugs. The resurgence in general consumer purchases through in-store shopping highlights the City's strength in tourism. It also reflects a general willingness of the public to travel and spend as the pandemic becomes more manageable. Some reported observations are worthy of mention. Firstly, local sales of apparel, artwork, jewelry and novelty items have driven gains in the general consumer category. Restaurants & hotels, businesses most impacted by the pandemic, have performed well as a testament to the innovation of business owners and the City's status as a destination place. Clearly the effectiveness of vaccines nationwide, the allowance for outdoor dining, and the permitted sale of food "to go" have also factored into the recovery. In summary this past year has continued our path to sales tax recovery leaving us hopeful we can return to patterns of normalcy and predictability.

As we project Sales Tax and Measure C, we take comfort in current trends but also remain vigilant. The dilemma facing us is deciphering if the robust activity experienced this past year was a result of "pent-up-demand" or a longer term change in travel and buying habits. We remain fully aware that unknowns still exist, consumer patterns will settle, and headwinds are in play to be managed. Certainly the unknowns surrounding COVID are ever present economically. That said, this budget is built on the assumption that COVID will remain in check and not return as a major marketplace interruption. Should that again occur, plans would have to change quickly. As for headwinds, we recognize the economic strains of continued supply chain disruption, rising inflation rates, increases fuel prices and interest rates and their potential to stall spending patterns. Lastly, geopolitical tensions loom worryingly on our minds. Hence we have compiled the FY 22-23 Recommended Budget carefully and conservatively, making sure not to over rely on a recovery that is historically unique. We project a smoothing of sales tax activity in the coming year with the City' Sales Tax coming in at $3.2 million and Measure C $5.7 million in line with current year estimates given the unpredictability of a post-pandemic landing.

TOT is pacing stronger than expected but has taken two years to reach FY 19-20 levels. TOT is trending at $6.9 million for FY 21-22, 31% or $1.6 million above the prior year actual collections. This comeback underscores Carmel's resilience in travel and leisure spending. The FY 22-23 Recommended Budget assumes continued strength but also a softening as world travel returns to some version of a normal state. It may be that post pandemic tourism will continue to surge as it did this past year but, for the reasons noted above, we remain guarded in our projections.

REVENUE

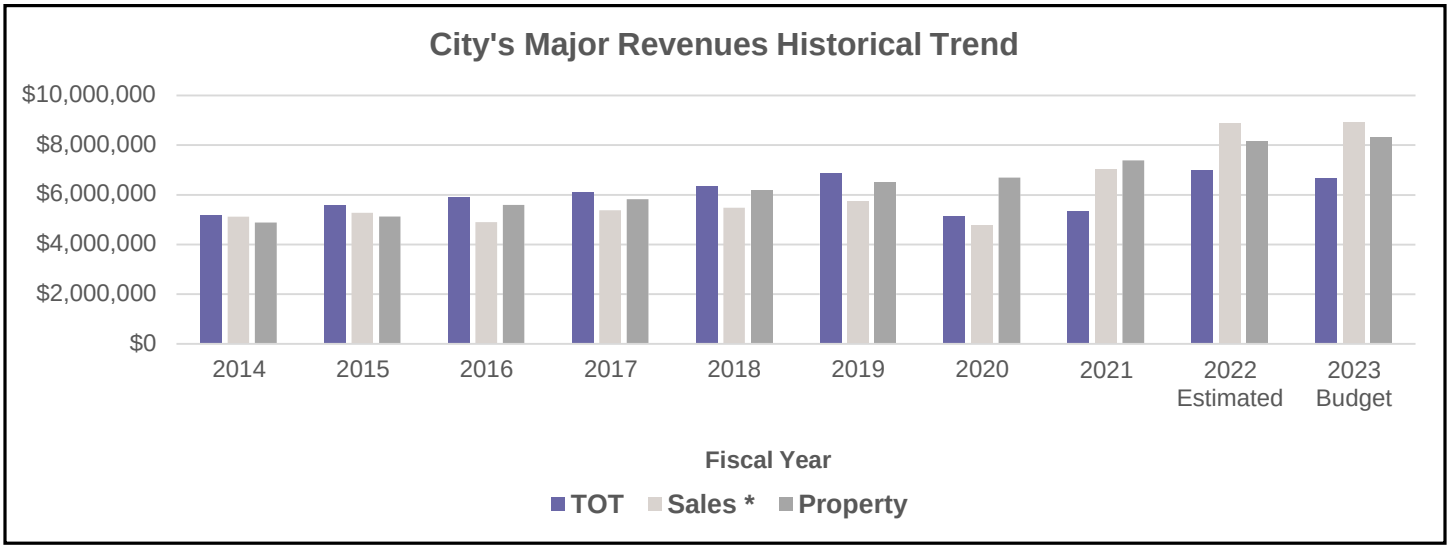
Property taxes, which includes secured, unsecured, unitary and property transfer tax, can be relied on to be stable. Interestingly enough the performance of real estate during COVID, as was the case in many parts of the Country, was unexpectedly strong. Local Property taxes grew during the pandemic at rates of 10% in both FY 20-21 and FY 21-22. At the end of this current fiscal year we anticipate to reach a level of $8.1 million.

The FY 22-23 Recommended Budget projects Property Tax at a total amount of $8.3 million, made up primarily of $7.7 million in secured property tax. This is an increase of $669,000 or 8.7% over the prior year budget and $258,000 or 3.2% over the current FY 21-22 amended budget. National economic reports uniformly report double digit increases over the past two-year period but also suggest a lowering in expectations as we enter FY 22-23. This has everything to do with the pressure put on the market by the posture of the Fed Reserve and the outlook of mortgage rates rising to 5% levels or more next year. This budget conservatively projects growth yet remains confident in the stability of Carmel's property tax performance.

As the City looks forward to its future revenues that fund services, capital projects and other initiatives, stepping back and reviewing the City's historic performance is of value. The chart below depicts the performance of the City's three major revenue sources over the last 10 years.

Fiscal Year Ending June 30	TOT	Sales *	Property
2014	$5,185,880	$5,115,880	$4,881,534
2015	$5,593,689	$5,280,418	$5,127,974
2016	$5,890,538	$4,897,325	$5,598,743
2017	$6,112,347	$5,373,800	$5,825,889
2018	$6,329,074	$5,476,123	$6,163,959
2019	$6,882,015	$5,719,521	$6,496,558
2020	$5,115,277	$4,766,313	$6,690,948
2021	$5,339,285	$7,028,041	$7,389,656
2022 Estimated	$6,972,057	$8,895,703	$8,142,320
2023 Budget	$6,667,000	$8,925,100	$8,326,600

* Combination of Bradley Burns & Measure C 1.5%

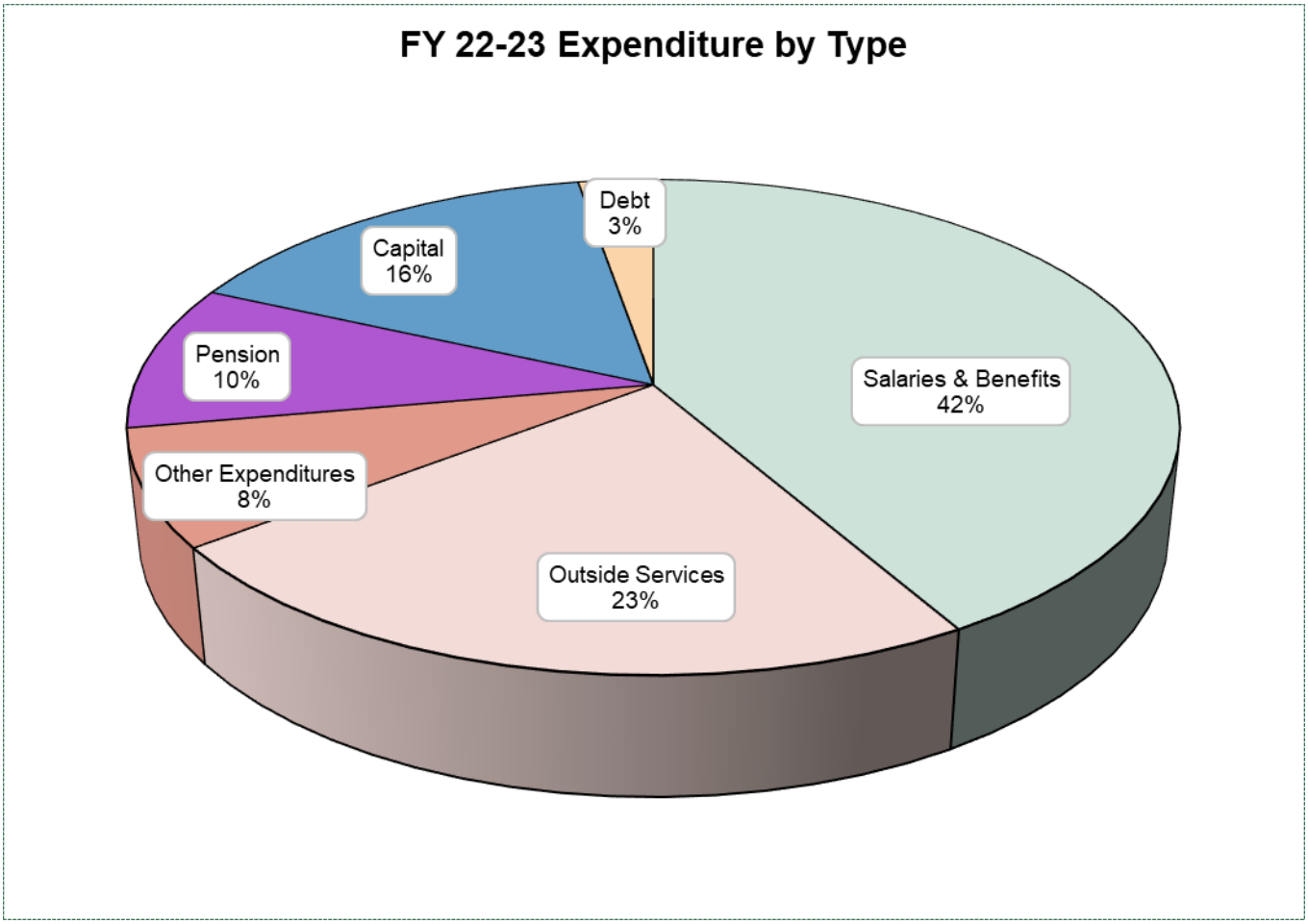


EXPENDITURES

The FY 22-23 Recommended Budget totals $32.4 million, which consists of the following:

- Operating Budget, or General Fund, totals $26.4 million, or 81%, of the citywide budget;
- Debt service totals $878,000, or 3%, of the citywide budget;
- Capital totals $5.0 million, or 16% of the citywide budget.

The Operating Budget consists of the City departments and services. Debt is based upon required payments toward various bonds issued by the City or by other governmental agencies on behalf of the City. As shown in the chart below, *FY 22-23 Expenditure by Type*, the FY 22-23 Budget includes the Operating Budget and Debt Service. The Operating Budget is further categorized by type of expenditure including salaries and benefits, outside services, and other expenditures as explained below.



Type of Expenditure		Budget
Salaries & Benefits	$	13,473,492
Outside Services	$	7,444,875
Other Expenditures	$	2,464,208
Pension	$	3,082,464
Capital Outlay	$	5,029,000
Debt Service	$	878,303
Total	**$**	**32,372,342**

EXPENDITURES

The City's largest expenditure is related to the cost of personnel. Salaries and benefits total $13.5 millionand account for 42% of the citywide budget. Outside services is the second largest type of expenditure at $7.4 million, or 23% of the budget. This category includes various line item accounts, such as advertising and noticing, contract services and community promotions. Contract services are used as an alternative to City staff directly providing the service due to cost savings or the specialized nature of the work being performed and include funding for expenses such as fire service provided by the City of Monterey ($2.8 million); support for the operations of the Sunset Center and other marketing activities ($1.1 million); legal services ($510,000); tree care and landscape maintenance ($475,000) and janitorial service ($275,000).

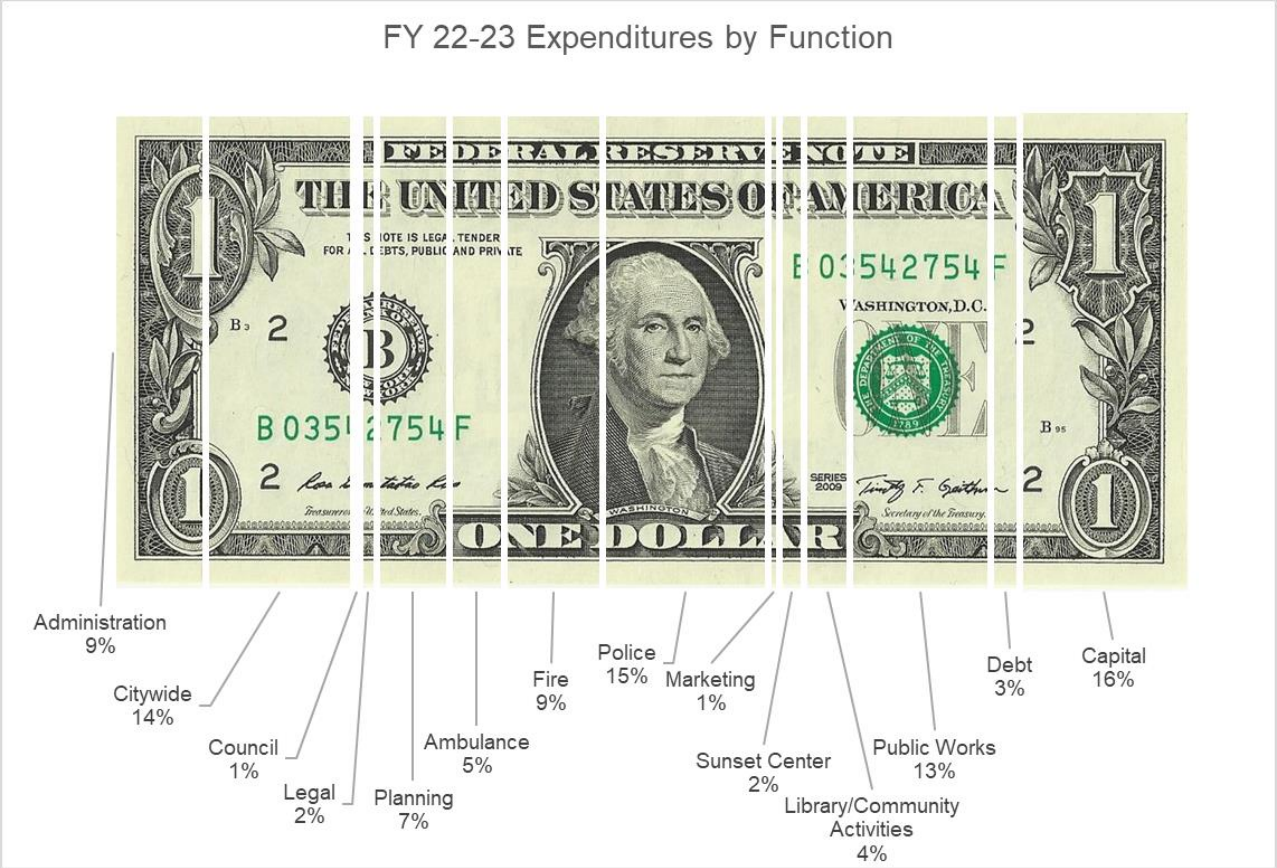
Other expenditures total $2.5 million and account for 8% of the citywide budget. This category includes various line item accounts such as, retiree healthcare and citywide operational expenses like property tax assessments and utilities. Also included here are the City's general liability and property insurance premiums ($763,000) and expenses such as public works materials and supplies, telecommunications, fuel, training and conferences, vehicle maintenance, medical and safety supplies and printing and postage.

Pension expenses total $3.1 million, or 10%, of the budget and include the annual required unfunded pension liability ($2.1 million) and annual funding of the City's Section 115 trust ($1.0 million) for pension mitigation.

The citywide budget is rounded out with Capital Outlay ($5.0 million) accounting for 16% and Debt Service ($878,000) accounting for 3% of the citywide budget.

EXPENDITURES

Another way to view operating expenditures is by function, as depicted in the “FY 22-23 Expenditures by Function” illustration. Together the public safety functions of Ambulance, Fire and Police make up 29% of the budget. Citywide is the next largest operating expenditure at 14%, as it includes the City’s unfunded actuarial liability, followed by the Public Works Department at 13% of the budget. In total, Administration, Council, Planning, Legal, Marketing, the Sunset Center, and Library and Community Activities represent the remaining 25% of the Operating Budget.



Expenditures		Budget	Percentage
Administration	$	2,788,776	9%
Citywide	$	4,418,534	14%
Council	$	183,227	1%
Legal	$	510,000	2%
Planning	$	2,188,030	7%
Ambulance	$	1,629,223	5%
Fire	$	2,969,292	9%
Police	$	4,954,401	15%
Marketing	$	350,010	1%
Sunset Center	$	750,000	2%
Library/Community Activities	$	1,365,862	4%
Public Works	$	4,209,524	13%
Operating Budget	**$**	**26,316,879**	**81%**
Debt	**$**	**878,303**	**3%**
Capital	**$**	**5,029,000**	**16%**
Workers Comp	**$**	**148,160**	**0%**
Total	$	32,372,342	100%

POSITIONS

2022-2023 RECOMMENDED FUNDED POSITIONS

Attachment 2

Department andTitle	FY 21/22 Amended	FY 22/23 Recommended	FY 22/23 Change
Council			
Councilmember	4.00	4.00	0.00
Mayor	1.00	1.00	0.00
City Council Total	**5.00**	**5.00**	**0.00**
Administration			
City Administrator	1.00	1.00	0.00
Assistant Administrator	1.00	1.00	0.00
Administrative Coordinator	0.50	1.00	0.50
Administrative Analyst	1.00	1.00	0.00
City Clerk	1.00	1.00	0.00
Director of Budgets and Contracts	1.00	0.00	(1.00)
Finance Manager	1.00	1.00	0.00
Senior Human Resources Analyst	1.00	1.00	0.00
Information Services / Network Manager	1.00	1.00	0.00
IT Help Desk/Technican	1.00	1.00	0.00
Hourly HelpDesk Technician	0.50	0.00	(0.50)
Finance Specialist	1.50	1.00	(0.50)
Accountant	0.00	1.00	1.00
Retired Annuitant-Extra Help (480 hrs)	0.23	0.23	0.00
Finance Analyst	0.00	1.00	1.00
Administration Total	**11.73**	**12.23**	**0.50**
Community Activities			
Community Services Assistant	1.00	1.00	0.00
Executive Assistant	0.50	0.50	0.00
Community Activities Total	**1.50**	**1.50**	**0.00**
Library			
Circulation Supervisor	1.00	1.00	0.00
Director of Library and Community Services	1.00	1.00	0.00
Hourly Librarian I	1.00	1.00	0.00
Librarian I	1.00	1.00	0.00
Librarian II	2.00	2.00	0.00
Librarian II (Local History)	1.00	1.00	0.00
Library Assistant (full-time)	2.00	3.00	1.00
Hourly Library Assistant	3.00	2.00	(1.00)
Executive Assistant	0.50	0.50	0.00
Library Total	**12.50**	**12.50**	**0.00**
Community Planning & Building			
Administrative Coordinator	1.00	1.00	0.00
Assistant Planner	1.00	1.00	0.00
Associate Planner	2.00	2.00	0.00
Building Inspector	1.00	1.00	0.00
Building Official	1.00	1.00	0.00
Code Compliance Coordinator	2.00	2.00	0.00
Permit Technician	1.00	1.00	0.00
Planning & Building Services Director	1.00	1.00	0.00
Principal Planner	1.00	1.00	0.00
Community Planning & Building Total	**11.00**	**11.00**	**0.00**

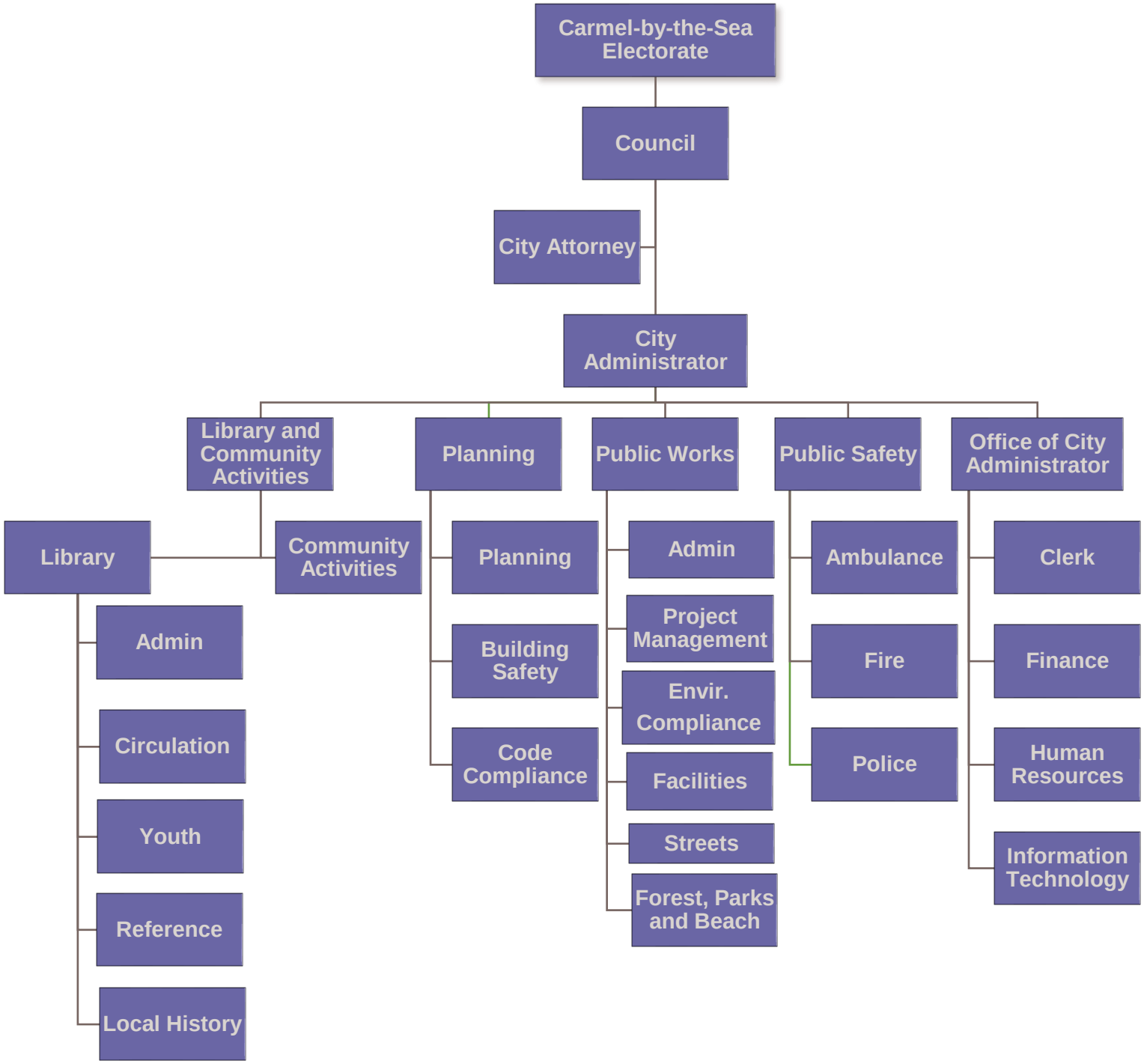
2022-2023 RECOMMENDED FUNDED POSITIONS

Attachment 2

Department andTitle	FY 21/22 Amended	FY 22/23 Recommended	FY 22/23 Change
Public Works			
Administrative Coordinator	0.25	1.00	0.75
Director of Public Works	1.00	1.00	0.00
Environmental Compliance Manager	1.00	1.00	0.00
Administrative Technician	1.00	1.00	0.00
Maintenance Worker	4.00	4.00	0.00
Public Works Superintendent	1.00	1.00	0.00
Senior Maintenance Worker	3.00	3.00	0.00
Street Supervisor	1.00	1.00	0.00
Project Manager	1.00	1.00	0.00
Facilities Maintenance Supervisor	1.00	1.00	0.00
Facility Maintenance Specialist	1.00	1.00	0.00
Natural Resources Manager	0.00	1.00	1.00
City Forester	1.00	1.00	0.00
Administrative Analyst	1.00	1.00	0.00
Senior Maintenance Worker	1.00	1.00	0.00
Maintenance Worker/Gardener	1.00	1.00	0.00
Tree Care Specialist	1.00	1.00	0.00
Public Works Total	**20.25**	**22.00**	**1.75**
Police			
Community Services Officer	1.0	1.0	0.0
Community Services Officer/Animal Control	1.0	1.0	0.0
Community Services Officer - 2 year limited term *	2.0	2.0	0.0
Corporal	2.0	2.0	0.0
Police Commander	1.0	1.0	0.0
Police Officer	5.0	5.0	0.0
Police Officer/Detective	1.0	1.0	0.0
Police Officer/FTO	2.0	2.0	0.0
Police Services Officer	6.0	6.0	0.0
Police/Patrol Officer	1.0	1.0	0.0
Police Officer- 2 year limited term*	1.0	1.0	0.0
Public Safety Director	1.0	1.0	0.0
Sergeant	2.0	2.0	0.0
Administrative Coordinator	0.25	0.00	(0.25)
Police Total	**26.25**	**26.00**	**(0.25)**
Ambulance			
Paramedic/Firefighters	6.00	6.00	0.00
Ambulance Total	**6.00**	**6.00**	**0.00**

	FY 21/22 Amended	FY 22/23 Recommended	FY 22/23 Change
Citywide Total Funded Positions	**94.23**	**96.23**	**2.00**

* 2-year limited term ends June 30, 2024


Carmel-by-the-Sea Electorate
Council
City Attorney
City Administrator
Library and Community Activities
Planning
Public Works
Public Safety
Office of City Administrator
Library
Community Activities
Admin
Circulation
Youth
Reference
Local History
Planning
Building Safety
Code Compliance
Admin
Project Management
Envir. Compliance
Facilities
Streets
Forest, Parks and Beach
Ambulance
Fire
Police
Clerk
Finance
Human Resources
Information Technology

GENERAL FUND (101)

OPERATING BUDGET (CITY DEPARTMENTS AND SERVICES)

CITY COUNCIL

Description

The City Council consists of the Mayor and four Councilmembers, elected at large by the citizens of Carmel-by-the-Sea on a non-partisan basis. The City Council is the policy making legislative body of the City. The Council adopts the annual budget, enacts ordinances, and approves major contracts, acquisitions and leases. With the advice and assistance of the City Administrator and City Attorney, the City Council reviews proposals to meet the community's needs, initiates action for new policies, and allocates resources.

2021-2022 Initiatives and Accomplishments

- Responded to land use issues, such as wireless communications.
- Provided direction on the restaurant parklets.
- Conducted multiple Council strategic planning workshops
- Provided oversight of the City's implementation of COVID-19 protocols and the safe reopening of City facilities.

2022-2023 Priorities

- Review opportunities for enhanced fire/ambulance service.
- Review and Update Sign Ordinance.
- Prepare Climate Action/Adaptation Plan.
- Develop Forest Management Plan (FMP) and Update Tree Ordinance.
- Update Zoning Code & Design Guidelines (Residential & Commercial).
- Develop Telecommunication Ordinance consistent with federal law.
- Filling vacant positions.
- Forest Theater Facilities Manager.
- Pandemic recovery (reopening, reporting, etc.).
- Stormwater Ordinance update.
- Review barriers to construction of affordable housing.
- Develop Accessory Dwelling Unit (ADU) Ordinance.
- Explore opportunities for Scout House.
- Explore street addresses.
- Explore Paid Parking Program.
- Develop plan to maintain natural areas (pub/priv) to reduce fire risk.

Budget Summary and Service Impacts

- Community Promotions is $26,000 less in FY 22-23 due to reductions in the home mail delivery service program.

- $24,000 is budgeted for the Council discretionary grant program per Council direction.

CITY COUNCIL

Attachment 2

City Council				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-110-00-41008	Salaries -Elected	$9,600	$9,600	$9,600
101-110-00-41101	Retirement	83	83	80
101-110-00-41104	Health Insurance	39,710	35,216	36,899
101-110-00-41105	Social Security	484	484	484
101-110-00-41106	Medicare	139	139	139
101-110-00-41108	Worker's Comp	700	535	850
	Salaries & Benefits Subtotal	**$50,716**	**$46,057**	**$48,052**
101-110-00-42005	Community Promotions	101,000	101	78,720
101-110-00-42007	Regional Memberships	46,405	46,405	47,655
101-110-00-42101	Office Supplies	450	-	450
101-110-00-42302	Conferences & Meetings	8,350	3,500	8,350
	Services & Supplies Subtotal	**$156,205**	**$50,006**	**$135,175**
	Total	**$206,921**	**$96,063**	**$183,227**

Regional Memberships				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-110-00-42007	Transportation Agency of Montery County	$1,295	$1,295	$1,295
101-110-00-42007	Association of Monterey Bay Area Governm	3,825	3,825	3,825
101-110-00-42007	Monterey Peninsula Chamber of Commerce	775	775	775
101-110-00-42007	Monterey County Mayors Association	1,575	1,575	1,575
101-110-00-42007	Monterey County Business Council	500	500	500
101-110-00-42007	MBUAPCA (Air Pollution Control District)	1,900	1,900	1,900
101-110-00-42007	League of CA Cities	2,850	2,850	3,380
101-110-00-42007	League of CA Cities- Monterey Bay Division	165	165	165
101-110-00-42007	LAFCo	16,375	16,375	15,840
101-110-00-42007	Community Human Services	16,375	16,375	17,625
101-110-00-42007	CoastWalks/Coastal Trail Association	300	300	300
101-110-00-42007	Carmel Chamber of Commerce	470	470	475
	Total	**$46,405**	**$46,405**	**$47,655**

CITY ATTORNEY

Description

The City Council appoints the City Attorney. The City Attorney legally represents the City and provides legal advice and/or training to the City Council, City Administrator, boards, commissions, and departments; investigates and resolves claims against the City; defends the City in litigation and administrative actions; initiates and prosecutes litigation on behalf of the City; and drafts and reviews legal documents and agenda items.

Budget Summary and Service Impacts

- The FY 22-23 City Attorney contract services budget totals $435,000 and consists of $360,000 for general legal services (a return to pre-pandemic budget level) and $75,000 for other specialized legal assistancefrom the City's attorney office, including labor negotiations and personnel.

- $75,000 is budgeted for supplementary specialized legal counsel costs, such as wireless communications, and will be reflected in a separate line item. This is a change from prior fiscal years and will help isolate legal costs incurred separately from the City's attorney office.

City Attorney				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-112-00-42001	Contract Services	$385,000	$428,420	$435,000
101-112-00-42004	Legal Costs	0	0	75,000
	Total	**$385,000**	**$428,420**	**$510,000**

ADMINISTRATION

Description

The City Administrator is appointed by the City Council and responsible for the enforcement of City laws and ordinances; ensuring that the orders of the City Council are executed; preparing the budget and monitoring City finances; and managing day-to-day operations. In addition to overseeing City departments, the Administrator also serves as the director of the centralized administrative functions pertaining to the City Clerk, Finance, Human Resources and Information Technology.

2021-2022 Initiatives and Accomplishments

- Ensured the execution of Council policy direction, completion of capital projects, hiring of staff and continuity of daily citywide operations to deliver services in an efficient and effective manner.
- Implemented the newly structured mail home delivery program.
- Implemented digital signatures, continued efforts for digital storage of records, responded to requests for records.
- Oversaw the City's response to COVID-19, including providing IT support for virtual operations and hybrid City Council meetings.

2022-2023 Priorities

- Continue to oversee the City's response to COVID-19 to ensure the safe delivery of City services
- Oversee the filing of candidate forms and administering the November 2022 City Council election.
- Explore service delivery alternatives and other options to enhance revenue as directed by Council.
- Continue hiring of staff.

Administration Budget Summary and Service Impacts

- The Administration Divisional budget includes funding for the City Administrator's performance evaluation within contract services, office supplies, copier fees, and the citywide postage meter. Funding for the City Administrator's lunches with staff is now separately reflected under Employee Appreciation.

Office the City Administrator				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-00-41001	Salaries	$1,249,225	$1,142,981	$1,616,020
101-111-00-41003	Salaries -Part time	119,192	53,216	36,806
101-111-00-41101	Retirement	70,006	64,690	93,767
101-111-00-41103	Deferred Compensation	48,380	48,738	48,972
101-111-00-41104	Health Insurance	151,068	141,054	257,888
101-111-00-41105	Social Security	2,905	2,362	-
101-111-00-41106	Medicare	17,958	16,608	23,966
101-111-00-41107	LTD/STD/Life	1,261	1,106	1,717
101-111-00-41108	Worker's Comp	16,376	16,330	25,935
101-111-00-41109	Benefits-MOU Obligations	3,120	2,947	4,160
	Salaries & Benefits Subtotal	**$1,679,491**	**$1,490,032**	**$2,109,231**
101-111-00-42001	Contract Services	$96,322	$147,931	$164,330
101-111-00-42002	Recruiting Services	84,385	80,000	90,210
101-111-00-42003	Auditing Services	48,500	48,500	48,500
101-111-00-42006	Records Management	5,000	4,545	5,000
101-111-00-42009	Advertising and Legal Notices	15,000	11,390	20,000
101-111-00-42015	Other Services	12,000	10,334	12,000
101-111-00-42101	Office Supplies	9,750	3,954	9,750
101-111-00-42102	Publications & Subscriptions	113,568	119,133	123,335
101-111-00-42106	Small Tools and Equipment	350	-	350
101-111-00-42202	Equipment Maintenance	8,500	3,247	8,500
101-111-00-42301	Training & Education	10,750	605	11,750
101-111-00-42302	Conferences & Meetings	5,845	6,037	6,395
101-111-00-42304	Dues & Memberships	3,175	1,877	3,175
101-111-00-42305	Mileage Reimbursement	50	-	50
101-111-00-42306	Employee Programs	20,450	12,000	3,950
101-111-00-42307	Employee Appreciation	-	-	20,700
101-111-00-42403	Printing	5,900	5,233	6,600
101-111-00-42404	Shipping/Postage/Freight	11,700	11,307	11,950
101-111-00-42405	Telephone & Communications	80,000	68,682	80,000
101-111-00-42406	Bank & Merchant Fees	19,000	12,766	19,000
101-111-00-42407	Computer Non Capital	10,100	22,000	25,000
101-111-00-42410	Pre-employment Costs	9,000	3,200	9,000
	Services & Supplies Subtotal	**$569,345**	**$572,741**	**$679,545**
	Total	**$2,248,836**	**$2,062,773**	**$2,788,776**

Administration				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-10-42001	Contract Services	$13,850	$13,290	$21,550
101-111-10-42015	Other Services	12,000	10,334	12,000
101-111-10-42101	Office Supplies	5,250	2,804	5,250
101-111-10-42102	Publications & Subscriptions	150	1,133	150
101-111-10-42302	Conferences & Meetings	1,200	4,347	1,200
101-111-10-42304	Dues & Memberships	1,350	1,047	1,350
101-111-10-42307	Employee Appreciation	-	-	1,200
101-111-10-42403	Printing	100	-	100
101-111-10-42404	Shipping/Postage/Freight	11,250	11,250	11,500
	Services & Supplies Subtotal	$45,150	$44,205	$54,300

Clerk Description

The City Clerk provides timely and accessible service in response to all inquiries and requests for public information and records, and is responsible for the administration of elections, public records requests processing, records management, and the legislative process. Records the City's legislative history through approved minutes and maintaining City Ordinances and the Municipal Code; facilitates applications for appointments to boards and commissions and coordinates Statements of Economic Interest as well as campaign and other financial disclosure related filings.

City Clerk				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-11-42001	Contract Services	$46,080	$45,000	$46,080
101-111-11-42006	Records Management	5,000	4,545	5,000
101-111-11-42009	Advertising and Legal Notice	15,000	11,390	15,000
101-111-11-42302	Conferences & Meetings	1,550	-	2,000
101-111-11-42304	Dues & Memberships	260	-	260
101-111-11-42403	Printing	5,000	3,756	5,000
	Services & Supplies Subtotal	$72,890	$64,691	$73,340

Clerk Budget Summary

- Clerk contract services include the November 2022 election administered by Monterey County, agenda management and video streaming, Municipal Code updates, and records request management software.

Finance Description

Finance provides financial analysis, management and reporting through the development of the annual budget, ongoing financial monitoring and reporting of revenues and expenditures. Routine financial duties including vendor payments, payroll, business license processing and the collection of the transient occupancy tax and the administration of pass- through funding to the hospitality and tourism improvement districts. Provides treasury services and invests revenue and issues and manages debt.

Finance				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-12-42001	Contract Services	$25,500	$28,000	$45,500
101-111-12-42003	Auditing Services	48,500	48,500	48,500
101-111-12-42101	Office Supplies	300	300	300
101-111-12-42102	Publications & Subscriptions	27,490	27,000	28,485
101-111-12-42301	Training & Education	750	175	750
101-111-12-42302	Conferences & Meetings	-	-	-
101-111-12-42304	Dues & Memberships	635	300	635
101-111-12-42305	Mileage Reimbursement	50	-	50
101-111-12-42403	Printing	500	1,177	1,200
101-111-12-42406	Bank & Merchant Fees	19,000	12,766	19,000
	Services & Supplies Subtotal	**$122,725**	**$118,218**	**$144,420**

Finance Budget Summary

- Finance contract services includes bond compliance reporting, sales tax analysis, and specialized consulting services to complete a full review of the City's fees for service for FY23-24.
- State law mandates that the City has an independent firm review its basic financial statements and thus auditing services is a required expense.
- Publications and subscriptions include the annual maintenance costs for the City's financial systems.

HR Description

Human Resources recruits, develops, and retains a diverse, well-qualified workforce that reflects the high standards of the community, and leads the City departments in positive employee relations, talent management, succession planning, and employee engagement. Services include employee orientation, recruitment, performance assessment, compensation and job classification assessments, safety and wellness programs; and organization development services efficiently to City departments. Staff is responsible for negotiating Memorandums of Understanding with the City's three bargaining units, subject to Council direction and approval.

HR				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-13-42001	Contract Services	$2,460	$6,997	$6,000
101-111-13-42002	Recruiting Services	84,385	80,000	90,210
101-111-13-42009	Advertising & Legal Notice	-	-	5,000
101-111-13-42101	Office Supplies	700	850	700
101-111-13-42102	Publications & Subscriptions	3,050	6,000	6,700
101-111-13-42301	Training & Education	9,500	430	9,500
101-111-13-42302	Conferences & Meetings	2,595	1,090	2,595
101-111-13-42304	Dues & Memberships	800	400	800
101-111-13-42306	Employee Programs	20,450	12,000	3,950
101-111-13-42307	Employee Appreciation	-	-	19,500
101-111-13-42403	Printing	300	300	300
101-111-13-42404	Shipping/Freight/Postage	200	-	200
101-111-13-42410	Pre-employment Costs	9,000	3,200	9,000
	Services & Supplies Subtotal	**$133,440**	**$111,267**	**$154,455**

HR Budget Summary

- The HR divisional budget includes funding for recruiting services, recruitment management software and pre-employment costs.
- Funding for the staff appreciation events, such as the annual holiday party, is now separately reflected under Employee Appreciation.

IT Description

Information Technology (IT) provides innovative and secure technology solutions that support City departments in delivering quality services to the community. The purpose of IT is to provide a broad range of high-quality technology-related solutions to employees, departments, council members, and the community; and to support and continuously improve essential technology infrastructure for enabling day-to-day operations of the City.

IT				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-111-14-42001	Contract Services	$8,432	$54,644	$45,200
101-111-14-42101	Office Supplies	3,500	-	3,500
101-111-14-42102	Publications & Subscriptions	82,878	85,000	88,000
101-111-14-42105	Materials and Supplies	-	791	-
101-111-14-42106	Small Tools and Equipment	350	-	350
101-111-14-42202	Equipment Maintenance	8,500	3,247	8,500
101-111-14-42301	Training & Education	500	-	1,500
101-111-14-42302	Conferences & Meetings	500	600	600
101-111-14-42304	Dues & Memberships	130	130	130
101-111-14-42404	Shipping/Postage/Freight	250	57	250
101-111-14-42405	Telephone and Communications	80,000	68,682	80,000
101-111-14-42407	Computer Non capital	10,100	22,000	25,000
	Services & Supplies Subtotal	**$195,140**	**$235,151**	**$253,030**

IT Budget Summary

- The IT division publication and subscriptions budget includes required licensing for Microsoft products, G-Suite, security monitoring, and Zoom meeting licensing.
- The City's website is five years old and in need of an update. Funding is included in contract services.
- As many of the City's computers age and become outdated, funding is included for computer replacements.

CITYWIDE

Description

Citywide, or non-departmental costs, are expenses that are spread across the entire organization. These items include the unfunded pension liability, the City's premiums insurance for general liability and property insurance and the City's share of costs toward retiree healthcare. Other operational expenses include utilities, property tax assessments and the administrative fee charged by Monterey County for property tax collection.

Budget Summary and Service Impacts

- In addition to the employer contribution toward retirement for City employees, the City also is responsible for pension obligations for the unfunded actuarial liability ("UAL"). This amount increases by $250,000, or 14%, in FY 22-23 compared to the FY 21-22 originally Adopted Budget. The FY21-22 lump sum payment was paid in July 2021 for a savings of $61,000 and those savings were transferred to other budget line items during the fiscal year.

- The City will pay the annual lump sum UAL in July, which will result in approximately $70,000 of interest savings. Those savings would then be available for other line item expenses.

- The City continues to mitigate future pension liability and costs with another $1.0 million investment into the City's established Section 115 Trust.

- The City's liability insurance premiums are budgeted to increase by $123,000.

- The utility expenses for the Forest Theater are separated out for tracking purposes, as required by the new lease.

Non-Departmental				
Account Number	**Account Description**	**FY20-21 Amended Budget**	**FY20-21 Estimated Actual**	**FY21-22 Recommended**
101-130-00-42501	Liability Insurance Premium	$689,500	$637,000	$813,000
101-130-00-42503	PERS Unfunded Accrued Liability Payment	1,772,536	1,772,536	2,082,464
101-130-00-42503	Pension Mitigation Options	1,000,000	1,000,000	1,000,000
101-130-00-42504	Insurance Claims Paid	30,000	110,000	30,000
101-130-00-42505	Utilities	235,000	231,000	230,000
101-130-00-42506	Property Tax Assessments	82,115	81,853	83,755
101-130-00-42508	Unemployment Costs	15,000	11,600	15,000
101-130-00-42510	Retiree Health Share	79,980	74,060	79,980
101-130-00-42511	County Property Tax Admin Fees	70,793	70,793	74,335
101-130-00-42512	Forest Theater Utilities	-	-	10,000
	Total	$3,974,924	$3,988,842	$4,418,534

Description

Two of the City's unique facilities include the performing arts venue known as the Sunset Community and Cultural Center and the Forest Theater, an outdoor amphitheater. These locations support musical performances, lectures and other cultural activities that enhance the quality of life for residents and promote the City and the Monterey Peninsula as an artistic and cultural destination.

In 2017, the City entered into a lease agreement with the Sunset Cultural Center, Inc. (SCC) for the management of these facilities and the terms of the lease require the City to make an annual grant to SCC to support operations. In 2021, Sunset Cultural Center, Inc.'s management of the Forest Theater ended. The annual grant for management of only Sunset Center remains in the budget.

In 2021, the City entered into a lease agreement with Pac Rep Theater for the management of the Forest Theater. This new lease does not require an operational grant payment. Rather, the City pays for a portion of utilities and repairs, which are budgeted in the Citywide (Non-Departmental) and Public Works budgets, respectively.

The City funds the Monterey County Convention and Visitors Bureau (MCCVB) and Visit Carmel to manage visitors. Visit Carmel maintains the City's official travel website (www.carmelcalfornia.com) and develops targeted and seasonal marketing campaigns to encourage visitors to stay overnight, dine and shop within the Village.

In addition to supporting these organizations with General Fund revenues, the City also collects a tourism improvement district assessment from its lodging establishments on behalf of the County and remits these pass-thru funds to MCCVB on a bi-monthly basis. The City also collects an assessment on lodging through the Carmel Hospitality Improvement District and remits these funds to Visit Carmel for the marketing of overnight stays within the Village during mid-week and the non-peak season. As of January 1, 2019, the City also began collecting an assessment from full-service restaurants on behalf of the Carmel Restaurant Improvement District and remits these funds to Visit Carmel for marketing efforts to increase food and beverage sales within the City.

Another partner agency is the Carmel Chamber of Commerce, which operates a visitor center in town, publishes a comprehensive visitor guide, and assists businesses. The Chamber also supports small businesses and provides services to assist its members, including listing businesses on the Chamber website, providing educational programs, conducting outreach with businesses via weekly business walks with City elected officials and staff and marketing opportunities to "shop locally".

Budget Summary and Service Impacts

- The FY 22-23 budget increases by $74,200, or 7%, from the FY 21-22 Adopted Budget. Visit Carmel has requested that funding be returned to the pre-pandemic amount of $120,000 annually. Funding to MCCVB ($200,010) equates to 3% of the FY22-23 transient occupancy tax revenue budget of $6.7 million. Council agreed to increase the Carmel Chamber of Commerce funding amount to $30,000.

ECONOMIC DEVELOPMENT

Attachment 2

Marketing & Economic Development					
Account Number	**Account Description**	**Details**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-122-00-42008	Mktg & Economic Dev	SCC- Sunset Center Operating Grant	750,000	750,000	750,000
101-122-00-42008	Mktg & Economic Dev	SCC- Forest Theater Operating Grant	7,500	-	-
101-122-00-42008	Mktg & Economic Dev	MCCVB	160,007	160,007	200,010
101-122-00-42008	Mktg & Economic Dev	Visit Carmel	100,800	100,800	120,000
101-122-00-42008	Mktg & Economic Dev	Carmel Chamber of Commerce	15,000	15,000	30,000
	Total		**$1,033,307**	**$1,025,807**	**$1,100,010**

Description

Library

The Library is an efficient medium for the free and equitable distribution and exchange of books, information, and ideas; and a recognized social center providing the community with a place to learn, interact and gather. The Library aspires to be a welcoming place, in-person and virtually, where reading, learning and imagination thrive; a recognized leader and respected voice in our community; and a model library in our industry.

A five-member Board of Trustees appointed by the City Council governs the Library. The Harrison Memorial Library Board of Trustees, the Carmel Public Library Foundation, Harrison Memorial Library Friends of the Library, and the City work together in partnership to sustain the vital and historic tradition of providing free public library service of excellent quality for the residents and visitors of the City of Carmel and the Monterey Peninsula

2021-2022 Workload Indicators / Performance Measures

- 5,717 reference and information questions were answered
- 617 library cards were issued
- 34,493 library items were circulated
- 1,042 people attended library programs
- 31,832 digital items (e-books, audios, magazines, films, music) were accessed

2021-2022 Initiatives and Accomplishments

- Pivoted library services to provided reference and tech help via phone, email, and text.
- Transitioned from curbside pick-up system to outside library services to restoring in-building library services.
- Continued to explore opportunities for passive programming in the libraries.

2022-2023 Priorities

- Filling vacant positions and increasing open hours at both the Main and Park Branch libraries.
- Continuing the implementation of the Library's Strategic Plan.

Budget Summary and Service Impacts

- The City funds the personnel and building maintenance costs for operating the Main and Park Branch libraries. The sources of funding for library materials, programs and services are the Carmel Public Library Foundation, the Friends of the Library, and other donations.

LIBRARY AND COMMUNITY ACTIVITIES Attachment 2

Library				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-120-00-41001	Salaries	$643,426	$453,558	$800,482
101-120-00-41003	Salaries -Part time	131,934	12,780	122,007
101-120-00-41101	Retirement	38,541	28,088	43,673
101-120-00-41103	Deferred Compensation	7,350	9,483	8,700
101-120-00-41104	Health Insurance	77,984	49,681	91,987
101-120-00-41105	Social Security	8,180	774	7,564
101-120-00-41106	Medicare	11,240	6,542	13,376
101-120-00-41107	LTD/STD/Life	1,062	711	1,192
101-120-00-41108	Worker's Comp	15,658	11,957	18,990
101-120-00-41109	Benefits-MOU Obligations	13,520	7,858	16,120
	Salaries & Benefits Subtotal	**$948,895**	**$581,432**	**$1,124,091**
101-120-00-42001	Contract Services	$3,500	$3,500	$3,500
	Services & Supplies Subtotal	**$3,500**	**$3,500**	**$3,500**
	Total	**$952,395**	**$584,932**	**$1,127,591**

Community Activities

The Community Activities department and Commission encourage and support the interaction of neighbors, friends, families and visitors through the shared experience of special events, programs, and gatherings which bring the community together virtually and in-person safely on the City's streets and in its parks and create opportunities to interact, celebrate, enrich people's lives, and promote inclusiveness.

The Community Activities department facilitates the weekly Farmers' Market, permitting for special events, beach events, and filming, the City's annual special events (Memorial Day, 4th of July, Sandcastle Contest, Pumpkin Roll, Halloween Parade, Veteran's Day, Homecrafters' Marketplace, and Holiday Menorah and Tree-lighting), and manages the Vista Lobos Community Room and the Scout House.

2021-2022 Workload Indicators/Performance Measures

- Planned and facilitated seven City special events
- An estimated 5,000 people attended City Special Events
- Issued 36 event and film permits

2021-2022 Initiatives and Accomplishments

- Developed a new policy for community group participation in the Farmers' Market.
- Reinvented the City's special events to be more streamlined and maximized community partnerships.
- Continued Community Activities Commission campaigns at the Farmer's Market to encourage residents and business owners to encourage community connection.

2022-2023 Priorities

- Continue implementing the new strategic plan that includes goals to maximize communication opportunities, embrace opportunities for community connections – whatever the form, engaging in environmentally sustainable practices, and to put our community spaces to their best use.
- Continue to streamline processes for special event permit applications

Budget Summary and Service Impacts

- Community Activities department expenses include costs for advertising, banners and signage, event and office supplies for City events, equipment replacements, Community Activities Commission initiatives, and the Farmers' Market.

Community Activities				
Account Number	**Account Description**	**FY21-22 Amended**	**FY21-22 Estimated**	**FY22-23 Recommended**
101-121-00-41001	Salaries	$81,277	$80,000	$131,665
101-121-00-41101	Retirement	3,310	4,572	10,362
101-121-00-41103	Deferred Compensation	150	1,134	1,800
101-121-00-41104	Health Insurance	5,660	5,660	13,964
101-121-00-41105	Overtime	-	420	-
101-121-00-41106	Medicare	609	817	1,909
101-121-00-41107	LTD/STD/Life	65	79	195
101-121-00-41108	Worker's Comp	5,176	3,952	6,276
101-121-00-41109	Benefits-MOU Obligations	-	348	2,080
	Salaries & Benefits Subtotal	**$96,247**	**$96,982**	**$168,251**
101-121-00-42001	Contract Services	$9,000	$8,500	$39,220
101-121-00-42005	Community Promotions	19,500	19,000	19,500
101-121-00-42009	Advertising and Legal Notice	3,000	2,900	8,500
101-121-00-42101	Office Supplies	300	130	300
101-121-00-42403	Printing	2,500	1,155	2,500
	Services & Supplies Subtotal	**$34,300**	**$31,685**	**$70,020**
	Total	**$130,547**	**$128,667**	**$238,271**

Description

The Community Planning and Building Department (CPB) includes the Planning, Building and Code Compliance Divisions and is responsible for preserving community character while fostering a vibrant community and a high quality of life for its residents, businesses and visitors.

- The **Planning Division** processes current development applications, maintains the General Plan, and ensures that capital programs, zoning and other activities of the City are consistent with the goals and policies of the Plan.
- The **Building Safety Division** is responsible for plans examination and inspections of City and private development projects to ensure compliance with building codes.
- The **Code Compliance Division** ensures compliance with the City Municipal Code. This function includes public education and outreach on existing laws and resolving code violations.

2021-2022 Initiatives and Accomplishments

- Adopted an updated Sign Ordinance to be in compliance with all State and Federal laws
- Significant progress made on scanning/digitizing of physical property files. Vendors selected, programming complete, and 20% of parcels have been digitized and made available through the City's GIS map
- Implemented several measures in line with the CPB 2019 strategic plan's customer service, technology, and streamlining goals including but not limited to: Reinstating the "Permit by Appointment" process for building permits, simplifying CPB's website portal, progress on scanning/digitizing files, clarifying the Track 1 and Track 2 Planning Application process and creating SOPs for the public to follow, and restarting the annual Development Process Workshop focused on updating the development industry
- Fully re-opened CPB offices to the public while maintaining COVID-19 safety protocols
- Completed recruitments for all vacant positions in CPB, including two new positions added by City Council: 1) Long Range Associate Planner; 2) Second Code Compliance Coordinator. Anticipating all CPB positions to be full by June 30, 2022.

2022-2023 Priorities

- Continued implementation of the CPB 2019 strategic plan, with a focus on customer service, technology, and streamlining processes
- Complete housing feasibility study in accordance with State "SB 2", local "LEAP", regional "REAP" grants and begin work in earnest on General Plan Housing Element update for completion by December, 2023
- Adopt Historic Context Statement update in accordance with State CLG grant
- Adoption of: (1) updated Accessory Dwelling Unit Ordinance; (2) updated Wireless Ordinance
- Finish scanning/digitizing of physical property files for online public access
- Adoption of updated Design Guidelines and Zoning Code through the Design Traditions 1.5 Project
- In partnership with the Police Department, develop a paid parking program in the downtown commercial district for consideration by the City Council

Budget Summary and Service Impacts

- Planning contract services increases this year due to a $140,000 allocation for Winter & Company's support on the Design Traditions 1.5 Project, which utilizes 1-time money to implement Council priorities. Still remaining in the planning contract services line item is $290,000 in services representing

State, local and regional grants which will fund consultant support for housing studies and General Plan updates.

- Building contract services dropped significantly due to a reduced need for outside plan review by CSG, thanks to the hiring of a new Building Inspector. $40,000 in contract plan review support will still be needed for technical and specialized plan review matters that arise.
- As part of the Capital Improvement Plan, CPB is continuing scanning and digitizing physical property files to make them publicly available via the City's online GIS mapping tool. The FY22-23 CIP incudes the second and final year of funding for this project totaling $67,000.
- Also as part of the Capital Improvement Plan, CPB will be acquiring two (2) residential electric vehicles for Planning, Building, and Code Compliance inspections to replace a single gas engine vehicle. These vehicles will allow for more inspections to take place in a shorter amount of time, which will benefit the Village as a whole. Switching to electric vehicles will also help lower the City's carbon footprint. Upgrades to the electrical panel at City Hall and installation of charging stations will be required. Total cost of the project including vehicles and upgrades will be approximately $50,000. However, nearly all of this cost should be offset by a combination of selling CPB's existing gas vehicle, and funds from the Central Coast Community Energy Vehicle Electrification Program.

COMMUNITY PLANNING AND BUILDING

Attachment 2

Community Planning & Building				
Account Number	**Account Description**	**FY21-22 Amended**	**FY21-22 Estimated**	**FY22-23 Recommended**
101-115-00-41001	Salaries	$949,196	$775,921	$1,220,334
101-115-00-41005	Overtime	-	1,603	-
101-115-00-41101	Retirement	55,420	38,017	60,805
101-115-00-41103	Deferred Compensation	7,750	5,933	8,100
101-115-00-41104	Health Insurance	184,093	147,029	225,785
101-115-00-41106	Medicare	14,991	10,653	17,694
101-115-00-41107	LTD/STD/Life	1,416	1,072	1,559
101-115-00-41108	Worker's Comp	15,818	12,079	19,183
101-115-00-41109	Benefits-MOU Obligations	16,468	7,147	18,720
	Salaries & Benefits Subtotal	**$1,245,152**	**$999,454**	**$1,572,180**
101-115-00-42001	Contract Services	$613,350	$245,800	$583,400
101-115-00-42009	Advertising and Legal Notice	500	-	500
101-115-00-42101	Office Supplies	3,650	2,134	3,650
101-115-00-42102	Publications & Subscriptions	775	330	1,425
101-115-00-42104	Safety Equipment and Supplies	800	645	800
101-115-00-42107	Gas and Oil	1,560	465	780
101-115-00-42115	Other Supplies	600	15,700	950
101-115-00-42301	Training & Education	4,085	1,950	8,565
101-115-00-42302	Conferences & Meetings	5,450	290	8,150
101-115-00-42304	Dues & Memberships	4,580	1,756	4,480
101-115-00-42305	Mileage Reimbursement	300	-	150
101-115-00-42403	Printing	3,000	1,440	3,000
	Services & Supplies Subtotal	**$638,650**	**$270,510**	**$615,850**
	Total	**$1,883,802**	**$1,269,964**	**$2,188,030**

COMMUNITY PLANNING AND BUILDING Attachment 2

Community Planning & Building: Planning				
101-115-20-42001	Contract Services	$382,300	$24,700	$469,600
101-115-20-42009	Advertising and Legal Notice	500	-	500
101-115-20-42101	Office Supplies	3,000	1,773	3,000
101-115-20-42102	Publications & Subscriptions	125	-	125
101-115-20-42104	Safety Equipment and Supplies	800	645	800
101-115-20-42115	Other Supplies	-	15,700	-
101-115-20-42301	Training & Education	2,125	1,500	4,325
101-115-20-42302	Conferences & Meetings	600	200	2,000
101-115-20-42304	Dues & Memberships	2,500	1,300	2,400
101-115-20-42305	Mileage Reimbursement	200	-	100
101-115-20-42403	Printing	3,000	1,440	3,000
	Services & Supplies Subtotal	**$395,150**	**47,258**	**$485,850**

Community Planning & Building: Building				
101-115-21-42001	Contract Services	$220,050	$210,100	$102,800
101-115-21-42101	Office Supplies	400	280	400
101-115-21-42102	Publications & Subscriptions	650	330	1,300
101-115-21-42107	Gas and Oil	960	465	480
101-115-21-42115	Other Supplies	400	-	500
101-115-21-42301	Training & Education	1,460	450	3,240
101-115-21-42302	Conferences & Meetings	3,350	-	3,350
101-115-21-42304	Dues & Memberships	2,080	456	2,080
101-115-21-42305	Mileage Reimbursement	100	-	50
	Services & Supplies Subtotal	**$229,450**	**$212,081**	**$114,200**

Community Planning & Building: Code Compliance				
101-115-22-42001	Contract Services	$11,000	$11,000	$11,000
101-115-22-42101	Office Supplies	250	81	250
101-115-22-42107	Gas and Oil	600	-	300
101-115-22-42115	Other Supplies	200	-	450
101-115-22-42301	Training & Education	500	-	1,000
101-115-22-42302	Conferences & Meetings	1,500	90	2,800
	Services & Supplies Subtotal	**$14,050**	**$11,171**	**$15,800**

PUBLIC WORKS

The mission of the Public Works Department is to plan, design, construct, operate, and maintain public infrastructure, streets, facilities, beach, urban forest, and parks that contribute to the health, safety, and well-being of the community. We do so in an efficient, cost-effective manner without detrimental effects on the environment. Public Works consists of five operating divisions with responsibilities as follows:

- **Administration Unit**: prepare Council reports, 5-year Capital Improvement Plan, and give presentations, perform engineering services, support the Forest and Beach Commission, serve on the Traffic Safety Committee and TAMC TAC, and provide staffing, budget, and performance oversight of the following five operating divisions and various volunteer organizations.

- **Environmental Compliance**: manage environmental projects in the North Dunes and MTNP, serve on the Climate Committee and develop Climate Action and Adaptation Plans, implement the State's storm water quality regulations, enforce the State's waste reduction and recycling regulations, oversee the franchise agreement with the City's waste hauler, serve on the Monterey Regional Stormwater Management Program Committee and the Monterey Regional Waste Management District's Technical Advisory Committee, evaluate energy reduction initiatives, and conduct public outreach.

- **Facilities Maintenance:** maintain and repair 15 City-owned buildings and facilities with 149,050 square feet, including six historic buildings nearly 100 years old, support capital improvement projects, oversee janitorial contract and numerous trade vendors, and implement small ADA and various construction projects.

- **Forestry, Parks and Beach:** staff Forest & Beach Commission, maintain eight municipal parks, Carmel Beach, Scenic Pathway, and landscaped islands, manage contract tree services and 9,000+ City trees, process tree removal and pruning permits, and perform landscape maintenance services.

- **Project Management**: implement the Capital Improvement Plan, perform condition assessments and cost estimates, plan, design, inspect, and manage construction of capital projects, administer public bidding process, and coordinate with consultants, contractors, utilities, and other departments.

- **Street Maintenance:** supervise all Public Works field personnel and allocate resources, maintain and repair streets, potholes, sidewalks, curbs, fencing, storm drainage system, berms, traffic signs, striping, and pavement markings, provide street sweeping services, perform basic fleet maintenance services, review utility encroachment permit applications, support City events, and provide emergency response.

2021-2022 Initiatives and Accomplishments

- Negotiated a Lease Agreement with Pacific Repertory Theatre for Theatrical Programming and Facility Management of the Forest Theater.
- The Climate Committee completed a Vulnerability Assessment, Greenhouse Gas Emissions Study, and are currently finalizing Climate Action and Adaptation Plans.
- Updated the Carmel Municipal Code relative to SB1383 organics recycling, and modified the franchise agreement with Greenwaste Recovery.
- Planning Commission extended Coastal Development Permits for the North Dunes Habitat Restoration and Mission Trail Nature Preserve (MTNP) projects for five years.
- Received a $45,000 grant from the Coastal Conservancy to conduct wildfire fuel mitigation at MTNP and completed the project.
- Replaced the fire pump assembly and the HVAC controller system for Sunset Center, both as emergency replacement projects.
- Renovated the Ocean Avenue median island landscaping, between Lincoln and Monte Verde Streets, as a pilot for the four remaining raised medians along Ocean Avenue.
- Supported the completion of 17 capital improvement projects funded in FY 2021/22.
- Resumed the annual traffic striping and markings and the sidewalk grinding programs.
- Continued to guide the unique partnership with Carmel Cares to restore the Scenic Pathway, Forest Theater grounds, Devendorf and Vista Lobos Parks, and expanded Median Minders and Pick-Up-Posse community engagement programs.

2022-2023 Priorities

- Negotiate an Operations and Maintenance Agreement with a qualified organization for renovation, activities programming, and facility management of the Scout House.
- Update Municipal Code Chapter 17 related to storm water requirements.
- Collaborate with the Monterey Regional Waste Management District and GreenWaste Recovery on implementation of SB 1383 requirements.
- Commence building condition assessments, resilience infrastructure planning, additional EV charging stations, and electrical upgrades at multiple City facilities.
- Update the design of the Police Station to include an EOC/Community Room, new lockers, EV station, and other facilities, solicit bids, and begin construction.
- Issue an RFP for Citywide janitorial services for the next three fiscal years.
- Construct the annual asphalt paving project, along Junipero, San Carlos, and San Antonio Streets, including micro-surfacing, bike route, and medians on San Carlos.
- Commence design of broken pipe repairs and eliminate bottlenecks in the storm drain system listed as priority recommendations in the Storm Drain Master Plan.
- Design repairs of concrete streets, along lower Ocean Avenue and within several downtown intersections, that are heavily damaged.
- Prepare the Forest Management Plan, predominantly funded by a $150k Cal Fire grant, and solicit public participation in the development process.
- Beautify the remaining raised median islands along Ocean Avenue as part of the Downtown Beautification Initiative.
- Purchase a street sweeper, preferably an electric or hybrid, utilizing a 3CE rebate.

Budget Summary and Service Impacts

- Previously, the Street Division budget was merged with the Administration budget, 101-119-40. Effective Fiscal Year 2022/23, the Street Division budget, 101-119-41, will be accounted for separately.

- The Administration Division budget includes funding for a full-time administrative coordinator for front counter and customer service support, contract services ($66,400), including uniform services, copier lease, and software contracts, contracted project manager services ($50,000), training ($8,000), subscriptions ($5,500), and office supplies ($5,000).

- The Street Division budget includes funding for equipment & vehicle maintenance ($51,500), materials and supplies ($50,000), including asphalt, lumber, base rock, and paint, fuel for City vehicles ($38,000), and contract services ($8,500).

- The Facilities Maintenance Division budget includes funding for contract services ($394,270) including janitorial services, alarm and fire system monitoring, and HVAC, plumbing, roofing, and electrical repairs, and materials & supplies ($65,000), including hardware, lighting, filters, plumbing and paint supplies.

- The Environmental Compliance Division budget includes funding for environmental consultant support ($50,000), regional storm water permit implementation ($25,000), Vactor cleaning of storm drains ($25,000), ASBS watershed sampling ($20,000), SB1383 and recycling expenses ($17,000), various other compliance consultants, and regional permit dues ($11,000).

- The Forestry, Parks, and Beach Division budget includes funding for contract services ($497,500), including tree removals, pruning, watering, stumps, landscape maintenance, and emergency response services, fund matching for the Forest Management Plan ($20,000), and materials and supplies ($50,000) including new trees, landscaping, irrigation supplies, and planting materials.

PUBLIC WORKS

Public Works Department Total				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-119-00-41001	Salaries	$1,583,893	$1,402,384	$2,136,494
101-119-00-41005	Overtime	8,800	6,000	8,800
101-119-00-41101	Retirement	88,011	79,081	115,821
101-119-00-41103	Deferred Compensation	12,612	11,695	18,612
101-119-00-41104	Health Insurance	278,844	266,345	342,020
101-119-00-41106	Medicare	22,064	19,389	30,980
101-119-00-41107	LTD/STD/Life	2,423	2,222	2,988
101-119-00-41108	Worker's Comp	51,744	51,731	82,157
101-119-00-41109	Benefits-MOU Obligations	28,600	26,424	33,280
	Salaries & Benefits Subtotal	**$2,076,991**	**$1,865,271**	**$2,771,152**
101-119-00-42001	Contract Services	$1,001,385	$877,438	$1,133,530
101-119-00-42009	Advertising and Legal Notice	1,000	1,000	2,500
101-119-00-42101	Office Supplies	2,500	1,589	5,000
101-119-00-42102	Publications & Subscriptions	6,860	4,191	5,500
101-119-00-42104	Safety Equipment and Supplies	8,000	5,332	8,400
101-119-00-42105	Materials and Supplies	195,000	130,000	165,000
101-119-00-42106	Small Tools and Equipment	750	-	1,000
101-119-00-42107	Gas and Oil	24,000	26,000	38,000
101-119-00-42202	Equipment Maintenance	10,000	466	10,000
101-119-00-42203	Vehicle Maintenance	41,000	31,390	41,500
101-119-00-42301	Training & Education	5,000	5,186	8,000
101-119-00-42304	Dues & Memberships	1,500	1,603	2,875
101-119-00-42403	Printing	400	-	2,000
101-119-00-42408	Permits and Licenses	9,500	10,432	11,067
101-119-00-42409	Rentals	2,250	2,467	4,000
	Services & Supplies Subtotal	**$1,309,145**	**$1,097,094**	**$1,438,372**
	Total	**$3,386,136**	**$2,962,365**	**$4,209,524**

PUBLIC WORKS

Attachment 2

PW Administration				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-119-40-42001	Contract Services	$18,900	$18,830	$66,400
101-119-40-42009	Advertising and Legal Notice	1,000	1,000	2,500
101-119-40-42101	Office Supplies	2,500	1,589	5,000
101-119-40-42102	Publications & Subscriptions	6,860	4,191	5,500
101-119-40-42104	Safety Equipment and Supplies	8,000	5,332	8,400
101-119-40-42105	Materials and Supplies*	51,000	20,000	-
101-119-40-42106	Small Tools and Equipment*	750	-	-
101-119-40-42107	Gas and Oil*	24,000	26,000	-
101-119-40-42202	Equipment Maintenance*	10,000	466	-
101-119-40-42203	Vehicle Maintenance*	41,000	31,390	-
101-119-40-42301	Training & Education	5,000	5,186	8,000
101-119-40-42304	Dues & Memberships	1,500	1,603	2,875
101-119-40-42403	Printing	400	-	2,000
101-119-40-42409	Rentals*	2,250	2,467	-
	Services & Supplies Subtotal	**$173,160**	**$118,054**	**$100,675**

*Moved to PW-Streets budget effective FY22-23

PW Street				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-119-41-42001	Contract Services*	$0	$0	8,500
101-119-41-42105	Materials and Supplies*	-	-	50,000
101-119-41-42106	Small Tools and Equipment*	-	-	1,000
101-119-41-42107	Gas and Oil*	-	-	38,000
101-119-41-42202	Equipment Maintenance*	-	-	10,000
101-119-41-42203	Vehicle Maintenance*	-	-	41,500
101-119-41-42409	Rentals*	-	-	4,000
	Services & Supplies Subtotal	**$0**	**$0**	**$153,000**

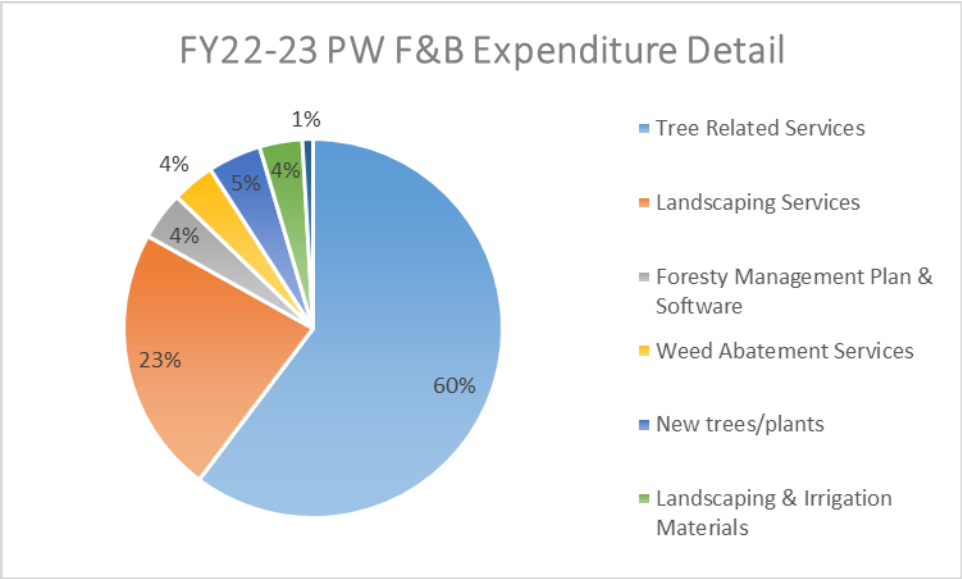
*Moved from PW-Admin budget effective FY22-23

PW Facilities				
101-119-42-42001	Contract Services	$362,720	$360,000	$394,270
101-119-42-42105	Materials and Supplies	120,000	95,000	65,000
	Services & Supplies Subtotal	**$482,720**	**$455,000**	**$459,270**

PUBLIC WORKS

PW Environmental Compliance				
101-119-43-42001	Contract Services	$289,765	$248,608	$166,860
101-119-43-42105	Materials and Supplies	-	-	-
101-119-43-42408	Permits and Licenses	9,500	10,432	11,067
	Services & Supplies Subtotal	**$299,265**	**$259,040**	**$177,927**

PW Forest & Beach				
101-119-45-42001	Contract Services	$330,000	$250,000	$497,500
101-119-45-42105	Materials and Supplies	24,000	15,000	50,000
	Services & Supplies Subtotal	**$354,000**	**$265,000**	**$547,500**



Type of Expenditure		Budget	Percentage
Tree Related Services	$	330,000	60%
Landscaping Services		125,000	23%
Foresty Management Plan & Software		22,500	4%
Weed Abatement Services		20,000	4%
New trees/plants		25,000	5%
Landscaping & Irrigation Materials		20,000	4%
Equipment		5,000	1%
Total	**$**	**547,500**	**100%**

Description

The Director of Public Safety/Police Chief manages the Public Safety Department and three distinct functions:

- The **Police Department** is responsible for law enforcement and crime prevention within the City. The mission of the Department is to protect and serve, with the primary responsibility of ensuring the rights of citizens and visitors to live in peace and safety. It also oversees the management and operation of the Emergency Operations Center; the Volunteers in Policing Program that assists with daily clerical activities, errands, public outreach and special events and the City Community Emergency Response Team of volunteers ready to assist the community during an emergency situation.
- The **Fire Department** is primarily responsible for saving lives and protecting property through the prevention and control of fires. The Fire Department has operated under a contract with the City of Monterey since 2012. The Public Safety Department manages the contract with the City of Monterey and is responsible for oversight of needed equipment and supplies.
- **Carmel Fire Ambulance** provides advanced life support ambulance service to the residents of Carmel-by-the-Sea. Ambulance staffing includes paramedic-firefighters and emergency medical technician-firefighters to provide front line medical emergency response and all-hazard response as a key component of the City's public safety services. The City of Monterey also provides administrative oversight of this function through a contractual agreement managed by the Public Safety Department.

2021-2022 Initiatives and Accomplishments

- Managed pandemic-related challenges including mask mandates and vaccination requirements
- Began an investigation of a graffiti bandit who painted numerous walls throughout the city. Suspect was identified via city and resident cameras. The investigation led to the suspects arrest and a full confession.
- Began an investigation of a daytime smash and grab at a local jewelry store. Via cameras from businesses and locals in the area we quickly obtained suspect information. One juvenile suspect was taken into custody and charged with the crime. Multiple additional suspects are still pending.
- Upgraded patrol vehicles to include 2 new police cruisers
- Upgraded outdated police radios
- Increased the number of volunteer group and CERT members and utilized their services on multiple occasions to include assistance with missing persons, council meetings and various activities throughout the city.
- Staffed a vacant ambulance/firefighter.

2022-2023 Priorities

- Fill vacancies, including Police Officer, Dispatchers, and Community Service Officers.
- Developing new contract language for Fire Services with the City of Monterey.
- Continue to improve radio communications and complete the radio transition from analog to digital for police services.
- Continue to align policies and procedures with federal and State legislation regarding police tactics.
- Work with City Staff and Council on the implementation of a new parking enforcement structure and paid parking in the City.
- Increase commitment to service in the Village through police programs to include increased bicycle patrols, community camera sharing, and use of volunteer groups like CERT.

Budget Summary and Service Impacts

Ambulance

- The FY 22-23 Budget increases by $85,324 over the FY 21-22 Amended Budget. Overtime reflects an anticipated decrease due to being fully staffed. Contract services include station coverage by the City of Monterey as needed ($170,000), ambulance billing ($48,000), Monterey Fire management of Ambulance personnel ($24,000), narcotics management ($11,000). Other major expenses include medical supplies ($39,000), fuel and vehicle maintenance ($17,000), safety equipment ($12,000) and required training to maintain credentials ($13,000).

Ambulance				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-118-00-41002	Salaries -Safety	$709,018	$673,173	$770,123
101-118-00-41006	Overtime -Safety	160,000	170,000	140,000
101-118-00-41009	Holiday in Lieu	64,574	62,000	69,740
101-118-00-41102	Retirement -Safety	99,761	9,104	99,905
101-118-00-41103	Deferred Compensation	4,500	4,300	5,400
101-118-00-41104	Health Insurance	81,349	78,583	88,481
101-118-00-41106	Medicare	13,589	13,064	14,550
101-118-00-41107	LTD/STD/Life	858	879	858
101-118-00-41108	Worker's Comp	52,072	39,765	63,153
101-118-00-41111	Uniform Allowance	3,600	3,333	3,600
	Salaries & Benefits Subtotal	**$1,189,321**	**$1,054,201**	**$1,255,810**
101-118-00-42001	Contract Services	$261,528	$260,000	$272,163
101-118-00-42101	Office Supplies	1,100	900	1,300
101-118-00-42103	Medical Supplies	39,150	31,370	39,150
101-118-00-42104	Safety Equipment and Supplies	11,000	4,500	12,000
101-118-00-42107	Gas and Oil	7,000	11,723	11,000
101-118-00-42201	Building Maintenance	1,500	1,200	4,500
101-118-00-42202	Equipment Maintenance	3,500	870	3,500
101-118-00-42203	Vehicle Maintenance	17,000	10,922	17,000
101-118-00-42301	Training & Education	12,800	1,200	12,800
	Services & Supplies Subtotal	**$354,578**	**$322,685**	**$373,413**
	Total	**$1,543,899**	**$1,376,886**	**$1,629,223**

Fire

- The FY 22-23 Budget increases by $165,146 over the FY 21-22 Amended Budget. Contract services include fire services provided to the Village by the City of Monterey ($2,840,000) and dispatch services ($25,000). Funding for a wildfire risk assessment is also included within the budget ($20,000).

- The FY 22-23 Budget also includes funding for fuel ($14,000) and vehicle maintenance ($35,000) as Carmel is responsible for vehicle repair and replacement under the contract with Monterey.

Fire				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-117-00-42001	Contract Services	$2,740,196	$2,735,196	$2,905,342
101-117-00-42005	Community Promotions	500	1,097	500
101-117-00-42103	Medical Supplies	3,000	1,200	3,000
101-117-00-42104	Safety Equipment and Supplies	7,000	3,800	7,000
101-117-00-42107	Gas and Oil	14,000	7,000	14,000
101-117-00-42202	Equipment Maintenance	4,450	3,016	4,450
101-117-00-42203	Vehicle Maintenance	35,000	11,000	35,000
	Total	**$2,804,146**	**$2,762,309**	**$2,969,292**

Police

- The FY 22-23 Budget increases by $514,923 over the FY 21-22 Amended Budget, primarily due to the addition of a full fiscal year's worth of personnel costs for 3.0 FTE new 2-year limited term positions that were added in FY21-22 (1.0 FTE Police Officer and 2.0 FTE Commnity Services Officer). The Department will continue to focus on patrol and responding to public safety needs.

- The FY 22-23 Budget reflects an increase of $51,361 in services and supplies over FY 21-22. The increase is primarily the result of upgrading aging equipment, increased ammunition prices, providing CERT team uniforms and equipment, and training and supplies needed to fill vacant positions. Training expenses were increased to add Critical Incident Training, De-escalation and Racial Bias Training for all department members. Contract services include expenses critical to operations including dispatch, jail booking and animal services provided by Monterey County; tasers, body and surveillance cameras and associated software and maintenance costs. Fuel costs are projected to increase as well.

Police				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
101-116-00-41001	Salaries	$698,972	$533,198	$829,659
101-116-00-41002	Salaries -Safety	$1,931,512	$1,747,609	$2,142,749
101-116-00-41006	Overtime -Safety	$185,000	$322,742	$205,000
101-116-00-41009	Holiday in Lieu	$141,270	$121,574	$171,329
101-116-00-41101	Retirement	$42,945	$34,263	$52,952
101-116-00-41102	Retirement -Safety	$327,515	$239,829	$330,706
101-116-00-41103	Deferred Compensation	$21,294	$16,860	$24,144
101-116-00-41104	Health Insurance	$441,847	$312,783	$461,169
101-116-00-41106	Medicare	$42,201	$38,428	$49,063
101-116-00-41107	LTD/STD/Life	$3,469	$2,860	$3,939
101-116-00-41108	Worker's Comp	$91,498	$75,216	$119,455
101-116-00-41109	Benefits-MOU Obligations	$520	$433	$0
101-116-00-41111	Uniform Allowance	$33,120	$27,520	$34,560
	Salaries & Benefits Subtotal	**$3,961,163**	**$3,473,315**	**$4,424,725**
101-116-00-42001	Contract Services	$293,300	$201,684	$335,635
101-116-00-42005	Community Promotions	$1,000	$207	$1,000
101-116-00-42101	Office Supplies	$7,500	$6,154	$8,500
101-116-00-42102	Publications & Subscriptions	$915	$180	$960
101-116-00-42104	Safety Equipment and Supplies	$41,450	$40,500	$25,450
101-116-00-42106	Small Tools and Equipment	$0	$0	$0
101-116-00-42107	Gas and Oil	$32,500	$32,290	$48,750
101-116-00-42201	Building Maintenance	$1,000	$1,000	$1,000
101-116-00-42202	Equipment Maintenance	$42,300	$50,000	$38,181
101-116-00-42203	Vehicle Maintenance	$23,000	$21,000	$23,000
101-116-00-42301	Training & Education	$14,250	$9,000	$21,750
101-116-00-42304	Dues & Memberships	$1,400	$950	$1,550
101-116-00-42403	Printing	$4,700	$2,800	$5,900
101-116-00-42404	Shipping/Postage/Freight	$500	$300	$500
101-116-00-42405	Telephone and Communications	$8,500	$6,500	$8,500
101-116-00-42415	Other Expenditures	$6,000	$12,000	$9,000
	Services & Supplies Subtotal	**$478,315**	**$384,565**	**$529,676**
	Total	**$4,439,478**	**$3,857,880**	**$4,954,401**

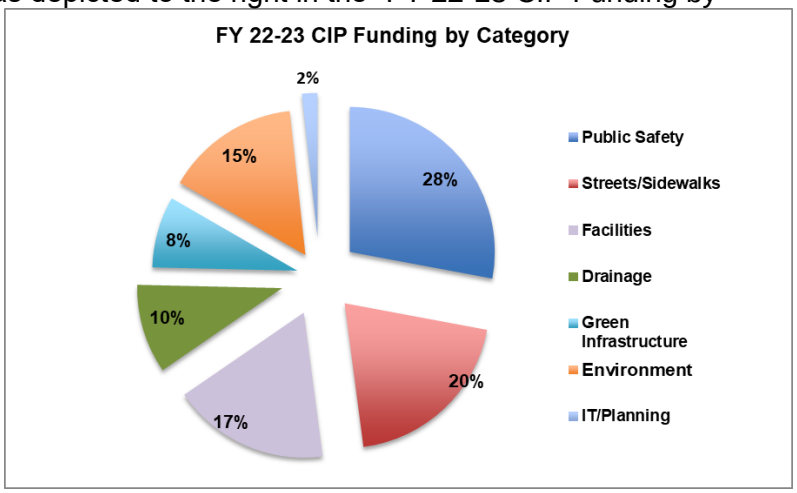
CAPITAL IMPROVEMENT PLAN (CIP)

CAPITAL IMPROVEMENT PLAN

Description

The FY 22-23 Recommended Budget includes $5.03 million for capital projects. This level of capital spending represents 16% of the total citywide budget of $32.3 million. As the economy recovers from the economic impact of the pandemic, sales tax revenue generated by Measure C, the City's local sales tax, plays a pivotal role in provide a funding source for the City's capital needs. The presence of state and county gas and transit taxes also provide a consistent base, albeit partial, for much needed street projects. That said the five-year capital plan points out that, as vital as these funding sources are, they cannot cover the full scope of identified improvements in the long term requiring that we attend to the highest needs and deferring others until funding becomes available.

Capital outlay funds several types of projects as depicted to the right in the "FY 22-23 CIP Funding by Category" chart. Streets and sidewalks account for 20% of capital expense, with a proposed budget of $1 million, largely funded by revenues the City receives specifically for street maintenance and other transportation-related projects. Public safety is prioritized with the long overdue need to renovate City policy facilities. Police safety accounts for 28% of capital expenditures for a total of $1.4 million including $1.3 million for facility renovation augmenting the prior approved $2 million budget. The FY 22-23 Recommended Budget recognizes the importance of facility investments and "green" infrastructure which combined make up 25% of capital expenditures. The spending plan for deferred facility maintenance items equals $805,000 and addresses library needs, Sunset center renovations, City Hall roofing and retaining walls, Vista Lobos design and general beautification projects. "Green" projects reach $400,000 and include electric vehicle panel upgrades, supporting generators and costal engineering studies. The remaining $27%, or $1.3 million includes critical drainage, environmental and technology projects including Drainage design, MTNP beautification, North Dunes restoration and the purchase of a zero emissions street sweeper.



Capital outlay includes $685,000 for the projects listed in Table 1, FY 22-23 Recommended Vehicle and Equipment Acquisitions and Funding Source.

Table 1: FY 22-23 Recommended Vehicle and Equipment Acquisitions and Funding Source

Vehicle and Equipment Fund			
Account Number	**Account Description**	**FY22-23 Recommended**	**Funding Source**
503-513-00-43005	Ambulance Equipment +AED	75,000	Measure C
503-513-00-43005	2 Residential Electric Vehicles (CPB)	30,000	Measure C
503-513-00-43005	Electric Sweeper ($200K Grant Funded)	550,000	Measure C/3CE Grant
503-513-00-43006	Police Radios Lease (Year 2 of 6)	30,000	Measure C
Total		**$685,000**	

Funding prioritizes public safety response capabilities, including enhanced communications and the purchase of new vehicles. A focus on environmentally friendly vehicles is evident in this year's spending plan. The budget also invests in critical safety equipment related to emergency ambulance services.

Vehicle & Equipment:

Ambulance Equipment and Automated External Defibrillator (AED): Upon purchase of the Ambulance, a FY 2021/22 carry-over project, additional funding is required to purchase the necessary safety equipment and AED to be installed in the new ambulance. $75,000 is recommended. The Police and Fire Departments will lead this project

Two Residential Electric Vehicles (REVs) for Community Planning and Building: The Community Planning and Building Department requests to utilize the proceeds from the sale of the existing building inspection vehicle, as well as to apply for grant funding from Central Coast Community Energy, to purchase two REVs for use by Planning and Building staff to conduct site visits and inspections. It is anticipated that the purchase will be largely funded by the vehicle sale and grants ($25,000), with the remaining $5,000 provided by the City.

Street Sweeper: The existing street sweeper is 12 years old and is past its useful life, requiring frequent repairs, sometimes costing over $5,000 for each repair. Staff evaluated alternatives for a repurchase including renting/leasing a sweeper (which is economically restrictive over just a few years), or contracting out these services to a private company. Multiple agency contacts warned staff that contracted street sweeping services are often plagued by substandard performance levels, inability to be promptly responsive, and complaints. Furthermore, with Carmel's lack of curbs and gutters, coupled with extensive pine needles, the privatized street sweeping operations would likely be substandard for Carmel. Staff has been exploring diesel, as well as electric and hybrid sweeper models that work on a vacuum system (rather than a broom system that would not be effective on Carmel streets). Although electric sweepers are costlier, Central Coast Community Energy has a grant program that would fund the cost difference between a diesel and electric sweeper, up to a maximum of $200,000. A net of $350,000 is budgeted for the sweeper purchase. While electric sweepers would be preferred, a disadvantage would be to charge up the sweeper overnight at electric vehicle charging stations until a more powerful, commercial-grade vehicle charger could be installed at the Public Works Yard.

Radios Lease (Year 2): Twenty-two (22) Police radios were leased starting last year to replace the prior, hand-held radios that were past their useful life. The radios are leased/purchased at $30,000 per year for a total of six (6) years. FY 2022/23 marks the second year of the six-year lease. The Police and Finance Departments will coordinate this project.

Table 2: FY 22-23 Recommended Capital Projects and Funding Source

In addition, funding for various other capital projects total $4.34 million. The funding sources include Measure C revenue as well as transportation-related revenues and project specific grants. (See **Table 2**, FY 22-23 Recommended Capital Projects and Funding Source, located on the following pages.) Project descriptions follow the table explain the nature and background of each.

The Recommended Budget proposes the use of available fund balances that have resulted from prior period savings and the postponements of capital projects during pandemic shutdowns and staffing shortages. Table 2 has identified these projects that have been deferred and remain in need of attention. The tally and identification of these projects is directly related to the budget strategy taken this year in the attempt to "catch-up" for maintenance unavoidably foregone. This use of fund balances as proposed in the FY 22-23 Recommended Budget leaves policy reserves intact and is directly related to this one-year extended level of capital spending.

As we look beyond FY 22-23 into the five-year CIP plan, it becomes apparent that the level of CIP expenditures proposed this year cannot be maintained in the long term. Although the five-year plan does its job in articulating the physical project needs it also tells us that the City is faced with more capital needs than it can

afford. This is true even if capacity resources are at full strength. Hence, priorities and limits will need to be set in navigating a sound fiscal plan in the longer term.

Capital Projects Fund				
Fund 301 Acccount 43008				
Strategic Priority	**Category**	**Description**	**FY 22.23 Recommended**	**Funding Source**
Grants	Streets	Paving Project -Concrete Street Repairs	$ 15,300	General Fund/RSTIP
Grants	Streets	Paving Project -Concrete Street Repairs	563,700	General Fund/Hostelry
Grants	Streets	Paving Project -Concrete Street Repairs	426,000	TAMC: Gas Tax, RMRHA
		Grants Streets	1,005,000	
Grants	Drainage	MTNP 3 Stream/Drainage Projects - Construction	25,000	Measure C (Match)
Grants	Drainage	MTNP 3 Stream/Drainage Projects - Construction	117,000	Parks Per Capita Grant
CIP Planning	Drainage	Drainage Design Bottlenecks & Spot Repairs -Design Phase II	500,000	Measure C
CIP Planning	Facilities	Facilities Component Inspections	85,000	Measure C
Public Safety	Facilities	Police Facility Renovation - Additional Scope	1,300,000	Measure C
Public Safety	Facilities	ADA Upgrades	15,000	Measure C
Resilience	Facilities	Resilience Infrastructure Pilot Design	85,000	Measure C
Resilience	Facilities	Electrical Panel Upgrade Design	75,000	Measure C
Resilience	Frst/Parks/Bch	Coastal Engineering Report	150,000	Measure C
Resilience	Frst/Parks/Bch	North Dunes Restoration/Split Rail Fence/Signage	10,000	Measure C
Resilience	Frst/Parks/Bch	North Dunes Restoration/Split Rail Fence/Signage	25,000	Donation
Resilience	IT/Planning	Public Access Property Records (Yr 2)	67,000	Measure C
Resilience	IT/Planning	HML Generator	60,000	Measure C
Resilience	IT/Planning	UPS Power Back-UP Systems	20,000	Measure C
Deferred Maint	Facilities	HML Exterior and Interior Painting	200,000	Measure C
Deferred Maint	Facilities	HML Carpet Replacement	100,000	Measure C
Deferred Maint	Facilities	Sunset Center Haz Mat Remediation and Exterior Painting	150,000	Measure C
Deferred Maint	Facilities	Sunset Center Cottage Windows	105,000	Measure C
Deferred Maint	Facilities	City Hall Roof Replacement	100,000	Measure C
Deferred Maint	Facilities	City Hall Retaining Wall Repair	100,000	Measure C
Deferred Maint	Facilities	Vista Lobos Interior Remodel Design [New]	25,000	Measure C
Deferred Maint	Frst/Parks/Bch	Beautification Projects	25,000	Measure C
		Deferred Maintenance	805,000	
		Total	**$ 4,344,000**	

Grants:

Concrete Street Repairs: This project includes the repair of concrete street segments, including Ocean Avenue between Monte Verde Street and San Antonio Avenue, plus the intersections of Ocean Avenue at San Antonio, San Carlos Street and Fifth Avenue, San Carlos and Sixth Avenue, and a curb bulb-out and ADA ramp on the east side of Junipero Street across from Seventh Avenue. Public Works initially identified this project based on the Street Saver Pavement Management System and recommends focusing one full funding cycle strictly on concrete street repairs for cost-effectiveness. This project is partially funded by State Gas Tax and TAMC transit taxes.

Mission Trails Nature Preserve (MTNP) Stream Stability Projects – Construction: This project is the construction phase of the first three (3) of eight (8) stream restoration and erosion control measures recommended by the Mission Trail Nature Preserve Stream Stability Study. The project is largely funded by a California State Parks Per Capita Grant. In FY 2021/22, the City retained engineering and environmental consultants to design and obtain environmental permits for the project. The project will continue to be managed by the Environmental Compliance Manager.

CIP Planning:

Drainage System Repair Design, Phase II: This project, which is part of a multi-year drainage improvement program, would allocate an additional $500,000 to continue the development of drainage system improvement plans to fix the highest and moderate priority broken pipes and bottlenecks, based on the findings of the Drainage Master Plan. This funding would supplement the Drainage System Repairs – Design project carryover funds from FY 2021/22. Nearly $7.5 million will be needed to complete the highest and moderate priority repairs. A request for Statements of Qualifications has been posted to hire a consultant to design this project. A PM is needed to implement this project.

Facilities Component Inspections: This project would be a follow-up to the cursory Facilities Assessment conducted in 2013 and would include ASTM E 2018-5 or similar property condition assessments for City Hall, Fire Station, Public Works, and Vista Lobos facilities by qualified engineers and architects. Reports would include detailed specifics on building infrastructure along with any noted deficiencies and their associated estimated costs. A project manager is needed to implement this project.

Public Safety:

Police Renovation Additional Scope: The additional cost for the expanded project scope (beyond the $2 million carryover amount), including locker room modernization, public report taking area, an Emergency Operations Center (EOC)/community meeting room, and EV charging infrastructure, would be $1.3 million. This added project scope may trigger additional code-required improvements, including a fire sprinkler system, additional ADA facilities, seismic upgrades, and/or replacement of electrical wiring. Since the scope of these additional improvements, if required, is premature to determine at this time, staff recommends that the $1.3 million budget be maintained. As the design proceeds the could evolve into two phases, with the first phase of the project as previously bid (with minor updates) and a second phase to include the new EOC, locker rooms, report taking area, EV charging station, and any code-triggered, building-wide upgrades. An architectural consultant has been evaluating these changes and developing budgetary cost estimates for the City's benefit, but they are not yet under contract to commence work. A PM is needed to recommence this increasingly complex, but urgently needed project.

ADA Upgrades, Year 5: Funding should continue to be programmed each year to demonstrate good faith efforts to address disability obstacles across the City. Year 5 would continue with in-house and vendor upgrades to water fountains, bathroom facilities, signage, and railings as specified in the ADA Transition Plan. A budget of $15,000 is recommended and this program will continue to be managed by the Facilities Maintenance Supervisor.

Resilience:

Resilience Infrastructure Pilot Project Planning and Design: In accordance with the recommendations of the Climate Adaptation Plan, this pilot project involves developing a feasibility analysis and engineering plans for sustainable backup power to provide continued operations of critical facilities at the Police, Public Works, and Youth Center community emergency hub, and potentially tie in the Vista Lobos facility, in the event of an extended power outage. Currently, the first three buildings are backed up by an above-ground diesel powered backup generator. However, diesel may become more difficult to obtain in extended emergencies, and health and safety regulations may make the above ground tanks an environmental liability into the future. This project will need to be coordinated with the electrical panel upgrades proposed at some of these locations (as described in the project below), and it may be beneficial to combine the project using one consultant and one PM. Additionally, the Police Building being a mission critical facility, may require a combination of an alternative energy backup system with that of a conventional generator backup system to avert power interruptions that would otherwise have a severe impact on operations. This project could be expanded at some point to include City Hall and/or other City buildings. Grants may partially cover the cost of implementation. The budget for this

first planning and design phase of the project is $85,000. A request for Statements of Qualifications has been posted to hire a consultant to design this project. A PM is needed to implement this project.

Electrical Panel Upgrades for City Hall, Public Works, Sunset Center, and Vista Lobos Facilities: Despite some reduced loads on existing electrical panels due to the installation of numerous LED lights and energy-efficient HVAC equipment over the past few years, electrical panels at these facilities are at capacity and in some cases, circuits trip with small additional loads. Upgrades are necessary for these facilities to accommodate more computer equipment, increased staffing, new/additional electric vehicle chargers to allow the progressive replacement of the existing fleet with electric vehicles, and to accommodate future needs. The PG&E power conductors to these electrical panels may also need to be enlarged to handle the higher projected loads. Before the panels can be upgraded, a study is necessary to determine: a) the existing electrical capacity available at each location, b) PG&E and building code requirements, and c) current and anticipated future electrical loads. The cost to perform such a study along with PG&E's design review cost of $5k per site is estimated to be $75,000. A request for Statements of Qualifications has been posted to hire a consultant to evaluate this project. A PM is needed to implement this project.

Sea Level Rise/Coastal Engineering Report: This report has been identified by the Climate Committee as a critical document for sea level rise resilience planning. This report will ensure the City has the information and tools necessary to make decisions related to the long-term durability and maintenance needs of our coastal resources and infrastructure. For efficiency, this project would be combined with the Beach Sand Survey and Wall Inspections project, a FY 2021/22 carry-over project. A consultant would be needed with an estimated fee of $150,000. Staff is researching whether grant opportunities can be leveraged to fund this project. A request for Statements of Qualifications has been posted to hire a consultant to execute this, and many other projects. The Environmental Compliance Manager will manage this project.

North Dunes Habitat Restoration Project (Year 7): Significant habitat improvements have been made at the North Dunes in recent years by removing invasive trees, non-native plants, ice plant, planting native dune vegetation, installing post and cable fencing, and other restoration actions. The progress on the restoration project should be maintained by continuing to fund restoration activities and biological monitoring and reporting. The cost to maintain restoration activities and monitoring is $10,000. Staff will seek grant funding, donations, and/or additional volunteer labor donations to continue additional enhancements, including new interpretive signage and/or split rail border fencing. The Environmental Compliance Manager will continue to manage this project.

Public Access Property Records and GIS (Phase 2): The Community Planning and Building Department retained a consultant in FY2021/22 to digitize the City's vast property files, to link those records to the City's existing online GIS portal, and to incorporate additional data layers into the GIS. The project was split into two years with $66,250 budgeted in FY 2021/22, and $67,000 proposed for FY 2022/23 to complete the project. Once complete, this project will significantly increase public access to the City's property records while reducing staff time spent on fulfilling records requests. The Community Planning and Building Director will continue to manage this project.

Backup Generator at the Harrison Memorial Library: Preliminary quotes were received for a new generator to predominantly backup the IT servers and essential equipment in the lower level of the library. This has proven to be a tricky project as there is limited outdoor space available for the generator, which has restricted progress to date. The quotes were under $60,000. It is recommended that the implementation of this project be conducted in coordination with the Resilience Infrastructure Planning and Design Project and managed by the same PM.

Uninterrupted Power Supply System: An estimate of $20,000 is needed to protect our computer systems and secure the City's data from power disruptions. The IT Manager will manage this project.

Deferred Maintenance:

Harrison Memorial Library Exterior and Interior Painting: This project and the following project (carpet replacement) for the Harrison Memorial Library could be considered a "package deal." A City investment of $100,000 to paint the exterior of the library, $100,000 to paint the interior, (combined $200,000) and another $100,000 to replace all of the carpeting, would satisfy the City's deferred and ongoing maintenance obligation for this historic building. This $300,000 total investment by the City would likely leverage significant private donations to the library for extensive interior renovations, including shelving, furniture, lighting, and other upgrades. A request for Statements of Qualifications has been posted to hire a consultant to design this project. A PM is needed for this project.

Harrison Memorial Library Carpet Replacement: This project, along with the interior and exterior painting project described above, would satisfy the City's ongoing maintenance obligation for this historic building. The carpet replacement cost estimate is $100,000. This project should not commence until the FY 2021/22 carry-over Libraries Master Plan project is completed so that no carpeting will have to be redone for any proposed remodels. However, the carpet specifications should be prepared concurrently during the design of the exterior and interior painting project above. The PM assigned to the painting project will also oversee this carpet replacement project.

Sunset Center Hazardous Materials Remediation and Exterior Painting: The exterior of Sunset Center has not been painted in many decades. As part of a recently-completed FY 2021/22 project, paint and window casing samples were tested for hazardous materials. Hazardous material remediation and repair of some of the windows was planned for FY 2021/22; however, the funding was re-appropriated for an emergency replacement of the HVAC Controller necessary for the continued operation of the theatre facilities. Asbestos was noted in only a few locations; however, lead was present in the paint in nearly all cases. Without further testing, we can no longer assume that the lead paint can be encapsulated in place, rather costlier remediation/ removal of the existing paint will likely be necessary prior to new painting. This project cost would include hiring a consultant to prepare performance specifications for the lead remediation and exterior painting, and hiring a contractor to do the remediation and painting in the field. It is premature to determine the extent to which the proposed budget of $150,000 will go, but future phases may be necessary. A request for Statements of Qualifications has been posted to hire a consultant to design this project. A PM is needed to implement this project.

Sunset Center Cottage Window Repairs: This project is a companion project to the Sunset Center Hazardous Materials Remediation and Exterior Painting Project above. This project would be to remediate asbestos and lead paint around the windows of the Sunset Center Cottages, and repair or replace the imminently-failing windows. Consultant-prepared performance specifications prepared for the above project, and the PM for the above project, should also perform these services for this related project, for efficiency. The project cost estimate for the Cottage Windows is $105,000.

City Hall Roof Replacement: The City Hall roof was last replaced in 1984 and is approximately 15-years past its warranty. Roof leaks have been increasing and repaired by contractors, or staff, over the past few years as the roof progressively deteriorates. Based on a budgetary quote, the cost for this project is $100,000. A PM is needed for this project.

City Hall Retaining Wall Emergency Repair: This new, unanticipated project is identified as a high-priority emergency repair for the planter retaining wall on the south side of the City Hall building. The planter retaining wall not only supports the planter box but is also a structural element of the building wall and foundation. A structural repair plan is underway, but the cost for this project is unknown at this time. At this time, $100,000 is recommended for repairs. The project design is being overseen by the Building Official, and a PM will be needed for bidding and construction of this project.

Vista Lobos Interior Remodel Design: Several City departments have severe shortages of suitable workspace for existing staff, let alone new recruits. This proposed project would involve designing the remodel of the community room at Vista Lobos to be converted into staff workspaces (modular offices) after renovation,

if funded in the subsequent FY 2023/24. Due to the urgent need of office space, this remodel would be limited to just the community room and kitchenette area, not the entire building. The community room needs new insulation, interior lighting, HVAC system, partition walls and door for a small meeting room, sheetrock, and painting. The main roof support beams may need to be structurally tied to the support columns. The cost to design this limited remodel is estimated to be $25,000. A request for Statements of Qualifications has been posted to hire a consultant to design this project. A PM is needed to implement this project.

Beautification Projects: The City has been working collaboratively for years with several community organizations such as Carmel Cares, Friends of the Forest, Friends of Mission Trail Nature Preserve, the Garden Club, and others to rectify deferred landscape maintenance and improve and beautify public spaces throughout the City. The purpose of this $25,000 project would be fund and provide materials and supplies, and potentially limited contracted landscape services, to support beautification projects and similar, volunteer-led efforts across the City. This Beautification Project will be managed by the City Forester supported by the Volunteer Coordinator.

Key Projects and Funding Needs for the Subsequent Four (4) Fiscal Years, to be included as an Exhibit in the Budget as a 5-year Capital Improvement Plan (CIP)

A preliminary 5-year Capital Improvement Plan has been developed. Although only the first fiscal year (2022/23) would be funded as part of the City Budget, the remaining years serve as a planning tool to identify, well in advance, anticipated future projects. The 5-year CIP is a “snap shot” in time of anticipated needs for future infrastructure revitalization funding in the outer years.

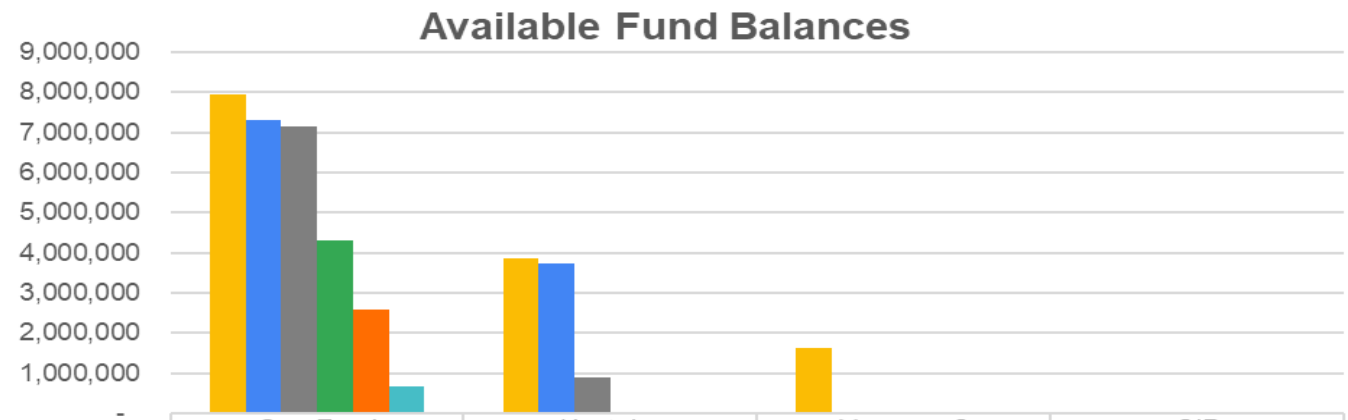
As a dynamic planning document, the CIP for Years 2-5 is subject to change as updated information becomes available. Staff suggests that this year, should this 5-Year CIP be accepted by Council, staff could post this document on the City’s website.

The following are major projects, by asset category, and ballpark budget estimates (including probable grants), for Years 2-5:

- **Drainage:** pipe repairs, bottleneck reconfigurations, outfall repairs, and CDS design = $1.8 million
- **Streets:** paving, sidewalk repairs, parking lot repairs, and bike routes = $4.0 million
- **Facilities:** building repairs, renovations, resilience upgrades, equipment replacement = $3.9 million
- **Forest, Parks, Beach:** beach wall stabilizations, MTNP and N. Dunes projects = $1.8 million
- **Fleet:** outdated heavy equipment and vehicle replacements, electric vehicles = $1.2 million
- **Environmental:** climate change improvements, program development = $195k
- **IT:** equipment replacements, security upgrades, PD records, and GIS expansion = $430k
- **Libraries:** renovations per master plan, roof replacement = $600k

The grand total estimate of $13.9 million (the four-year term yr. 2 through yr. 5) clearly exceeds anticipated revenues and fund balance availability for projects in those future years. Since the noted infrastructure above will not repair itself and will simply continue to decline without adequate funding, additional revenue should be evaluated. **Table 3** below, developed from a financial forecast, graphically represents how the Five-Year CIP would significantly draw upon available fund balances assuming the identified level of capital expenditures progress without alternative funding sources. Although important policy reserves would be preserved, the City would deplete its fund balance cushion taking away its ability to be nimble in the face of uncertainty and economic recession or crisis.

Table 3: Five Year Budget/CIP Fiscal Forecast



	Gen Fund	Hostelry	Measure C	CIP
2021-2022	7,958,503	3,860,358	1,635,906	-
2022-2023	7,310,897	3,727,058	-	-
2023-2024	7,135,887	902,383	-	-
2024-2025	4,297,498	-	-	-
2025-2026	2,590,756	-	-	-
2025-2026	664,336	-	-	-

* This chart assumes the execution of all capital expenditures (Over $19 million in the five-year term including FY 22-23) as outlined in the five-year CIP as the budget progresses with normalized revenue growth and operating cost parameters being closely controlled at prudent levels. This presumes the non-occurrence of another COVID or COVID like event and a steady state economy. This also presumes no additionally added revenue sources and/or debt financing.

DEBT SERVICE (FUND 401)

Description: Fund 401

Debt service includes payments for the Next Generation Radio Project, the Sunset Center, and the Pension Obligation bonds. These payments total $878,000 as shown in Table 1, *FY 22-23 Debt Service*, below.

Countywide Radio Project: On April 7, 2009, City Council authorized the City's participation in the Countywide Monterey County Next Generation Radio project (NGEN), including approving a pro-rata share of infrastructure costs and debt financing. The purpose of the project was to enhance communication among public safety agencies. The Certificate of Participation (COP), issued for $381,440, matures on June 30, 2023.

2020 Refunding Lease Revenue Bonds: On September 10, 2010, City Council approved the issuance and sale of certificates to finance improvements at the Sunset Center (the Sunset Theater Project), including the refinancing of the City's lease payment obligation related to the preliminary financing of the Sunset Center (the 2010 Refunding Lease Revenue Bond). The COP of approximately $7.6 million included a maturity date of November 1, 2031. On September 3, 2020, the Public Improvement Authority and City Council determined that a refunding of the 2010 Bond was in the City's best interest to take advantage of historically low interest rates and to achieve cash flow savings in light of the economic impact of COVID-19 on the City's revenues. The 2020 Refunding Lease Revenue Bond of approximately $3.9 million matures on November 1, 2032. As part of the refinancing, the City will make significantly lower interest only payments in FY 22-23; however, payments will increase to approximately $500,000 annually beginning in FY 23-24.

2012 Taxable Pension Obligation Bonds: In 2003, the City's pension plans were pooled with other small cities and agencies and the California Public Employees Retirement System (CalPERS) estimated that the pension liabilities of the City's two pension plans exceeded the plans' assets by approximately $6 million. CalPERS sought to realign assets with liabilities and created the "side fund." On July 3, 2012, the City Council authorized the issuance of pension obligation bonds to refinance the City's side fund obligations to CalPERS, The COP of approximately $6.3 million matures on June 1, 2023.

Table 1: **FY 22-23 City Total Debt Service**

Debt Service: Total				
Account Number	**Account Description**	**FY21-22 Amended Budget**	**FY21-22 Estimated Actual**	**FY22-23 Recommended**
401-411-00-44001	Principal	$677,110	$677,110	$696,423
401-411-00-44002	Interest	200,546	200,546	176,880
401-411-00-44003	Administrative Fees	5,000	5,000	5,000
	Total	**$882,656**	**$882,656**	**$878,303**

Table 2: FY 22-23 Debt Service by Bond

Debt Service: by Bond				
Bond	**Principal**	**Interest**	**Admin. Fee**	**Total**
NGEN Radio	$16,423	$0	$0	$16,423
Sunset Center	-	155,800	2,500	158,300
Pension Obligation	680,000	21,080	2,500	703,580
Total	**$696,423**	**$176,880**	**$5,000**	**$878,303**

Funding Sources

General Fund revenues are the source of funding for debt service payments. The General Fund (Fund 101) will transfer $878,000 to Debt Service (Fund 401) in FY 22-23.

OTHER FUNDS

Description

The City uses a fund accounting structure, which is an accounting structure to record and track resources that are limited in use by law or governing agency. The major governmental funds are the General Fund, Measure D and Capital Projects. The first set of funds listed below are discretionary, meaning there are no legal or policy-related restrictions on their use and can be used at the discretion of Council for services and projects.

General Fund (Fund 101)

Most of the City's revenues and the expenditure budgets for City services and daily governmental operations are housed within the General Fund (Fund 101) and this is where the majority of the City's financial activity occurs. The major revenue sources associated with the General Fund include property tax, the City's share of the statewide sales and use tax, charges for services, franchise fees, business tax, and intergovernmental revenue. These revenues are considered to be general in nature. Throughout this budget document the GeneralFund is also referred to as the Operating Budget and City policy recommends a 15% Reserve.

Hostelry Fund (102)

This fund is used to account for the transient occupancy tax and is intended to fund the portion of the municipal budget covering community and cultural and recreation activities including but not limited to Sunset Center and the Forest Theater, parks, public facilities and municipal structures, and parking lots; acquisition and improvement of parks, recreation land and other municipal purposes as determined from time to time by the City Council; provided, that all such uses shall be in accordance with the General Plan of the City and General Fund for usual and current expenses. City financial policy recommends a reserve of 10% of revenues.

Measure C Sales Tax (Fund 206)

Carmel voters approved a temporary (10 year) 1% increase in the transactions and use tax in 2012 known as Measure D. On March 3, 2020, voters approved Measure C, which increases the tax to 1.5% for 20 years. Measure C may be used for debt service, capital projects and general City services.

The next set of funds are restricted as there are requirements prescribed by the local, state or federal governmental agencies regarding how these funds may be used.

Gas Tax (Fund 201)

This fund is used to account for revenues collected in accordance with California Streets and Highway Code.

Transportation Safety (Fund 202)

Measure X, a 30 year 3/8 of one-percent transactions and use tax, was passed by the voters in November 2016 to fund transportation safety and mobility projects in Monterey County. This fund accounts for the expenditures for eligible transportation safety projects.

COPS Grant

This fund accounts for the expenditures for the Department of Justice Community Oriented Policing Services (COPS) grant for public safety. This fund transfers into the General Fund for the Police Department budget.

Parking in Lieu (Fund 204)

This fund is used to account for activities associated with parking in-lieu fees as prescribed by Carmel Municipal Code Section 17.38.040.

Asset Seizure (Fund 205)

This fund accounts for expenditures related to asset seizures.

The next two funds pertain to certain types of expenditures.

Capital Projects (Fund 301)

This fund accounts for resources utilized, committed, assigned or restricted for capital projects.

Debt Service (Fund 401)

This fund accounts for activities related to the repayment of the Certificate of Participation, Pension Obligation Bond and capital lease obligations.

The next set of funds are considered to be internal service funds.

Workers Compensation (Fund 501)

This fund accounts for workers' compensation insurance provided to departments on a cost reimbursement basis.

Other Post-Employment Benefits (OPEB) Liability Reserve Fund

This fund accounts for other post-employment benefits.

Vehicle and Equipment Replacement Fund

This fund is to set aside financial resources for future purchases of replacement equipment essential to the operations of the City.

There is one agency fund.

Refundable Deposits

This fund accounts for monies received that are unearned and required to be returned by the City.

The accompanying tables depicts the Projected Fund Balance for FY 21-22 and FY 22-23.

General Fund

The General Fund is estimated to start FY 22-23 with a fund balance of $11.3 million and end with $11.3 million on June 30, 2023 due to the General Fund budget being balanced with the use of estimated new revenue and transfers in from other funds, such as the Hostelry Fund. Fund balance is the accumulation of prior years' savings and may also be considered a "rainy day fund". Carmel Municipal Code Section 3.06.040 states that the City shall maintain a General Fund balance equivalent to at least 15% of the General Fund budget in each fiscal year and this is referred to as the reserve. A reserve may be considered as a minimum amount of savings that the City has available for emergency or other purposes.

Hostelry Fund

FY 22-23 assumes $6.7 million in new revenue that will be transferred to the General Fund to support citywide operations.

Gas Tax (Fund 201)

Revenue of $209,2001 is anticipated in FY 22-23 to be transferred to Capital Projects for street paving.

Transportation Safety (Fund 202)

Revenue of $201,100 is anticipated in FY 22-23 to be transferred to Capital Projects for street paving.

COPS Grant

Revenue of $158,000 is anticipated in FY 22-23 and will be transferred to the General Fund for Police Department salaries for eligible positions.

Parking in Lieu (Fund 204)

There is no activity budgeted in this fund for FY 22-23.

Asset Seizure (Fund 205)

There is no activity budgeted in this fund for FY22-23.

Measure C Sales Tax (Fund 206)

Measure C has a projected fund balance of $1.6 million as of 7/1/22. The FY 22-23 projected revenue of $5.7 million will be transferred to the General Fund ($ 3.5 million), Capital Improvement Projects ($3.6 million), and Vehicle & Equipment Replacement ($285,000) There is no reserve requirement for Measure C.

Capital Projects (Fund 301)

This fund is projected to start and end FY 22-23 with $265,487 due to anticipated activity being covered by new revenue and transfers in.

Debt Service (Fund 401)

The FY 22-23 debt service activity is $878,000. Additional details on the bonds is found within the debt service section of this document. This fund includes a reserve required by the Sunset Center bond.

Workers Compensation (Fund 501)

The anticipated costs of claims payments, third party administrator services, and preventative costs are reflected in this fund. Previously, these expenses were accounted for in the General Fund. Based upon the auditor recommendation, they will be accounted for in this fund.

Other Post-Employment Benefits (OPEB) Liability Reserve Fund

This fund was created by Council resolution to set aside funding to address OPEB liabilities. There is no reserve requirement. There is $1.8 million in the fund and no planned activity for FY 22-23.

Vehicle and Equipment Replacement Fund

The planned activity in this fund for FY 22-23 in the amount of $685,000 will be covered by new revenue and transfers in.

Projected Fund Balance June 30, 2022

Fund	Description	Audited Fund Balance June 2021	Revenue and Transfers In	Expenditures and Transfers Out		Proposed Fund Balance June 2022	Change in Fund Balance
101	General Fund	5,556,178	25,588,779	23,186,184		7,958,773	2,402,595
101	General Fund Reserve	3,198,332	120,698	-		3,319,030	120,698
101	General Fund Total	**8,754,510**	**25,709,477**	**23,186,184**		**11,277,803**	**2,523,293**
102	Hostelry	3,326,958	6,972,100	6,438,700		3,860,358	533,400
102	Hostelry Reserve	533,400	-	-		533,400	
102	Hostelry Total	**3,860,358**	**6,972,100**	**6,438,700**		**4,393,758**	
201	Gas Tax	212,823	167,400	306,564		73,659	(139,164)
202	Transportation Safety	237,709	250,600	319,000		169,309	(68,400)
203	COPS	55,866	154,600	154,600		55,866	-
204	Parking in Lieu	737,124	-	-		737,124	-
205	Asset Seizure	5,455	-	-		5,455	-
206	Local Measure Sales Tax	1,635,906	5,698,200	5,698,200		1,635,906	-
301	Capital Projects	539,863	2,953,676	3,228,052	*	265,487	(274,376)
401	Debt Service	393,133	882,656	882,656		393,133	-
501	Worker's Comp	(20,344)	68,144	47,800		-	20,344
502	OPEB Reserve	1,845,329	-	-		1,845,329	-
503	Veh & Eq Replacement	61,329	766,671	554,000	*	274,000	212,671
		18,319,061	**43,623,524**	**40,815,756**		**21,126,829**	**2,807,768**

* Includes carry-over projects

Proposed Fund Balance June 30, 2023

Fund	Description	Estimated Fund Balance June 2022	Revenue and Transfers In	Expenditures and Transfers Out	Proposed Fund Balance June 2022	Change in Fund Balance
101	General Fund	7,958,503	26,299,750	26,950,209	7,308,044	(650,459)
101	General Fund Reserve	3,319,300	650,459		3,969,759	650,459
101	**General Fund Total**	**11,277,803**	**26,950,209**	**26,950,209**	**11,277,803**	**-**
102	Hostelry	3,860,358	6,533,700	6,667,000	3,727,058	(133,300)
102	Hostelry Reserve	533,400	133,300		666,700	133,300
102	**Hostelry Total**	**3,860,358**	**6,667,000**	**6,667,000**	**4,393,758**	**-**
201	Gas Tax	73,659	209,200	209,200	73,659	-
202	Transportation Safety	169,309	202,100	202,100	169,309	-
203	COPS	55,866	158,000	158,000	55,866	-
204	Parking in Lieu	737,124	-	-	737,124	-
205	Asset Seizure	5,455	-	-	5,455	-
206	Local Measure Sales Tax	1,635,906	5,721,000	7,356,906	-	(1,635,906)
301	Capital Projects	265,487	4,282,697	4,344,000	204,184	(61,303)
401	Debt Service	393,133	485,170	878,303	-	(393,133)
501	Worker's Comp	-	148,160	148,160	-	-
502	OPEB Reserve	1,845,329	-	-	1,845,329	-
503	Veh & Eq Replacement	274,000	680,000	685,000	269,000	(5,000)
		21,126,829	**45,503,536**	**47,598,878**	**19,031,487**	**(2,095,342)**

City of Carmel-by-the-Sea
FY22-23
Budget Questions and Responses

1. **Question/Comment:** Did we include funding for the pedestrian and bike improvements (design and build) for Ocean Avenue in the budget estimate for the concrete streets work?

   Response: The project funding amount is based on the City's required Maintenance of Effort (minimum City funds) plus all anticipated external funding sources. Bicycle and pedestrian pathway options along Ocean are being explored. If we do install said pathway, there would be less funds to repair San Carlos Street, between Fifth and Sixth Avenues; however, all of the funds would qualify to install the bike improvements.

2. **Question/Comment:** Where are the fees for the Norton Garage, and why aren't they included in the fee table?

   Response: In the upcoming year staff intend to refresh the cost of services study in line with City fiscal policy. That will be an opportune time to also bring, independent of the attached User Fee schedules, other fees the City charges, such as facility rental fees, and parking (contractor parking permits, tour bus parking, and Norton Garage rental). Regarding the Norton Garage, fees were increased various times in recent years, in 2019 to $375/Qtr, in 2020 to $400/qtr and most recently in June 2021 to $500/Qtr. At the present time all parking spots are full and a waiting list of eleven (11) interested parties is on file.

3. **Question/Comment:** Why aren't the CC priorities included as part of the Council Priorities narrative for 2022-23?

   Response: The FY22-23 Recommended Budget book will be updated for the June 7 budget hearings, inclusive of including the sixteen CC strategic priorities.

4. **Question/Comment:** Is the new continuance fee only based on an applicant's request? What's the difference between a continuance fee and a time extension fee?

   Response: As documented in the Cost of services Study performed by the City in 2015 and updated in 2020, a time extension fee has to do with the review of a time extension request by an applicant to extend the life of a permit at the Planning Commission or City Council. A continuance fee deals with the additional processing of a public hearing that is continued to a future date at the request of the applicant.

5. **Question/Comment:** What happened to the Director of Contracts and Budgets?

   Response: The position was replaced with the revised Finance Manager position as approved at the City Council meeting on April 4, 2022. The Finance Department will be restructured with the following positions: Finance Manager, Accountant, Finance Analyst, Finance Specialist.

6. **Question/Comment:** Our latest Pine Cone (May 6-12, 2022) reported the following information about the need for repairs in our village: "*Windows are falling out of an old city-owned building that also has lead paint and asbestos. Drainage pipes are broken.*

City of Carmel-by-the-Sea
FY22-23
Budget Questions and Responses

Part of the street sweeper was fixed by welding a piece of old street sign to it. Spiders are living in electrical panels that are so old they can't support electric car chargers. City hall's 40 year old roof leaks all the time. The list goes on and on, public works director Bob Harary told the city council."

A. First of all, this an outrageous and embarrassing situation/condition for our city to be in. How on earth, have these needed repairs and projects been ignored and passed over in the budgeting process for such a long time that they have resulted in such dire need of repairs.

B. Has there been no attention paid to ongoing capital improvements, maintenance of city owned properties and necessary infrastructure repairs?

C. Does the General Plan and Strategic Plan not address and require planning for ongoing maintenance of city owned properties through a designated reserve fund?

D. And, of course, this list does not even address the dilapidated Scout House and Flanders Mansion that are continuing to deteriorate daily.

Response:

A) Comment noted.

B) Please see response to Question #7 below.

C) Every year the City issues the budget but also its audited financial report known as the ACFR (Annual Comprehensive Financial Report). Much like private companies, the audit quantifies the capital asset holdings of the City. For this past year that number totalled $65 million for the infrastructure required to make the City function. It also reports annual depreciation, the one year useful life cost, of capital as $2.1 million. In essence this number represents the dollars needed to just maintain underlying assets. It is significant to note that this dollar amount falls well below the cost of the City's identified improvement needs considering current replacement costs, identified upgrades and new initiatives. The FY 22-23 budget alone identifies $5 million in capital expenditures and another $4 million to be carried forward from the existing budget. A view of the five-year CIP beyond FY22-23 reveals average annual capital needs of $3.5 million. In a nutshell, limited funding requires balancing and prioritizing conflicting projects.

D) Flander's Mansion has a long history of efforts by the City to renovate the property. Several years ago, the City made a strong effort to enter into a curatorship with a private family to renovate Flanders Mansion, at their expense, and then enjoy rent-free living in the Mansion for a number of years after the renovation. Unfortunately, negotiations fell through due to the costs involved. The City does maintain the building and grounds, using limited available resources, to prevent further decay of the facility. However, the City has not identified funding at this time to conduct a major renovation which would allow the facility to be used regularly.

The City is currently in the process of soliciting private entities to renovate the Scout House, and the private entity's expense, and then continue to use the Scout House to manage programs and events, and to maintain the facility for a number of years following the renovation. A Request for Proposals, and proposed Maintenance of Operations Agreement, are currently being prepared for this effort.

7. **Question/Comment:** You boast a huge budget of over $30 million dollars and appear to be looking for new ways to spend the money versus strategically scheduling the necessary and ongoing expenditure needs of these deteriorating properties, replacement of equipment and setting aside reserves for future necessary expenditures such as these. What is your plan to remedy this outrageous situation?

   Response: The City has developed a five-year Capital Improvement Plan (CIP) that communicates the many infrastructure needs of the City. It is a forward looking projection of improvements needed to address both core maintenance as well as desired enhancements to infrastructure and city facilities. The scope of the CIP is quite extensive covering streets, sidewalks, buildings, drainage, public open spaces, vehicles, equipment and public safety (both police & fire) needs. It also addresses the important emerging issues of climate change and environmental stewardship. The plan purposefully presents needs first, followed by the important consideration of how so many needs can be funded.

   This year's budget message, and the CIP section of the document, make it clear that there are more capital needs than available funding. This quandary gives the rise to difficult choices in addressing what we can complete in any one year. The past three years have been particularly challenging given the unprecedented COVID event. FY19-20 saw a decline in revenues of over $2 million leading to a significant reduction in staffing and resources.In fact, capital project funding was eliminated in the early days of the pandemic.

   It is only now, with the presentation of the FY 22-23 budget, that staffing has been restored and a pattern of operational normalcy can be anticipated. It is also in the FY22-23 budget that capital projects, that were necessarily deferred, have been proposed to be attended to. They have been introduced at accelerated levels to "catch-up" for the unavoidable interruptions COVID has presented us with. Particularly, the budget proposes the use of $2.1 million in available fund balance, beyond the amount that could be funded with new-year revenue only, to specifically address the deferred maintenance needs noted in your question.

   Our City's challenges are not unlike those shared by many others, and we cannot underscore more the importance of the tremendous and timely support our community afforded the CIty in the passage of Measure C in 2020. This funding source, along with difficult cost control measures taken, is and will continue to be fiscally foundational.

8. **Question/Comment:** I am a full time resident of Carmel and I cannot understand why we now have a 30 million dollar budget but cannot open our libraries full time. 20 years ago we had a 10 million dollar budget, according to the article. Both libraries were open 6 days a week providing services for all ages. Both libraries are so important to the locals that live here. Our grandchildren come and say can we go to the library for story

hour? Well, no and let me see what time and day it might be open. We are library patrons and we are having a hard time figuring out why libraries are not a top priority.

Response: At the beginning of the pandemic there were retirements and layoffs of Library staff. This is not a matter of funds, as the City Council approved the full restoration of funding for pre-pandemic levels of Library staff in November 2021. The City has been actively recruiting for additional Library staff. As with many other sectors of the job market at the present, recruiting new staff is competitive, and this compounded with the high cost of living makes recruitments City-wide increasingly challenging.

As of the writing of this response, the Library just began the first in what will be a series of expansion of hours made possible by the fact that there is a new full-time staff member now on our team. Expansions of hours will continue to be done incrementally as additional staff are onboarded.

Libraries are of the utmost importance and we hope that the full-restoration of hours will go as quickly as possible. Despite the restricted hours we continue to strive to provide excellent service to our community. However, understanding the challenges of the job market and cost of living on the peninsula, we are prepared to observe patience as a part of this process and hope that the community will join us in this observation.

9. **Question/Comment:** We love to have a beach fire and we accept the fire pits but where are they?

   Response: Per Coastal Development Permit CDP 18-231, five (5) wood-burning fire pits will be put out on Monday, May 16th, south of Tenth Avenue. They will be removed on September 15th or sooner if the tides are high.

10. **Questions/Comment:** And now parklets are a thing of the past. Did you ever think about maybe allowing parklets for only those restaurants that didn't have an outside capability? That's a moot point now.

    Response: No. When the parklet program was implemented, it was done as a level playing field for anyone who wanted to take advantage of it. This included restaurants with and without existing outdoor space. When the decision was made to remove the parklets, it was treated the same way, so that the opportunity remained equal. When development of a permanent program begins, the analysis will involve looking at site conditions, which includes existing outdoor seating.

11. **Questions/Comment:** For the budget I would like to see the city spend on fire prevention, cleaning up overgrowth and cutting dead wood from trees and dead trees. It's been a year since dead trees here were designated for removal and they are still here. If the city could have more equipment and staff to do this rather than contract it all out. Urban fire is very scary and the drought continues.

    Response: City staff has removed dead, diseased, and hazardous trees, as well as pruned trees, for many years. In fact, over the past few years, staff has progressed from only removing and pruning small trees to now being able to perform tree work on

mid-sized trees. The City must continue to rely on tree service contractors for the very large tree removals and for removals and pruning in the vicinity of electric power lines, for which there are many, as the contractors must have a specialty license to perform this work.

Over the past few years, the City has also made significant progress in removing dead trees, weeds, dead wood, fire fuel, and invasive species in the Mission Trail Nature Preserve and in the North Dunes area. A moderate amount of work has also been done in the Forest Hill Park and around Pescadero Canyon.

In terms of budgeting, the proposed budget for FY 2022/23 recommends $497,500 for contractual tree care and landscape maintenance services, a 50% increase from the $330,000 allocated in the current fiscal year budget.

The increased potential for wildfires and extended drought as a result of climate change are of concern and have been incorporated into the City's draft Climate Action and Climate Adaptation Plans. Considerable information on these issues can be found on the City's website at: Climate Committee - City of Carmel

12. Questions/Comment: Is there at least $50,000 for the Scenic Pathway in the budget? If so, where?

Response: Yes. The $50,000 is a FY 2021/22 Capital Improvement Project which will be carried-forward into the new FY 2022/23 Capital Improvement Program. No funds have been expended to date.

13. Questions/Comment: Why are the radios for the PD in the CIP?

Response: The Capital Improvement Plan for Fiscal Year 2021/22 included the purchase of 22 new radios for the Police Department so that these radios could be tied into the regional radio communications network. To qualify as a capital purchase, the item must have a value over $10,000 and a useful life of at least ten years.

Because of the large total cost of the 22 radios, $180,000, the project is based on making payments over a six year time frame at $30,000 per year. The FY 2022/23 CIP represents the second of those payments.

14. Questions/Comment: Is the outside funding for the footbridge in Mission Trails Nature Preserve guaranteed?

Response: No. Carmel Cares initiated the work. The footbridge design work is in progress on a pro-bono basis. The City's consultant is folding in the environmental permitting for this proposed bridge with three other City and grant-funded projects in the MTNP. While the volunteers are anticipated to see this project through construction, there is no guarantee at this time.

15. Questions/Comment: Please explain the "leveraging" of additional funds for the City's required investment in the libraries (i.e. painting and carpeting).

Response: Per the Memorandum of Agreement between the City Council and the Harrison Memorial Library Board of Trustees the City will fund the interior painting and carpeting of the Harrison Memorial Library and Park Branch Library every ten years, in addition to exterior painting. The City is currently overdue for funding the interior painting and carpeting project at the Harrison Library.

The Carmel Public Library Foundation(CPLF) raises funds to support the Library's operating budget. In addition they have raised funds for additional projects, such as the Park Branch Lobby renovation, and more recently the Gathering Place project at the Harrison Library. These projects are above and beyond the City's required basic maintenance of the Library facilities (painting and carpeting, etc.) and may have never been funded by the City.

The Library Master Plan project included in the recommended Capital Improvement Plan is proposed to be funded by the City. This Master Plan will provide a blueprint for continued improvements to both Library buildings that will be funded through donations to the Carmel Public Library Foundation. It is important in order to instill confidence in donors and potential donors that the City not only uphold its part of the Memorandum of Agreement - scary pandemics notwithstanding, but that the community feels that the City has some "skin in the game" when it comes to supporting the Library.

16. Questions/Comment: Does the repaving of a portion of Ocean Avenue (the concrete portion) facilitate the opportunity for additional tree planting?

Response: Possibly.

17. Questions/Comment: What has been done to explore the opportunity for additional surveillance cameras in the City's downtown to further protect against crime?

Response: While not budgeted, we do have plans to explore expanded camera infrastructure in the downtown area. An initial cost estimate for cameras and installation is about $70,000, but the actual parameters of such a project has not been defined, so budgeting funds is not appropriate at this early stage. In the upcoming year, staff will review available technology, further specify project parameters, and obtain more accurate quotes. If appropriate at that point, we would proceed with a separate action item for the City Council to consider incorporating this additional project into the Capital Improvement Plan.

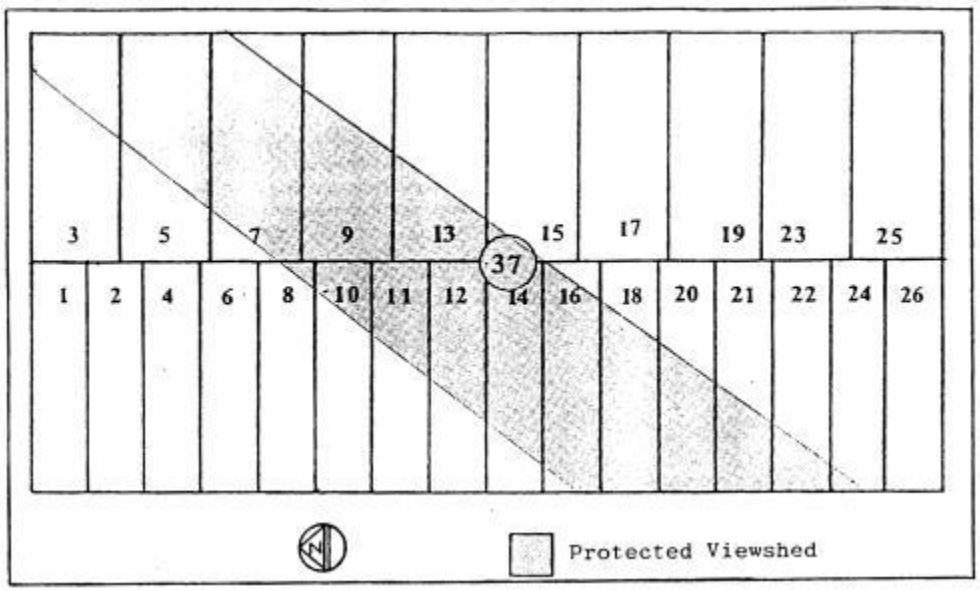
18. Question/Comment: Please define the viewshed corridor over Vista Lobos (Block 37, Lots 3 and 5).

Response: The viewshed is defined in the Zoning Code. "Block 37" is the block that contains Vista Lobos, the gas station, the public parking lot, etc.:

> **17.12.050 Preservation of Public Viewshed.**

The significant coastal view across Block 37, Lots 3, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 21, 22, and 24 within this district shall be preserved for public benefit. All site improvements or buildings approved within the R-4 district shall be studied by the Planning Commission for their effect on this viewshed. Existing views from the intersection of Torres Street and Third Avenue and from Lots 3, 5, and 7 in Block 37 zoned as district P-Z and shown on the following illustration (Figure II-7) shall be preserved. No structure shall be approved for construction and no vegetation shall be planted or maintained within the viewshed at a height that exceeds the 350-foot contour elevation as referenced on the topographic survey dated June 1983 by Clayton B. Neill Jr. (W.O. #6415).

Figure II-7: Public Viewshed



19. Question/Comment: Does the Vista Lobos parking lot provide parking for development that has paid 'parking in lieu' fees?

Response: After researching this matter, staff was unable to find a connection between the public parking spaces at Vista Lobos and any previous development that paid in lieu parking fees. If a project was proposed for Vista Lobos or the parking lot in the future, additional research would be conducted.

20. Question/Comment: Please explain the purpose of the funding for Vista Lobos design services. Why can't the City use volunteer services for this endeavor?

Response: The design of the Vista Lobos community room to be converted for modular office space and possible small conference room, could be performed by volunteers so long as the agency providing the volunteers is a 501(c)(3) corporation. The Labor Code defines a

"Volunteer" as "an individual who performs work for civic, charitable, or humanitarian reasons, for a public agency or corporation qualified under Section 501(c)(3) of the Internal Revenue Code as a tax-exempt organization, without promise, expectation, or receipt of any compensation for work performed." (Labor Code § 1720.4(a)(1).)

It may be challenging to identify a 501(c)(3) nonprofit organization that has access to volunteers with the required qualifications to perform design services for the Vista Lobos project. For example, in order to obtain required building permits, the project must have a state licensed architect, mechanical engineer, electrical engineer, structural engineer, and CASp (ADA) professional to prepare and provide sealed design plans, specifications, and calculations as necessary. The design would also need to be in compliance with all Building Codes, federal, state, regional, and City requirements and standards, and be prepared in conformance with the requirements of a Public Works project suitable for public bidding.

Since there is already a need for suitable office space for City staff, volunteers willing to provide these services should also be willing to commit to a reasonable schedule. Renovations are slated for FY 2023/24. If we are successful in obtaining these pro bono services, the $25,000 allocated in the CIP for design in the FY 2022/23 CIP budget should be rolled over for the construction phase.

21. **Question/Comment:** Please explain the City's obligations under public contracting code and our obligations to pay prevailing wages.

Response: Public Contract Code Section 1101 defines a public works contract as "an agreement for the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind." For example, because the Scout House renovations project will be a public improvement built on public land, the construction contract will be a "public works contract" under the Public Contract Code.

The expenditure of public funds for project construction typically dictates that public agencies award contracts only after having engaged in an open and fair bidding process. The requirements of competitive bidding are intended to guard against favoritism, fraud or corruption in the award of public contracts. Thus, with some exceptions, public works contracts may be awarded only after having engaged in the competitive bidding process. Statutory exceptions to competitive bidding requirements are generally available only if the dollar value of the work involved is relatively small or where the nature of the work is not suited to competitive bidding, such as professional services contracts.

Labor Code §1771 requires that workers employed on public works be paid not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed. The overall purpose of the prevailing wage law is to protect and benefit employees on public works projects.

Although California's prevailing wage laws set specific wage and hour requirements for employees working on "public works" projects defined by Labor Code §1720(a) to include construction, alteration, demolition, installation, or repair work performed under contract and paid for in whole or in part out of public funds, these wage and hour requirements do not

apply to specified work performed by a volunteer, volunteer coordinator, or a member of the California Conservation Corps or a community conservation corps. Assembly Bill 327 extended these provisions to January 1, 2024.

Specifically, Labor Code § 1720.4 provides that the prevailing wage laws do not apply to work performed by a "volunteer." However, there are additional details to these provisions which require close adherence to avoid an unintentional loss of volunteer status.

"Volunteer" is defined as "an individual who performs work for civic, charitable, or humanitarian reasons, for a public agency or corporation qualified under Section 501(c)(3) of the Internal Revenue Code as a tax-exempt organization, without promise, expectation, or receipt of any compensation for work performed." (Labor Code § 1720.4(a)(1).) The exclusion does not apply to work performed by anyone other than those persons specifically falling within the definition.

The obligation to pay prevailing wages also does not apply to private works in which no public monies are expended. Using the example above, even if the Boy Scouts pay for some of the renovations to the Scout House, and do not perform all renovations using volunteer labor, so long as no public monies are expended on the renovations, the project will not be subject to the payment of prevailing wages since the Labor Code obligation only applies to projects on which more than $1,000 of public funds are spent.

22. Question/Comment: Is there funding for the Scenic Road Pathway and what is for?

Response:Yes, there is limited City funding, but there are several upgrades planned along the Scenic Road Pathway for FY 2022/23.

First, Public Works is currently in the process of hiring a contractor to repair the irrigation system controller and clock for $4,959 using operating budget remaining for FY 2021/22.

Second, $50,000 of unspent Capital Improvement Program funds from FY 2021/22 will be carried forward into FY 2022/23 to fund a portion of the Scenic Road Pathway Barrier Rail Project. Carmel Cares has also expressed interest in replacing portions of the deteriorated Barrier Rails, and, in fact, has already installed a few, temporary post and cable railings at a few locations for public safety purposes. As noted in Question 22, if City funds are commingled with private donations, a combined single barrier rail replacement project would be subject to all State of California requirements for a Public Works Project including payment of prevailing wages to the selected contractor(s).

In addition, Carmel Cares, under guidance by the Public Works Department, has done an incredible job renovating nearly all aspects of the Scenic Road Pathway over the past two years. Work has included removal of weeds and invasive plants, pruning overgrowth, watering, raking, sweeping, fine grading, exposing the wooden pathway borders, repairing

stonework and stairs, raising some stone walls, cleaning out trash enclosures, removing graffiti and illegal stickers, cleaning up the signage, and much more.

Active and upcoming projects along the Pathway by Carmel Cares include installing upgraded signage at each trash enclosure in wooden frames, and upgrading edging along the planted islands adjacent to the Pathway with larger stones, subject to approval by the Forest and Beach Commission. Plans are also in the works to work with staff on changing the signage along the Pathway that may be more effective in increasing compliance with beach fires only in the fire pits restrictions.

23. Question/Comment: Please explain the City's philosophy regarding opportunities for traffic calming and tree planting when road resurfacing occurs. Also, how does the City address pedestrian and bicycle safety improvements when resurfacing roadways?

Response: Since the City's asphalt and concrete street pavements are among the most valuable public infrastructure assets, the majority of our annual road resurfacing funding has been allocated for rehabilitation of the pavements based on optimizing public funds by the Pavement Management System. That said, over the past five years, the following issues have been considered during implementation of these projects:

- Traffic Calming Improvements. As often discussed by the Traffic Safety Committee, perceptions of speeding around the City do not match actual radar speed studies that find that the 85 percentile of traffic speeds falls below the (typical) 25 mph speed limits. However, based on accident data and sight visibility concerns, over the past five years, we added new STOP signs where approved by Council, including at Mission and Ninth, Mission and Fourth, and upcoming Junipero at Seventh). Also, new SLOW signs were installed on Santa Lucia and Monte Verde, fog lines were placed along Junipero, and pedestrian crosswalk ahead signs were installed on Rio Road.

  Another traffic calming measure could be to add curb bulb outs at arterial intersections, especially where there are crosswalks. However, bulb outs are costly, and most of Carmel's streets are too narrow to include bulb outs. Also, the Police and Public Works Departments do not recommend installing other traffic calming devices such as speed humps or speed bumps anywhere in Carmel.

- Pedestrian Improvements. Some roadway projects have included new crosswalks and restriping of existing crosswalks, Americans with Disabilities Act ramps at intersection corners, repairs to adjacent uneven sidewalks, and some new speed limit and stop signs to enhance pedestrian safety. These improvements are noteworthy from the Ocean Avenue Paving Project completed a few years ago. However, many other roadway resurfacing projects are completed along narrow, residential streets that do not abut sidewalks or defined pedestrian paths of travel.

- Bicycle Safety Improvements. The City's General Plan Circulation Element includes Figure 2.2 (attached) which identifies those streets which are slated for bicycle improvements. None of these streets were resurfaced over the past five years, with three notable exceptions.

First, both San Antonio, from Second to Fourth, as well as Camino del Monte, from Fourth to Junipero, are included in the Bicycle Routes included in the General Plan's Circulation Element. These street segments were resurfaced several years ago by PG&E as mitigation for their new gas line installation. The City successfully pushed PG&E to pave both sides of these streets to mitigate impacts. While the pavement was new, PG&E was not receptive to including bike route improvements since they were not existing at the time of their project.

Second, we are about to advertise for bids for the FY 21 Annual Pavement Resurfacing Project which includes resurfacing San Carlos Street from Eighth to Thirteenth Avenues. This project will include the City's first bicycle route along this road segment. This location is also ideal as it is the City's "center hub" for future bike route extensions.

Third, the upcoming FY 2022/23 Annual Street Project will focus on concrete street repairs, including along Ocean Avenue, between Monte Verde and San Antonio. Preliminary sketches indicate that bike and pedestrian improvements can be included along this road segment - not within the vehicle lanes but along the sidewalk(s). During the design phase, upgrading pedestrian and bicycle improvements along this segment may require an Amendment to the Circulation Element, modifications at the intersections with residential streets, and the possible loss of parking spaces.

- Tree Plantings. Please see Question #26 below.

24. Question/Comment: Please identify the specific amounts of funding earmarked for fire fuel load reduction, and where it will be spent. Also, please identify the specific amounts of funding earmarked for downtown beautification, weeding, and invasives removal.

Response: The Public Works/Forestry operations budget for FY 2022/23 includes the following funding allocations for fire fuel reduction, weeding, invasives removal, and downtown beautification:

- $150,000 for removal of dead, hazardous, and diseased trees and stumps by tree contractors, City-wide. Dead and hazardous trees can burn quickly or fall onto power lines during high winds potentially sparking flames.

- $150,000 for pruning by contractors, City-wide. While pruning is associated with the health and structural shape of the tree, pruning is also considered a fire fuel reduction method as well as a beautification method.

- $125,000 for contracted landscape services at multiple parks, around City buildings, and in open space areas. These services include weed abatement, mowing, minor pruning, and clearing of dead brush.

- $20,000 for contracted weed abatement, typically spent for Forest Hill Park, MTNP, Pescadero Canyon, upper and lower portions of Ocean Avenue, and/or other open space areas.

- $25,000 for downtown beautification (Capital Improvement Project). This funding is intended to improve the aesthetics of downtown and could be used for tree planting, tree

well upgrades, additional landscape and hardscape materials to supplement the Ocean Avenue Median Island Landscaping project, materials to provide to volunteer groups for them to help us beautify downtown parks and streetscapes, etc.

In addition to funds for contracted services and to support volunteers, we have a four member forestry crew who also perform dead tree removals and prunings, weeding, mowing, invasive removals, overgrowth/visibility pruning, and beautification projects throughout the City. Due to their flexibility in quickly addressing urgent needs and cost-effectiveness, it has been our practice to utilize in-house staff crews to the maximum extent prior to utilizing contracted services.

Carmel Cares has been performing a significant amount of weeding, pruning, invasive plant removals, and fire fuel reduction in their project areas, specifically along the Scenic Pathway and beach bluffs, in the Forest Theater, Devendorf Park, Fourth Avenue drainage way and boardwalk, and around the grounds at Sunset Center and the Park Branch Library. Their successful Median Minders community engagement program has also been instrumental in removal of weeds and invasive plants in many median islands.

The Friends of Mission Trails Nature Preserve, Master Gardeners, and their Weedies program have supplemented grant-funded invasive plant removals and fire fuel reduction in the MTNP for years. Additionally, several volunteer groups have removed weeds and invasive plants in the North Dunes Habitat Restoration Area, and the Garden Club keeps the gardens at the Harrison Memorial Library, City Hall, and Piccadilly Park free of weeds and invasive plants.

Finally, the possibility of using goats for fire fuel reduction and weed eradication has been considered multiple times in Pescadero Canyon and in the MTNP. Unfortunately, we have been unable to find a single vendor who would be willing to provide goats for the steep southerly slope of Pescadero Canyon.

While there are flatter areas in MTNP, there are a number of logistical obstacles including sensitive habitats and endangered species such Yadon's piperia and Hickman's onion. Our MTNP biologist recommended against using goats in any area of the MTNP with the exception of the meadow behind Flander's Mansion. However, the goat vendors stated that the meadow is too small to justify goats, so, instead, we mow the meadow at least annually to reduce fire fuel.

25. Question/Comment: Please identify the specific amounts of funding earmarked for tree planting.

Response:

- The FY 2022/23 operating budget for Forestry includes $15,000 for new trees. The average cost for new trees in the right-of-way, with soil amendments, stakes, and watering for the first year of the 3 to 5 year tree establishment period, is $150. This would allow for planting of up to 100 new trees.

- The $150k Cal Fire Grant, plus the City's $20k match, for the Forest Management Plan (FMP) includes planting 108 new trees. It is unknown at this time if all, some, or none of those 108 trees will be planted during FY 2022/23, but it will certainly be part of community participation during development of the FMP. The FMP will also complete the much-needed, City-wide tree inventory, identify locations for new plantings in priority order, and recommend species most resilient for climate change in our area.

- Public Works/Forestry is currently growing about 80 seedlings of pine trees which will be ready for planting in FY 2023/24.

- In addition, several volunteer groups plant trees each year, but the quantity and locations are not well established in advance. For example, the Friends of Carmel Forest typically plant 6 to 12 trees per year in the downtown area and City parks, and they are in the process of funding $10,000 for watering City trees. The Friends of the Mission Trail Nature Preserve recently planted 65 native trees where invasive trees were removed, as part of habitat restoration in the Preserve. In addition, the Tree Tenders community engagement program under the Carmel Cares umbrella organization, has witnessed an increasing number of volunteers eager to adopt and care for seedlings for future establishment in the urban forest.

Obviously, there is sufficient funding to plant plenty of new trees; however, there has not been aggressive tree planting since the start of the Pandemic. Below are some key concerns submitted by the City Forester that should be considered before planting many new trees at this time:

- 56% of Carmel is already under tree canopy, which is an exceedingly high percentage for any community. Natural ecosystems are usually in the 15 to 25% canopy cover range. We believe that our high canopy cover has contributed to the decline of the health of the forest by blocking access to sunlight for nearby trees. Excessive crowding of trees has also been considered on private properties as part of tree removal permit conditions.

- New trees should only be planted in strategic locations where there is access to sunlight and no longer planted directly below power lines which, unfortunately, has been the historical practice. For most of the locations where dead/hazardous/diseased trees have been removed under power lines, we should only plant relatively short, ornamental trees to prevent future hazards.

- New trees require a lot of watering, and while this is most cost-effectively performed by Forestry staff, ongoing vacancies in the forestry crews over the past few years, including staffing reduction during the Pandemic, have hampered new tree planting and watering efforts. We have; however, also utilized tree contractors and Carmel Cares to supplement watering efforts.

26. Question/Comment: Please describe the City's approach to address wildfire risks to include the wildfire assessment, Forest Management Plan, and the role of the Natural Resources Manager within this rubric.

Response: In addition to the fire fuel reduction efforts described in Question 25 above, the following list identifies other measures that are being undertaken to address the risk of wildfires.

- First, each spring, the Monterey Fire Department conducts an annual defensible space inspections around each residential property at no charge. This project is currently underway.

- Second, the draft Climate Adaptation and Climate Action Plans contains significant information about the risk of wildfires in Carmel and a number of measures that will be taken during the implementation phase of the Climate Change program to mitigate this risk. For details, please visit Climate Committee - City of Carmel

  References include:
  - Action 1.1.1 – Maintain and Update Evacuation Plan
  - Action 1.1.3 – Collaborate with Monterey Fire
  - Action 2.1.2 – Increase Urban Forest Resilience
  - Action 2.1.3 – Increase Resilience of the MTNP
  - Action 3.1.1 – Underground Utilities in Fire Hazard Zones
  - Appendix B, Climate Vulnerability Assessment, Page 6, Wildfires
  - Appendix B, Climate Vulnerability Assessment, Page 22, Multi-Jurisdictional Hazard Mitigation Plan
  - Appendix B, Climate Vulnerability Assessment, Summary of Meeting of October 15, 2020, Community Wildfire Preparedness

- Third, the Fire Department operating budget includes $20,000 for a Wildfire Risk Assessment which is intended to be prepared as a regional agency project. This funding is being rolled over into the new FY 2022/23 budget.

- The job description for the proposed new position currently identified as “Natural Resources Manager” in the staffing plan in the FY 2022/23 budget has not been finalized at this time. While details are still being worked out, the purpose of such a position would be to provide greater emphasis on essential environmental and forestry components of the Public Works Department, as well as for opportunities to advance our environmental stewardship in our unique urban forest setting. Potential projects to be overseen by this position include:

  - Climate Adaptation Plan and Action Plan measures long term implementation
  - Coastal Engineering Report and subsequent beach armoring projects
  - Energy efficiency initiatives
  - Environmental permitting for CIP projects
  - Fire fuel reduction, weed abatement, and invasive removal preventative maintenance programs
  - Forest and Beach Commission agendas, reports, presentations, and action items
  - Forest Management Plan implementation
  - Forestry and stormwater/drainage plan reviews, encroachment permits, and conditioning improvement process
  - Garbage Franchise Agreement enforcement and SB1383 implementation
  - GIS applications and implementation

- Grant applications related to natural resources
- Habitat restoration-oriented projects at MTNP and North Dunes (long range)
- Implementing green infrastructure projects
- MTNP stream stability projects
- Oversight of volunteer groups (Carmel Cares, FOMTNP, FOCF, Garden Club)
- Stormwater management program and compliance with state regulations
- Tree service and landscape maintenance service contracting process improvements

27. Question/Comment: How would staff describe the City's stance in this budget to placing a higher level of visibility on our natural resources.

Response: Please see responses to Questions 25, 26, and 27 above, and Questions 29 and 30 below.

28. Question/Comment: What is the job description for the Natural Resources Manager, what is the proposed salary, and how does it change the roles of the Environmental Compliance Manager and the City Forester?

Response: The Natural Resources Manager is a working title and placeholder in the upcoming FY 22/23 operating budget. Based on the increased workload, increase in staffing and City Council's goals and objectives, there is a greater need and priority placed on the natural resources in the Village. Per all newly established job descriptions citywide, HR will bring the newly created job description that will include job title and salary range to City Council for approval once it has been completed. The review and assessment of this newly created position is on-going and still in progress, however, the newly created position will not change the roles of the Environmental Compliance Manager and the City Forester.

29. Question/Comment: Given that new position being filled it seems that there will be 3 managers supervising about 4 people. Is that necessary given the limited staffing of people who are actually doing work in the field in those departments?

Response: As indicated above, based on the increased workload, increase in staffing and City Council's goals and objectives, there is a greater need and priority placed on the natural resources in the Village and a newly created position will be recommended, still pending City Council approval.

30. Question/Comment: Do you plan on promoting someone from within to fill that position? If so, will the vacated position be filled?

Response: Pursuant to the City's Municipal Code section 2.52.100, all recruitments that are funded in the operating budget must go through a recruitment selection procedure. This may include an internal promotional or open competitive process which is determined by Human Resources. All employees citywide are notified of all job opportunities once they have been posted as active recruitments. As with every vacancy citywide, it provides the City an opportunity to review, assess and determine if the classification and work are aligned properly.

31. **Question/Comment:** What is the reasoning for the above organizational change and what process was conducted to make that decision?

    Response: The organizational structure of the Public Works Department has been modified several times since the incumbent Public Works Director was hired in 2017. Prior examples include adding a second position for Facility Maintenance, increased cross training for Street Maintenance and Forestry crews, increasing capacity in the Environmental Compliance Division with an Administrative Technician, increasing capacity in the Forestry Division with an Administrative Analyst, downsizing at the start of the Covid-19 Pandemic, re-establishing staffing levels as part of the FY 2022/23 budget, and hiring Project Management consultants in lieu of having an incumbent project manager.

    All changes made to the organizational structure of the Public Works Department are recommended by the Director and Assistant City Administrator, approved by the City Administrator, and if position allocations and any financial impacts to the operating budget are required, these changes are subject to authorization of the City Council.

32. **Question/Comment:** I noticed that there was $25,000 allocated to design work for Vista Lobos. What is this for and, if Vista Lobos will be repurposed, should this go through a public process? It seems that there were public conversation sessions held regarding the Scout House and Vista Lobo a few years back, public discussion, and a decision was made to put money into the Scout House. I don't remember any other sessions being held regarding Vista Lobos.

    Response: Please see Question 21 regarding the $25,000 allocated to design for the Vista Lobos facility. The Public was welcome to provide comments when this tentative project was announced at three prior City Council meetings which included the Capital Improvement Program and FY 2022/23 Budget, as well as the upcoming City Council meeting of June 7th at which time the Budget is slated to be adopted.

CITY OF CARMEL-BY-THE-SEA
CITY COUNCIL
Staff Report

June 7, 2022
ADJOURNMENT

TO:	Honorable Mayor and City Council Members
SUBMITTED BY:	Yashin Abbas, Interim City Clerk
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Correspondence Received

RECOMMENDATION:

BACKGROUND/SUMMARY:

FISCAL IMPACT:

PRIOR CITY COUNCIL ACTION:

ATTACHMENTS:

Correspondence Received - gift
Correspondence Received - design
Correspondence Received - wireless ordinance/cell tower
Correspondence Received - wireless ordinance/cell tower #2
Correspondence Received - Item 1
Correspondence Received - Item 3
Correspondence Received - animal services

Attachment 1

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

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SARA B. BOYNS
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ASHLEY E. CAMERON
CHRISTOPHER M. LONG

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON
JOHN S. BRIDGES

ALEX J. LORCA

ALorca@fentonkeller.com
ext. 258

May 17, 2022

VIA U.S. MAIL

City of Carmel-by-the-Sea
c/o Chip Rerig, City Administrator
P.O. Box CC
Carmel-by-the-Sea, CA 93921

Re: Donation to the City of Carmel-by-the-Sea
Our File: 35855.35261

Dear Mr. Rerig:

Per the recent telephone conversation between you, me, and my client, Joe Fletcher, Mr. Fletcher would like to gift to the City of Carmel-by-the-Sea $100,000.00 for the purpose of improving and maintaining the walking path along the west side of Lincoln Street between 8th Avenue and 9th Avenue in Carmel-by-the-Sea. As discussed, Mr. Fletcher requests that improvements and maintenance to the path made with this gift ensure the path can accommodate wheelchairs (both traditional and electric) and that it be made of decomposed granite rather than pavement. It is Mr. Fletcher's hope that this gift will improve access to the Carmel Foundation and Downtown Carmel for both residents and visitors to the City.

Please let me know what steps are needed to complete my client's gift request. Thank you for your consideration.

Very truly yours,

FENTON & KELLER
A Professional Corporation

Alex J. Lorca

AJL:kmc
cc: Joseph Fletcher

{AJL-01264177;1}

Carmel-
by-the-Sea

Attachment 2

Yashin Abbas <yabbas@ci.carmel.ca.us>

the pit.

1 message

'charles whittington' via cityclerk <cityclerk@ci.carmel.ca.us> Tue, May 10, 2022 at 2:46 PM
Reply-To: charles whittington <birdndiz@icloud.com>
To: cityclerk@ci.carmel.ca.us

Dear City Clerk,
We are committed to retaining Carmel's distinctive charm.
Designs such as the faux village style that was proposed for this project are generic and have been repeated in shopping centers across the country.
Carmel needs something more distinctive for this high profile site.
Being in the proximity of several beautiful historic buildings, this property requires a design that does justice to our beloved village.

YourObedientServants,

Marilyn Ross & Dick Whittington
One Southwest corner, Forest & Ocean

Carmel-by-the-Sea

Attachment 2

Yashin Abbas <yabbas@ci.carmel.ca.us>

Del Dono Project input

1 message

jenny purtle <jgpurtle@gmail.com> Wed, May 11, 2022 at 11:58 AM
To: cityclerk@ci.carmel.ca.us, bswanson@ci.carmel.ca.us

Hello Carmel City Council and Planning Commissioners,

I am writing, as the beneficiary of a trust that owns a house in Carmel, to express my opinion about the designs proposed for Ulrika Plaza. I have lived in Carmel off and on since 1975. I attended Santa Catalina and All Saints' Schools as a child.

I am a tenured professor of art history at the University of Toronto; trained at Amherst College (undergrad) and Yale (MA, MPhil, PhD); I have briefly worked for Christie's in New York; my research has been funded by the Getty Foundation and Research Institute, the Center for Advanced Study in the Visual Arts at the National Gallery of Art (USA), and the Social Sciences and Humanities Research Council of Canada.

While I am not an architectural historian -- my specialty is Chinese and Mongolian art of the 10-17th centuries, though I do sometimes work on buildings -- I have some experience with American and Canadian historical buildings: in the US, my family owns a few; I previously owned a co-op in a National Historical Landmark building in Chicago (Mies van der Rohe's The Promontory); in Canada, I find myself on committees in our neighbourhood in Toronto and at the University of Toronto that address renewal of historic buildings or the building of new structures to integrate with historic architectural contexts; my campus office is also in a listed heritage building that has just gone through both historic preservation (funded, in part, by Parks Canada) and renewal (funded by alumni); I live in an in-fill project in a neighbourhood that retains much of its 19th-century housing stock.

I greatly prefer design #1, the "modern" Del Dono Court proposal with its stone façade.

The chosen building is consistent with the Carmel Fire Station, sort of updated and modernized. The proportions of the doors echo the Fire Station, as do the materials; not sure if this was intentional or not (if not, the relation is uncanny).

I think you could sell the design to the nay-sayers by showing comparative views of its façade and that of the Fire Station. I have attached the relevant comparisons, both in ppt and PDF formats.

It is also quiet and beige and unobtrusive. The stone is a quality material -- it looks expensive and will weather time beautifully.

Many of the conversations held in universities -- the context I know best -- about building new structures while maintaining historical character recognize first and foremost that there is something inherently problematic with trying to build new buildings in past styles. The problem is a loss of integrity: the new, old-style building can only be a fabrication. Perhaps the point is lost on protectors of Carmel's architectural heritage, but when cultural institutions dedicated to historical preservation and history build new structures and additions, they almost always do so in contemporary styles. The reason for this is, again, integrity: the new building is what it is, a product of its time. Carmel has benefitted over its history from the introduction of challenging contemporary architecture: the presence of such architecture is a sign that a place IS culturally vibrant. The call is perhaps harder to make when contemporary architecture isn't ground-breaking. But retrenching to kitsch isn't the solution. The approved design does a marvelous job of citing the Fire Station and remaking its forms. Most university campuses and a few art museums would probably go in this direction (though they'd also likely want a name-brand architect behind the solution).

#2
The Tudor/Mediterranean design looks like a bad holdover from the 80s. It's too bright and orange, and the tile roof is far from unobtrusive. Built, it will be too much -- Casanova restaurant writ large and with garish tile roofs. It looks fake, like Disneyland -- or more like a cross between Medieval Times and a Mexican restaurant in a mall parking lot.

5th street elevation: dreadful.

The beach one looks tacky and is not locally relevant: Carmel never had this kind of architecture. It would be fine in Monterey, Pacific Grove, Nantucket, or Martha's Vineyard. It also looks fake, like Disneyland (or rather Disney's Celebration subdivision or a Red Lobster, also in a mall parking lot).

5th street elevation: also, dreadful.

Further Support for Design #1
The Fifth Avenue elevations are also telling: the approved plan will create much more light inside the structure, which will make for nicer interiors, higher rents, better space, and thus better tax base.

Concerns about design #1
The one concern I have about the approved plan is that the Dolores elevation is so linear and undifferentiated across its top line: the blockiness makes it seem taller than it is.

Democracy is a great thing. But expertise and experience also matter, and need to be considered. In my humble opinion, the Planning Commission has done its work well on this project.

Respectfully submitted,

jennifer purtle

---

2 attachments

Del Dono Court Carmel Fire House.pdf
582K

Del Dono Court Carmel Fire House.pptx
1208K

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Fwd: plans of the famous Dolores pit

2 messages

'Jacqueline Frazier' via cityclerk <cityclerk@ci.carmel.ca.us> Wed, May 4, 2022 at 2:21 PM
Reply-To: Jacqueline Frazier <jacquiefg@aol.com>
To: cityclerk@ci.carmel.ca.us

Good Afternoon,
Please scroll down for the full message.
It was suggested I send you a copy of this e-mail. As you can see I did send it to all the members of the city council and other important people.
There is a very vocal group in this city and frankly they do not speak for all of us. Carmel is not a European city, and, no matter what anyone does it will never become one.
I am glad the 'parklets' are gone...the city has an open, neat, clean look about it. It is obvious from the full parking spaces that there are plenty of visitors and locals coming to the city.
How anyone can think that eating on the roadside with vehicles spewing out exhaust fumes and stirring up dust escapes me. It is not a healthy situation. The reason outside eating works in Europe is because that have city squares and and piazza.....mostly pedestrian.
Thank you,
Jacqueline Frazier

From: jacquiefg@aol.com
To: brichards@ci.carmel.ca.us, ctheis@ci.carmel.ca.us, dpotter@ci.carmel.ca.us, jbaron@ci.carmel.ca.us, bswanson@ci.carmel.ca.us, buhler@ci.carmel.ca.us, crerig@ci.carmel.ca.us, kferlito@ci.carmel.ca.us
Sent: 5/4/2022 8:29:25 AM Pacific Standard Time
Subject: plans of the famous Dolores pit

Good Morning,
I was sent photos of the plans for the project near the Post Office. I must say I prefer the already approved plans. I like the look of it: smart and neat. The other plans are very busy and Tudor in the US? I don't think so. Nor are we a Mediterranean village. We are in California, USA...let us reflect that.
Just my opinion.
Thank you.
Jacqueline Frazier

Carmel-
by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Cell towers

Cindy Daniels <cinnamon9652@gmail.com> Fri, May 27, 2022 at 8:56 AM
To: cityclerk@ci.carmel.ca.us

I am writing this email to encourage you to make a very strong stand on creating a stricter wireless ordinance in our residential zones. Cell towers in Carmel is ridiculous.

Sincerely,
Cynthia A Daniel
Carmel resident

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

cell tower ordinance for Carmel-by-the-Sea

2 messages

James Ingle <jamescinglejr@gmail.com> Tue, May 31, 2022 at 2:57 PM
To: cityclerk@ci.carmel.ca.us

To the City Council:

We have owned a home in Carmel for 48 years and continue to appreciate the care the city has taken to maintain the character of this exceptional place. Like most we are users of wireless technology but it is clear that there are ways to install cell towers that are not intrusive to neighborhoods such as Carmel including limiting the number of companies allowed to install these features. Do not let the technology company(s) serving Carmel dictate the placement and character of cell towers used but rather have the city control where these features will be allowed so to be unobtrusive to home owners.

Sincerely, James and Fredricka Ingle

jamescinglejr@gmail.com

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

Dave Rossetti <rossetti@gmail.com> Tue, May 31, 2022 at 3:00 PM
To: cityclerk@ci.carmel.ca.us
Cc: Jan Avent <jan.avent@csueastbay.edu>

Dear Carmel Planning Commission and City Council,

I and my wife Jan Avent are longtime homeowners in the village of Carmel and we respectfully and strongly request that you work to adopt a strict ordinance controlling the installation of cell towers in our village such as being proposed by Verizon or any other mobile wireless carrier. The whys are obvious:

The character of Carmel is that of a small village with an exceptionally high quality of life, high aesthetic values, and a strong model of good taste and lack of ugliness, therefore:
- We do not allow chain stores in the village because of sight pollution
- We ban gas powered leaf blowers because of the noise pollution
- We state strong ethic of good taste in architectural design and vigorously enforce it
- We strive to reinforce the small, tasteful, village atmosphere by stating and applying those values

Furthermore, homeowners in the village of Carmel:
- Were and are willing to pay a premium to live here
- Became homeowners with the understanding that the above values would be maintained
- Are not willing to cave to mere commercial interests at the cost of those values
- Will vote for their representatives based on their competence at continuing the high values of peace, aesthetics, and life quality described above, and resisting (stopping!) change for merely commercial interests.

For all those reasons you must not allow the Carmel Government to participate in a “race to the bottom of life quality.” We as owners are counting on you to resist all commercial interests that don’t necessarily hold those values high.

Respectfully submitted,
- David J. Rossetti
- Jan Avent
Lincoln, 3 NW of 8th Avenue
Carmel, CA 93921

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless ordinance update

plss44 via cityclerk <cityclerk@ci.carmel.ca.us> Tue, May 31, 2022 at 3:51 PM
Reply-To: plss44@aol.com
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

To the City of Carmel:

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for the Carmel-by-the Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

The cell towers are out of character with our residential neighborhoods. They create visual blight and the overall aesthetic degradation of the scenic beauty and charm of our beloved Carmel.

Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers.

PLEASE LISTEN TO THE CITIZENS OF CARMEL BY THE SEA AND STOP CELL TOWERS IN OUR NEIGHBORHOODS.

Paula Stein
Carmelo 2 NW of 8th

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

SCTCN Wireless Ordinance

1 message

Sandra Berris <sesberris@gmail.com> Tue, May 31, 2022 at 5:03 PM
To: cityclerk@ci.carmel.ca.us

Please distribute my email letter to the Mayor, City Council Members, and Planning Commissioners.

Hello to Carmel-by-the-Sea's Mayor, Council Members and Planning Commissioners,

Please protect our unique historic square-mile district that attracts tourists from around the world. This area is a treasure amidst paradise and should not be blighted by unsightly intrusive towers. We count on YOU, our elected officials, to make wise decisions that will maintain the beauty and charm of our tiny town. Surely a protective ordinance can be drafted and reasonable opponents will respect our neighborhood. Surely they can find a way to provide cell service that doesn't impinge upon our historic city.

Sincerely,

Sandra Berris
Full-time Carmel-by-the-Sea resident and taxpayer

Carmel-by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

No cell towers in Carmel residential areas-THANK YOU!

1 message

caldogrun <drondo@gmail.com> Thu, Jun 2, 2022 at 10:35 AM
To: cityclerk@ci.carmel.ca.us

Greetings to the planning commission, city council members, and the mayor of Carmel.

I am writing to add my voice of objection, with many other Carmel residents, to any cell phone tower installations within Carmel's residential areas. I feel that you, the city government staff, should be carefully listening to the objections of residents on this big issue! The local group-"Stop cell phone towers in Carmel neighborhoods" has enlisted a great lawyer and telecom specialist- Andrew Campanelli, who has been successful in helping cities and municipalities in creating local ordinances to protect residents from big telecoms invasion of wireless cell towers next to their homes, etc. As a resident of Carmel since 1967, I find this totally appalling. Carmel has a history of strict ordinances to protect the local environment. The city should not cave into Verizon's greed and power plays to have their way here! I urge you to work with Mr.Campanelli so we will have the right local ordinances to protect our neighborhoods from cell tower proliferation by big telecom companies! Don't be swayed by Verizon's threats! Do the right thing for our community and local environment now!

Thank you,
Dante Rondo Most
"Moontide" Guadalupe St. #5 N.E. 6th St., Carmel, 93921

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Cell tower ordinance

1 message

Paul Wible <pwible@comcast.net> Wed, Jun 1, 2022 at 5:31 PM
To: cityclerk@ci.carmel.ca.us

While I fully endorse the need for our community to have best in class wireless capability, it is important for the character of our community to be preserved as well. I recognize that this may be a difficult task, but with proper planning and oversight I believe both goals can be accomplished.

Hence, I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

Best regards,

Paul Wible
2SW 9 th Avenue Torres

Carmel-by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

5 G

1 message

sipc1 via cityclerk <cityclerk@ci.carmel.ca.us> Wed, Jun 1, 2022 at 7:01 PM
Reply-To: sipc1@me.com
To: cityclerk@ci.carmel.ca.us

Carmel City Officials,

Carmel City Council Members: Stop Verizons 5 G DEATH RAYS!! Protect us!!!

Dr. Standley

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Cell Towers in Carmel by the Sea

1 message

Gail Scearce <gigicarmel39@gmail.com> Wed, Jun 1, 2022 at 7:58 PM
To: cityclerk@ci.carmel.ca.us

Mayor Potter, City Council, Planning Commission:

Please incorporate the Carmel residents request for strict rules regulating the installation of all cell phone towers in the residential area of Carmel by the Sea. We need to maintain the village charm … we are a one square mile town with less than 2,000 permanent residents, most of whom are over 70 years old. We have no need for advanced wireless services in the community.
Please refrain from imposing ugly towers on beautiful Carmel by the Sea!
Thank you,

Gail Scearce
San Antonio Street

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

Rob McNamara <robanddi8@gmail.com> Wed, Jun 1, 2022 at 8:50 PM
To: cityclerk@ci.carmel.ca.us

We support the resident-funded wireless ordinance sent to the City and drafted by the nations top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell phone towers and decide where they are to be located and is completely defensible from challenge by telecom companies

Rob and Diane McNamara

Sent from my iPhone

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

fancyfree1@juno.com <fancyfree1@juno.com> Wed, Jun 1, 2022 at 9:53 PM
To: cityclerk@ci.carmel.ca.us

Dear Carmel City Clerk,

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

As a 42-year resident of Carmel-by-the-Sea, I believe that cell towers in residential neighborhoods pose many problems:

* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers

Thank you for your service to the community.

Sincerely,
Denny Sperling

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

CELL TOWERS

1 message

'v. Donahoomollner' via cityclerk <cityclerk@ci.carmel.ca.us> Thu, Jun 2, 2022 at 1:49 AM
Reply-To: "v. Donahoomollner" <donahoomollner@yahoo.com>
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies **because**...
* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers
VIRGINIA DONAHOO MOLLNER

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Version 5G Wireless Cell Towers

1 message

Brian Berris <baberris@gmail.com> Tue, May 31, 2022 at 6:45 PM
To: cityclerk@ci.carmel.ca.us

PLEASE DISTRIBUTE TO THE MAYOR, CITY COUNCIL AND PLANNING COMMISSIONERS

Over my 15 years as a full time resident of Carmel by the Sea, I have watched with pride the tireless efforts of our elected officials to protect and enhance the unique qualities that make our City a showcase of scenic beauty and charm, a truly unique village. The Verizon proposal to place cell towers in the middle of our residential neighborhoods presents a serious threat to the very essence of Carmel, which encourages new residents to move here, enables businesses to prosper, and attracts tourists from around the world to experience the magic of this "special place". I am afraid we are now at a major tipping point that will determine the future of Carmel. We are facing a decision that will affect all of our community; a decision that, once made, can never be reversed. We will have lost control over our future.

I support the strictest wireless ordinance possible to protect the residential zone. The ordnance drafted by Andrew Campanella is designed to give our local government maximum legal authority to control the number of cell towers and their placement in residential zones. The impact of cell towers will create visual blight, negatively impact property values, and bring requests from other carriers to locate their own towers in our village. Carmel needs a strong and united voice on this matter and we are counting on you incorporate the Campanella proposed ordinance into the City's response to Verizon, as it is the strictest ordinance and, as proven in other communities, is defensible from challenge by telecom companies.

Thanks you for your consideration.

Respectfully,

Brian Berris

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

MARY LOUNSBURY <rewmll@comcast.net> Thu, Jun 2, 2022 at 1:12 PM
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

To whom it may concern:
I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

NEGATIVE IMPACTS OF CELL TOWERS TO RESIDENTS:
* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers

Please note: At this time, the United States FCC does not allow local governments to deny cell tower permits based on radio frequency emission health concerns. People are currently fighting this FCC ruling in the federal courts, but cities must abide by the current law.

Thank you for your support in protecting our unique and beautiful village from cell tower proliferation!

Sincerely,

Mary L. Lounsbury, Ph.D.

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless ordinance Update

1 message

'Nancy Collins' via cityclerk <cityclerk@ci.carmel.ca.us> Tue, May 31, 2022 at 6:48 PM
Reply-To: Nancy Collins <ncollins224@yahoo.com>
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

Greetings, I am very concerned about the possibility of cell phone towers being installed in Carmel. Surely there must be a better way to provide improved service, without the problems and risks the towers could bring. I am in agreement with what I have read in the document provided by the Stop Cell Towers in Carmel Neighborhoods group.

Sincerely, Nancy Collins

Sent from Mail for Windows

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

(no subject)

1 message

diana bearman <dianabearman@gmail.com> Wed, Jun 1, 2022 at 12:21 AM
To: cityclerk@ci.carmel.ca.us

Carmel is such a special place, unique in so many ways, we have to make sure that it is not spoiled by greed and unnecessary changes to blot its beauty.

I do hope it will be decided NOT to put ugly'cell towers' up and trust that common sense will prevail,

Regards,

Diana Bearman

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless ordinance update

Merrill Leslie <merrillleslie@sbcglobal.net> Wed, Jun 1, 2022 at 9:06 AM
To: cityclerk@ci.carmel.ca.us

6/1/2022
I support the ordinance drafted by Telecom specialist, Andrew Campanelli. I believe Carmel by the Sea must retain control and not submit any power to telecom companies.
Merrill Leslie
57 year resident

Sent from my iPhone

Carmel-by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

Carol Pendergast <cspendergast@gmail.com> Wed, Jun 1, 2022 at 1:58 PM
To: cityclerk@ci.carmel.ca.us

To City Council and Planning Commission:

I urge you to support the resident-funded wireless ordinance sent to the city and drafted by top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea. He has written the strictest wireless ordinance, designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

Furthermore I urge you to resist the telecoms' bullying tactics to place cell towers in residential neighborhoods because cell towers are:

* Out-of-character with our residential neighborhoods

* Out-of-scale with our residential neighborhoods (50+ feet tall)

* Creates visual blight

* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners

* Estimated 20% property devaluation to neighboring homes

* Unpleasant, incessant noise of cell tower antennas and battery cooling fans

* Negative impacts on view sheds

Even more alarming:

* Additional equipment can be added and cell tower height can be increased 10% after the initial permit approval by over-the-counter permit, no additional Planning Commission review

* Overall aesthetic degradation of the scenic beauty and charm of our unique village

* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers

Concerned citizens have united to voice our opposition to allowing the telecom companies and their scare tactics to degrade the character of Carmel, deface its public spaces, negatively impact citizens' and visitors' lived experiences.

Carol Pendergast

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

wireless ordinance

1 message

'charles whittington' via cityclerk <cityclerk@ci.carmel.ca.us> Wed, Jun 1, 2022 at 2:06 PM
Reply-To: charles whittington <birdndiz@icloud.com>
To: cityclerk@ci.carmel.ca.us

Dear City Clerk,

Tall cell towers would be a blight in our neighborhoods.

The tower's main benefit is to tourists so they can continue to stumble down the streets staring at their phones.

Surely they can give that up for the hours that they are here.

Carmel village needs to be protected from these out of character and unnecessary devices.

We need the legal authority to limit and control the number of cell towers permitted in Carmel.

Marilyn Ross
corner of Forest & Ocean

Carmel-by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless ordinance

1 message

Trish Branstetter <trish.branstetter@gmail.com> Wed, Jun 1, 2022 at 4:02 PM
To: cityclerk@ci.carmel.ca.us

Dear city clerk,
My husband and I own a house in Carmel-by-the-Sea. We are concerned about the proposed cell towers in our neighborhood. We don't want the visual blight or the noise or the possible devaluation of our property. If the city allows one tower, there will be more in the future. Please consider passing the ordinance written by telecom specialist, Andrew Campanella. And please continue protecting our unique and beautiful village from cell towers and other undesirable things.
Sincerely,
Patricia Branstetter
Dolores, 3 NW of 9th.

Sent from my iPad

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Opposition to Cell Towers in Carmel

1 message

Tracey Pepper <tmpepper1@gmail.com> Wed, Jun 1, 2022 at 8:28 PM
To: cityclerk@ci.carmel.ca.us

I am a full-time resident of Carmel for the past 11years. My husband and I moved here in 2011 after visiting many times because we loved the small village charm, not its technologic connection or convenience. That being said, we oppose any further development or installation of more cellular towers that impact the village esthetic that makes our little hamlet the envy of all who visit!

Please - no more cell towers!

Tracey Pepper
Junipero 2NE 3rd Ave
Carmel, CA

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

wireless ordinance planning

1 message

Clay Ramsay <gcrclay@gmail.com> Mon, May 30, 2022 at 8:39 AM
To: cityclerk@ci.carmel.ca.us

To Whom It May Concern:

Speaking as a homeowner in the neighborhood of the La Playa hotel, let me add my voice to hundreds of neighbors who don't want Carmel dominated by cel towers. All the decades of effort that have kept Carmel a gracious place are about to go down the drain.

The enactment of a loose policy on cell towers would be more than irresponsible. It would make a laughingstock of countless aesthetic regulations that, taken singly, have much less impact than this one.

Sincerely,

Clay Ramsay
8th Ave. & Carmelo 2 NE

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Proposed Cell Tower on Carmelo Street

1 message

Gregory Davies <greg@daviescre.com> Mon, May 30, 2022 at 12:26 PM
To: Cityclerk@ci.carmel.ca.us
Cc: Carolyn Cervantes Davies <ccdavies1@mac.com>

Dear City Clerk,

Our house is on the corner of Carmelo and 9th, across the street from the proposed cell tower referenced above. We support the resident-funded wireless ordinance drafted by telecom specialist Andrew Campanelli for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

We are sure that you recognize how out-of-character this tower is for any residential neighborhood in our town. We can't believe that there will not be a decline in our property's value and potential health issues resulting from the selected location of the proposed tower.

I hope you will recommend adoption of Mr. Campanelli's draft as the basis for Carmel's cell tower ordinance.

Thank you,

Greg and Carolyn Davies

Carmel-
by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

5G Verizon ordinance

1 message

Karyl Hall <hallnelson@comcast.net> Mon, May 30, 2022 at 2:38 PM
To: cityclerk@ci.carmel.ca.us

PLEASE COPY THIS LETTER TO ALL THE COUNCIL MEMBERS CHIP RERIG, AND BRANDON SWANSON.

Dear Carmel Mayor, City Council members, and staff,

As you are aware, a group of caring residents has hired an expert lawyer to provide a restrictive ordinance regarding the Verizon towers.The ordinance he has prepared is meant to protect a small, distinctive community such as ours from cell tower proliferation. This work product was paid for entirely by donations from the residents of Carmel-by-the-Sea. Please consider very seriously this draft ordinance when providing a city ordinance for cell towers. I have faith that the residents will be heard and their perspective respected. Thank you,

Karyl Hall
Co-Chair, Carmel Preservation Association

Attachment 3

Stop Cell Towers in Carmel Neighborhoods <stopct93921@gmail.com> Mon, May 30, 2022 at 11:19 PM
To: Robert E Faussner <rfaussner@aol.com>
Cc: "CityClerk@ci.carmel.ca.us" <CityClerk@ci.carmel.ca.us>, "vsrfaussner@gmail.com" <vsrfaussner@gmail.com>

Thank you Bob Faussner!

On Mon, May 30, 2022 at 9:41 PM Robert E Faussner <rfaussner@aol.com> wrote:

> Dear City Clerk and Honorable Council Members:
>
> Attorney Andrew Campanelli, with the support of the Stop Cell Towers Group and its many CBTS members, including us, has drafted the kind of wireless/cell tower ordinance we need to prevent the degradation of our neighborhoods.
>
> We need a strict ordinance and the maximum leverage provided to prevent wireless companies from running roughshod over our precious City and neighborhoods.
>
> Thank you for your full and unequivocal support to provide us the strong protection we need.
>
> Regards,
>
> Bob Faussner (Carmelo 2 SW of 8th)

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

WIRELESS ORDINANCE UPDATE

2 messages

'dicken7@aol.com' via cityclerk <cityclerk@ci.carmel.ca.us> Thu, Jun 2, 2022 at 4:04 PM
Reply-To: "dicken7@aol.com" <dicken7@aol.com>
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

To whom it may concern at City Hall:

My wife and I have lived on 12th and Camino Real for nearly 30 years and my family has been here since 1950. We both want to add our names to the support for the ordinance drafted by Mr. Camanelli.
The proposed towers are unquestionably out of character aesthetically for our unique residential neighborhoods
And no similar structure such as a 30 foot rotating solar panel on my house would ever pass the aesthetic standards if an individual would propose such a thing. To allow one would reasonably open the floodgates to many more. We've never let chains like McDonald's or Burger King in this town for the same reason.
We have to protect the unique character of our beautiful town from corporate overreach.
Thank you for your efforts in this regard.
Sincerely,
Dr. Richard Scully and Isabelle von Boch

Sent from the all new AOL app for iOS

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update

1 message

Gary Sprung <gsprung@earthlink.net> Wed, Jun 1, 2022 at 2:48 PM
To: cityclerk@ci.carmel.ca.us

Dear Carmel City Clerk,

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

As a 21-year resident of Carmel-by-the-Sea, I believe that cell towers in residential neighborhoods pose many problems:

* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers

Thank you for your attention to this matter.

Sincerely,
Gary Sprung

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance

1 message

'Janice Bradner' via cityclerk <cityclerk@ci.carmel.ca.us> Wed, Jun 1, 2022 at 4:27 PM
Reply-To: Janice Bradner <janicebradner@yahoo.com>
To: City of Carmel-by-the-Sea <cityclerk@ci.carmel.ca.us>
Cc: Tasha Witt <tashawitt@me.com>

As a 23-year resident, I hope that utility wires will be buried underground, as fire is a real threat in our community. Cell towers on residential utility poles make it that much more difficult to bury the equipment, and increases the residents' exposure to dangerous, equipment-sparked conflagration.

It is for this reason that I support the resident-funded proposed wireless ordinance developed for the village by Andrew Campanelli. The proposed ordinance drafted by Mr. Campanelli was developed based on ordinances in other cities that have been successful in controlling the intrusion of telecommunication equipment, and would give the city the authority to limit the number and locations of cell towers and support equipment in the residential areas of the city. By restricting this equipment you are supporting the safety of the residents in your community.

Please consider the proposed ordinance in light of the residents' desires to protect our village from the dangers imposed by the proliferation of telecommunication equipment in our fragile neighborhoods. I would appreciate it if you would share this note with the city council.

Janice Bradner
Junipero 4th NE of 10th

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." Margaret Mead

Find out more about Carmel Cares at: https://www.carmelcares.org/

Carmel-
by-the-Sea

Attachment 3

Yashin Abbas <yabbas@ci.carmel.ca.us>

cell tower(s) in Carmel

1 message

'Betty Van Wagenen' via cityclerk <cityclerk@ci.carmel.ca.us> Wed, Jun 1, 2022 at 4:47 PM
Reply-To: Betty Van Wagenen <braevan@yahoo.com>
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

To Whom It May Concern:

I moved to Carmel BTS in 2014 to get away from all the craziness, busy-ness, growing congestion AND cell towers. To think that anyone would think that a cell tower in our little village is a good idea smacks of "who's making the money" on this. Even if Carmel makes some money "renting" the space, it's not worth it to have a looming cell tower in the town.

Betty Van Wagenen
PO BOX 4903

Carmel-
by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance Update- Please distribute this e-mail to the names listed below, Thank you!

1 message

'SHEILA GHOLSON' via cityclerk <cityclerk@ci.carmel.ca.us> Mon, May 30, 2022 at 2:53 PM
Reply-To: SHEILA GHOLSON <sheilagholson@aol.com>
To: cityclerk@ci.carmel.ca.us

Dear Mayor Potter, Commissioner D. Richards, Commissioner J Baron, Commissioner C Theis, & Commissioner K Ferlito,

Please update our wireless ordinance now, to protect ALL homes and 93921 residential zones from cell tower installations.

Thank you for your ongoing service to the Carmel community,

Sheila Gholson
John Duhring
Claire Duhring
Torres, 4 NE of 8th

Monday, May 23, 2022

Good morning Mayor Potter, City Council members, Brandon, and Planning Commissioners,

Attached is the draft wireless ordinance for Carmel-by-the-Sea formulated by specialist New York telecom attorney, Andrew Campanelli. The ordinance he has prepared is meant to protect a small, distinctive community such as ours from cell tower proliferation. This work product was paid for entirely by donations from the residents of Carmel-by-the-Sea. We are presenting it to you as an educational document, as this is a complicated and technical issue, and ideally it could serve as a template of what a strong and comprehensive wireless ordinance for Carmel-by-the-Sea can be.

We hope at the very least you will read it to familiarize yourselves with this matter, which will be in the forefront in the coming months as the city updates its wireless ordinance. Portions of this comprehensive document could be incorporated into the wireless ordinance draft the city's outside counsel has prepared. At best, Mr. Campanelli's draft can be a substantive basis for the wireless ordinance update. Please be assured though that in no way is it meant to undermine the work of the city's outside counsel.

Mr. Campanelli has offered to answer any questions by email or phone that city staff, Planning Commissioners, and City Council members may have. He can be reached by phone at (516) 746-1600 (New York office, EST) or by email at ajc@campanellipc.com. There is no charge for this communication, and additionally we have also prepaid three hours for him to be available by Zoom at upcoming Planning Commission and City Council meetings. We look forward to working positively and productively with all of you in this process to do the most we can to protect our beautiful and unique community.

Sincerely,

Christy Hollenbeck

Tasha Witt

Alissandra Dramov

Bob Kavner

Stop Cell Towers in Carmel Neighborhoods

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§17.46 Personal Wireless Service Facilities

This Chapter §17.46 is intended to repeal and replace all previous versions of, and amendments to, Chapter §17.46 of the Carmel-by-the-Sea Municipal Code ("Municipal Code"), all of which are hereby repealed and replaced in their entirety by this Chapter §17.46 et. seq., as of the effective date hereof.

No Personal Wireless Service Facility (PWSF) shall be sited, constructed, reconstructed, installed, materially changed or altered, expanded, or used unless in conformity with this Chapter.

For the installation, construction, erection, relocation, substantial expansion, or material alteration of any PWSF, the City shall require a conditional use permit pursuant to the provisions of this Chapter, which shall be applied for in accord with the procedure set forth in Section §17.52.020, unless otherwise provided herein below.

The performance of maintenance, routine maintenance, in-kind replacement of components, and/or repairs (as defined herein) to an existing PWSF and/or existing personal wireless service equipment shall not require a conditional use permit.

Each application for a conditional use permit under this Chapter and each individual PWSF for which an application for a conditional use permit is submitted shall be considered based upon the individual characteristics of each respective installation at each proposed location as an individual case. In other words, each installation, at each proposed location, shall be reviewed and considered independently for its own characteristics and potential impacts, irrespective of whether the proposed facility is designed and intended to operate independently or whether the installation is designed and/or intended to operate jointly as part of a Distributed Antenna System.

§17.46.010 Purpose and Legislative Intent

The purpose of this section is to promote the health, safety, and general welfare of the residents of the City of Carmel-by-the-Sea, to preserve, conserve and enhance the unique natural beauty and irreplaceable natural resources of the City consistent with the general purpose of, and Section G7-1 of the City's General Plan/Coastal Land Use Plan, while simultaneously providing standards for the safe provision, monitoring, and removal of cell towers and other personal wireless service facilities consistent with applicable federal, state and local laws and regulations.

Consistent with the balancing of interests which the United States Congress intended to embed with the federal Telecommunications Act of 1996 (hereinafter "the TCA"), Chapter 17.46 is intended to serve as a *Smart Planning Provision*, designed to achieve the four (4) simultaneous objectives of: (a) enabling personal wireless service providers to provide adequate personal wireless services throughout the City so that City residents can enjoy the benefits of same, from any FCC-licensed wireless carrier from which they choose to obtain such services, while (b)

minimizing the number of cell towers and/or other personal wireless service facilities needed to provide such coverage, (c) preventing, to the greatest extent reasonably practical, any unnecessary adverse impacts upon the City's communities, residential areas, and individual homes, (d) subordinating business and commercial uses of property to the interests of preserving the predominantly residential nature of the City, consistent with Ordinance No. 96 adopted in 1929, and maintained through Title 17 of the Municipal Code, and (d) complying with all of the legal requirements which the TCA imposes upon the City, when the City receives, processes and determines applications seeking approvals for the siting, construction and operation of cell towers and/or other personal wireless service facilities.

The City seeks to minimize, to the greatest extent possible, any unnecessary adverse impacts caused by the siting, placement, physical size, and/or unnecessary proliferation of, personal wireless service facilities, including, but not limited to, adverse aesthetic impacts, adverse impacts upon property values, adverse impacts upon the character of any surrounding properties and communities, adverse impacts upon historical and/or scenic properties and districts, and the exposure of persons and property to potential dangers such as structural failures, ice fall, debris fall, and fire.

The City also seeks to ensure that, in applying this section, the Planning Commission ("Commission") is vested with sufficient authority to require applicants to provide sufficient, accurate, and truthful probative evidence, to enable the Commission to render factual determinations consistent with both the provisions set forth herein below and the requirements of the TCA when rendering decisions upon such applications.

To achieve the objectives stated herein, the City seeks to employ the "General Authority" preserved to it under Section 47 U.S.C.A. §332(c)(7)(A) of the TCA to the greatest extent which the United States Congress intended to preserve those powers to the City, while simultaneously complying with each of the substantive and procedural requirements set forth within the subsection 47 U.S.C.A. §332(c)(7)(B) of the TCA.

§17.46.020 <u>Definitions; Word Usage</u>

For purposes of this article, and where not inconsistent with the context of a particular section, the defined terms, phrases, words, abbreviations, and their derivations, shall have the meaning given in this section. When not inconsistent with the context, words in the present tense include the future tense, words used in the plural number include words in the singular number, and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory. The definitions set forth herein shall supersede any definitions set forth within the Municipal Code, and the definitions set forth herein below shall control and apply to Chapter 17.46 and all subsections herein.

ACCESSORY FACILITY OR ACCESSORY STRUCTURE
A facility or structure serving or being used in conjunction with a personal wireless services facility or complex and located on the same property or lot as the personal wireless services facility or complex, or an immediately adjacent lot including, but not limited to, utility or transmission equipment storage sheds or cabinets.

ACHP
The Federal Advisory Council on Historic Preservation.

ADEQUATE COVERAGE
As determined by the Planning Commission, adequate coverage means that a specific wireless carrier's personal wireless service coverage is such that the vast majority of its customers can successfully use the carrier's personal wireless service the vast majority of the time, in the vast majority of the geographic locations within the City, that the success rate of using their devices exceeds 97%, and that any geographic gaps in a carrier's gaps in personal wireless services are not significant gaps, based upon such factors including, but not limited to, lack of significant physical size of the gap, whether the gap is located upon a lightly traveled or lightly occupied area, whether only a small number of customers are affected by the gap, and/or whether or not the carrier's customers are affected for only limited periods of time. A wireless carrier's coverage shall not be deemed inadequate simply because the frequency or frequencies at which its customers are using its services are not the most preferred frequency of the wireless carrier.

ANTENNA
An apparatus designed for the purpose of emitting radiofrequency (RF) radiation, to be operated or operating from a fixed location, for the provision of personal wireless service.

APPLICANT
Any individual, corporation, limited liability company, general partnership, limited partnership, estate, trust, joint-stock company, association of two or more persons having a joint common interest, or any other entity submitting an application for a conditional use permit, site plan approval, variance, building permit, and/or any other related approval, for the installation, operation and/or maintaining of one or more personal wireless service facilities.

APPLICATION
Refers to all necessary and required documentation and evidence that an applicant must submit to receive a conditional use permit, building permit, or other approval for personal wireless service facilities from the City.

CELL TOWER
A free-standing, guy-wired, or otherwise supported pole, tower, or other structure designed to support or employed to support, equipment and/or antennas used to provide personal wireless services, including, but not limited to, a pole, monopole, monopine, slim stick, lattice tower or other types of standing structures.

CEQ
The Council on Environmental Quality was established under NEPA.

CEQA

The California Environmental Quality Act, codified as Public Resources Code §21000, et seq., as amended.

CFR
The Code of Federal Regulations.

CITY
The City of Carmel-by-the-Sea.

COLOCATION and/or CO-LOCATE
To install, mount or add new or additional equipment to be used for the provision of personal wireless services to a pre-existing structure, facility, or complex which is already built and is currently being used to provide personal wireless services, by a different provider of such services, wireless carrier or site developer.

COMMISSION or PLANNING COMMISSION
The Planning Commission of the City of Carmel-by-the-Sea.

COMPLETE APPLICATION, COMPLETED APPLICATION
An application that contains all the necessary and required information, records, evidence, reports, and/or data necessary to enable an informed decision to be made with respect to an application. Where any information is provided pursuant to the terms of this Chapter and the Planning Commission or the City's expert or consultant or the Director determines, based upon information provided, that any additional, further or clarifying information is needed as to one or more aspects, then the application will be deemed incomplete until that further or clarifying information is provided to the satisfaction of the Planning Commission or the City's expert or consultant or the Director.

COMPLEX
The entire site or facility, including all structures and equipment, located at the site.

CONDITIONAL USE PERMIT
The official document or permit granted by the Planning Commission pursuant to which an applicant is allowed to file for and obtain a building permit to construct and use a personal wireless services facility, personal wireless service equipment, and/or any associated structures and/or equipment which are used to house, or be a part of, any such facility or complex, or to be used to provide personal wireless services.

DBM (dBm)
DBM stands for decibel milliwatts, which is a concrete measurement of the wireless signal strength of wireless networks. Signal strengths are recorded in negative numbers, and can range from approximately -30 dBm to -110 dBm. The closer the number is to 0, the stronger the cell signal.

DEPLOYMENT

The placement, construction, or substantial modification of a personal wireless service facility.

DISTRIBUTED ANTENNA SYSTEM, DAS
A network of spatially separated antenna nodes connected to a common source via a transport medium that provides personal wireless service within a geographic area.

EFFECTIVE PROHIBITION
A finding by the Planning Commission that, based upon an applicant's submission of sufficient probative, relevant, and sufficiently reliable evidence, and the appropriate weight which the Commission deems appropriate to afford same, an applicant has established that an identified wireless carrier does not have adequate coverage as defined hereinabove, but suffers from a significant gap in its personal wireless services within the City and that a proposed installation by that applicant would be the least intrusive means of remedying that gap, such that a denial of the application to install such facility would effectively prohibit the carrier from providing personal wireless services within the City. Any determination of whether an applicant has established, or failed to establish, both the existence of a significant gap and whether its proposed installation is the least intrusive means of remedying such gap, shall be based upon substantial evidence, as is hereinafter defined.

ELEVENTH HOUR SUBMISSIONS
An applicant's submission of new and/or additional materials in support of an application within 48 hours of the expiration of an applicable shot clock, or at an otherwise unreasonably short period of time before the expiration of the shot clock, making it impracticable for the Planning Commission to adequately review and consider such submissions due to their complexity, volume, or other factors, before the expiration of the shot clock.

ENURE
To operate or take effect. To serve to the use, benefit, or advantage of a person or party.

EPA
The United States Environmental Protection Agency.

FAA
The Federal Aviation Administration, or its duly designated and authorized successor agency.

FACILITY
A set of wireless transmitting and/or receiving equipment, including any associated electronics and electronics shelter or cabinet and generator.

FCC
The Federal Communications Commission.

GENERAL POPULATION/UNCONTROLLED EXPOSURE LIMITS

The applicable radiofrequency radiation exposure limits set forth within 47 CFR §1.1310(e)(1), Table 1 Section (ii), made applicable pursuant to 47 CFR §1.1310(e)(3).

HEIGHT
When referring to a tower, personal wireless service facility, or personal wireless service facility structure, the height shall mean the distance measured from the pre-existing grade level to the highest point on the tower, facility, or structure, including, but not limited to, any accessory, fitting, fitment, extension, addition, add-on, antenna, whip antenna, lightning rod or other types of lightning-protection devices attached to the top of the structure.

HISTORIC STRUCTURE
Any structure that is either listed on the National Register of Historic Places, or is eligible for inclusion in the National Register of Historic Places under 36 CFR §63.1.

ILLEGALLY EXCESSIVE RF RADIATION or ILLEGALLY EXCESSIVE RADIATION
RF radiation emissions at levels that exceed the legally permissible limits set forth within 47 CFR §1.1310(e)(1), Table 1 Sections (i) and (ii), as made applicable pursuant to 47 CFR §1.1310(e)(3).

IN-KIND REPLACEMENT
The replacement of a malfunctioning component(s) with a properly functioning component of substantially the same weight, dimensions, and outward appearance.

MACROCELL
A cellular base station that typically sends and receives radio signals from large towers and antennas. These include traditionally recognized cell towers, which typically range from 50 to 199 feet in height.

MAINTENANCE or ROUTINE MAINTENANCE
Plumbing, electrical or mechanical work that may require a building permit but that does not constitute a modification to the personal wireless service facility. It is work necessary to assure that a wireless facility and/or telecommunications structure exists and operates: reliably and in a safe manner, presents no threat to persons or property, and remains compliant with the provisions of this chapter and FCC requirements.

MUNICIPAL CODE
The Municipal Code of the City of Carmel-by-the-Sea, as the term has been codified in Chapter 1.01, §1.01.010.

NECESSARY or NECESSITY or NEED
What is technologically required for the equipment to function as designed by the manufacturer, and that anything less will result in prohibiting the provision of service as intended and described in the narrative of the application. “Necessary” or “need” does not mean what may be desired, preferred, or the most cost-efficient approach and is not related to an applicant’s specific chosen design standards. Any situation involving a workable choice between or among alternatives or options is not a need or a necessity.

NEPA
The National Environmental Policy Act, 42 U.S.C. §4321 et seq.

NHPA
The National Historic Preservation Act, 54 U.S.C. 300101 et seq, and 36 CFR Part 800 et seq.

NODE, DAS NODE
A fixed antenna and related equipment installation that operates as part of a system of spatially separated antennas, all of which are connected through a medium through which they work collectively to provide personal wireless services, as opposed to other types of personal wireless facilities, such as macrocells, which operate independently.

NOTICE ADDRESS
An address, which is required to be provided by an applicant at the time it submits an application for a conditional use permit, at which the City, Planning Commission, Director and/or any City representative can mail notice, and the mailing of any notice to such address by first-class mail shall constitute sufficient notice to any and all applicants, co-applicants, and/or their attorneys, to satisfy any notice requirements under this Chapter, as well as any notice requirements of any other local, state and/or federal law.

NOTICE OF INCOMPLETENESS, NOTICE OF INCOMPLETE APPLICATION
A written notice, mailed by first class mail, to an applicant seeking an approval for the installation of a PWSF, wherein the sender advises the applicant that its application is either incomplete, the wrong type of application, or is otherwise defective, and setting for the reason or reasons why the application is incomplete and/or defective.

NOTICE OF EFFECTIVE PROHIBITION CONDITIONS
A written notice which is required to be provided to the City at the time of the filing of any application, by all applicants at seeking any approval, of any type, for the siting, installation and/or construction of a PWSF, wherein the respective applicant asserts, claims or intends to assert or claim, that a denial of their respective application, by any agent, employee, board or body of the City, would constitute an "effective prohibition" within the meaning of the TCA, and concomitantly, that a denial of their respective application or request would violate Section 47 U.S.C. §332(c)(7)(B)(i)(II) of the TCA.

OCCUPATIONAL/CONTROLLED EXPOSURE LIMITS
The applicable radiofrequency radiation exposure limits set forth within 47 CFR §1.1310(e)(1), Table 1 Section (i), made applicable pursuant to 47 CFR §1.1310(e)(2).

OHP
The California Office of Historic Preservation

PERSONAL WIRELESS SERVICE/PERSONAL WIRELESS SERVICES
Commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services, within the meaning of 47 U.S.C. §332(c)(7)(c)(i), and as defined therein.

PERSONAL WIRELESS SERVICE FACILITY, PERSONAL WIRELESS SERVICES FACILITY or PWSF
A facility or facilities used for the provision of personal wireless services, within the meaning of 47 U.S.C. §332(c)(7)(c)(ii). It means a specific location at which a structure that is designed or intended to be used to house or accommodate antennas or other transmitting or receiving equipment is located. This includes, without limitation, towers of all types and all kinds of support structures, including but not limited to buildings, church steeples, silos, water towers, signs, utility poles, or any other structure that is used or is proposed to be used as a telecommunications structure for the placement, installation and/or attachment of antennas or the functional equivalent of such. It expressly includes all related facilities and equipment such as cabling, radios and other electronic equipment, equipment shelters and enclosures, cabinets, and other structures enabling the complex to provide personal wireless services.

PROBATIVE EVIDENCE
Evidence which tends to prove facts, and the more a piece of evidence or testimony proves a fact, the greater its probative value, as shall be determined by the Planning Commission, as the finder-of-fact in determining whether to grant or deny applications for conditional use permits under this provision of the Municipal Code.

REPAIRS
The replacement or repair of any components of a wireless facility or complex where the replacement is substantially identical to the component or components being replaced, or for any matters that involve the normal repair and maintenance of a wireless facility or complex without the addition, removal, or change of any of the physical or visually discernible components or aspects of a wireless facility or complex that will impose new visible intrusions of the facility or complex as originally permitted.

RF
Radiofrequency.

RF RADIATION
Radiofrequency radiation, that being electromagnetic radiation which is a combination of electric and magnetic fields that move through space as waves, and which can include both Non-Ionizing radiation and Ionizing radiation.

SECTION 106 REVIEW
A review under Section 106 of the National Historic Preservation Act.

SETBACK
For purposes of conditional use permit applications, a setback shall mean the distance between (a) any portion of a personal wireless facility and/or complex, including but not limited to any and all accessory facilities and/or structures, and (b) the exterior line of any parcel of real property or part thereof which is owned by, or leased by, an applicant seeking a conditional use permit to construct or install a personal wireless facility upon such real property or portion thereof. In the event that an applicant leases only a portion of real property owned by a landlord,

the setback shall be measured from the facility to the line of that portion of the real property which is actually leased by the applicant, as opposed to the exterior lot line of the non-leased portion of the property owned by the landlord.

SHOT CLOCK
The applicable period which is presumed to be a reasonable period within which the City is generally required to issue a final decision upon an application seeking conditional use permit approval for the installation or substantial modification of a personal wireless services facility or structure, to comply with Section 47 U.S.C. §332(c)(7)(B)(ii) of the TCA.

SITE DEVELOPER or SITE DEVELOPERS
Individuals and/or entities engaged in the business of constructing wireless facilities and wireless facility infrastructure and leasing space and/or capacity upon, or use of, their facilities and/or infrastructure to *wireless carriers*. Unlike *wireless carriers*, site developers generally do not provide personal wireless services to end-use consumers.

SMALL CELL
A fixed cellular base station that typically sends and receives radio signals and which are mounted upon poles or support structures at substantially lower elevations than macrocell facilities.

SMALL WIRELESS FACILITY (SWF)
A personal wireless service facility that meets all of the following criteria

(a) The facility does not extend the height of an existing structure to a total cumulative height of more than fifty (50) feet, from ground level to the top of the structure and any equipment affixed thereto;
(b) Each antenna associated with the deployment is no more than three (3) cubic feet in volume;
(c) All wireless equipment associated with the facility, including any pre-existing equipment and any proposed new equipment, cumulatively total no more than twenty-eight (28) cubic feet in volume;
(d) The facility is not located on tribal land; and
(e) The facility will not result in human exposure to radiofrequency radiation in excess of the applicable FCC safety standards set forth within Table 1 of 47 CFR §1.1310(E)(1).

STATE
The State of California.

STEALTH or STEALTH TECHNOLOGY
A design or treatment that minimizes adverse aesthetic and visual impacts on the land, property, buildings, and other facilities adjacent to, surrounding, and generally in the same area as the requested location of such personal wireless service facilities. This shall mean building the least visually and physically intrusive facility and complex under the facts and circumstances.

STRUCTURE

A pole, tower, base station, or other building, physical support of any form used for, or to be used for, the provision of personal wireless service.

SUBSTANTIAL EVIDENCE
Substantial Evidence means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. It means less than a preponderance but more than a scintilla of evidence.

TCA
The Telecommunications Act of 1996, 47 U.S.C. §332(c)

TOLLING or TOLLED
The pausing of the running of the time period permitted under the applicable shot clock for the respective type of application for a personal wireless services facility. Where a shot clock is tolled because an application has been deemed incomplete and timely notice of incompleteness was mailed to the applicant, the submission of additional materials by the applicant to complete the application will end the tolling, thus causing the shot clock period to *resume* running, as opposed to causing the shot clock to begin running *anew*.

TOWER, TELECOMMUNICATIONS TOWER
Any structure designed primarily to support one or more antennas and/or equipment used or designed for receiving and/or transmitting a wireless signal.

UNDERTAKING
Any application for a conditional use permit seeking Commission approval for the installation of a personal wireless services facility licensed under the authority of the FCC shall constitute an undertaking within the meaning of NEPA, in accord with 42 CFR §137.289 and 36 CFR §800.16.

WIRELESS CARRIERS or CARRIER
Companies that provide Personal Wireless Services to end-use consumers.

ZONING LAW A/K/A THE ZONING ORDINANCE
The Carmel-by-the-Sea Zoning Ordinance and Coastal Zone Implementation Plan, as entitled under Chapter 17.02, §17.02.020.

§17.46.030 <u>Application Types</u>

There shall be four (4) specific types of applications for conditional use permits under this section,
which shall include Type I, Type II, Type III, and Type IV applications. It shall be the obligation of any applicant to explicitly and correctly identify which type of application they are filing.

1. <u>Type I Applications</u> Colocations of Small Wireless Facilities

Type I applications shall be limited to applications wherein an applicant seeks to co-locate a new small wireless facility, as defined in this Chapter, by installing new personal wireless service equipment upon an already existing small personal wireless services facility structure.

If the completed facility would still meet the physical limits and requirements to meet the definition
of a small wireless facility after the installation of the new equipment, then the application to install
such new equipment is a Type I application.

Type I applications for co-location of a small wireless facility in Residential District (R4), Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), to the extent an already existing small personal wireless services facility structure already exists in these districts, shall be a permitted use with a building permit.

Type I applications for co-location of a small wireless facility in all other districts delineated in Chapter 17.04 of the Zoning Ordinance shall require an applicant to obtain a conditional use permit from the Planning Commission.

2. Type II Applications Co-locations which do not meet the definition of a Small Wireless Facility.

Type II applications shall be limited to applications wherein an applicant is seeking to co-locate new personal wireless service equipment by installing such new wireless equipment upon an already existing personal wireless services facility structure, tower, or complex, which does not meet the definition of a small wireless facility or which will not meet the definition of a small wireless facility if and when the proposed new personal wireless service equipment is installed upon the existing facility and/or structure. Type II applications for co-location of personal wireless service facility equipment in Residential District (R4), Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), to the extent an already existing personal wireless services facility structure already exists in these districts, shall either be a permitted use with a building permit, or a conditional use permit, as set forth below.

The co-location of personal wireless service facility equipment on an approved PWSF tower or PWSF structure on property within Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3) is a permitted use subject to the issuance of a building permit, provided that the Planning Commission determines that the proposed co-location will not:

(a) Increase the approved height of the supporting structure by more than 15%;
(b) Cause the original approved number of antennas to be exceeded by more than 50%;
(c) Increase the original approved square footage of accessory buildings by more than 200 square feet;
(d) Add new or additional microwave antenna dishes;
(e) expand the footprint of said support structure; or

(f) potentially cause significant adverse impacts on the existing support structure or the surrounding area.

If the Planning Commission cannot make the findings above, conditional use permit and site plan approvals will be required in accord with the provisions of the Zoning Ordinance, and the application shall be referred to the Planning Commission, where it will be subject to the terms and conditions specified in the requirements and standards in this section as part of the conditional use permit and site plan review process.

3. Type III Applications New Small Wireless Facilities

Type III applications shall be limited to applications seeking to install and/or construct a new small
wireless facility as defined in Section §17.46.020 hereinabove.

Type III applications shall require applicants to obtain a conditional use permit and site plan approvals from the Planning Commission.

4. Type IV Applications New Towers and All Other Wireless Facilities

Type IV applications shall include applications for the installation of a new telecommunications tower, personal wireless service facility, complex, structure, or equipment, which does not meet the criteria for Type I, Type II, or Type III applications.

Type IV applications shall require applicants to obtain a conditional use permit and site plan approvals from the Planning Commission.

§17.46.040 Shot Clock Periods

To comply with the requirements of Section 47 U.S.C. §332(c)(7)(B)(ii) of the TCA, the following shot clock periods set forth herein below shall be presumed to be reasonable periods within which the Planning Commission shall render determinations upon conditional use permit applications for personal wireless service facilities.

The Planning Commission shall render determinations upon such applications within the periods set forth hereinbelow, unless the applicable shot clock period list below is tolled, extended by agreement or the processing of the application is delayed due to circumstances beyond the Commission and/or City's controls, as addressed within subsections §17.46.150, §17.46.160, §17.46.170 and §17.46.180 herein below.

1. Type I Applications Colocations of Small Wireless Facilities
Sixty (60) Days

Unless extended by agreement, tolled, or subject to reasonable delays, the Planning Commission shall issue a written decision upon a Type I application within sixty (60) days from the date when the City receives a Type I application.

Upon receipt of a Type I application, the Director shall review the application for completeness. If the Director determines the application is: (a) incomplete, (b) missing required application materials, (c) is the wrong type of application, or (d) is otherwise defective, then, within **ten (10) days** of the City's receipt of the application, the Director, or his designee, shall mail the applicant a Notice of Incompleteness by first class mail, to the Notice Address provided by the applicant.

Within such Notice of Incompleteness, the Director shall advise the applicant, with reasonable clarity, the defects within its application, including a description of such matters as what items are missing from the application and/or why the application is incomplete and/or defective.

The mailing of a Notice of Incomplete Application by the Director shall toll the 60-day shot clock, which shall not thereafter resume running unless and until the applicant tenders an additional submission to the Director to remedy the issues the Director identified in the Notice of Incomplete Application, which he had mailed to the applicant. The submission of any responsive materials by the applicant shall automatically cause the shot clock period to resume running.

If upon receipt of any additional materials from the applicant, the Director determines that the application is still incomplete and/or defective, then the Director shall, once again, mail a Notice of Incompleteness within **ten (10) days** of the applicant having filed its supplemental or corrected materials to the City and the shot clock shall once again be tolled, and the same procedure provided for hereinabove shall be repeated.

2. Type II Applications Colocations on existing Towers, Structures or other Facilities which do not meet the definition of a Small Wireless Facility. Ninety (90) Days

Unless extended by agreement, tolled, or subject to reasonable delays, the Planning Commission shall issue a written decision upon a Type II application within ninety (90) days from the date when the City receives a Type II application.

Upon receipt of a Type II application, the Director shall review the application for completeness. If the Director determines the application is: (a) incomplete, (b) missing required application materials, (c) is the wrong type of application, or (d) is otherwise defective, then, within **thirty (30) days** of the City's receipt of the application, the Director, or his designee, shall mail the applicant a Notice of Incompleteness by first class mail, to the Notice Address provided by the applicant.

Within such Notice of Incompleteness, the Director shall advise the applicant, with reasonable clarity of the defects within its application, including a description of such matters as what items are missing from the application and/or why the application is incomplete and/or defective.

The mailing of a Notice of Incomplete Application by the Director shall toll the 90-day shot clock, which shall not thereafter resume running unless and until the applicant tenders an additional submission to the Director to remedy the issues the Director identified in the Notice of Incomplete Application, which he had mailed to the applicant.

The submission of any responsive materials by the applicant shall automatically cause the shot clock period to resume running.

If upon receipt of any additional materials from the applicant, the Director determines that the application is still incomplete and/or defective, then the Director shall, once again, mail a Notice of Incompleteness within ten (10) days of the applicant having filed its supplemental or corrected materials to the City. The shot clock shall once again be tolled, and the same procedure provided hereinabove shall be repeated.

3. Type III Applications — New Small Wireless Facilities
Ninety (90) Days

Unless extended by agreement, tolled, or subject to reasonable delays, the Planning Commission shall issue a written decision upon a Type III application within ninety (90) days from the date when the City receives a Type III application.

Upon receipt of a Type III application, the Director shall review the application for completeness. If the Director determines the application is: (a) incomplete, (b) missing required application materials, (c) is the wrong type of application, or (d) is otherwise defective, then, within **ten (10) days** of the City's receipt of the application, the Director, or his designee, shall mail the applicant a Notice of Incompleteness by first class mail, to the Notice Address which the applicant has provided.

Within such Notice of Incompleteness, the Director shall advise the applicant, with reasonable clarity, the defects within its application, including a description of such matters as what items are missing from the application and/or why the application is incomplete and/or defective.

The mailing of a Notice of Incomplete Application by the Director shall toll the 90-day shot clock, which shall not thereafter resume running unless and until the applicant tenders an additional submission to the Director to remedy the issues the Director identified in the Notice of Incomplete Application, which he had mailed to the applicant.

The submission of any responsive materials by the applicant shall automatically cause the shot clock period to resume running.

If upon receipt of any additional materials from the applicant, the Director determines that the application is still incomplete and/or defective, then the Director shall, once again, mail a Notice of Incompleteness within **ten (10) days** of the applicant having filed its supplemental or corrected materials to the City and the shot clock shall once again be tolled, and the same procedure provided for hereinabove shall be repeated.

4. Type IV Applications — New Towers and All Other Wireless Facilities
One Hundred Fifty (150) Days

Unless extended by agreement, tolled, or subject to reasonable delays, the Planning Commission shall issue a written decision upon a Type IV application within one hundred fifty (150) days from the date when the City receives a Type IV application.

Upon receipt of a Type IV application, the Director shall review the application for completeness. If the Director determines the application is: (a) incomplete, (b) missing required application materials, (c) is the wrong type of application, or (d) is otherwise defective, then, within **thirty (30) days** of the City's receipt of the application, the Director, or his designee, shall mail the applicant a Notice of Incompleteness by first class mail, to the Notice Address provided by the applicant.

Within such Notice of Incompleteness, the Director shall advise the applicant, with reasonable clarity, the defects within its application, including a description of such matters as what items are missing from the application and/or why the application is incomplete and/or defective.

The mailing of a Notice of Incomplete Application by the Director shall toll the 150-day shot clock, which shall not thereafter resume running unless and until the applicant tenders an additional submission to the Director to remedy the issues the Director identified in the Notice of Incomplete Application, which he had mailed to the applicant.

The submission of any responsive materials by the applicant shall automatically cause the shot clock period to resume running.

If upon receipt of any additional materials from the applicant, the Director determines that the application is still incomplete and/or defective, then the Director shall, once again, mail a Notice of Incompleteness within **ten (10) days** of the applicant having filed its supplemental or corrected materials to the City and the shot clock shall once again be tolled, and the same procedure provided for hereinabove shall be repeated.

§17.46.050 Shot Clock Tolls, Extensions & Reasonable Delay Periods

Consistent with the letter and intent of Section 47 U.S.C. §332(c)(7)(B)(ii) of the TCA, each of the shot clock periods set forth within Section §17.46.040 hereinabove shall generally be presumed to be sufficient periods within which the Planning Commission shall render decisions upon conditional use permit applications.

Notwithstanding same, the applicable shot clock periods may be tolled, extended by mutual agreement between any applicant and/or its representative and the Planning Commission, and the Planning Commission shall not be required to render its determination within the shot clock period, presumed to be reasonable for each type of application, where the processing of such application is reasonably delayed, as described hereinbelow.

1. Tolling of the Applicable Shot Clock Due to Incompleteness and/or Applicant Error

As provided for within Section §17.46.040 hereinabove, in the event that the Director deems an application incomplete, the Director shall send a Notice of Incompleteness to the applicant to notify the applicant that its application is incomplete and/or contains material errors, and shall reasonably identify the missing information and/or documents and/or the error(s) in the application.

If the Director mails a Notice of Incompleteness as described hereinabove, the applicable shot clock shall automatically be tolled, meaning that the applicable shot clock period within which the Planning Commission is required to render a final decision upon the application shall immediately cease running, and shall not resume running, unless and until the City receives a responsive submission from the applicant.

If and when the applicant thereafter submits additional information in an effort to complete its application, or cure any identified defect(s), then the shot clock shall automatically *resume* running, but shall not be deemed to start running *anew*.

The applicable shot clock period shall, once again, be tolled if the Director thereafter provides a second notice that the application is still incomplete or defective, despite any additional submissions which have been received by the City, from the applicant, up to that point.

2. Shot Clock Extension by Mutual Agreement

The Planning Commission, in its sole discretion, shall be free to extend any applicable shot clock period by mutual agreement with any respective applicant. This discretion on the part of the Commission shall include the Commission's authority to request, at any time, and for any period of time the Planning Commission may deem reasonable or appropriate under the circumstances, consent from a respective applicant, to extend the applicable shot clock period, to enable the Commission, the applicant, or any relevant third party, to complete any type of Undertaking or task related to the review, analysis, processing, and determination of the particular application, which is then pending before the Commission, to the extent that any such Undertaking, task, or review is consistent with, or reasonably related to, compliance with any federal, state, or local law, and/or the requirements of any provision of the Municipal Code, including but not limited to this Chapter.

In response to any request by the Commission, the applicant, by its principal, agent, attorney, site acquisition agent, or other authorized representative can consent to any extension of any applicable shot clock, by affirmatively indicating its consent either in writing or by affirmatively indicating its consent on the record at any public hearing or public meeting. The Planning Commission shall be permitted to reasonably rely upon a representative of the applicant indicating that they are authorized to grant such consent on behalf of the respective applicant, on whose behalf they have been addressing the Commission within the hearing process.

3. Reasonable Delay Extensions of Shot Clock Periods

The City recognizes that there may be situations wherein, due to circumstances beyond the

control of the City and/or the Planning Commission, the review and issuance of a final decision upon a conditional use permit application for a personal wireless facility cannot reasonably be completed within the application shot clock periods delineated within Section §17.46.040 hereinabove.

If, despite the exercise of due diligence by the City and the Planning Commission, the determination regarding a specific application cannot reasonably be completed within the applicable shot clock period, the Commission shall be permitted to continue and complete its review, and issue its determination at a date beyond the expiration of the applicable period, if the delay of such final decision is due to circumstances including, but not limited to, those enumerated hereinbelow, each of which shall serve as a reasonable basis for a reasonable delay of the applicable shot clock period.

Reasonable delays which may constitute proper grounds for extending the presumed sufficient periods for rendering determinations under the applicable shot clock periods may include, but are not necessarily limited to, those set forth within Sections §17.46.150, §17.46.160, §17.46.170 and §17.46.180 herein below.

§17.46.060 Application Requirements

Applications for conditional use permits under this section shall be made to the Director, who shall initially determine whether or not the application is complete and/or free of defects upon receipt of the same.

If the Director determines that the application is defective or incomplete, they shall promptly mail a **Notice of Incompleteness** to the applicant, in accord with §17.46.040 to toll the applicable shot clock, to ensure that the City and the Planning Commission are afforded sufficient time to review and determine each respective application.

Each application shall include the following materials, the absence of any one of which listed hereinbelow, shall render the respective application incomplete:

1. Conditional use permit and site plan Applications

   Completed applications for a conditional use permit and site plan that shall identify all applicants, co-applicants, site developer(s), and wireless carrier(s) on whose behalf the application is being submitted, as well as the property owner of the proposed site.

2. Filing Fees

   The appropriate filing fees then being charged by the City for applications for conditional use applications, site plan applications, and other related applications.

3. A “Notice Address”

A "Notice Address," that being a specific address to which the City, Planning Commission, and/or Director may mail any type of notice, and that the mailing of same to such address shall constitute sufficient notice to any applicant, co-applicant, and/or their attorney, to comply with any requirement under this section as well as any local, state and/or federal law

4. Proof of Authorization for Site Occupancy

Where an applicant is not the owner of the real property upon which it seeks to install its equipment or facility, they shall submit proof of authorization to occupy the site at issue. If the applicant is leasing all or a portion of real property upon which it intends to install its new facility or equipment, then the applicant shall provide a written copy of its lease with the owner of such property. The applicant may redact any financial terms contained within the lease, but it shall not redact any portion of the lease which details the amount of area leased nor the specific portion of the real property to which the applicant has obtained the right to occupy, access, or preclude others from entering.

Where an applicant is seeking to Co-Locate new equipment into an existing facility, it shall provide a copy of its written co-location agreement with the owner of such pre-existing facility, from which it may redact any financial terms.

5. A Drawn-To-Scale Depiction

The applicant shall submit drawn-to-scale depictions of its proposed wireless support structure and all associated equipment to be mounted thereon, or to be installed as part of such facility, which shall clearly and concisely depict all equipment and the measurements of same, to enable the Director to ascertain whether the proposed facility would qualify as a small wireless facility as defined under this Chapter.

If the applicant claims that its proposed installation qualifies as a small wireless facility within this Chapter, the drawn-to-scale depiction shall include complete calculations for all of the antennas and equipment of which the facility will be comprised, depicting that, when completed, the installation and equipment will meet the physical size limitations which enable the facility to qualify as a small wireless facility.

6. Site plan

The applicant shall submit a site plan and site plan application in accordance with the Zoning Ordinance, Chapter 17.52. The site plan shall show all existing and proposed structures and improvements, including antennas, roads, buildings, guy wires and anchors, parking, and landscaping, and shall include grading plans for new facilities and roads. Any methods used to conceal the modification of the existing facility shall be indicated on the site plan.

7. Engineer's Report

To the extent that an application proposes the co-location of new equipment onto an existing tower or facility, the applicant shall provide an engineer's report certifying that the proposed shared use will not diminish the structural integrity and safety of the existing structure and explaining what modifications, if any, will be required in order to certify to the above.

8. Environmental Assessment Form

A completed environmental assessment form (EAF) and a completed visual EAF addendum.

9. Visual Impact Analysis

A completed visual impact analysis, which, at a minimum, shall include the following:

(a) Small Wireless Facilities

For applications seeking approval for the installation of a small wireless facility, the applicant shall provide a visual impact analysis which shall include photographic images taken from the perspectives of the properties situated in closest proximity to the location being proposed for the siting of the facility, as well as those properties which would reasonably be expected to sustain the most significant adverse aesthetic impacts due to such factors as their close proximity to the site, their elevation relative to the site, the existence or absence of a "clear line of sight" between the tower location and their location.

(b) Telecommunications Towers and Personal Wireless Service Facilities which do not meet the definition of a Small Wireless Facility

For applications seeking approval for the installation of a telecommunications tower or a personal wireless service facility that does not meet the definition of a small wireless facility, the applicant shall provide:

(i) A "Zone of Visibility Map" to determine locations from where the new facility will be seen.

(ii) A visual impact analysis which shall include photographic images taken from the perspectives of the properties situated in closest proximity to the location being proposed for the siting of the facility, as well as those properties which would reasonably be expected to sustain the most significant adverse aesthetic impacts due to such factors as their close proximity to the site, their elevation relative to the site, the existence or absence of a "clear line of sight" between the tower location and their location.

The photographic images shall depict the height at which the proposed facility shall stand when completed, including all portions and proposed attachments to the facility, including, but not limited to, the main support structure, all antennas, transmitters, whip antennas, lightning rods, t-bars, crossbars, and cantilever attachments which shall, in whole or in part, be affixed to it, any and all surrounding equipment compound(s), fencing, cellular equipment cabinets, transformers, transformer vaults and/or cabinets, sector distribution boxes, ice bridges, backup generators, including but not limited to equipment boxes, switch boxes, backup generators, ice bridges, etc., to the extent that any of such compound and/or equipment will be visible from properties other than the property upon which the proposed tower and compound are to be installed.

The visual impact analysis shall include an assessment of alternative designs and color schemes, as well as an assessment of the visual impact of the proposed facility, taking into consideration any supporting structure which is to be constructed, as well as its base, guy wires, accessory structures, buildings, and overhead utility lines from abutting properties and streets.

10. Alternative Site Analysis

A completed alternative site analysis of all potential less intrusive alternative sites which the applicant has considered, setting forth their respective locations, elevations, and suitability or unsuitability for remedying whatever specific wireless coverage needs the respective applicant or a specific Wireless Carrier is seeking to remedy by the installation of the new facility which is the subject of the respective application for a conditional use permit.
If, and to the extent that an applicant claims that a particular alternative site is unavailable, in that the owner of an alternative site is unwilling or unable to accommodate a wireless facility upon such potential alternative site, the applicant shall provide probative evidence of such unavailability, whether in the form of communications or such other form of evidence that reasonably establishes same.

The alternative site analysis shall contain:

(a) an inventory of all existing tall structures and existing or approved communications towers within a two-mile radius of the proposed site.
(b) a map showing the exact location of each site inventoried, including latitude and longitude (degrees, minutes, seconds), ground elevation above sea level, the height of the structure and/or tower, and accessory buildings on the site of the inventoried location.
(c) an outline of opportunities for shared use of an existing wireless facility as opposed to the installation of an entirely new facility.
(d) a demonstration of good-faith efforts to secure shared use from the owner of each potential existing tall structure and existing or approved communications tower,

as well as documentation of the physical, technical, and/or financial reasons why shared usage is not practical in each case.

11. FCC Compliance Report

An FCC compliance report, prepared by a licensed engineer, and certified under penalties of perjury, that the content thereof is true and accurate, wherein the licensed engineer shall certify that the proposed facility will be FCC compliant as of the time of its installation, meaning that the facility will not expose members of the general public to radiation levels that exceed the permissible radiation limits which the FCC has set.

If it is anticipated that more than one carrier and/or user is to install transmitters into the facility that the FCC compliance report shall take into account anticipated exposure from all users on the facility and shall indicate whether or not the combined exposure levels will, or will not exceed the permissible General Population Exposure Limits, or alternatively, the occupational Exposure Limits, where applicable.
Such FCC Compliance Report shall provide the calculation or calculations with which the engineer determined the levels of RF radiation and/or emissions to which the facility will expose members of the general public.

On the cover page of the report, the report shall explicitly specify: (a) Whether the applicant and their engineer are claiming that the appliable FCC limits based upon which they are claiming FCC compliance are the *General Population Exposure* Limits or the *Occupational Exposure Limits*. If the applicant and/or their engineer are asserting that the Occupational Exposure Limits apply to the proposed installation, they shall detail a factual basis as to why they claim that the higher set of limits is applicable, (b) The exact minimum distance factor, measured in feet, which the applicant's engineer used to calculate the level of radiation emissions to which the proposed facility will expose members of the general public. The minimum distance factor is the closest distance (i.e., the minimum distance) to which a member of the general public shall be able to gain access to the transmitting antennas mounted upon, or which shall be a part of, the proposed facility.

12. FCC License

A copy of any applicable Federal Communications Commission license possessed by any carrier named as an applicant, co-applicant, or whose equipment is proposed for installation as of the time the application is being filed with the City.

13. Effective Prohibition Claims

The City is aware that applicants seeking approvals for the installation of new wireless Facilities often assert that federal law, and more specifically the TCA, prohibits the local government from denying their respective applications.

In doing so, they assert that their desired facility is "necessary" to remedy one or more significant gaps in a carrier's personal wireless service, and they proffer computer-generated propagation maps to establish the existence of such purported gaps.

The City is additionally aware that, in August 2020, driven by a concern that propagation maps created and submitted to the FCC by wireless carriers were inaccurate, the FCC caused its staff to perform actual drive tests, wherein the FCC staff performed 24,649 tests, driving nearly ten thousand (10,000) miles through nine (9) states, with an additional 5,916 stationary tests conducted at 42 locations situated in nine (9) states.

At the conclusion of such testing, the FCC Staff determined that the accuracy of the propagation maps submitted to the FCC by the wireless carriers had ranged from as little as 16.2% accuracy to a maximum of 64.3% accuracy.[1]

As a result, the FCC Staff recommended that the FCC no longer accept propagation maps from wireless carriers without supporting drive test data to establish their accuracy. The City considers it of critical import that applicants provide truthful, accurate, complete, and sufficiently reliable data to enable the Planning Commission to render determinations upon applications for new wireless Facilities consistent with both the requirements of this Chapter and the statutory requirements of the TCA.

Consistent with same, if, at the time of filing an application under this Chapter, an applicant intends to assert before the Planning Commission or the City that: (a) an identified wireless carrier suffers from a significant gap in its personal wireless services within the City, (b) that the applicant's proposed installation is the least intrusive means of remedying such gap in services, and/or (c) that under the circumstances pertaining to the application, a denial of the application by the Planning Commission would constitute an "effective prohibition" under Section 47 U.S.C. §332 the TCA, then, at the time of filing such application, the applicant shall be required to file a written statement which shall be entitled:

"**Notice of Effective Prohibition Conditions**"

If an applicant files a Notice of Effective Prohibition Conditions, then the applicant shall be required to submit Probative Evidence to enable the Planning Commission to reasonably determine: (a) whether or not the conditions alleged by the respective applicant exist, (b) whether there exists a significant gap or gaps in an identified wireless carrier's personal wireless services within the City, (c) the geographic locations of any such gaps, and (d) the geographic boundaries of such gaps, to enable the Planning Commission to determine whether granting the respective application would be consistent with the requirements of this Chapter and the legislative intent behind same, and whether or not federal law would require the Planning Commission to grant the

[1] *See* FCC Staff Report, GN Docket No. 19-367, https://docs.fcc.gov/public/attachments/DOC-361165A1.pdf

respective application, even if it would otherwise violate the Municipal Code, including, but not limited to, this Chapter.

The additional materials which the applicant shall then be required to provide shall include the following:

(a) Drive Test Data and Maps

If, and to the extent that an applicant claims that a specific wireless carrier suffers from a significant gap in its personal wireless services within the City, the applicant shall conduct or cause to be conducted a drive test within the specific geographic areas within which the applicant is claiming such gap or gaps exist, for each frequency at which the carrier provides personal wireless services. The applicant shall provide the City and the Planning Commission with the actual drive test data recorded during such drive test, in a simple format which shall include, in table format:

(i) the date and time for the test or test,
(ii) the location, in longitude and latitude of each point at which signal strength was recorded and
(iii) each signal strength recorded, measured in DBM, for each frequency.

Such data is to be provided in a separate table for each frequency at which the respective carrier provides personal wireless services to any of its end-use customers.

(iv) the applicant shall also submit drive test maps, depicting the actual signal strengths recorded during the actual drive test, for each frequency at which the carrier provides personal wireless services to its end-use customers.

If an applicant claims that it needs a "minimum" signal strength (measured in DBM) to remedy its gap or gaps in service, then for each frequency, the applicant shall provide three (3) signal strength coverage maps reflecting actual signal strengths in three (3) DBM bins, the first being at the alleged minimum signal strength, and two (2) additional three (3) DBM bin maps depicting signal strengths immediately below the alleged minimum signal strength claimed to be required.

By way of example, if the applicant claims that it needs a minimum signal strength of – 95 DBM to remedy its alleged gap in service, then the applicant shall provide maps depicting the geographic area where the gap is alleged to exist, showing the carrier's coverage at – 95 to -98 DBM, -99 to -101 DBM and -102 to -104 DBM, for each frequency at which the carrier provides personal wireless services to its end-use customers.

(b) Denial of Service and/or Dropped Call Records

If and to the extent that an applicant claims that a specific wireless carrier suffers from a capacity deficiency, or a gap in service that renders the carrier incapable of providing adequate coverage of its personal wireless services within the City, then the applicant shall provide dropped call records and denial of service records evidencing the number and percentage of calls within which the carrier's customers were unable to initiate, maintain and conclude the use of the carrier's personal wireless services without actual loss of service, or interruption of service.

14. Estimate for Cost of Removal of Facility

A written estimate for the cost of the decommissioning, removal of the facility, including all equipment that comprises any portion or part of the facility, compound, and/or complex, as well as any accessory facility or structure, including the cost of the full restoration and reclamation of the site, to the extent practicable, to its condition before development in accord with the decommissioning and reclamation plan required herein

15. Property Owner Consent & Liability Acknowledgement

A signed written consent from each owner of the subject real property upon which the respective applicant is seeking installation of its proposed personal wireless service facility, wherein the owner or owners, both authorize the applicant to file and pursue its conditional use permit application and acknowledge the potential landowner's responsibility, under section §17.46.110 for engineering, legal and other consulting fees incurred by the City.

§17.46.070 Design Standards

The following design standards shall apply to all applications for the siting, construction, maintenance, use, erection, movement, reconstruction, expansion, material change, or structural alteration of a personal wireless service facility.

1. Small Wireless Facilities

Small Wireless Facilities (SWF) shall be sited to inflict the minimum adverse impacts upon individual residential properties, and specifically, to minimize, to the greatest extent reasonably feasible, adverse aesthetic impacts upon residential homes or reductions in the property values of same.

SWFs attached to pre-existing wooden and non-wooden poles shall conform to the following criteria:

(a) Proposed antenna and related equipment shall meet:

(i) design standards which the City may maintain and update as needed, provided that the City makes its designed standards publicly available for review by any potential applicant seeking approval for the installation of an SWF within the City, and

(ii) National Electric Safety Code (NESC) standards; and
(iii) National Electrical Code (NEC) standards.

(b) Antennas and antenna equipment, including but not limited to radios, cables, associated shrouding, disconnect boxes, meters, microwaves, and conduit, which are mounted on poles, shall be mounted as close to the pole as technically feasible. They shall not be illuminated except as required by municipal, federal, or state authority, provided this shall not preclude deployment on a new or replacement street light.

(c) Antennas and associated equipment enclosures must be camouflaged to appear as an integral part of the pole or be mounted as close to the pole as feasible. Conduits and cabinets shall cover all cables and wiring to the extent that it is technically feasible if allowed by the pole owner. The number of conduits shall be minimized to the extent technically feasible. To the extent technically feasible, antennas, equipment enclosures, and all ancillary equipment, boxes, and conduits shall match the approximate material and design of the surface of the pole or existing equipment on which they are attached.

SWFs attached to replacement poles and new poles shall conform to the criteria set forth herein above for SWF's attached to pre-existing wooden and non-wooden poles, but shall additionally conform to the following criteria:

(a) The City prefers that wireless providers and site developers install SWF's on existing or replacement poles instead of installing new poles, and accordingly, to obtain approval for the installation of a new pole, the provider shall be required to document that installation on an existing or replacement pole is not technically feasible.

(b) To the extent technically feasible, all replacement poles and new poles and pole-mounted antennas and equipment shall substantially conform to the material and design of the pole being replaced, or in the case of a new pole, it shall conform to the nearest adjacent pole or poles.

(c) The height of replacement poles and new poles shall conform with the height limitations applicable to the district within which the applicant seeks to install their proposed SWF unless the applicant obtains a variance to obtain relief from any such limitation(s).

2. Telecommunications Towers and Personal Wireless Service Facilities which do not meet the definition of a Small Wireless Facility

The design of a proposed new telecommunications tower or personal wireless service facility shall comply with the following:

(a) The choice of design for installing a new personal wireless service facility or the substantial modification of an existing personal wireless service facility shall be chosen to minimize the potential adverse impacts that the new or expanded facility may, or is likely to, inflict upon nearby properties.

(b) Any new telecommunications tower shall be designed to accommodate future shared use by other communications providers.

(c) Unless specifically required by other regulations, a telecommunications tower shall have a finish (either painted or unpainted) that minimizes its degree of visual impact.

(d) Notwithstanding the height restrictions listed elsewhere in this Chapter, the maximum height of any new telecommunications tower shall not exceed that which shall permit operation without artificial lighting of any kind or nature, in accordance with municipal, state, and/or federal law and/or regulation.

(e) Accessory Structures

(i) Accessory structures shall maximize the use of building materials, colors, and textures designed to blend with the natural surroundings. The use of camouflage communications towers may be required by the Planning Commission to blend the communications tower and/or its accessory structures further into the natural surroundings. "Camouflage" is defined as the use of materials incorporated into the communications tower design that give communications towers the appearance of tree branches and bark coatings, church steeples and crosses, sign structures, lighting structures, or other similar structures.

(ii) Accessory structures shall be designed to be architecturally similar and compatible with each other and shall be no more than 12 feet high. The buildings shall be used only for housing equipment related to the particular site. Whenever possible, the buildings shall be joined or clustered so as to appear as one building.

(iii) No portion of any telecommunications tower or accessory structure shall be used for a sign or other advertising purpose, including but not limited to the company name, phone numbers, banners, and streamers, except the following. A sign of no greater than two square feet indicating the name of the facility owner(s) and a twenty-four-hour emergency telephone shall be posted adjacent to any entry gate. In addition, "no trespassing" or other warning signs may be posted on the fence. All signs shall conform to the sign requirements of the City.

(f) Towers must be placed to minimize visual impacts. Applicants shall place towers on the side slope of the terrain so that, as much as possible, the top of the tower does not protrude over the ridgeline, as seen from public ways.

(g) Existing vegetation. Existing on-site vegetation shall be preserved to the maximum extent possible. No cutting of trees shall take place on a site connected with an application made under this article prior to the approval of the conditional use permit use.

(h) Screening.

(i) Deciduous or evergreen tree plantings may be required to screen portions of the telecommunications tower and accessory structures from nearby residential property as well as from public sites known to include important views or vistas.

(ii) Where a site adjoins a residential property or public property, including streets, screening suitable in type, size and quantity shall be required by the Planning Commission.

(iii) The applicant shall demonstrate to the approving board that adequate measures have been taken to screen and abate site noises such as heating and ventilating units, air conditioners, and emergency power generators. telecommunications towers shall comply with all applicable sections of this chapter as it pertains to noise control and abatement.

(i) Lighting. Telecommunications towers shall not be lighted except where FAA/FCC required lighting of the telecommunications towers necessary. No exterior lighting shall spill from the site in an unnecessary manner.

(j) Access.

(a) Adequate emergency and service access shall be provided and maintained. Maximum use of existing roads, public or private, shall be made. Road construction shall, at all times, minimize ground disturbance and vegetation cutting to the top of fill, the top of cuts, or no more than 10 feet beyond the edge of any pavement. Road grades shall closely follow natural contours to assure minimal visual disturbance and reduce soil erosion potential.

(b) To the extent feasible, all network interconnections to and from the telecommunications site and all power to the site shall be installed underground. At the initial construction of the access road to the site,

sufficient conduit shall be laid to accommodate the maximum possible number of telecommunications providers that might use the facility.

(k) Parking. Parking shall be provided to assure adequate emergency and service access. The Planning Commission shall determine the number of required spaces, but in no case shall the number of parking spaces be less than two spaces.

(l) Fencing. The telecommunications tower and any accessory structures shall be adequately enclosed by a fence, the design of which shall be approved by the Planning Commission. The Planning Commission may waive this requirement if the applicant demonstrates that such measures are unnecessary to ensure the security of the facility.

§17.46.080 Planning Commission Initial Review

1. Initial Review

Upon the acceptance of an application that appears to be complete, the Director shall transmit the application to the Planning Commission for initial review.

The Planning Commission shall then conduct an initial review to consider whether or not to establish itself as Lead Agency pursuant to CEQA and/or NEPA and whether or not a use or area variance is required for the proposed application such that a referral for an application to the Planning Commission will be required to be made after the Planning Commission has declared itself to serve as Lead Agency and during the process of the Planning Commission considering a CEQA determination of environmental significance. That consideration of granting any required variances is done concurrently with the Planning Commission's review and consideration of conditional use permit and site plan approval.

The Planning Commission shall then conduct a public hearing upon each application, and render its determinations in accord with Sections §17.46.090 and §17.46.100 herein below, and shall ultimately determine whether or not to grant each applicant a conditional use permit and/or site plan approval.

§17.46.090 Hearings and Public Notice

1. Public Hearings

The Planning Commission shall conduct a public hearing upon each conditional use permit application, consistent with the procedures in §17.52.110, except the Planning Commission shall have authority to schedule such additional or more frequent public hearings as may be necessary to comply with the applicable shot clocks imposed upon the City and the Planning Commission under the requirements of the TCA.

2. Required Public Notices

The Planning Commission shall ensure that both the public and property owners whose properties might be adversely impacted by the installation of a wireless facility receive Notice of any public hearing pertaining to same and shall ensure that they are afforded an opportunity to be heard concerning same.

Before the date scheduled for the public hearing, the Planning Commission shall cause to be published a

"**NOTICE OF PUBLIC HEARING FOR NEW WIRELESS FACILITY**"

Each "Notice of Public Hearing for New Wireless Facility" shall state the name or names of the respective applicant or co-applicants, provide a brief description of the personal wireless facility for which the applicant seeks a conditional use permit, and the date, time, and location of the hearing.

Each "Notice of Public Hearing for New Wireless Facility" shall be published both: (a) once per week for two successive weeks in the official newspaper of the City as provided in §17.52.110(D); and (b) by mailing copies of such notice to property owners, as provided for herein below.

The face of each envelope containing the notices of the public hearing shall state, in all bold typeface, in all capital letters, in a font size no smaller than 12 point, the words:

"**NOTICE OF PUBLIC HEARING FOR NEW WIRELESS FACILITY**"

For Type I and Type III applications, notices of public hearing shall be mailed to all property owners whose real properties are situated within 300 feet of any property line of the real property upon which the applicant seeks to install its new wireless facility. If the site for the proposed facility is situated on, or adjacent to, a residential street containing twelve (12) houses or less, the Planning Commission shall additionally mail a copy of such notices to all homeowners on that street, even if their home is situated more than 300 feet from any property line of the property upon which the applicant proposes to install its facility.

For Type II and Type IV applications, the applicant shall mail such notices of public hearing to all property owners whose real properties are situated within 1,500 feet of any property line of the real property upon which the applicant seeks to install its new wireless facility.

The applicant shall additionally post a notice upon the proposed site advising the public of the public hearing.

Prior to the date of the hearing, the respective applicant shall file an Affidavit of Mailing, attesting to whom such notices were mailed by the applicant, and the content of the notices which were mailed to such recipients.

§17.46.100 Factual Determinations to be Rendered by the Planning Commission

1. Evidentiary Standards

In determining conditional use permit applications for personal wireless service facilities, the Planning Commission shall have sole discretion to determine what probative evidence it shall require each applicant to produce in support of its application to enable the Commission to make each of the factual determinations enumerated below.

By way of common examples of the types of evidence which the Commission may require an applicant to produce, are the following:

(a) where an applicant is not the owner of the real property upon which it proposes to install a new wireless facility, the Commission can require the applicant to provide a copy of the applicant's lease with the property owner (including any schedules, property descriptions, appendices or other attachments), from which the applicant may censor or delete any financial terms which would be irrelevant to the factual issues which the Commission is required to determine;

(b) where the Commission deems it appropriate, the Commission can require the applicant to perform what is commonly known as a "balloon test" and to require the applicant to publish reasonably sufficient advance public notice of same, to enable the Commission, property owners, and the community, an opportunity to assess the actual adverse aesthetic impact which the proposed facility is likely to inflict upon the nearby properties and surrounding community;

(c) where the applicant asserts a claim that a proposed facility is necessary to remedy one or more existing significant gaps in an identified wireless carrier's personal wireless services, the Commission may require the applicant to provide drive-test generated coverage maps, as opposed to computer-generated coverage maps, for each frequency at which the carrier provides personal wireless services, to show signal strengths in bins of three (3) DBM each, to enable the Commission to assess the existence of such significant gaps accurately, and/or whether the carrier possesses adequate coverage within the geographic area which is the subject of the respective application.

(d) where the applicant asserts that a potential less intrusive alternative location for a proposed facility is unavailable because the owner of the potential alternative site is incapable or unwilling to lease space upon such site to the applicant, the Commission may require the applicant to provide proof of such unwillingness in the form of communications to and from such property owner, and/or a sworn affidavit wherein a representative of the applicant affirms, under penalty of

perjury, that they attempted to negotiate a lease with the property owner, what the material terms of any such offer to the property owner were, when the offer was tendered, and how, if at all, the property owner responded to such offer.

The Commission shall have sole discretion to determine, among other things, the relevance of any evidence presented, the probative value of any evidence presented, the credibility of any testimony provided, whether expert or otherwise, and the adequacy of any evidence presented.

The Commission shall not be required to accept, at face value, any unsupported factual claims asserted by an applicant but may require the production of evidence reasonably necessary to enable the Commission to determine the accuracy of any factual allegations asserted by each respective applicant.
Conclusory factual assertions by an applicant shall not be accepted as evidence by the Commission.

2. Factual Determinations

To decide applications for conditional use permits under this Section, the Planning Commission shall render factual determinations, which shall include two (2) specific types of factual determinations, as applicable.

First, the Commission shall render local zoning determinations according to Section (a) hereinbelow.

Then, if, and only if, an applicant asserts claims that:

(i) its proposed wireless facility or installation *is necessary to remedy a significant gap in personal wireless services for an explicitly identified wireless carrier*, and that its proposed installation *is the least intrusive means of remedying a specifically identified significant gap or gaps*, or

(ii) that a denial of their application would materially inhibit an identified wireless carrier from providing personal wireless services to its end-use customers,

then the Commission shall *additionally* render TCA determinations, in accord with Section (b) hereinbelow.

The Commission shall separately record each factual determination it makes in a written decision and shall reference, or make note of, the evidence based upon which it rendered each of its factual determinations.

Each factual determination made by the Commission shall be based upon Substantial Evidence.

For purposes of this provision, "Substantial Evidence" shall mean such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. It means less than a preponderance but more than a scintilla of evidence.

Evidence which the Commission may consider shall include any evidence submitted in support of an application, and any evidence submitted by anyone opposing a respective application, whether such evidence is in written or photographic form, or whether it is in the form of testimony by any expert, or any person who has personal knowledge of the subject of their testimony. The Commission may, of course, additionally consider as evidence any information or knowledge which they, themselves, personally possess, and any documents, records or other evidence which is a matter of public record, irrespective of whether such public record is a record of the City, or is a record of or is maintained by, another federal, state and/or other governmental entity and/or agency which maintains records which are available for, or subject to, public review.

The requirements for specific factual determinations set forth below are intended to enure to the benefit of the City, its residents, and property owners, and not applicants.

If, and to the extent that the Planning Commission fails to render one or more of such determinations, that omission shall not constitute grounds upon which the respective applicant can seek to annul, reverse or modify any decision of the Planning Commission.

(a) Local Zoning Determinations

The Commission shall make the following factual determinations as to whether the application meets the requirements for granting a conditional use permit under this Chapter.

(i) Compliance with Chapter 17.64

Whether the proposed installation will meet each of the conditions and standards set forth within Chapter 17.64 in the absence of which the Planning Commission is not authorized to grant a conditional use permit.

(ii) Potential Adverse Aesthetic Impacts

Whether the proposed installation will inflict a significant adverse aesthetic impact upon properties that are located adjacent to, or in close proximity to, the proposed site, or any other properties situated in a manner that would sustain significant adverse aesthetic impacts by the installation of the proposed facility.

(iii) Potential Adverse Impacts Upon Real Estate Values

Whether the proposed installation will inflict a significant adverse impact upon the property values of properties that are located adjacent to, or in close proximity

to the proposed site, or properties that are otherwise situated in a manner that would cause the proposed installation to inflict a significant adverse impact upon their value.

(iv) Potential Adverse Impact Upon the Character of the Surrounding Community

Whether the proposed installation will be incompatible with the use and/or character of properties located adjacent to or in close proximity to the proposed site or other properties situated in a manner that would cause the proposed installation to be incompatible with their respective use.

(v) Potential Adverse Impacts Upon Historic Properties or Historic Districts

Whether the proposed installation will be incompatible with and/or would have an adverse impact upon, or detract from the use and enjoyment of, and/or character of a historic property, historic site, and/or historic district, including but not limited to historic structures, properties and/or districts which are listed on, or are eligible for listing on, the National Register of Historic Places.

(vi) Potential Adverse Impacts Upon Ridgelines or Other Aesthetic Resources of The City

Whether the proposed installation will be incompatible with and/or would have an adverse aesthetic impact upon or detract from the use and enjoyment of, and/or character of, recognized aesthetic assets of the City including, but not limited to, scenic areas and/or scenic ridgelines, scenic areas, public parks, and/or any other traditionally or historically recognized valuable scenic assets of the City.

(vii) Sufficient Fall Zones

Whether the proposed installation shall have a sufficient fall zone and/or safe zone around the facility to afford the general public safety against the potential dangers of structural failure, icefall, debris fall, and fire.

(viii) Mitigation

Whether the applicant has mitigated the potential adverse impacts of the proposed facility to the greatest extent reasonably feasible. To determine mitigation efforts on the part of the applicant, the mere fact that a less intrusive site, location, or design would cause an applicant to incur additional expense is not a reasonable justification for an application to have failed to propose reasonable mitigation measures.

If when applying the evidentiary standards set forth in subparagraph (a) hereinabove, the Planning Commission determines that the proposed facility would not meet the standards set forth within Chapter 17.64, or that the proposed facility would inflict one or more of the adverse impacts described hereinabove to such a substantial extent that granting the respective application would inflict upon the City and/or its citizens and/or property owners the types of adverse impacts which this provision was enacted to prevent, the Planning Commission shall deny the respective application for a conditional use permit unless the Commission additionally finds that a denial of the application would constitute an Effective Prohibition, as provided for in Sections (b) and (c) immediately hereinbelow.

(b) TCA Determinations

In cases within which an applicant has filed a "Notice of Effective Prohibition Conditions," the Planning Commission shall make three (3) additional factual determinations, as listed herein below:

(i) Adequate Personal Wireless Services Coverage

Whether the specific wireless carrier identified by the applicant has "adequate coverage" (as defined in §17.46.010) within the geographic areas which the applicant claims to need its proposed new facility to serve

(ii) Significant Gap in Personal Wireless Services of an Identified Carrier

Whether the applicant has established, based upon probative evidence provided by the applicant and/or its representative, that a specific wireless carrier suffers from a significant gap in its personal wireless services within the City.

In rendering such determination, the Commission shall consider factors including, but not necessarily limited to (a) whether the identified wireless carrier which is alleged to suffer from any significant gap in their personal wireless services has adequate service in its personal wireless services at any frequency being used by the carrier to provide personal wireless services to its end-use customers, (b) whether any such alleged gap is relatively large or small in geographic size, (c) whether the number of the carrier's customers affected by the gap is relatively small or large, (d) whether or not the location of the gap is situated on a lightly traveled road, or sparsely or densely occupied area, and/or (d) overall, whether the gap is relatively insignificant or otherwise relatively *de minimis*.

A significant gap cannot be established simply because the carrier's customers are currently using the carrier's personal wireless services, but the frequency at which the customers are using such services is not the frequency most desired by the carrier.

(iii) Least Intrusive Means of Remedying Gap(s) in Service

Whether the applicant has established based upon probative evidence provided by the applicant and/or its representative, that the installation of the proposed facility, at the specific site proposed by the applicant, and the specific portion of the site proposed by the applicant, and at the specific height proposed by the applicant is the least intrusive means of remedying whatever significant gap or gaps which the applicant has contemporaneously proved to exist as determined by the Planning Commission based upon any evidence in support of, and/or in opposition to, the subject application.

In rendering such determination, the Commission shall consider factors including, but not necessarily limited to: (a) whether the proposed site is the least intrusive location at which a facility to remedy an identified significant gap may be located, and the applicant has reasonably established a lack of potential alternative less intrusive sites and lack of sites available for co-location, (b) whether the specific location on the proposed portion of the selected site is the least intrusive portion of the site for the proposed installation (c) whether the height proposed for the facility is the minimum height actually necessary to remedy an established significant gap in service, (d) whether or not a pre-existing structure can be used to camouflage the facility and/or its antennas, (e) whether or not, as proposed, the installation mitigates adverse impacts to the greatest extent reasonably feasible, through the employ of Stealth design, screening, use of color, noise mitigation measures, etc., and/or (f) overall whether or not there is a feasible alternative to remedy the gap through alternative, less intrusive substitute installations, such as the installation of multiple shorter installation, instead of a single microcell facility.

(c) Finding of Effective Prohibition or Lack of Effective Prohibition

If, when applying the evidentiary standards set forth in subparagraph (a) hereinabove, the Planning Commission affirmatively determines that:

(i) The identified wireless carrier has adequate coverage, or

(ii) the applicant has failed to establish either: (I) that an identified wireless carrier suffers from a significant gap(s) in its personal wireless services within the City, and/or (II) that the applicant has failed to establish that the proposed installation is the least intrusive means of remedying any such gap or gaps,

then the Planning Commission may deny the application pursuant to Section (a) hereinabove, and such denial shall not constitute an "Effective Prohibition."

§17.46.110 Retention of Consultants

1. Use of Consultants

Where deemed reasonably necessary by the Planning Commission and/or the City, the Planning Commission and/or the City may retain the services of professional consultants to assist the Planning Commission in carrying out its duties in deciding conditional use permit applications for personal wireless service facilities. Where the Planning Commission uses the services of private engineers, attorneys, or other consultants for purposes of engineering, scientific, land use planning, environmental, legal, or similar professional reviews of the adequacy or substantive aspects of applications, or of issues raised during the course of review of applications for conditional use permit approvals of personal wireless service facilities, the applicant and landowner, if different, shall be jointly and severally responsible for payment of all the reasonable and necessary costs incurred by the City for such services. In no event shall that responsibility be greater than the actual cost to the City of such engineering, legal, or other consulting services.

2. Advance Deposits for Consultant Costs

The City and/or Planning Commission may require advance periodic monetary deposits held by the City on account of the applicant or landowner to secure the reimbursement of the City's consultant expenses. The City Council shall establish policies and procedures for the fixing of escrow deposits and the management of payment from them. After audit and approval of itemized vouchers by the City Administrator as to reasonableness and necessity of the consultant charges, the City may make payments from the deposited funds for engineering, legal or consultant services. Upon receiving a request by the applicant or landowner, the City shall supply copies of such vouchers to the applicant and/or landowner reasonably in advance of audit and approval, appropriately redacted where necessary to shield legally privileged communications between City officers or employees and the City's consultant. When it appears that there may be insufficient funds in the account established for the applicant or landowner by the City to pay current or anticipated vouchers, the City shall cause the applicant or landowner to deposit additional sums to meet such expenses or anticipated expenses in accordance with policies and procedures established by the City Council. Consultants shall undertake no review on any matter scheduled before the Planning Commission until the initial escrow deposit has been made or requested replenishment of the escrow deposit has been made. No reviewing agency shall be obligated to proceed unless the applicant complies with escrow deposit requirements.

3. Reasonable Limit Upon Consultant Expenses

A consultant expense or part thereof is reasonable in amount if it bears a reasonable relationship to the customary fee charged by engineers, attorneys, or planners within the region for services performed on behalf of applicants or reviewing boards in connection with comparable applications for land use or development.

The City may also take into account any special conditions for considerations as it may deem relevant, including but not limited to the quality and timeliness of submissions on

behalf of the applicant and the cooperation of the applicant and agents during the review process.

A consultant expense or part thereof is necessarily incurred if it was charged by the engineer, attorney or planner, or other consultants, for a service which was rendered to assist the Planning Commission in: (a) making factual determinations consistent with the goals of protecting or promoting of the health, safety or welfare of the City or its residents; (b) assessing potential adverse environmental impacts such as those identified within a CEQA process; (c) accessing potential adverse impacts to historic properties, structures and/or districts, and/or (d) assessing and determining factual issues relevant to Effective Prohibition claims, as addressed herein, to enable the Commission to best comply with the letter and intent of the provision of the TCA which is relevant thereto.

4. Audits Upon the Request of an Applicant

Upon request of the applicant or landowner, the City Council shall review and audit all vouchers and determine whether such engineering, legal and consulting expenses are reasonable in amount and necessarily incurred by the City in connection with the review and consideration of a conditional use permit application for personal wireless service facility. In the event of such a request, the applicant or landowner shall be entitled to be heard by the City Council on reasonable advance notice.

5. Liability for Consultant Expenses

For a land-use application to be complete, the applicant shall provide the written consent of all owners of the subject real property, both authorizing the applicant to file and pursue land development proposals and acknowledging potential landowner responsibility, under this section, for engineering, legal, and other consulting fees incurred by the City. If different from the applicant, the owner(s) of the subject real property shall be jointly and severally responsible for reimbursing the City for funds expended to compensate services rendered to the City under this section by private engineers, attorneys, or other consultants. The applicant and the owner shall remain responsible for reimbursing the City for its consulting expenses, notwithstanding that the escrow account may be insufficient to cover such expenses. No conditional use permit, building permit or other permit shall be issued until reimbursement of costs and expenses determined by the City to be due. In the event of failure to reimburse the City for such fees, the following shall apply:

The City may seek recovery of unreimbursed engineering, legal, and consulting fees by court action in an appropriate jurisdiction, and the defendant(s) shall be responsible for the reasonable and necessary attorney's fees expended by the City in prosecuting such action.

Alternatively, and at the sole discretion of the City, a default in reimbursement of such engineering, legal and consulting fees expended by the City shall be remedied by charging such sums against the real property that is the subject of the conditional use permit application, by adding that charge to and making it a part of the next annual real property tax assessment roll of the City. Such charges shall be levied and collected

simultaneously and in the same manner as City-assessed taxes and applied in reimbursing the fund from which the costs were defrayed for the engineering, legal and consulting fees. Prior to charging such assessments, the owners of the real property shall be provided written notice to their last known address of record, by certified mail, return receipt requested, of an opportunity to be heard and object before the City Council to the proposed real property assessment, at a date to be designated in the notice, which shall be no less than 30 days after its mailing.

§17.46.120 Setback Requirements

1. Small Wireless Facilities

(a) Within Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), the minimum setback shall be fifty (50) feet, unless the facility is being installed upon a pre-existing utility pole or other utility structure.

(b) Within all residentially-zoned and other districts, all small wireless facilities shall be set back a minimum of three hundred (300) feet from any residential dwelling or structure, unless the facility is being installed upon a pre-existing utility pole or is being co-located upon a pre-existing personal wireless service facility.

2. Cell Towers and all Personal Wireless Service Facilities that do not meet the definition of a Small Wireless Facility

(a) Each proposed wireless personal service facility and personal wireless service facility structure, compound, and complex shall be located on a single lot and comply with applicable setback requirements. Adequate measures shall be taken to contain on-site all icefall or debris from tower failure and preserve the privacy of any adjoining residential properties.

(b) Each lot containing a wireless personal service facility and personal wireless service facility structure, compound, and complex shall have the minimum area, shape, and frontage requirements generally prevailing for the zoning district where located, in the Schedules of Regulations for Nonresidential and Residential Districts of this Chapter, and such additional land if necessary to meet the setback requirements of this section.

(c) Cell towers and personal wireless service facilities that do not meet the definition of a small wireless facility, shall maintain a minimum setback of a distance equal to one hundred ten (110%) percent of the height of the facility, for front yard setbacks, rear yard setbacks and side yard setbacks, in all zoning districts.

§17.46.130 Height Restrictions

1. Small Wireless Facilities

Personal Wireless Service Facilities which meet the definition of a small wireless facility shall not exceed a maximum height of 60 feet above ground elevation in Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), and shall not exceed a maximum height of 45 feet within all other zoning districts.

2. Non-Small Wireless Facilities

Personal Wireless Service Facilities which do not meet the definition of a small wireless facility shall not exceed a maximum height of 150 feet above ground elevation in Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), and 100 feet above ground level in all other zoning districts.

§17.46.140 Use Restrictions and Variances

1. Use Restrictions by Application Type and Zoning District

Type I applications No Use Variance Required

Type I applications for co-location of a small wireless facility in Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3) shall be a permitted use with a building permit.

Type I applications for co-location of a small wireless facility in any residentially-zoned district shall be a conditional use permit use, requiring an applicant to obtain a conditional use permit from the Planning Commission.

Type II applications No Use Variance Required Unless Determined Otherwise

Applications for colocations of a wireless personal services facility, which do not meet the definition of a small wireless facility, shall be considered a conditional use permit in all Districts and shall require a conditional use permit and a building permit, but shall not require a use variance, unless the Planning Commission, in its sole discretion, determines that the proposed colocation will increase the overall intrusiveness of the site to a sufficient extent that its presence would no longer be compatible with the surrounding properties and/or surrounding community, in which case the Planning Commission shall issue a decision determining that the applicant shall be required to obtain a variance from the Planning Commission pursuant to §17.52.070 and §17.64.210 of the Municipal Code.

In rendering a determination of whether or not a variance shall be required, the Planning Commission shall consider, among other things: (a) the physical size, number, and potential intrusiveness of each new item of equipment to be installed as part of the proposed colocation, (b) the extent to which the installation of such equipment is to require or effectuate a significant physical expansion of the size or area of the facility or complex, (c) the extent to which the addition of such additional equipment will likely increase the adverse aesthetic impact of the facility, and/or any other potentially significant adverse impacts which are likely to cause a significant increase in the overall intrusiveness of the wireless facility, and/or its compound or complex, such that it will no

longer be reasonably compatible with the use of nearby or surrounding properties and/or that its presence would be incompatible with the character and use of the nearby properties and/or surrounding community.

If the Planning Commission determines that a variance is required for a specific proposed facility, then the applicant shall be required to file an application for a variance to the Planning Commission. The Planning Commission shall thereafter have the authority to (a) determine that no variance is necessary, (b) grant the application for a variance, or (c) deny the application for a variance.

Type III Applications No Use Variance Required

Applications for installing new Small Wireless Facilities that meet the criteria for Type III applications shall be considered a conditional use permit use in all Districts. They shall require a conditional use permit and building permit but shall not require a variance, unless they do not meet the applicable setback requirements or height limitation.

Type IV Applications Variance Requirements

Type IV applications seeking approval for the installation of a new cell tower and/or all other wireless facilities that are not a small wireless facility shall be a permitted use in Commercial Districts (CC, SC, RC), Public and Quasi-Public Districts (P-1, P-2, A-1, A-2, A-3), which shall not need a use variance, but shall require a conditional use permit, building permit, and area variance if the proposed facility does not meet the applicable height limitation and/or setback requirements.

Type IV applications seeking approval for the installation of a new cell tower and/or all other wireless facilities that are not a small wireless facility in all other districts shall be a prohibited use which shall require a use variance, conditional use permit, building permit, and area variance if the proposed installation does not meet the applicable height limitation and/or setback requirements.

§17.46.150 Environmental Impacts

If, and to the extent that, the Planning Commission determines a proposed installation bears the potential for a significant adverse impact upon the environment within the meaning of CEQA and/or the NEPA, then the Commission shall be expected to comply with the requirements of CEQA in determining both (a) the extent of adverse impacts upon the environment and/or historic properties and (b) what mitigation measures the applicant should be required to undertake to minimize the adverse environmental impacts and/or adverse impacts upon historic sites, structures and/or districts.

If a respective applicant fails to obtain a review from the CalEPA and/or NEPA and opinion letters from the CalEPA and the FCC pertaining to its proposed installation prior to a first public hearing before the Planning Commission for the respective application, then the Planning Commission may make direct requests to the CalEPA and the FCC for their review of the

application. The Planning Commission may request OHP and the FCC's review and input in completing the statutorily-required environmental impact analysis pursuant to CEQA and NEPA.

In addition, the Planning Commission shall comply with the statutory requirements of CEQA to complete a CEQA review, make determinations of significance, and where appropriate, require the applicant to complete a draft environmental impact statement, and if additionally appropriate, to thereafter complete a final environmental impact statement and analysis.

So long as the Planning Commission acts with reasonable diligence in completing its CEQA and NEPA review, if compliance with the statutory requirements for environmental review requires a period of effort that extends beyond the expiration of the applicable shot clock period, the delays beyond such period shall be deemed reasonable.

§17.46.160 Historic Site Impacts

The Planning Commission shall consider the potential adverse impacts of any proposed facility upon any historic site, district, or structure consistent with the requirements of the City's historic preservation law and general plan and CEQA.

If, and to the extent that, the Planning Commission determines that a proposed installation bears the potential for a significant adverse impact upon a historic site or a historic district within the meaning of CEQA and/or the NHPA (especially if the historic site at issue is listed upon the national register of historic places), then the Commission shall comply with the requirements of both CEQA and City law in determining both: (a) the extent of adverse impacts upon the historic properties, and (b) what mitigation measure might the applicant be required to undertake to minimize the adverse environmental impacts and/or adverse impacts upon historic sites, structures and/or district.

Should a respective applicant fail to obtain a OHP and/or a Section 106 review under NHPA, and opinion letters from OHP and the FCC pertaining to its proposed installation prior to a first public hearing before the Planning Commission for the respective application, then the Planning Commission shall make direct requests to OHP and the FCC for their review of the application. They shall request OHP and the FCC's review and input in completing the statutorily-required environmental/historic impact analysis pursuant to SEQRA and NHPA.

This request shall include, but not be limited to, a request to the FCC for a Section 106 review, as defined in this Chapter, as the City recognizes each application for a conditional use permit for the installation of a personal wireless services facility shall constitute "an undertaking" for purposes of compliance with the National Historic Preservation Act.

In addition, the Planning Commission shall comply with the statutory requirements of CEQA to complete a CEQA review, make determinations of significance, and where appropriate, require the applicant to complete a draft environmental impact statement, and if additionally appropriate, to thereafter complete a final environmental impact statement and analysis.

So long as the Planning Commission acts with reasonable diligence in completing its CEQA and NHPA review, if compliance with the statutory requirements for historic preservation review requires a period of effort that extends beyond the expiration of the applicable shot clock period, the delays beyond such period shall be deemed reasonable.

§17.46.170 *Force Majeure*

In the event that the rendering of a final decision upon a conditional use permit application under this Chapter is delayed due to natural and/or unnatural events and/or forces which are not within the control of the City or the Planning Commission, such as the unavoidable delays experienced in government processes due to the COVID 19 pandemic, and/or mandatory compliance with any related federal or state government orders issued in relation thereto, such delays shall constitute reasonable delays which shall be recognized as acceptable grounds for extending the period for review and the rendering of final determinations beyond the period allotted under the applicable shot clock.

§17.46.180 *Eleventh Hour* Submissions

In the event that an applicant tenders eleventh-hour submissions to the City and/or the Planning Commission in the form of (a) expert reports, (b) expert materials, and/or (c) materials which require a significant period for review due either to their complexity or the sheer volume of materials which an applicant has chosen to provide to the Commission at such late point in the proceedings, the Planning Commission shall be afforded a reasonable time to review such late-submitted materials.

If reasonably necessary, the Planning Commission shall be permitted to retain the services of an expert consultant to review any late-submitted expert reports which were provided to the Commission, even if such review or services extend beyond the applicable shot clock period, so long as the Commission completes such review and retains and secures such expert services within a reasonable period of time thereafter, and otherwise acts with reasonable diligence in completing its review and rendering its final decision.

§17.46.190 Prohibition Against Illegally Excessive Emissions and RF Radiation Testing

As disclosed upon the FCC's public internet website, personal wireless services facilities erected at any height under 200 feet are not required to be registered with the FCC.

Of even greater potential concern to the City is the fact that the FCC does not enforce the RF radiation limits codified within the CFR by either: (a) testing the actual radiation emissions of wireless Facilities either at the time of their installation or at any time thereafter, or (b) requiring their owners to test them. *See* relevant excerpts from the FCC's public internet website annexed as Appendix 2.

This means that when wireless Facilities are constructed and operated within the City, the FCC will have no idea where they are located and no means of determining, much less ensuring, that they are not exposing residents within the City and/or the general public to Illegally Excessive levels of RF Radiation.

The City deems it to be of critical importance to the health, safety, and welfare of the City, its residents, and the public at large that personal wireless service facilities do not expose members of the general public to levels of RF radiation that exceed the limits which have been deemed safe by the FCC, and/or are imposed under CFR.

In accord with the same, the City enacts the following RF Radiation testing requirements and provisions set forth herein below.

No wireless telecommunications facility shall at any time be permitted to emit illegally excessive RF Radiation as defined in §17.46.020, or to produce power densities that exceed the legally permissible limits for electric and magnetic field strength and power density for transmitters, as codified within 47 CFR §1.1310(e)(1), Table 1 Sections (i) and (ii), as made applicable pursuant to 47 CFR §1.1310(e)(3).

To ensure continuing compliance with such limits by all owners and/or operators of personal wireless service facilities within the City, all owners, and operators of personal wireless service facilities shall submit reports as required by this section.

As set forth hereinbelow, the City may additionally require, at the owner and/or operator's expense, independent verification of the results of any analysis set forth within any reports submitted to the City by an owner and/or operator.

If an operator of a personal wireless service facility fails to supply the required reports or fails to correct a violation of the legally permissible limits described hereinabove, following notification that their respective facility is believed to be exceeding such limits, any conditional use permit or other zoning approval granted by the Planning Commission or any other board or representative of the City is subject to modification or revocation by the Planning Commission following a public hearing.

1. Initial Certification of Compliance with Applicable RF Radiation Limits

   Within forty-five (45) days of initial operation or a substantial modification of a personal wireless service facility, the owner and/or operator of each Telecommunications antenna shall submit to the Director a written certification by a licensed professional engineer, sworn to under penalties of perjury, that the facility's radio frequency emissions comply with the limits codified within 47 CFR §1.1310(e)(1), Table 1 Sections (i) and (ii), as made applicable pursuant to 47 CFR §1.1310(e)(3).

   The engineer shall measure the emissions of the approved facility, including the cumulative impact from other nearby Facilities, and determine if such emissions are within the limits described hereinabove.

   A report of these measurements and the engineer's findings with respect to compliance with the FCC's Maximum Permissible Exposure (MPE) limits shall be submitted to the Director.

   If the report shows that the facility does not comply with applicable limits, then the owner and/or operator shall cease operation of the facility until the facility is brought into

compliance with such limits. Proof of compliance shall be a certification provided by the engineer who prepared the original report. The City may require, at the applicant's expense, independent verification of the results of the analysis.

2. Random RF Radiofrequency Testing

At the operator's expense, the City may retain an engineer to conduct random unannounced RF Radiation testing of such Facilities to ensure the facility's compliance with the limits codified within 47 CFR §1.1310(e)(1) et seq.

The City may cause such random testing to be conducted as often as the City may deem appropriate. However, the City may not require the owner and/or operator to pay for more than one test per facility per calendar year unless such testing reveals that one or more of the owner and/or operator's facilities are exceeding the limits codified within 47 CFR §1.1310(e)(1) et seq., in which case the City shall be permitted to demand that the facility be brought into compliance with such limits, and to conduct additional tests to determine if, and when, the owner and/or operator thereafter brings the respective facility and/or facilities into compliance.

If the City at any time finds that there is good cause to believe that a personal wireless service facility and/or one or more of its antennas are emitting RF radiation at levels in excess of the legal limits permitted under 47 CFR §1.1310(e)(1) et seq., then a hearing shall be scheduled before the Planning Commission at which the owner and/or operator of such facility shall be required to show cause why any and all permits and/or approvals issued by the City for such facility and/or facilities should not be revoked, and a fine should not be assessed against such owner and/or operator.

Such hearing shall be duly noticed to both the public and the owner and/or operator of the respective facility or facilities at issue. The owner and/or operator shall be afforded not less than two (2) weeks written notice by first-class mail to its Notice Address.

At such hearing, the burden shall be on the City to show that, by a preponderance of the evidence, the Facilities emissions exceeded the permissible limits under 47 CFR §1.1310(e)(1) et seq.

In the event that the City establishes same, the owner and/or operator shall then be required to establish, by clear and convincing evidence, that a malfunction of equipment caused their failure to comply with the applicable limits through no fault on the part of the owner/operator.

If the owner and/or operator fails to establish same, the Planning Commission shall have the power to, and shall revoke any conditional use permit, variance, building permit, and/or any other form of zoning-related approval(s) which the Planning Commission, Director and/or any other representative of the City may have then issued to the owner and/or operator, for the respective facility.

In addition, the Planning Commission shall impose a fine of not less than $1,000, nor more than $5,000 for such violation of subparagraph 1. hereinabove, or, in the case of a second offense within less than five (5) years, a minimum fine of $5,000, nor more than $25,000.

In the event that an owner or operator of one or more personal wireless service facilities is found to violate subparagraph 1. hereinabove, three or more times within any five (5) year period, then in addition to revoking any zoning approvals for the facilities which were violating the limits codified in 47 CFR §1.1310(e)(1) et seq., the Planning Commission shall render a determination within which it shall deem the owner/operator prohibited from filing any applications for any new wireless personal services facilities within the City for a period of five (5) years.

§17.46.200 Bond Requirements, Removal of Abandoned Facilities and Reclamation

1. Bond Requirement

At, or prior to the filing of an application for a conditional use permit for the installation of a new personal wireless service facility, each respective applicant shall provide a written estimate for the cost of the decommissioning and removal of the facility, including all equipment that comprises any portion or part of the facility, compound and/or complex, as well as any accessory facility or structure, including the cost of the full restoration and reclamation of the site, to the extent practicable, to its condition before development in accord with the decommissioning and reclamation plan required herein. The Planning Commission's engineer shall review this estimate.

Upon receiving a conditional use permit approval from the Planning Commission, and a building permit, prior to the commencement of installation and/or construction of such facility or any part thereof, the applicant shall file with the City a bond for a length of no less than three years in an amount equal to or exceeding the estimate of the cost of removal of the facility and all associated structures, fencing, power supply, and other appurtenances connected with the facility. The bond must be provided within thirty (30) days of the approval date and before any installation or construction begins.

Replacement bonds must be provided ninety (90) days prior to the expiration of any previous bond.

At any time, the City has good cause to question the sufficiency of the bond at the end of any three-year period, the owner and/or operator of the facility, upon request by the City, shall provide an updated estimate and bond in the appropriate amount.

Failure to keep the bonds in effect is cause for removal of the facility at the owner's expense. A separate bond will be required for each facility, regardless of the number of owners or the location.

2. Removal of Abandoned Facilities

Any personal wireless service facility that is not operated or used for a continuous period of twelve (12) consecutive months shall be considered abandoned. At the owner's expense, the owner of said facility shall be required to remove the facility and all associated equipment buildings, power supply, fence, and other items associated with such facility, compound and/or complex, and permitted with, the facility.

If the facility is not removed within ninety (90) days, the bond secured by the facility owner shall be used to remove the facility and any accessory equipment and structures.

§17.46.210 ADA Accommodations

The City of Carmel By The Sea seeks to comply with the Americans With Disabilities Act, and shall comply with same in the event that any person who is disabled within the meaning of the Act seeks a reasonable accommodation, to the extent that they are entitled to same under the Act.

§17.46.220 General Provisions

1. Balancing of Interests

The City formally recognizes that, as has been interpreted by federal courts, when it enacted the TCA, Congress chose to preserve local zoning authority over decisions regarding the placement, construction, and modification of personal wireless facilities (47 U.S.C. §332(c)(7)(A)) subject only to the limitations set forth in subsection §332(c)(7)(b), consistent with the holding of the United States Court of Appeals in Sprint Spectrum L.P. v. Willoth, 176 F3d 630 (2nd Cir.1999) and its progeny, and the City has relied upon such federal courts' interpretations of the TCA in enacting this Chapter.

The City similarly embraces the federal courts' determinations that the TCA was created to effectuate a balancing between the interests of facilitating the growth of wireless telephone service nationally and maintaining local control over the siting of wireless personal services facilities, as the Court additionally articulated in Omnipoint Communications Inc. v. The City of White Plains, 430 F3d. 529 (2nd Cir. 2005). This includes preserving to local governments, including the City of Carmel-by-the-Sea, the power to deny applications for the installation of wireless personal services facilities, based upon traditional grounds of zoning denials, including, but not limited to, the potential adverse aesthetic impacts or a reduction in property values which the construction of any proposed structure may inflict upon nearby properties or the surrounding community.

This additionally includes the recognition that, under this balancing of interest test, "once an area is sufficiently serviced by a wireless service provider, the right to deny applications (for new wireless facilities) becomes broader" Crown Castle NG East LLC v. The City of Hempstead, 2018 WL 6605857.

It is the intent of the City that this Chapter be applied in a manner consistent with the balancing of interests codified within the TCA.

Consistent with same, the City rejects and shall reject any current and/or future FCC interpretations of any provision of the TCA which are clearly inconsistent with, and/or are clearly contrary to, both the language of the TCA and binding decisions of the United States Court of Appeals and United States District Courts within this Circuit.

This includes a rejection of any FCC interpretations inconsistent with Willoth and any claims that the FCA legally prohibits the Planning Commission from denying a permit application, based solely upon a claim that an applicant desires the installation of its new facility for "densification" of its existing personal wireless services, or to offer a new service, irrespective of whether or not the carrier already possesses adequate coverage within the City, and irrespective of the potential adverse impact which the installation of such new facility or facilities would inflict upon the City, its property owners, citizens and/or communities.

2. Conflict With Federal or State Laws

To the extent that any provision of this Chapter is found to conflict with any applicable federal or State law, it is the intent of the City that the remaining portion of this Chapter which has not been found to conflict with such law be deemed to remain valid and in full force and effect.

Carmel-
by-the-Sea

Attachment 4

Yashin Abbas <yabbas@ci.carmel.ca.us>

Cell Towers

1 message

'Amy Scherer' via cityclerk <cityclerk@ci.carmel.ca.us> Mon, Jun 6, 2022 at 12:47 PM
Reply-To: Amy Scherer <amyscherermp@yahoo.com>
To: "cityclerk@ci.carmel.ca.us" <cityclerk@ci.carmel.ca.us>

To Whom it may concern,

Absolutely not in favor of additional cell towers throughout the beautiful community of Carmel. I live on 10th and Lincoln full-time and the entire reason I moved here was to get away from all those urban blights. Do NOT want one too near me.

Just voicing my opinion so you can add it to the long list of "NO"s

Thank you,

Amy Scherer

Carmel-
by-the-Sea

Attachment 4

Yashin Abbas <yabbas@ci.carmel.ca.us>

Wireless Ordinance

1 message

Michael Schneider <zapperms@gmail.com> Thu, Jun 2, 2022 at 9:08 PM
To: cityclerk@ci.carmel.ca.us

Ask residents of Carmel By The Sea, my wife and I are concerned about the proposed Verizon cell tower and urge you to adopt the the proposed wireless ordinance that has been submitted to you as a draft from Andrew Campanelli.
Thank you very much,
Michael Schneider

Carmel-
by-the-Sea

Attachment 4

Yashin Abbas <yabbas@ci.carmel.ca.us>

NO CELL TOWERS IN CARMEL

1 message

Susie Icaza <susie.d.icaza@gmail.com> Thu, Jun 2, 2022 at 10:42 PM
To: cityclerk@ci.carmel.ca.us

To Whom it May Concern,

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

Let us also consider the following **NEGATIVE IMPACTS OF CELL TOWERS TO RESIDENTS**:
* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers
* Negative impact on human health

As a resident I take this matter seriously. So should you.

Sincerely,

Suzanne D. Icaza

Carmel-by-the-Sea

Attachment 4

Yashin Abbas <yabbas@ci.carmel.ca.us>

No Cell Towers in Carmel

1 message

Gyongyver Sovago <gyongyversovago@gmail.com> Thu, Jun 2, 2022 at 10:57 PM
To: cityclerk@ci.carmel.ca.us

To Whom it May Concern,

I support the resident-funded wireless ordinance sent to the city and drafted by the nation's top telecom specialist, Andrew Campanelli, for Carmel-by-the-Sea as it is the strictest wireless ordinance. The ordinance drafted by Mr. Campanelli is designed to give our local government the maximum legal authority to be able to limit the number of cell towers and decide where they are to be located and is completely defensible from challenge by telecom companies.

Let us also consider the following **NEGATIVE IMPACTS OF CELL TOWERS TO RESIDENTS**:
* Out-of-character with our residential neighborhoods
* Out-of-scale with our residential neighborhoods (50+ feet tall)
* Creates visual blight
* Danger to properties within fall zone and from fires with no cell tower accident insurance available to homeowners
* Estimated 20% property devaluation to neighboring homes
* Unpleasant, incessant noise of cell tower antennas and battery cooling fans
* Negative impacts on view sheds
* Additional equipment can be added and cell tower height can be increased 10% after initial permit approval by over-the-counter permit, no additional Planning Commission review
* Overall aesthetic degradation of the scenic beauty and charm of our unique village
* Just one cell tower permit approval in a residential zone can lead to multiple permits for cell towers from multiple telecom carriers
* Negative impact on human health

As a resident I take this matter seriously. So should you.

Sincerely,

Gyongyver Sovago

Carmel-by-the-Sea

Attachment 4

Yashin Abbas <yabbas@ci.carmel.ca.us>

Cell Towers in Carmel

1 message

Marion Keyworth <mskeyworth@gmail.com> Sun, Jun 5, 2022 at 12:59 PM
To: cityclerk@ci.carmel.ca.us

Dear Mayor, City Council, and Planning Commissioners,

This email is to advise you that I strongly oppose cell Tower installations in Carmel neighborhoods. I join the many others who are in favor of the STRICTEST wireless ordinances in our residential zones. Please listen to the voices in our community.

Sincerely,

Marion Keyworth
Dolores St
Carmel, CA 93921

Bruce Hollenbeck

Resident
Carmel, CA 93921

June 3, 2022

Carmel City Planning Commission
City Hall
Carmel, CA 93921

Reference Planning Case: New Wireless Ordinance Meeting

Dear Planning Commission,

There is no reason to have cell towers in Carmel residential zones. Carmel's municipal code for telecommunications needs to be strengthened. Andrew Campanelli, considered one of the best telecommunications lawyers in the country, rates Carmel's current wireless ordinance a 1 out of 10; the least effective ordinance to protect our beautiful city.

Much of the assumed power that companies like Verizon think gives them an almost unlimited authority to place cell towers, comes from interpretations by the FCC of the Telecommunications Act of 1996. These are interpretations of a law-not actual law. Courts have ruled that it is not up to the FCC to put words in the Telecommunications Act to say something it does not say. The city has more power than I think they realize.

From the Telecommunication Act of 1996 Section 332 (c) paragraph A:

GENERAL AUTHORITY- Except as provided in this paragraph, nothing in this Act shall limit or affect the authority of a State or local government over decisions regarding the placement, construction, and modification of personal wireless service facilities.

This gives the city the right to determine municipal codes such as setbacks, aesthetic requirements, placement of towers, etc.. If a company files an application for a cell tower, the planning commission must make factual determinations and decide if the new tower will have an adverse aesthetic impact, reduce property values, or if it is out of character with the neighborhood.

Big picture- If a wireless ordinance is written correctly, the city's planning commission determines the placement of cell towers or if new towers are even required. The ordinance clearly states what evidence is required to deny an application. Grounds for denial of an application does not come from Federal law, it comes from the local codes.

Andrew Campanelli has written a wireless ordinance that accomplishes these goals. It is not designed to stop all wireless facilities, it is designed to give maximum ability to control where they go.

Additionally, telecom carriers must prove a significant gap in coverage. However, Carmel and the surrounding areas have five cell tower nodes approved already but not in service. A significant gap in coverage can only be reliably ascertained by actual dropped call data, not propagation maps or drive by tests which are easy to manipulate.

Wireless carries are most likely trying to compete with hard-line cable providers and therefore would eventually require many more towers.

Please listen to the citizens. The majority of Carmel's citizens want to keep cell towers away from residential neighborhoods. Please consider the Campanelli ordinance.

//Signed//

Bruce Hollenbeck

June 3, 2022

Dear Planning Commissioners,

In a world full of division, it has been heartwarming to see people coming together to support our beautiful village. We are all so blessed to live in this idyllic seaside community and we are willing to do what it takes to maintain our quality of life here. I have literally been brought to tears many times by the kindness, love, and generosity of the people who live here. I feel very lucky to be a part of this amazing community that stands together and helps each other during difficult times.
The Stop group is truly trying to be of service to the community by protecting it from cell tower proliferation. We all want good cell service, but noisy, ugly, bulky, and perhaps unsafe towers do not need to be located outside peoples' homes.
With generous donations (large and small) from the entire community, we were able to hire one of the best telecom attorneys in the country. Carmel deserves nothing less than the best! Mr. Campanelli has written an ordinance that protects all of Carmel-by-the-Sea neighborhoods. This 48 page ordinance is a gift to the city. I hope you will all take the time to read this incredible piece of work because your decisions will shape the future of our community.
Mr. Campanelli's says, "my ordinance is not designed to stop all wireless facilities, it designed to give the city maximum ability to control where they go."

Thank you,

Christy Hollenbeck
Full-time resident of Carmel-by-the-Sea

Planning Commissioners,

Notes from Andrew Campanelli:

- Most likely everything you've heard about the 1996 Telecommunications Act is wrong. Paragraph C7a general authority—there is misinformation about the act throughout wireless industry. ***Local governments have ability to control local siting, placement, construction and maintenance of wireless facilities in their jurisdictions.*** You want to minimize number of facilities needed to provide coverage. Avoid adverse impacts- insufficient fall zones, adverse aesthetic impacts. Congress created a balancing of country's interest in roll out of wireless infrastructure and local government's interest enforcing local zoning codes
- ***Your hands are not tied!***
- New guidelines—September 2018 FCC said we are going to come up with a new interpretation because congress has not updated Telecommunications Act to keep up with new technology. ***District courts are bound by superior decisions of circuit courts***. (9th circuit in California) According to the 2nd circuit court, ***It's not up to the FCC to put words in the Telecommunications Act to say something it does not say.***
- City of Portland (9th circuit). Did not directly address effective prohibition. In my opinion ***Portland case has very little affect on effective prohibition***.
- T-mobile NE vs city of Wilmington (3rd circuit) avoided issue of effective prohibition.
- Crown Castle city of Hempstead interlocutory decision from 2nd circuit. — *we don't have to ask FCC, we are are a district court, we are bound by 2nd circuit. 2nd circuit has already determined what effective prohibition means. FCC has no power to come up with new interpretation*. ***9 of 13 circuit courts have ruled on this issue. That's what's binding on district courts.***
- ***24 years of precedent. Supposed to be a balancing.***
- Site developers want to build every 100-150 ft

- ***At least once a month cell tower catches fire!*** Google it-cell tower burns to ground—Wellesley, MA.
- https://youtu.be/0cT5cXuyiYY
- Oswego cell tower crushes fire chiefs vehicle https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjw-L64tfL3AhUcoY4IHS1cBCgQFnoECCEQAQ&url=https%3A%2F%2Fwww.firehouse.com%2Fhome%2Fnews%2F10530195%2Foswego-new-york-cellular-tower-crushes-chiefs-vehicle&usg=AOvVaw2_p8aJWRn4mpOxho-y11NI

- ***Most prove significant gap***. Must show that proposed installation on the site they want, on the section they want, at the height they want is least intrusive means of remedying that gap. ***Most carriers cannot meet these standards. Must prove no possible alternative location***. You have a significant gap and no way of remedying that
- ***Must get permit. Most local codes don't provide guidance.***
- ***If I was to rate Carmel's ordinances on a scale of 1-10 I would say Carmel is about a one for its ability to control placement of wireless facilities***. If crown if If Crown Castle (sophisticated site developer) and said, "I want tower every 150 ft in residential neighborhoods" , the city of Carmel would be powerless to stop them.
- ***Planning commission has no guidance and no idea how to deal with these applications.***
- Telecommunications Act imposes 5 procedural constraints on how you process these applications. Telecommunications Act says, "Local governments have to act on wireless applications within a reasonable time" this has been interpreted by the FCC to mean shot clocks. After application filed, you have a deadline if you blow the deadline they will file a federal lawsuit and win. Any denial of a wireless facility must be based on substantial evidence. This means more than a shred of evidence to support denial. Local boards have no idea what to do. They need guidance.
- ***Grounds for denial of an application doesn't come from federal law, it comes from your code local board. Local zoning board, if the code says so, has the power to make factual determinations.*** If someone files an application for a cell tower, your planning commission must make factual determinations. They get to decide if will have adverse aesthetic impact, it will reduce property values, if it's out of character with the neighborhood, will adversely impact aesthetic resources. They get to decide what evidence they have to produce what weight to give evidence- ***they have tremendous power.***
- Cannot prohibit or effectively prohibit. *Wireless carrier must prove: 1) significant gap in services. 2) proposed site is least intrusive means.*
- ***Propagation maps. 95% applicants are submitting false misleading information. False FCC compliance report— might as well be written in Sanskrit—need to know how to spot it is false. They file materially misleading visual impact reports.***
- Gap in service use Atoll or program like that. The problem with this software is it is subject to easy manipulation. They can make it look like this is the only place they can build.
- Capacity deficiency- you want ***denial of service records.***

- Use of propagation maps—Most are false. Computer generated map. No probitive data. Easily manipulated. FCC did drive tests. FCC said accuracy ranges from 16.4% to a max 64%. *Must provide actual drop call data.*
- ***Verizon wants to do streaming service.*** Code must address this.
- I put in my code guidance to ***request probative evidence.*** Want actual drop call data. ***Code must demand what evidence it needs***. Capacity deficiency. ***My code tells you what evidence to demand, how to demand.***
- Most denials are due to:
- 1) Shot clock
- 2) Decisions not based on substantial evidence
- 3) Denial effective prohibition
- Addressed at lengthy in my code so you won't make those mistakes. ***It's not designed to stop all wireless facilities, it designed to give the city maximum ability to control where they go.***

Dear Planning Commissioners,

Please watch the following YouTube videos by
Andrew Campanelli for more information on how he designs his wireless ordinances:

Andrew Campanelli's Advice for Updating Local Wireless Ordinance March 30, 2021 (44:20)
https://youtu.be/bKqB8wYY7cA

Lawyer Andrew Campanelli on Cell Tower Ordinances, Setbacks, and Zoning of Wireless Facilities. (11:10)

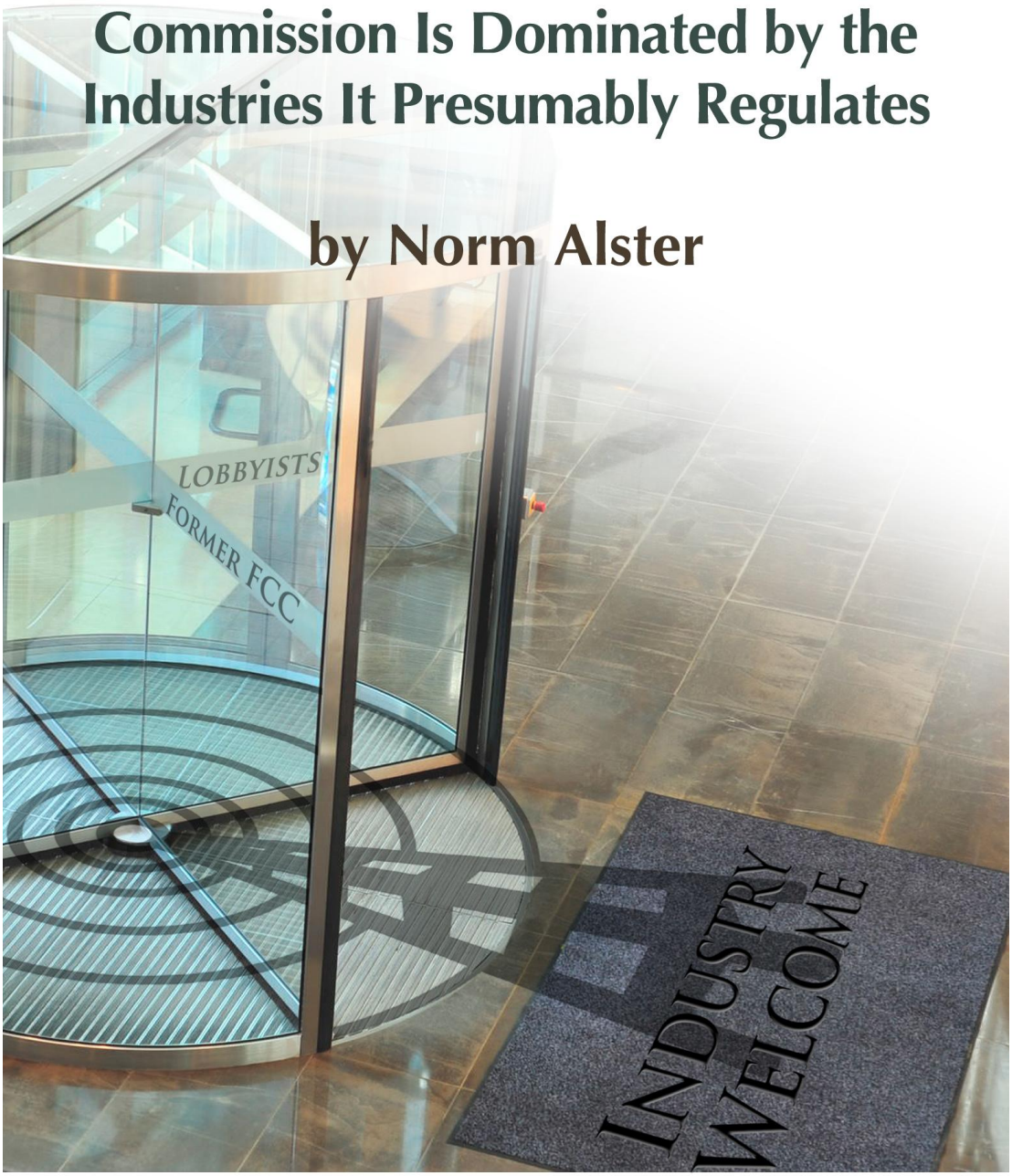
https://youtu.be/TF2XlZvxmPM

Andrew Campanelli: How to Control Placement of Cell Towers, Small Cells, and DAS Facilities (4:55)
https://youtu.be/D2z-ab5Ks_8

Captured Agency:

How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates

by Norm Alster



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Captured Agency

How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates

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Chapter One: The Corrupted Network

Renee Sharp seemed proud to discuss her spring 2014 meeting with the Federal Communications Commission.

As research director for the non-profit Environmental Working Group, Sharp doesn't get many chances to visit with the FCC. But on this occasion she was able to express her concerns that lax FCC standards on radiation from wireless technologies were especially hazardous for children.

The FCC, however, should have little trouble dismissing those concerns.

Arguing that current standards are more than sufficient and that children are at no elevated risk from microwave radiation, wireless industry lobbyists don't generally have to set up appointments months in advance. They are at the FCC's door night and day.

Indeed, a former executive with the Cellular Telecommunications Industry Association (CTIA), the industry's main lobbying group, has boasted that the CTIA meets with FCC officials "500 times a year."[1]

Sharp does not seem surprised. "There's no question that the government has been under the influence of industry. The FCC is a captured agency," she said.[2]

Captured agency.

That's a term that comes up time and time again with the FCC. Captured agencies are essentially controlled by the industries they are supposed to regulate. A detailed look at FCC actions—and non-actions—shows that over the years the FCC has granted the wireless industry pretty much what it has wanted. Until very recently it has also granted cable what it wants. More broadly, the FCC has again and again echoed the lobbying points of major technology interests.

Money—and lots of it—has played a part. The National Cable and Telecommunications Association (NCTA) and CTIA have annually been among Washington's top lobbying spenders. CTIA alone lobbied on at least 35 different Congressional bills through the first half of 2014. Wireless market leaders AT&T and Verizon work through CTIA. But they also do their own lobbying, spending nearly $15 million through June of 2014, according to data from the Center for Responsive Politics (CRP). In all, CTIA, Verizon, AT&T, T-Mobile USA, and Sprint spent roughly $45 million lobbying in 2013. Overall, the Communications/Electronics sector is one of Washington's super heavyweight lobbyists, spending nearly $800 million in 2013-2014, according to CRP data.

But direct lobbying by industry is just one of many worms in a rotting apple. The FCC sits at the core of a network that has allowed powerful moneyed interests with limitless access a variety of ways to shape its policies, often at the expense of fundamental public interests.

As a result, consumer safety, health, and privacy, along with consumer wallets, have all been overlooked, sacrificed, or raided due to unchecked industry influence. The cable industry has consolidated into giant local monopolies that control pricing while leaving consumers little choice over content selection. Though the FCC has only partial responsibility, federal regulators have allowed the Internet to grow into a vast hunting grounds for criminals and commercial interests: the go-to destination for the surrender of personal information, privacy and identity. Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored.

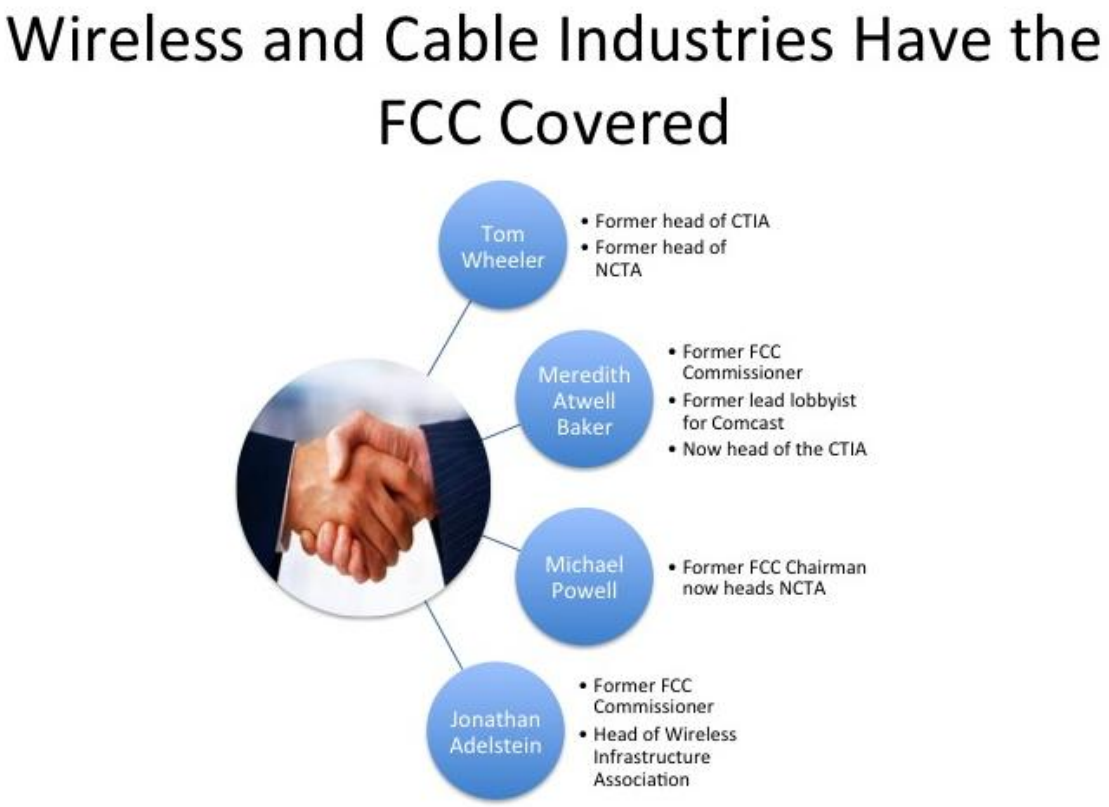
Industry controls the FCC through a soup-to-nuts stranglehold that extends from its well-placed campaign spending in Congress through its control of the FCC's Congressional oversight committees to its persistent agency lobbying. "If you're on a committee that regulates industry you'll be a major target for industry," said Twaun Samuel, chief of staff for Congresswoman Maxine Waters.[3] Samuel several years ago helped write a bill aimed at slowing the revolving door. But with Congress getting its marching orders from industry, the bill never gained any traction.

Industry control, in the case of wireless health issues, extends beyond Congress and regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure.

On a personal level, the entire system is greased by the free flow of executive leadership between the FCC and the industries it presumably oversees. Currently presiding over the FCC is Tom Wheeler, a man who has led the two most powerful industry lobbying groups: CTIA and NCTA. It is Wheeler who once supervised a $25 million industry-funded research effort on wireless health effects. But when handpicked research leader George Carlo concluded that wireless radiation did raise the risk of brain tumors, Wheeler's CTIA allegedly rushed to muffle the message. "You do the science. I'll take care of the politics," Carlo recalls Wheeler saying.[4]

Wheeler over time has proved a masterful politician. President Obama overlooked Wheeler's lobbyist past to nominate him as FCC chairman in 2013. He had, after all, raised more than $700,000 for Obama's presidential campaigns. Wheeler had little trouble earning confirmation from a Senate whose Democrats toed the Presidential line and whose Republicans understood Wheeler was as industry-friendly a nominee as they could get. And while Wheeler, at the behest of his Presidential sponsor, has taken on cable giants with his plans for net neutrality and shown some openness on other issues, he has dug in his heels on wireless.

Newly ensconced as chairman of the agency he once blitzed with partisan pitches, Wheeler sees familiar faces heading the industry lobbying groups that ceaselessly petition the FCC. At CTIA, which now calls itself CTIA - The Wireless Association, former FCC commissioner Meredith Atwell Baker is in charge.



And while cell phone manufacturers like Apple and Samsung, along with wireless service behemoths like Verizon and AT&T, are prominent CTIA members, the infrastructure of 300,000 or more cellular base stations and antenna sites has its own lobbying group: PCIA, the Wireless Infrastructure Association. The President and CEO of PCIA is Jonathan Adelstein, another former FCC commissioner. Meanwhile, the cable industry's NCTA employs former FCC chairman Michael Powell as its president and CEO. Cozy, isn't it?

FCC commissioners in 2014 received invitations to the Wireless Foundation's May 19th Achievement Awards Dinner. Sounds harmless, but for the fact that the chief honoree at the dinner was none other than former wireless lobbyist but current FCC Chairman Tom Wheeler. Is this the man who will act to look impartially at the growing body of evidence pointing to health and safety issues?

The revolving door also reinforces the clout at another node on the industry-controlled influence network. Members of congressional oversight committees are prime targets of

industry. The cable industry, for example, knows that key legislation must move through the Communications and Technology Subcommittee of the House Energy and Commerce Committee. Little wonder then that subcommittee chairman Greg Walden was the second leading recipient (after Speaker John Boehner) of cable industry contributions in the last six years (through June 30, 2014). In all, Walden, an Oregon Republican, has taken over $108,000 from cable and satellite production and distribution companies.[5] But he is not alone. Six of the top ten recipients of cable and satellite contributions sit on the industry's House oversight committee. The same is true of senators on the cable oversight committee. Committee members were six of the ten top recipients of campaign cash from the industry.[6]

Cable & Satellite Campaign Contributions

Top House Recipients Funded

Recipient	Amount
John A. Boehner	$135,425
Greg Walden	$108,750
Bob Goodlatte	$93,200
John Conyers Jr.	$84,000
Mike Coffman	$82,137
Fred Upton	**$73,500**
Lee Terry	**$65,916**
Henry A. Waxman	**$65,000**
Cory Gardner	**$64,500**
Anna G. Eshoo	**$60,500**

Cellular Industry Campaign Contributions

Top House Recipients Funded

Recipient	Amount
Henry A. Waxman	**$41,500**
Scott H. Peters	$40,300
Greg Walden	**$35,750**
Fred Upton	**$32,250**
Bob Goodlatte	$31,250
Lee Terry	**$29,600**
Anna G. Eshoo	**$27,000**
Doris O. Matsui	**$25,500**
John Shimkus	**$24,000**
Peter J. Roskam	$21,100

Cable & Satellite Campaign Contributions

Top Senate Recipients Funded

Recipient	Amount
Edward J. Markey	**$320,500**
Kirsten E. Gillibrand	$194,125
Mitch McConnell	$177,125
Harry Reid	$175,600
Charles E. Schumer	$175,450
Mark L. Pryor	**$172,950**
Michael F. Bennet	$159,000
Richard Blumenthal	**$148,800**
Claire McCaskill	**$138,185**
Mark Udall	$136,625

Cellular Industry Campaign Contributions

Top Senate Recipients Funded

Recipient	Amount
Edward J. Markey	**$155,150**
Mark R. Warner	$74,800
Harry Reid	$73,600
Mark L. Pryor	**$71,900**
Roy Blunt	**$57,400**
John McCain	$56,261
Charles E. Schumer	$53,300
Roger F. Wicker	$51,300
Barbara Boxer	$49,578
Kelly Ayotte	$43,333

The compromised FCC network goes well beyond the revolving door and congressional oversight committees. The Washington social scene is one where money sets the tone and throws the parties. A look at the recent calendar of one current FCC commissioner shows it would take very disciplined and almost saintly behavior on the part of government officials to resist the lure of lavishly catered dinners and cocktail events. To paraphrase iconic investigative journalist I.F. Stone, if you're going to work in Washington, bring your chastity belt.

All that free liquor, food and conviviality translates into the lobbyist's ultimate goal: access. "They have disproportionate access," notes former FCC commissioner Michael Copps. "When you are in a town where most people you see socially are in industry, you don't have to ascribe malevolent behavior to it," he added.[7]

Not malevolent in motive. But the results can be toxic. And blame does not lie solely at the feet of current commissioners. The FCC's problems predate Tom Wheeler and go back a long way.

Indeed, former Chairman Newton Minow, enduringly famous for his 1961 description of television as a "vast wasteland," recalls that industry manipulation of regulators was an issue even back then. "When I arrived, the FCC and the communications industry were both regarded as cesspools. Part of my job was to try to clean it up."[8]

More than 50 years later, the mess continues to pile up.

Chapter Two: Just Don't Bring Up Health

Perhaps the best example of how the FCC is tangled in a chain of corruption is the cell tower and antenna infrastructure that lies at the heart of the phenomenally successful wireless industry.

It all begins with passage of the Telecommunications Act of 1996, legislation once described by South Dakota Republican senator Larry Pressler as "the most lobbied bill in history." Late lobbying won the wireless industry enormous concessions from lawmakers, many of them major recipients of industry hard and soft dollar contributions. Congressional staffers who helped lobbyists write the new law did not go unrewarded. Thirteen of fifteen staffers later became lobbyists themselves.[9]

Section 332(c)(7)(B)(iv) of the Act remarkably—and that adverb seems inescapably best here—wrests zoning authority from local governments. Specifically, they cannot cite health concerns about the effects of tower radiation to deny tower licenses so long as the towers comply with FCC regulations.

Congress Silences Public

Section 332(c)(7)(B)(iv) of the Communications Act provides:

> No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

In preempting local zoning authority—along with the public's right to guard its own safety and health— Congress unleashed an orgy of infrastructure build-out. Emboldened by the government green light and the vast consumer appetite for wireless technology, industry has had a free hand in installing more than 300,000 sites. Church steeples, schoolyards, school rooftops, even trees can house these facilities.

Is there any reason to believe that the relatively low level radiofrequency emissions of these facilities constitute a public health threat? Certainly, cell phones themselves, held close to the head, have been the focus of most concern on RF emissions. Since the impact of RF diminishes with distance, industry advocates and many scientists dismiss the possibility that such structures pose health risks.

But it's not really that simple. A troubling body of evidence suggests exposure to even low emission levels at typical cellular frequencies between 300 MHz and 3 GHz can have a wide range of negative effects.

In a 2010 review of research on the biological effects of exposure to radiation from cell tower base stations, B. Blake Levitt and Henry Lai found that "some research does exist to warrant caution in infrastructure siting."[10] They summarized the results on one 2002 study that compared the health of 530 people living at various distances within 300 meters of cell towers with a control group living more than 300 meters away. "Results indicated increased symptoms and complaints the closer a person lived to a tower. At <10 m, symptoms included nausea, loss of appetite, visual disruptions, and difficulties in moving. Significant differences were observed up through 100 m for irritability, depressive tendencies, concentration difficulties, memory loss, dizziness, and lower libido."[11]

A 2007 study conducted in Egypt found similar results. Levitt and Lai report, "Headaches, memory changes, dizziness, tremors, depressive symptoms, and sleep disturbance were significantly higher among exposed inhabitants than controls."[12]

Beyond epidemiological studies, research on a wide range of living things raises further red flags. A 2013 study by the Indian scientists S. Sivani and D. Sudarsanam reports: "Based on current available literature, it is justified to conclude that RF-EMF [electro magnetic fields] radiation exposure can change neurotransmitter functions, blood-brain barrier, morphology, electrophysiology, cellular metabolism, calcium efflux, and gene and protein expression in certain types of cells even at lower intensities."[13]

The article goes on to detail the effects of mobile tower emissions on a wide range of living organisms: "Tops of trees tend to dry up when they directly face the cell tower antennas. . . . A study by the Centre for Environment and Vocational Studies of Punjab University noted that embryos of 50 eggs of house sparrows were damaged after being exposed to mobile tower radiation for 5-30 minutes. . . . In a study on cows and calves on the effects of exposure from mobile phone base stations, it was noted that 32% of calves developed nuclear cataracts, 3.6% severely."[14]

Does any of this constitute the conclusive evidence that would mandate much tighter control of the wireless infrastructure? Not in the estimation of industry and its captured agency. Citing other studies—often industry-funded—that fail to establish health effects, the wireless industry has dismissed such concerns. The FCC has typically echoed that position.

Keep in mind that light regulation has been one factor in the extraordinary growth of wireless—CTIA says exactly that in a Web post that credits the Clinton Administrations light regulatory touch.

July 25, 2013

CTIA The Wireless Association® BLOG

CTIA is an international nonprofit trade association that has represented the wireless communications industry since 1984.

But our position as the world's leader was no accident. It started with the Clinton Administration that had the foresight to place a "light regulatory touch" on the wireless industry, which was in its infancy at the time. That light touch has continued through multiple Administrations.

Obviously, cellular technology is wildly popular because it offers many benefits to consumers. But even allowing for that popularity and for the incomplete state of science, don't some of these findings raise enough concern to warrant some backtracking on the ham-fisted federal preemption of local zoning rights?

In reality, since the passage of the 1996 law, the very opposite has occurred. Again and again both Congress and the FCC have opted to stiffen—rather than loosen—federal preemption over local zoning authority. In 2009, for example, the wireless industry convinced the FCC to impose a "shot clock" that requires action within 90 days on many zoning applications. "My sense is that it was an industry request," said Robert Weller, who headed up the FCC's Office of Engineering and Technology when the shot clock was considered and imposed.[15]

And just last November, the FCC voted to further curb the rights of local zoning officials to control the expansion of antenna sites Again and again, Congress and the FCC have extended the wireless industry carte blanche to build out infrastructure no matter the consequences to local communities.

The question that hangs over all this: would consumers' embrace of cell phones and Wi-Fi be quite so ardent if the wireless industry, enabled by its Washington errand boys, hadn't so consistently stonewalled on evidence and substituted legal intimidation for honest inquiry? (See Appendix for online study of consumer attitudes on wireless health and safety.)

Document searches under the Freedom of Information Act reveal the central role of Tom Wheeler and the FCC in the tower siting issue. As both lobbyist and FCC chairman, Wheeler has proved himself a good friend of the wireless industry.

In January of 1997, CTIA chieftain Wheeler wrote FCC Wireless Telecommunications Bureau Chief Michele C. Farquhar citing several municipal efforts to assert control over siting. Wheeler, for example, asserted that one New England state had enacted a law requiring its Public Service Commissioner to issue a report on health risks posed by wireless facilities.[16] He

questions whether such a study—and regulations based on its results—would infringe on FCC preemption authority.

FCC bureau chief Farquhar hastily reassured Wheeler that no such study could be consulted in zoning decisions. "Therefore, based on the facts as you have presented them, that portion of the statute that directs the State Commissioner to recommend regulations based upon the study's findings would appear to be preempted,"[17] the FCC official wrote to Wheeler. She emphasized that the state had the right to do the study. It just couldn't deny a siting application based on anything it might learn.

The FCC in 1997 sent the message it has implicitly endorsed and conveyed ever since: study health effects all you want. It doesn't matter what you find. The build-out of wireless cannot be blocked or slowed by health issues.

Now let's fast forward to see Wheeler on the other side of the revolving door, interacting as FCC chairman with a former FCC commissioner who is now an industry lobbyist.

A March 14, 2014 letter[18] reveals the chummy relationship between Wheeler and former commissioner Jonathan Adelstein, now head of PCIA, the cellular infrastructure lobbying group. It also references FCC Chairman Wheeler seeking policy counsel from lobbyist Adelstein:

Wheeler Still Willing to Help

From: Jonathan Adelstein [mailto:adelstein@pcia.com]
Sent: Friday, March 14, 2014 12:24 PM
To: [redacted]
Cc: Renee Gregory; Jonathan Campbell
Subject: How to Spur Wireless Broadband Deployment

Tom – It was great to see you the other night at the FCBA event, and wonderful to see how much fun you're having (if that's the right word). I know I enjoyed my time there (thanks to your help with Daschle in getting me that role in the first place!).

Thanks for asking how we think the FCC can help spur wireless broadband deployment. The infrastructure proceeding perfectly tees up many of the top issues the FCC needs to address. As you requested, I've summarized briefly in the attached letter some of the key steps you can take now.

"Tom – It was great to see you the other night at the FCBA event, and wonderful to see how much fun you're having (if that's the right word). I know I enjoyed my time there (thanks to your help with Daschle in getting me that role in the first place!)."

"Thanks for asking how we think the FCC can help spur wireless broadband deployment," the wireless lobbyist writes to the ex-wireless lobbyist, now running the FCC.

Adelstein's first recommendation for FCC action: *"Amend its rules to categorically exclude DAS and small deployments* [Ed. note: these are compact tower add-ons currently being widely deployed] *from environmental and historic review."* Adelstein outlined other suggestions for further limiting local antenna zoning authority and the FCC soon did its part. Late last year, the agency proposed new rules that largely (though not entirely) complied with the antenna industry's wish list.

James R. Hobson is an attorney who has represented municipalities in zoning issues involving the FCC. He is also a former FCC official, who is now of counsel at Best, Best and Krieger, a Washington-based municipal law practice. "The FCC has been the ally of industry," says Hobson. Lobbyist pressure at the FCC was intense even back in the 70s, when he was a bureau chief there. "When I was at the FCC, a lot of my day was taken up with appointments with industry lobbyists." He says of the CTIA that Wheeler once headed: "Their reason for being is promoting the wireless industry. And they've been successful at it."[19]

The FCC's deferential compliance has allowed industry to regularly bypass and if necessary steamroll local authorities. Violation of the FCC-imposed "shot clock," for example, allows the wireless license applicant to sue.

The FCC's service to the industry it is supposed to regulate is evidently appreciated. The CTIA web site, typically overflowing with self-congratulation, spreads the praise around in acknowledging the enabling contributions of a cooperative FCC. In one brief summation of its own glorious accomplishments, CTIA twice uses the word "thankfully" in describing favorable FCC actions.

In advancing the industry agenda, the FCC can claim that it is merely reflecting the will of Congress. But the agency may not be doing even that.

Remember the key clause in the 96 Telecom Act that disallowed denial of zoning permits based on health concerns? Well, federal preemption is granted to pretty much any wireless outfit on just one simple condition: its installations must comply with FCC radiation emission standards. In view of this generous carte blanche to move radiation equipment into neighborhoods, schoolyards and home rooftops, one would think the FCC would at the very least diligently enforce its own emission standards. But that does not appear to be the case.

Indeed, one RF engineer who has worked on more than 3,000 rooftop sites found vast evidence of non-compliance. Marvin Wessel estimates that "10 to 20% exceed allowed radiation standards."[20] With 30,000 rooftop antenna sites across the U.S. that would mean that as many as 6,000 are emitting radiation in violation of FCC standards. Often, these emissions can be 600% or more of allowed exposure levels, according to Wessel.

Antenna standards allow for higher exposure to workers. In the case of rooftop sites, such workers could be roofers, painters, testers and installers of heating and air conditioning

equipment, to cite just a few examples. But many sites, according to Wessel, emit radiation at much higher levels than those permitted in occupational standards. This is especially true of sites where service providers keep adding new antenna units to expand their coverage. "Some of these new sites will exceed ten times the allowable occupational radiation level," said Wessel.[21] Essentially, he adds, this means that nobody should be stepping on the roof.

"The FCC is not enforcing its own standard," noted Janet Newton, who runs the EMF Policy Institute, a Vermont-based non-profit. That group several years ago filed 101 complaints on specific rooftop sites where radiation emissions exceeded allowable levels. "We did this as an exercise to hold the FCC's feet to the fire," she said. But the 101 complaints resulted in few responsive actions, according to Newton.[22]

Former FCC official Bob Weller confirms the lax—perhaps negligible is the more appropriate word—FCC activity in enforcing antenna standards. "To my knowledge, the enforcement bureau has never done a targeted inspection effort around RF exposure," he said.[23] Budget cuts at the agency have hurt, limiting the FCC's ability to perform field inspections, he added. But enforcement, he adds, would do wonders to insure industry compliance with its limited regulatory compliance requirements. "If there were targeted enforcement and fines issued the industry would pay greater attention to ensuring compliance and self-regulation," he allowed.

Insurance is where the rubber hits the road on risk. So it is interesting to note that the rating agency A.M. Best, which advises insurers on risk, in 2013 topped its list of "emerging technology-based risks" with RF Radiation:

> *"The risks associated with long-term use of cell phones, although much studied over the past 10 years, remain unclear. Dangers to the estimated 250,000 workers per year who come in close contact with cell phone antennas, however, are now more clearly established. Thermal effects of the cellular antennas, which act at close range essentially as open microwave ovens can include eye damage, sterility and cognitive impairments. While workers of cellular companies are well trained on the potential dangers, other workers exposed to the antennas are often unaware of the health risks. The continued exponential growth of cellular towers will significantly increase exposure of these workers and others coming into close contact with high-energy cell phone antenna radiation,"* A.M. Best wrote.[24]

So what has the FCC done to tighten enforcement? Apparently, not very much. Though it does follow up on many of the complaints filed against sites alleged to be in violation of standards it takes punitive actions very rarely. (The FCC did not provide answers to written questions on details of its tower enforcement policies.)

The best ally of industry and the FCC on this (and other) issues may be public ignorance.

An online poll conducted for this project asked 202 respondents to rate the likelihood of a series of statements.[25] Most of the statements were subject to dispute. Cell phones raise the risk of certain health effects and brain cancer, two said. There is no proof that cell phones are harmful, another declared. But among the six statements there was one statement of indisputable fact: "The U.S. Congress forbids local communities from considering health effects when deciding whether to issue zoning permits for wireless antennae," the statement said.

Though this is a stone cold fact that the wireless industry, the FCC and the courts have all turned into hard and inescapable reality for local authorities, just 1.5% of all poll respondents replied that it was "definitely true."

Public ignorance didn't take much cultivation by the wireless industry on the issue of local zoning. And maybe it doesn't matter much, considering the enormous popularity of wireless devices. But let's see how public ignorance has been cultivated and secured—with the FCC's passive support—on the potentially more disruptive issue of mobile phone health effects.

Chapter Three: Wireless Bullies and the Tobacco Analogy

Issues of cable and net neutrality have recently attracted wide public attention (more on that in Chapter Six). Still, the bet here remains that future judgment of the FCC will hinge on its handling of wireless health and safety issues.

And while the tower siting issue is an egregious example of an industry-dominated political process run amuck, the stronger health risks appear to reside in the phones themselves. This is an issue that has flared up several times in recent years. Each time, industry has managed to beat back such concerns. But it's worth noting that the scientific roots of concern have not disappeared. If anything, they've thickened as new research substantiates older concerns.

The story of an FCC passively echoing an industry determined to play hardball with its critics is worth a further look. The CTIA's own website acknowledges the helpful hand of government's "light regulatory touch" in allowing the industry to grow.[26]

Former congressman Dennis Kucinich ventures one explanation for the wireless industry's success in dodging regulation: "The industry has grown so fast its growth has overtaken any health concerns that may have gained attention in a slow growth environment. The proliferation of technology has overwhelmed all institutions that would have attempted safety testing and standards," Kucinich said.[27]

But the core questions remain: Is there really credible evidence that cell phones emit harmful radiation that can cause human health problems and disease? Has the FCC done an adequate job in protecting consumers from health risks? Or has it simply aped industry stonewalling on health and safety issues?

Before wading into these questions, some perspective is in order.

First, there's simply no denying the usefulness and immense popularity of wireless technology. People depend on it for safety, information, entertainment and communication. It doesn't take a keen social observer to know that wireless has thoroughly insinuated itself into daily life and culture.

The unanswered question, though, is whether consumers would embrace the technology quite so fervently if health and safety information was not spun, filtered and clouded by a variety of industry tactics.

To gain some insight into this question, we conducted an online survey of 202 respondents, nearly all of whom own cell phones, on Amazon's Mechanical Turk Web platform (see Appendix). One striking set of findings: many respondents claim they would change behavior—reduce wireless use, restore landline service, protect their children—if claims on health dangers of wireless are true.

It is not the purpose of this reporter to establish that heavy cell phone usage is dangerous. This remains an extremely controversial scientific issue with new findings and revised scientific conclusions repeatedly popping up. Just months ago, a German scientist who had been outspoken in denouncing the view that cell phones pose health risks reversed course. In an April 2015 publication, Alexander Lerchl reported results confirming previous research on the tumor-promoting effects of electromagnetic fields well below human exposure limits for mobile phones. "Our findings may help to understand the repeatedly reported increased incidences of brain tumors in heavy users of mobile phones," the Lerchl team concluded.[28] And in May 2015, more than 200 scientists boasting over 2,000 publications on wireless effects called on global institutions to address the health risks posed by this technology.

But the National Cancer Institute still contends that no cell phone dangers have been established. A representative of NCI was the sole known dissenter among the 30 members of the World Health Organization's International Agency for Research on Cancer (IARC) when it voted to declare wireless RF "possibly carcinogenic."[29] If leading scientists still can't agree, I will not presume to reach a scientific conclusion on my own.

IARC RF working group: Official press release

International Agency for Research on Cancer

World Health Organization

PRESS RELEASE
N° 208

31 May 2011

IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as **possibly carcinogenic to humans (Group 2B)**, based on an increased risk for **glioma**, a malignant type of brain cancer, associated with wireless phone use.

But let's at least look at some of the incriminating clues that health and biology research has revealed to date. And let's look at the responses of both industry and the FCC.

The most widely cited evidence implicating wireless phones concerns gliomas, a very serious type of brain tumor. The evidence of elevated risk for such tumors among heavy cell phone users comes from several sources.

Gliomas account for roughly half of all malignant brain tumors, which are relatively rare. The annual incidence of primary malignant brain tumors in the U.S. is only 8.2 per 100,000 people, according to the International Radio Surgery Association.

Still, when projected over the entire U.S. population, the public health impact is potentially very significant.

Assuming roughly four new glioma cases annually in the U.S. per 100,000 people, yields over 13,000 new cases per year over a total U.S. population of 330 million. Even a doubling of that rate would mean 13,000 new gliomas, often deadly, per year. A tripling, as some studies have found, could mean as many as 26,000 more new cases annually. Indeed, the respected online site Medscape in January 2015 reported results of Swedish research under the headline: *Risk for Glioma Triples With Long-Term Cell Phone Use*.[30]

And here's some eye-opening quantitative perspective: the wars in Iraq and Afghanistan, waged now for more than a decade each, have together resulted in roughly 7,000 U.S. deaths.

Preliminary—though still inconclusive—research has suggested other potential negative health effects. Swedish, Danish and Israeli scientists have all found elevated risk of salivary gland tumors. One Israeli studied suggested elevated thyroid cancer risk. Some research has found that men who carry their phones in their pockets may suffer sperm count damage. One small study even suggests that young women who carry wireless devices in their bras are unusually vulnerable to breast cancer.

And while industry and government have never accepted that some portion of the population is unusually sensitive to electromagnetic fields, many people continue to complain of a broad range of symptoms that include general weakness, headaches, nausea and dizziness from exposure to wireless.

Some have suggested that the health situation with wireless is analogous to that of tobacco before court decisions finally forced Big Tobacco to admit guilt and pay up. In some ways, the analogy is unfair. Wireless research is not as conclusively incriminating as tobacco research was. And the identified health risks with wireless, significant as they are, still pale compared with those of tobacco.

But let's not dismiss the analogy outright. There is actually a very significant sense in which the tobacco-wireless analogy is uncannily valid.

People tend to forget that the tobacco industry—like the wireless industry—also adopted a policy of tone-deaf denial. As recently as 1998, even as evidence of tobacco toxicity grew overwhelming, cigarette maker Phillip Morris was writing newspaper advertorials insisting there was no proof smoking caused cancer.

It seems significant that the responses of wireless and its captured agency—the FCC—feature the same obtuse refusal to examine the evidence. The wireless industry reaction features stonewalling public relations and hyper aggressive legal action. It can also involve undermining the credibility and cutting off the funding for researchers who do not endorse cellular safety. It is these hardball tactics that look a lot like 20th century Big Tobacco tactics. It is these hardball tactics—along with consistently supportive FCC policies—that heighten suspicion the wireless industry does indeed have something to hide.

Begin with some simple facts issuing from meta-analysis of cellular research. Dr. Henry Lai, emeritus professor of bioengineering at the University of Washington, has reviewed hundreds of published scientific papers on the subject. He wanted to see how many studies demonstrated that non-ionizing radiation produces biological effects beyond the heating of tissue. This is critical since the FCC emission standards protect only against heating. The assumption behind these standards is that there are no biological effects beyond heating.

But Dr. Lai found that just over half—actually 56%—of 326 studies identified biological effects. And the results were far more striking when Dr. Lai divided the studies between those that were industry-funded and those that were independently funded. Industry-funded research identified biological effects in just 28% of studies. But fully 67% of non-industry funded studies found biological effects (Insert Slide—Cell Phone Biological Studies).

A study conducted by Swiss and British scientists also looked at how funding sources affected scientific conclusions on the possible health effects of cell phone usage. They found that of studies privately funded, publicly funded and funded with mixed sponsorship, industry-funded studies were "least likely to report a statistically significant result."[31] "The interpretation of results from studies of health effects of radiofrequency radiation should take sponsorship into account," the scientists concluded.[32]

So how does the FCC handle a scientific split that seems to suggest bias in industry-sponsored research?

In a posting on its Web site that reads like it was written by wireless lobbyists, the FCC chooses strikingly patronizing language to slight and trivialize the many scientists and health and safety experts who've found cause for concern. In a two page Web post titled "Wireless Devices and Health Concerns," the FCC four times refers to either "some health and safety interest groups," "some parties," or "some consumers" before in each case rebutting their presumably groundless concerns about wireless risk.[33] Additionally, the FCC site references the World Health Organization as among those organizations who've found that "the weight of scientific

evidence" has not linked exposure to radiofrequency from mobile devices with "any known health problems."

Yes, it's true that the World Health organization remains bitterly divided on the subject. But it's also true that a 30 member unit of the WHO called the International Agency for Research on Cancer (IARC) was near unanimous in pronouncing cell phones "possibly carcinogenic" in 2011. How can the FCC omit any reference to such a pronouncement? Even if it finds reason to side with pro-industry scientists, shouldn't this government agency also mention that cell phones are currently in the same potential carcinogen class as lead paint?

Now let's look a bit more closely at the troublesome but presumably clueless crowd of "some parties" that the FCC so cavalierly hastens to dismiss? Let's begin with **Lennart Hardell**, professor of Oncology and Cancer Epidemiology at the University Hospital in Oreboro, Sweden.

Until recently it was impossible to gain any real sense of brain tumor risk from wireless since brain tumors often take 20 or more years to develop. But the cohort of long-term users has been growing. In a study published in the International Journal of Oncology in 2013, Dr. Hardell and Dr. Michael Carlberg found that the risk of glioma—the most deadly type of brain cancer—rose with cell phone usage. The risk was highest among heavy cell phone users and those who began to use cell phones before the age of 20.[34]

Indeed, those who used their phones at least 1640 hours (which would be roughly 30 minutes a day for nine years) had nearly three times the glioma incidence. Drs. Hardell and Carlberg also found that gliomas tend to be more deadly among heavy wireless callers.[35]

Perhaps of greatest long-term relevance, glioma risk was found to be four times higher among those who began to use mobile phones as teenagers or earlier. These findings, along with the established fact that it generally takes decades for tumors induced by environmental agents to appear, suggest that the worst consequences of omnipresent wireless devices have yet to be seen.

In a 2013 paper published in *Reviews on Environmental Health*, Drs. Hardell and Carlberg argued that the 2011 finding of the IARC that identified cell phones as a "possibly carcinogenic" needs to be revised. The conclusion on radiofrequency electromagnetic fields from cell phones should now be "cell phones are not just a possible carcinogen." They can now be "regarded as carcinogenic to humans" and the direct cause of gliomas (as well as acoustic neuromas, a less serious type of tumor).[36] Of course, these views are not universally accepted.

The usual spin among industry supporters when presented with research that produces troubling results is along the lines of: "We might pay attention if the results are duplicated." In fact, the Hardell results were echoed in the French CERENAT study, reported in May of 2014. The CERENAT study also found higher risk among heavy users, defined as those using their phones at least 896 hours (just 30 minutes a day for five years). "These additional data support

previous findings concerning a possible association between heavy mobile phone use and brain tumors," the study concluded.[37]

Cell phones are not the only wireless suspects. Asked what he would do if he had policy-making authority, Dr. Hardell swiftly replied that he would "ban wireless use in schools and pre-schools. You don't need Wi-Fi," he noted.[38] This is especially interesting in view of the FCC's sharply hiked spending to promote and extend Wi-Fi usage, as well as its consistent refusal to set more stringent standards for children (more on all this later). But for now let's further fill out the roster of the FCC's unnamed "some parties."

Martin Blank is a Special Lecturer in Physiology and Cellular Biophysics at Columbia University. Unlike Dr. Hardell, who looks at broad epidemiological effects over time, Dr. Blank sees cause for concern in research showing there is biological response at the cellular level to the type of radiation emitted by wireless devices. "The biology tells you unequivocally that the cell treats radiation as a potentially damaging influence," Dr. Blank said in a late 2014 interview.[39]

"The biology tells you it's dangerous at a low level," he added. Though some results have been difficult to replicate, researchers have identified a wide range of cellular responses including genetic damage and penetration of the blood brain barrier. Dr. Blank specifically cited the "cellular stress response" in which cells exposed to radiation start to make proteins.

It is still not clear whether biological responses at the cellular level translate into human health effects. But the research seems to invalidate the basic premise of FCC standards that the only biological effect of the type of radiation produced by wireless devices is tissue heating at very high power levels. But the standards-setting agencies "ignore the biology," according to Dr. Blank. He describes the FCC as being "in industry's pocket."[40]

Sweden's Lund University is annually ranked among the top 100 universities in the world. **Leif Salford** has been chairman of the Department of Neurosurgery at Lund since 1996. He is also a former president of the European Association for Neuro-Oncology. In the spring of 2000, Professor Salford told me that wireless usage constituted "the world's largest biological experiment ever."[41]

He has conducted numerous experiments exposing rats to cellular-type radiation. Individual experiments have shown the radiation to penetrate the blood-brain barrier, essential to protecting the brain from bloodstream toxins. Professor Salford also found that rats exposed to radiation suffered loss of brain cells. "A rat's brain is very much the same as a human's. They have the same blood-brain barrier and neurons. We have good reason to believe that what happens in rat's brains also happens in humans," he told the BBC in 2003. Dr. Salford has also speculated that mobile radiation could trigger Alzheimer's disease in some cases but emphasized that much more research would be needed to establish any such causal relationship. Does this man deserve to be dismissed as one of a nameless and discredited group of "some parties?"

And what about the **American Academy of Pediatrics (AAP),** which represents 60,000 American doctors who care for children? In a December 12, 2012 letter to former Ohio Congressman Dennis Kucinich, AAP President Dr. Thomas McInerny writes: "Children are disproportionately affected by environmental exposures, including cell phone radiation. The differences in bone density and the amount of fluid in a child's brain compared to an adult's brain could allow children to absorb greater quantities of RF energy deeper into their brains than adults."[42]

In a subsequent letter to FCC officials dated August 29, 2013, Dr. McInerny points out that "children, however, are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation." Current FCC exposure standards, set back in 1996, "do not account for the unique vulnerability and use patterns specific to pregnant women and children," he wrote. (Insert slide: A Plea from Pediatricians). Does an organization representing 60,000 practitioners who care for children deserve to be brushed off along with "some health and safety interest groups?"

So what is the FCC doing in response to what at the very least is a troubling chain of clues to cellular danger? As it has done with wireless infrastructure, the FCC has to this point largely relied on industry "self-regulation." Though it set standards for device radiation emissions back in 1996, the agency doesn't generally test devices itself. Despite its responsibility for the safety of cell phones, the FCC relies on manufacturers' good-faith efforts to test them. Critics contend that this has allowed manufacturers undue latitude in testing their devices.

Critics further contend that current standards, in place since cell phones were barely in use, are far too lax and do not reflect the heavy usage patterns that have evolved. Worse still, industry is allowed to test its own devices using an imprecise system that makes no special provision for protecting children and pregnant women. One 2012 study noted that the procedure widely used by manufacturers to test their phones "substantially underestimates" the amount of RF energy absorbed by 97% of the population, "especially children." A child's head can absorb over two times as much RF energy. Other persons with smaller heads, including women, are also more vulnerable. The authors recommend an alternative computer simulation technique that would provide greater insight into the impact of cellular radiation on children and on to the specific RF absorption rates of different tissues, which vary greatly.[43]

Acting on recommendations of the General Accounting Office, the FCC is now reconsidering its standards for wireless testing and allowed emissions. On the surface, this may seem to represent an effort to tighten standards to promote consumer health and safety. But many believe the FCC's eventual new standard will actually be weaker, intensifying any health risk from industry's self-reported emission levels. "They're under great pressure from industry to loosen the criteria," notes Joel Moskowitz, director of the Center for Family and Community Health at UC Berkeley's School of Public Health.[44] One fear is that the FCC could measure the allowed radiation absorption level (SAR) over a wider sample of tissue, effectively loosening the

standard allowable energy absorption. One FCC official, who asked that his name not be used, contended that a decision had not yet been made to loosen the standard.

But to this point, there is little evidence the FCC is listening to anyone beyond its familiar friends in the wireless industry. Carl Blackman, a scientist at the Environmental Protection agency until retiring in 2014, notes that the FCC does rely to some degree on an inter-agency governmental group for advice on health matters. The group includes, for example, representatives from the EPA and the FDA.

Blackman served on that advisory group and he says that it has been divided. Though some government advisers to the FCC find evidence of wireless health risks convincing, others remain skeptical, said Blackman. Root of the skepticism: even though numerous researchers have found biological and health effects, the mechanism for action by non-ionizing radiation on the human body has still not been identified. “I don’t think there’s enough of a consensus within the Radio Frequency Inter-agency Working Group for them to come out with stricter standards,” he says.[45]

But political pressures also figure mightily in all this. The EPA, notably, was once a hub of research on RF effects, employing as many as 35 scientists. However, the research program was cut off in the late 80s during the Regan presidency. Blackman says he was personally “forbidden” to study health effects by his “supervisory structure.”[46] He termed it “a political decision” but recognized that if he wanted to continue to work at the EPA he would have to do research in another area.

Blackman is cautious in imputing motives to the high government officials who wanted his work at EPA stopped. But he does say that political pressure has been a factor at both the EPA and FCC: “The FCC people were quite responsive to the biological point of view. But there are also pressures on the FCC from industry.” The FCC, he suggests, may not just be looking at the scientific evidence “The FCC’s position—like the EPA’s—is influenced by political considerations as well.”[47]

Still, the FCC has ultimate regulatory responsibility and cannot indefinitely pass the buck on an issue of fundamental public health. Remarkably, it has not changed course despite the IARC classification of cell phones as possibly carcinogenic, despite the recent studies showing triple the glioma risk for heavy users, despite the floodtide of research showing biological effects, and despite even the recent defection of core industry booster Alex Lerchl. It is the refusal of both industry and the FCC to even acknowledge this cascade of warning signs that seems most incriminating.

Of course, industry behavior goes well beyond pushing for the FCC’s willful ignorance and inaction. Industry behavior also includes self-serving public relations and hyper aggressive legal action. It can also involve undermining the credibility of and cutting off the funding for researchers who do not endorse cellular safety. It is these hardball tactics that recall 20th century Big Tobacco tactics. It is these tactics that heighten suspicion that the wireless industry does

indeed have a dirty secret. And it is those tactics that intensify the spotlight on an FCC that so timidly follows the script of the fabulously wealthy, bullying, billion-dollar beneficiaries of wireless.

Chapter Four: You Don't Need Wires To Tie People Up

So let's look a little more deeply at some of the actions of an industry group that boasts of 500 meetings a year with the FCC. Lobbying is one thing. Intimidation is another. CTIA has shown its skill at—and willingness to use—both.

Outright legal bullying is a favored tactic. The City of San Francisco passed an ordinance in 2010 that required cell phone manufacturers to display more prominently information on the emissions from their devices. This information was already disclosed—but often buried—in operator manuals and on manufacturer websites. The idea was to ensure that consumers saw information already mandated and provided.

Seeing this as a threat to its floodtide of business, the industry sued the City of San Francisco. The City, fearing a prolonged legal fight with an industry that generates hundreds of billions of dollars in annual revenue, backed down.

On May 12, 2015, Berkeley, California's City Council unanimously passed a similar ordinance. Joel Moskowitz, director of the Center for Family and Community Health at the University of California-Berkeley's School of Public Health, has been involved in the effort. Berkeley, he says, didn't want to run into the same legal threats that paralyzed San Francisco. So it tried to draft the most inoffensive and mild language possible. The proposed Cell Phone Right to Know ordinance: "To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. This potential risk is greater for children. Refer to the instructions in your phone or user manual for information about how to use your phone safely."[48]

Sounds pretty inoffensive, no? Not to the CTIA, which indicated that it was prepared to sue, according to Berkeley City Attorney Zach Cowan.[49] (On June 8th, CTIA did indeed sue the City of Berkeley.)

Well, from the industry point of view, why not throw around your weight? Smash mouth legal tactics have been highly successful thus far as industry has managed to throttle several efforts to implicate manufacturers in cases where heavy users suffered brain tumors.

But one current case has advanced in district court in Washington to the point where the judge allowed plaintiffs to present expert witness testimony. The industry response: file a legal action seeking to invalidate long-held court methods for qualifying expert witnesses.

This is a very rich industry that does not hesitate to outspend and bully challengers into submission. Meanwhile, amidst the legal smoke and medical confusion, the industry has

managed to make the entire world dependent on its products. Even tobacco never had so many hooked users.

Such sustained success in the face of medical doubt has required industry to keep a lid on critics and detractors. Many scientists who've found real or potential risk from the sort of microwave radiation emanating from wireless devices have learned there is a price to be paid for standing up to the industry juggernaut. A few prominent examples:

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In 1994, University of Washington researchers Henry Lai and N.P. Singh found that rats exposed to microwave radiation suffered DNA damage to their brain cells. This was a scary finding since DNA damage can lead to mutations and possibly cancer.

The reaction from industry was swift. Motorola was at that time the U.S. market leader in cell phones. In a memorandum obtained by the journal Microwave News, Motorola PR honcho Norm Sandler outlined how the company could "downplay the significance of the Lai study." One step: "We have developed a list of independent experts in this field and are in the process of recruiting individuals willing and able to reassure the public on these matters," Sandler wrote. After outlining such measures, he concluded that Motorola had "sufficiently war-gamed" the issue. The practices of lining up industry-friendly testimony and "war-gaming" researchers who come up with unfavorable results have been persistent themes with this industry.

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After Lai's results were published, Motorola decided to sponsor further research on microwaves and DNA damage. Oftentimes, lab results cannot be reproduced by other

researchers, particularly if experiments are tweaked and performed a bit differently. Non-confirming studies raise doubt, of course, on the original work.

Motorola lined up Jerry Phillips, a scientist at the Veteran's Administration Medical Center in Loma Linda, California, and Phillips tested the effect of radiation at different frequencies from those tested by Lai and Singh. Nevertheless, Phillips found that at some levels of exposure, DNA damage increased, while at other levels it decreased. Such findings were "consistent" with the sorts of effects produced by chemical agents, Phillips said in an interview.[50] In some cases, the radiation may have activated DNA repair mechanisms, reducing the overall microwave effect. But what was important, Phillips explained, is that there were *any* biological effects at all. The wireless industry has long contended—and the FCC has agreed—that there is no evidence that non-ionizing radiation at the frequencies and power levels used by cell phones is biologically active.

Understanding the potential impact of "biological effect" findings, Motorola again turned to damage control, said Phillips. He recalls receiving a phone call from a Motorola R&D executive. "I don't think you've done enough research,'" Phillips recalls being told. The study wasn't ready for publication, according to the Motorola executive. Phillips was offered more money to do further research without publishing the results of what he'd done.

But Phillips felt he'd done enough. Despite warnings for his own boss to "give Motorola what it wants," Phillips went ahead and published his findings in 1998. Since then, Phillips' industry funding has dried up. Meanwhile, as many other researchers report, government funding to do independent research on microwave radiation has dried up, leaving the field at least in the U.S. to industry-funded scientists. "There is no money to do the research," Said Phillips. "It's not going to come from government because government is controlled by industry."[51]

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Om P. Gandhi is Professor of Electrical and Computer Engineering at the University of Utah and a leading expert in dosimetry—measurement of non-ionizing radiation absorbed by the human body. Even before cell phones were in wide use, Professor Gandhi had concluded that children absorb more emitted microwave radiation. "The concentration of absorbed energy is 50 to 80% greater," he explained.[52]

These conclusions were not acceptable to Professor Gandhi's industrial sponsors. In 1998, he recalls, an executive from a cell phone manufacturer—which he did not want to identify—told him directly that if he did not discontinue his research on children his funding would be cut off. Professor Gandhi recalled replying: "I will not stop. I am a tenured professor at the University of Utah and I will not reject my academic freedom." Professor Gandhi also recalled some of his thought process: "I wasn't going to order my students to alter their results so that I can get funding." His industry sponsors cancelled his contract and asked for a return of funds.

Professor Gandhi believes that some cell phone users require extra protection because their heads are smaller and more absorptive. “Children, as well as women and other individuals with smaller heads absorb more concentrated energy because of the proximity of the radiating antenna to the brain tissue,” he said. And yet the FCC has not acted to provide special protection for these groups. Asked why not, Professor Gandhi conceded that he doesn’t know. He does note, however, that recent standards-setting has been dominated by industry representatives.[53]

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While the mobile industry refuses to admit to even the possibility that there is danger in RF radiation, giant insurance companies see things differently. Several insurers have in recent years issued reports highlighting product liability risk with cell phones. This is important because it is evidence that where money is on the line professionals outside the industry see the risk of legal liability.

Legal exposure could be one reason—perhaps the central one—the industry continues to stonewall. Should legal liability be established, one key question will be how much wireless executives knew—and at what point in time. Meanwhile, the combination of public relations denials, legal intimidation and the selective application of pressure on research follows a familiar pattern. “The industry is basically using the tobacco industry playbook,” UC Berkeley’s Moskowitz said in a recent radio interview.[54]

That playbook has thus far been highly successful in warding off attention, regulation and legal incrimination.

Chapter Five: $270 Billion . . . and Looking for Handouts

The FCC's network of corruption doesn't just shield industry from needed scrutiny and regulation on matters of public health and safety. Sometimes it just puts its hand directly into the public pocket and redistributes that cash to industry supplicants.

Such is arguably the case with the Universal Service Fund. Originally established to extend telephone service to rural and urban areas that industry would find difficult or uneconomical to wire, the USF is now shifting from subsidizing landline phone service to subsidizing the extension of broadband Internet. USF monies also support the Lifeline program, which subsidizes cell phone service to low-income consumers, and the E-Rate program, which subsidizes Internet infrastructure and service to schools and libraries.

Since 1998, more than $110 billion has been allocated to Universal Service programs, notes Charles Davidson, director of the Advanced Communications Law & Policy Institute at New York Law School. The FCC has allocated over $40 billion to the E-Rate program alone.

Who pays the freight for these high-cost programs? You do.

Technically, landline and wireless phone companies are assessed for the Universal Service fund's expenditures. But the FCC also allows those companies to pass on such charges to their subscribers, which they do. Both landline and wireless subscribers pay a monthly Universal Service charge that is tacked on to their phone bills. That charge has been rising and recently amounted to a 16% surcharge on interstate calls.

Consumers who pay for these programs might be interested to learn that both the E-Rate and Lifeline programs have been riddled with fraud. Government watchdogs have repeatedly found the programs to be inefficient and prone to inflated and fraudulent claims. But the programs have been a windfall for tech and telecom industry beneficiaries. Wherever the FCC presides, it seems, these industries reap a windfall.

The General Accounting Office (GAO) has issued several reports citing fraud, waste and mismanagement, along with inadequate FCC oversight of the subsidy program. Bribery, kickbacks and false documentation can perhaps be expected in a handout program mandated by Congress and only indirectly supervised by the FCC.

But the scope of fraud has been impressive. The most striking corruption has marred the E-Rate program, which subsidizes Internet hardware, software and service for schools and libraries, and the Lifeline cell phone subsidies.

In recent years, several school districts have paid fines to settle fraud cases involving bribery, kickbacks, non-competitive bidding of contracts and false documentation in the E-Rate

program. More eye opening perhaps are the settlements of fraud claims by tech giants like IBM, Hewlett Packard and AT&T. The HP case, for example, involved some colorful bribery allegations, including gifts of yachts and Super Bowl tickets. HP settled for $16 million. An HP official and a Dallas Independent School District official both received jail sentences.

The Lifeline program has also been riddled with fraud. A Wall Street Journal investigation of the five top corporate beneficiaries of Lifeline showed that 41% of more than 6 million subsidy claimants "couldn't demonstrate their eligibility or didn't respond to requests for certification."[55] AT&T, Verizon, and Sprint Nextel were three of the major Lifeline beneficiaries.

The FCC has initiated several efforts to clean up USF programs and seems honestly determined to bring greater accountability and efficiency to its subsidy efforts. Nevertheless, problems with fraud persist, as reported recently by the FCC's own top investigator.

Congress established the FCC's Office of Inspector General in 1989 to "provide objective and independent investigations, audits and reviews of the FCC's programs and operations." Here's what the FCC's internal investigative unit said in a September 30, 2014 report to Congress about its Office of Investigation (OI): "*The bulk of the work of OI involves investigating and supporting civil and criminal investigations/prosecutions of fraud in the FCC's federal universal service program*."[56]

Office of Inspector General

OFFICE OF INVESTIGATION

The bulk of the work of OI involves investigating and supporting civil and criminal investigations/prosecutions of fraud in the FCC's federal universal service program.

Fraud—as pervasive and troubling as it has been—is just one of the problems with the programs of universal service. It may not even be the fundamental problem. More fundamental issues concern the very aim, logic and efficiency of programs to extend broadband and wireless technology at public expense. Though the aims of extending service to distant impoverished areas seem worthy on the surface, there are many reasons to think the major beneficiaries of these programs are the technology companies that win the contracts.

Lobbyists have long swarmed over the FCC looking to get an ever-growing piece of the USF honeypot. An FCC report on meetings with registered lobbyists details a 2010 meeting with representatives of the International Society for Technology in Education and other education lobbyists. Topics discussed, according to the FCC report, included "the need to raise the E-Rate's annual cap."[57]

The CTIA, leaving no stone unturned in its efforts to pump up member revenues, last year responded to a House hearing on the USF by grousing that "current USF-supported programs skew heavily toward support of wireline services. . . . The concentration of USF monies to support wireline services is inconsistent with technological neutrality principles and demonstrated consumer preferences," CTIA wrote..[58] An industry that generates hundreds of billions of dollars in equipment and service revenues annually bellies up for a bigger slice of the $8 billion a year USF.

The grousing has paid off. The FCC recently announced that it will raise spending on E-Rate from what had been a cap of $2.4 billion a year to $3.9 billion. A significant portion of new outlays will go to Wi-Fi—yet another wireless industry victory at the FCC. But the CTIA is by no means the only industry group pressing the FCC.

Leading the roster of active lobbyists on E-Rate issues is the Software and Information Industry Association. Beginning in 2006, SIAA led all lobbyists with 54 mentions of E-Rate in its filings, according to the Center for Responsive Politics. SIAA board members include executives from tech heavyweights Google, Oracle and Adobe Systems.

Tech business leaders—many of them direct beneficiaries of FCC programs—made a direct pitch to FCC Chairman Wheeler last year to hike E-Rate funding. "The FCC must act boldly to modernize the E-Rate program to provide the capital needed to upgrade our K-12 broadband connectivity and Wi-Fi infrastructure within the next five years," the executives wrote.[59]

There were dozens of corporate executive signees to this letter, including the CEOs of many Fortune 500 giants. But let's just consider the participation of three: top executives of Microsoft, Google and HP all joined the call to expand E-Rate subsidies. Consider the simple fact that these three tech giants alone had revenues of $270 billion—more than a quarter of a trillion dollars—in a recent four-quarter period. Together, they produced nearly $40 billion in net income. And yet their top executives still thought it necessary to dun the FCC—and really, they were surreptitiously hitting up the public—for ramped-up spending on what was then a $2.4 billion a year program.

Is that greed? Arrogance? Or is it simply behavior conditioned by success in repeatedly getting what they want at the public trough? Almost never mentioned in these pleas for higher subsidies is the fact that ordinary American phone subscribers are the ones footing the bill for the E-Rate program—not the FCC or the telecom industry.

Much of the added spending, as noted, will go towards the installation of wireless networks. And yet Wi-Fi does not have a clean bill of health. When Lennart Hardell, professor of Oncology and Cancer Epidemiology at the University Hospital in Orebro, Sweden, was asked what he would do if given policy authority over wireless health issues, he replied swiftly that he would "ban wireless use in schools and pre-school." Noting that there are wired alternatives, Professor Hardell flatly stated: "You don't need Wi-Fi."[60] And yet the FCC, prodded by an industry ever on the lookout for incremental growth opportunities, is ignoring the health of youngsters to promote expanded Wi-Fi subsidies in schools across the U.S.

And what about the merit of the program itself? Overlooking the fraud and lobbying and Wi-Fi safety issues for a moment, shouldn't schools and libraries across the country be equipped with the best electronic gear, accessing the Internet at the fastest speeds? Doesn't the government owe that to its younger citizens, especially those disadvantaged by the long-referenced digital divide?

Well, maybe. But answers to these questions hinge on even more fundamental question: Do students actually learn more or better with access to the latest high-speed electronic gadgetry?

It would be foolish to argue that nobody benefits from access to high-speed Internet. But the benefits are nowhere near as broad or rich as corporate beneficiaries claim. Some researchers, for example, have concluded that computers don't seem to have positive educational impact—they may even have negative impact—when introduced into the home or freely distributed to kids from low income backgrounds.

Duke University researchers Jacob Vigdor and Helen Ladd studied the introduction of computers into North Carolina homes. They found that the academic performance of youngsters given computers actually declined. *"The introduction of home computer technology is associated with modest but statistically significant and persistent negative impacts on student math and reading test scores,"* the authors wrote in a National Bureau of Economic Research Working Paper.[61] The impact was actually most negative on the poorer students.

A study in the Journal of International Affairs examined the impact of the global One Laptop Per Child Program (OLPC), which has distributed millions of computers to children around the world. Researchers Mark Warschauer and Morgan Ames conclude: *"The analysis reveals that provision of individual laptops is a utopian vision for the children in the poorest countries, whose educational and social futures could be more effectively improved if the same investments were instead made on more proven and sustainable interventions. Middle- and high-income countries may have a stronger rationale for providing individual laptops to children, but will still want to eschew OLPC's technocratic vision. In summary, OLPC represents the latest in a long line of technologically utopian schemes that have unsuccessfully attempted to solve complex social problems with overly simplistic solutions*."[62]

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Can One Laptop Per Child Save the World's Poor?

"...In summary, One Laptop Per Child represents the latest in a long line of technologically utopian development schemes that have unsuccessfully attempted to solve complex social problems with overly simplistic solutions."

Access to computers in the home may not work educational magic. But what about computers in the classroom? Don't they have educational value there?

The anecdotal evidence is mixed at best. Consider how students in Los Angeles, newly equipped with flashy iPads at a mind-boggling taxpayer cost of more than $1 billion, went about using the new tools to improve their educational performance. "Instead of solving math problems or doing English homework, as administrators envisioned, more than 300 Los Angeles Unified School District students promptly cracked the security setting and started tweeting, posting to Facebook and playing video games."[63]

But let's cut through the self-serving corporate claims and the troubling anecdotes to hear from someone who actually has had extensive and unique field experience. Kentaro Toyama was co-founder of Microsoft's research lab in India. Over more than five years he oversaw at least a dozen projects that sought to address educational problems with the introduction of computer technology. His conclusion: "The value of technology has been over-hyped and over-sold."

The most important factor in improving schools, says Toyama, now the W.K Kellogg Associate Professor of Community Information at the University of Michigan, is good teachers. Without good, well-trained teachers, adequate budgets and solid school administration, technology does little good. "Technology by itself never has any kind of positive impact," he said.[64]

The only schools in his experience that benefited from increased technology investment were those where "the teachers were very good, the budgets adequate." The richer schools, in essence. But as both Vigdor and Warschauer found, the introduction of technology has by itself little if any positive effect. For a public conditioned to believe in the virtues of new technology, such testimony is a bracing dose of cold reality.

But what about cost? Doesn't technology in the schools more efficiently replace alternative investments? Cost reductions are often the most persuasive argument for technology, Toyama agrees. But even these have been overstated. The costs of introducing new technology run far beyond initial hardware and software investments, said Toyama. In reality, the total costs of ownership—including maintenance, training, and repair—typically run to five or ten times the initial cost, according to Toyama. He said of the investment in technology for cost benefits: "I would say that in the long run—and even in the medium run and the short-run—that's probably the worst and most misguided conclusion to come to."[65]

He adds: "The inescapable conclusion is that significant investments in computers, mobile phones and other electronic gadgets in education are neither necessary nor warranted for most school systems. In particular, the attempt to use technology to fix underperforming class rooms . . . is futile. And for all but wealthy, well-run schools, one-to-one computer programs cannot be recommended in good conscience."[66]

But that doesn't keep industry lobbyists from recommending them. And it hasn't kept the FCC for spending scores of billions subsidizing technology to the very groups least likely to benefit from it.

Unmoved by the arguments of researchers and educators like Vigdor, Warschauer, and Toyama, the FCC keeps moving to increase technology subsidies. Ignoring research that disputes the value of technology in closing the so-called "digital divide," the FCC has even pioneered a new slogan: "the Wi-Fi gap."

In announcing that it was lifting E-Rate's annual budget from $2.4 billion to $3.9 billion and stepping up investment in wireless networking, FCC chairman Wheeler exulted that "10 million students are going to experience new and better opportunities."[67] The impact on consumer pocketbooks (and potentially on youngsters' health from daily Wi-Fi exposure) were not mentioned.

The two Republican members of the FCC did at least recognize the pocketbook impact. "It always seems easier for some people to take more money from the American people via higher taxes and fees rather than do the hard work," said Commissioner Michael O'Reilly.[68]

The subsidized provision of high-speed Internet service is yet another pet project of the FCC. Julius Genachowski, chairman from 2009 to 2013, championed the transition of the USF from landline phone service to broadband. Universal broadband Internet connections would begin to absorb the monies collected from consumers to extend basic phone service.

As with government subsidies for cell phone service, classroom technology, and Wi-Fi, there are basic questions about the wisdom of subsidizing broadband. Charles Davidson and Michael Santorelli of the New York Law School found that spending billions to extend broadband is a flawed approach since there are many largely ignored reasons people choose not to adopt

broadband. “Everybody is pushing broadband non-stop,” noted Davidson, director of the Law School’s Advanced Communications Law and Policy Institute. “I think the FCC is focused on the wrong set of issues,” he said.[69]

Already, he explained, over 98% of Americans have access to wired or wireless broadband. The issue is not one of supply. It’s one of demand. Many people—for a variety of reasons—don’t really care about broadband, he contends. Price is one issue. Also powerful factors—but given almost no attention—are privacy and security concerns. “In our view, they should be focused on barriers to meaningful broadband utilization: privacy and security,” said Davidson.[70]

But consumer privacy (more on this subject in Chapter Seven) has no well-funded lobby with limitless access to the FCC.

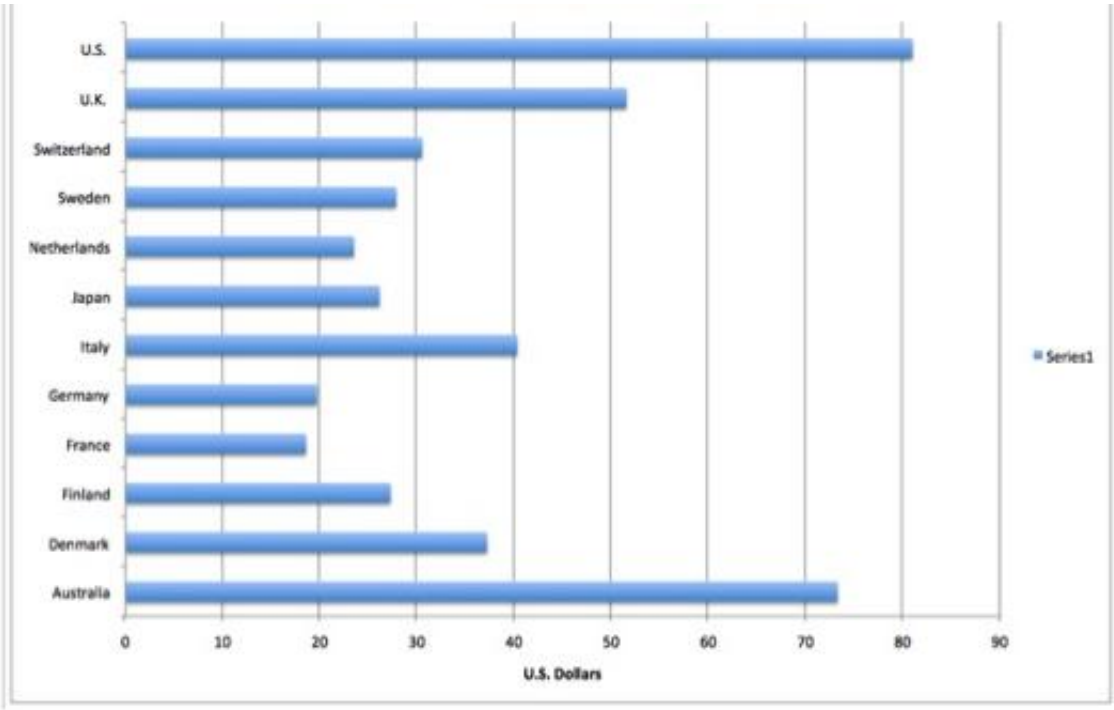
Chapter Six: The Cable Connection

The network has also been active in diluting FCC control of the cable television industry. Over the years, cable has devolved into major de facto local monopolies. Comcast and Time Warner Cable, whose merger proposal was dropped in April, are dominant forces in both cable television and broadband Internet subscriptions. Somehow, though, they have managed to steer clear of one another in specific markets, giving each pricing power where it faces little local competition.

It's interesting that cable companies annually rank in consumer polls among the "most hated" or "most disliked" American corporations. Indeed, Comcast and Time Warner Cable often top the "most hated" list.[71] Why would these companies—providers of the TV programming that has so expanded consumer options in recent decades—be so widely scorned? After all, the U.S. has been a leader in developing both cable technology and diverse television programming.

The problem is that it hasn't been anything close to a leader in bringing down subscriber prices. Industry consultants typically measure pricing by the metric of average revenue per subscriber. Industry trackers at IHS compared the price of U.S. pay television (which includes satellite services) to those in more than 60 other countries. U.S. prices were the highest, with only Australia even coming close. The average revenue per subscriber in the U.S. in 2013 was $81. But in France it was just $18.55. In Germany it was $19.68. In Japan it was just over $26.

Pay TV Monthly Revenue Per Person:



And U.S. cable prices have risen in recent years at rates three or more times the rate of inflation. This has been going on for some time. From 1995 to 2013 cable rates increased at a 6.1% annual clip. The Consumer Price Index, by contrast, rose by just 2.4% annually. Former FCC commissioner Michael Copps says the FCC shares a major part of the blame. "The FCC is as culpable for allowing that as much as the companies for imposing it," he said.[72]

One area where the FCC has contributed to the problem is in its traditional rubber-stamping of merger agreements. The proposed Comcast/Time Warner Cable deal has been shelved, largely because of Justice Department reservations. But a long run of earlier FCC-sanctioned deals allowed Comcast and Time Warner Cable to grow to the market dominance—and attendant pricing power—they currently command.

Lofty monthly cable bills pinch consumers. But it's more than that. Subscribers paying $80 a month are often paying for a lot of channels they don't watch and don't want. The FCC has never required cable operators to charge for what consumers actually want to watch. Kevin Martin, who chaired the FCC from 2005 to 2009, pushed to "debundle" programming in hopes of lowering bills. But the issue was never resolved. Only recently have viable competitive alternatives to cable's "bundled" packages become available. The satellite service Dish, for example, months ago introduced its Sling offering that enables consumers to opt for smaller and cheaper packages.

In fairness to cable operators, it should be pointed that programmers often require operators to take unwanted or fledgling channels along with their stars. New York cable operator Cablevision Systems filed suit against Viacom in 2013, charging that in order to get popular channels like MTV and Nickelodeon it was also forced to take low-rated channels like Nicktoons and VH1 Soul. But the simple truth is that no matter who is to blame, the cable consumer pays high prices, typically for some programming he doesn't want. As it often does when powerful interests pursue dubious practices, the FCC has for the most part idly stood by.

Still, the FCC isn't entirely to blame. Some factors in the growth of the cable giants cannot be laid at its doorstep. Local municipalities often granted monopoly or duopoly status in granting franchises to cable network builders. With the huge capital investments required to cable metropolitan areas, this once seemed to make sense.

And over the years, the cable giants have used a variety of tactics to weaken what little local competition they may have had. Active lobbyists on the local level, the cable giants have managed to convince a growing number of states to outlaw municipal systems that could threaten private corporate incumbents. The FCC for many years declined to tangle with the states in this matter, partly due to the opposition of Republican commissioners. But the Wheeler-led Commission did vote recently to override state laws that limit the build-out of municipal cable systems.

Still, many years of industry subservience will be difficult to swiftly undo. One linchpin merger shows how FCC decision-making has been thoroughly undermined by the revolving door, lobbying, and carefully targeted campaign contributions. All conspired in Comcast's pivotal 2011 buyout of NBC Universal, a deal which reinforced Comcast's domination of both cable and broadband access. This deal also set the stage for the recent headline-grabbing acrimony over the issue of net neutrality.

In 2011, mighty Comcast proposed to acquire NBC Universal. A series of mergers including the 1986 acquisition of Group W assets and the 2002 acquisition of AT&T's cable assets had already vaulted Comcast into cable market leadership. In bidding for NBC Universal, a huge step towards vertical integration, Comcast was once again raising the stakes. NBC Universal would give Comcast a treasure trove of programming, including valued sports content like NFL football and the Olympics.

Suddenly, the issue was not just cable subscriber base size—where Comcast had already bought its way to dominance. NBC Universal would also allow Comcast to consolidate its growing power as a broadband Internet provider. And with NBC Universal's programming assets, Comcast would gain new leverage when negotiating prices to carry the competing programming content of rivals. This would prompt a new round of debate over net neutrality. Couldn't a programming-rich Comcast slow down rival services—or charge them more to carry their programming?

To short-circuit any potential opposition to the merger, Comcast assembled a superstar cast of lobbyists. As Susan Crawford reports in her 2013 book, "Comcast hired almost eighty former government employees to help lobby for approval of the merger, including several former chiefs of staff for key legislators on congressional antitrust committees, former FCC staffers and Antitrust Division lawyers, and at least four former members of Congress.[73] Such "profligate hiring," Crawford observes, pretty much silenced the opposition to the deal. If Comcast had already retained one member of a lobbying firm, the firm could not under conflict of interest rules object to the deal. And Comcast had locked up key lobbying shops. Money was both weapon and silencer.

Of course, Comcast had always been a big spender on lobbying, with outlays exceeding $12 million every year since 2008. Lobbying costs peaked in 2011 at $19.6 million, according to the Center for Responsive Politics.

For its part, the FCC had a long history of approving most media mergers. So it was hardly a great surprise when the agency, after exacting some relatively minor concessions from Comcast, rubber-stamped the deal. Comcast would thus broaden its footprint as local monopoly distributor of cable. And with its new programming assets, it would enhance its leverage in negotiating deals to carry its rivals' programming. It would also fortify its position of growing strength as broadband Internet gatekeeper.

The most telling footnote to the deal would come just four months later. FCC Commissioner Meredith Atwell Baker, who voted to approve the merger in January 2011, left the FCC to become a top-tier Comcast lobbyist in May. It was the ultimate—and perhaps most telling—glide of the revolving door.

Baker's was a high-profile defection. But it was neither the first nor the last. Comcast had successfully convinced other FCC officials to take their expertise and government contacts to the cable giant. Comcast has long been a master at spinning the revolving door to its own advantage. "Comcast has been very good at hiring everyone who is very smart," said Crawford.[74]

Approval of the NBC Universal deal was another in the long string of FCC merger approvals that made Comcast a nationwide monopolist that could dictate both pricing and viewer programming choice.

But the deal may have had another unintended consequence. It set the stage for Comcast's subsequent battles on net neutrality. "Those mergers gave additional oomph to the issue of net neutrality," noted former commissioner Copps. Speaking specifically of Comcast's buyout of NBC Universal, IHS senior analyst Eric Brannon agreed. "That merger laid the grounds for net neutrality."

In allowing Comcast to acquire major programming assets, the deal would sharpen questions about the power of gatekeepers like Comcast to control the flow of traffic from rival Web services. So in bowing to lobbyist pressure, the FCC would bring on itself a whole new set of pressures by focusing public attention on the issue of net neutrality.

With activists rounding up comments from the public and hip TV personalities like HBO's John Oliver also beating the drums, net neutrality quickly grew into a popular issue that won the support of President Obama, and by proxy, his hand-picked appointee Tom Wheeler. When the FCC ruled in February of 2015 that it would seek Title II authority to regulate the Internet and presumably block any favoritism by broadband gatekeepers, it seemed to finally cast its lot with the public against steamrolling corporate interests

The issue had simmered for years but reached full boil when movie purveyor Netflix, which had argued that its service was slowed down by Comcast, signed a side deal ensuring better download speeds for its wares. This triggered an outburst of public concern that Comcast was now in position to operate "fast" and "slow" lanes, depending on whether a rival programmer could afford to ensure that Comcast provide adequate download speed.

With nearly 4 million comments—many supplied or encouraged by public interest groups—filed to the FCC, net neutrality was a bankable political issue. And there's no question, net neutrality attracted public interest because it gave cable viewers—long furious at the treatment by the monopolists who send them monthly bills—issues of both viewing pleasure and economics.

But it also fed into the longstanding sentimental but increasingly unrealistic view of the Internet as the last bastion of intellectual freedom. Internet romanticists have long seen the Web as a place that somehow deserves special rules for breaking the stranglehold of traditional media and offering exciting new communications, information retrieval and shopping efficiencies.

Yes, the Internet is a modern marvel. This is beyond dispute. But some of the favors it has won from government over the years have had unfortunate unintended consequences.

In the 1990s, for example, net access providers were repeatedly exempted as an "infant industry" from paying access charges to the Baby Bells even though they had to connect users through local phone networks. The long distance companies were then paying as much as $30 billion a year for the privilege. But the Internet was exempted.

As the late 90s approached, the Internet was no longer an infant industry. Still, the exemption from access charges was extended. That exemption essentially allowed AOL in the late 90s to offer unlimited unmetered online time, a key factor in boosting usage and siphoning advertisers from print media. Why buy an ad in print that might get viewed with the transitory flip of a page when you can get round-the-clock attention online?[75] FCC decisions to grant the Internet access-charge exemptions arguably accelerated the decline of print media and much of the quality journalism print advertising could once support.

Meanwhile, retailers on the Internet were making inroads into brick and mortar retail business with the help of a Supreme Court-sanctioned exemption from collecting sales tax.[76] This judicial coddling of the Internet was the death knell for many smaller mom and pop local businesses, already challenged to match online pricing. And that's not all. The special favors continue virtually every year, as Congress proposes and/or passes legislation to extend special tax exemptions to Internet services.

Well, maybe tax breaks aren't such a bad idea for such an innovative and transformational emerging technology. For all its faults, the Internet—gateway to all goods, repository of all things, wizardly guide to all knowledge, enabler of universal self-expression—is undeniably cool.

But let's not deny that the combination of tax advantages and deregulation was toxic. Allow an industry to emerge with advantages over useful existing industries that largely play by the rules—well, maybe that can be rationalized. But then fail to hold the upstart industry to the same rules, allowing it more leeway to trample fundamental rights because it has the technical capacity to do so. Well, then you have a cruel Faustian bargain.

With the see-no-evil deregulatory gospel loosing all constraints, the Web would devolve into a playground for corporate snoops and criminals. For all its wonders, the Internet comes at a cost: the loss of control over personal data, the surrender of personal privacy, sometimes even the confiscation of identity.

Perhaps the most favorable consequence of net neutrality—and one that has gotten surprisingly little attention—is that it could set the stage for privacy reform. (More on this in Chapter Seven). The FCC can now choose to exercise its Title II powers to enforce privacy standards over broadband Internet. Privacy is one area where the FCC has done a pretty good job in the past.

Worth remembering, though, is that the hard-fought public victory over Net Neutrality may be transitory. AT&T and others have threatened to go to court to upend the FCC rules. And there's a fair chance a Republican Congress will legislate against Title II.

Meanwhile, though, one supreme irony has begun to unfold in the marketplace.

Modern-day laissez fair ideologues love to invoke the wisdom of markets as represented by the "mysterious hand" of Adam Smith. Unfortunately, in the absence of effective regulation, the putatively wise "mysterious hand" generally seems to work its magic for those with huge financial resources and the political access it buys.

In the current cable situation, however, the mysterious hand may actually be working in consumer-friendly ways. Years of regulation that favored the cable companies have now backfired as the market reacts to monopolistic pricing and content control.

Whereas cable giants have commanded premium monthly subscriber prices to deliver packages of largely unwatched channels, the market is now beginning to burst with new "debundled" options that are whittling away at cable's vast subscriber base.

Satellite service Direct TV, as noted, now offers its streaming video Sling TV package of popular networks that includes live sports and news. Amazon, Apple, CBS, HBO, Netflix, Sony, and others offer a variety of streaming video options that allow viewers to cut the cable cord. Suddenly, consumers have the cherry-picking capability that bundled—and expensive—cable packages have never allowed.

In this case, at least, the unintended consequences of the FCC's pro-industry policies may be producing an unexpected pro-consumer twist.

Chapter Seven: What about Privacy?

Has any issue gotten as much lip service—and as little meaningful action?

For all the various congressional bills, corporate self-regulatory schemes and presidential Privacy Bill of Rights proposals, the simple truth remains that no personal information is safe on the Internet. Data brokers have built a multi-billion dollar business exchanging information used to build profiles of Net users. Your shopping and surfing habits, your health history, your banking data, your network of social ties, perhaps even your tax filings are all potentially exposed online. Both legal and criminal enterprises amass this information. And it doesn't go away.

At any given moment people you don't know somehow know where you are. They may very well know when you made your last bank deposit, when you had your last asthma attack or menstrual period. Corporations encourage and pay for every bit of information they can use or sell. Creepy? Perhaps, but as Jeff Chester, president of the Center for Digital Democracy points out: "The basic business model that drives online is advertising."[77]

The FCC largely escapes blame on this one. It is the Federal Trade Commission that has had primary responsibility for protecting Internet privacy. The FCC does have some limited authority, which, some critics say, could have been exercised more vigorously. But for the most part the FCC is not to blame for the rampant online abuse of personal privacy and identity.

The FCC does however have privacy authority over the phone, cable and satellite industries. Until recently, at least, the FCC has kept privacy issues at bay among the companies in these industries. "The FCC has generally taken privacy very seriously," noted Harold Feld, a senior vice president at the non-profit Public Knowledge.[78]

But dynamics now in place suggest that privacy may be the next great testing ground for the FCC. A new chance, perhaps, to champion public interest. Even before the opportunity for privacy enforcement under Title II regulatory powers, the FCC faces new challenges from phone companies, now itching to monetize their vast consumer data stashes the way Net companies have. The commonly used term is "Google envy."

"Until now, ISPs (Internet Service Providers) have mostly not gotten into hot water on privacy—but that's changing," observed Jonathan Mayer, a fellow at the Center for Internet and Society.[79] Verizon and AT&T, major providers of mobile Internet access, have each introduced "super cookies" that track consumer behavior even if they try to delete older, less powerful, forms of cookies. AT&T is actually charging its customers an extra $30 a month *not* to be tracked.

Showdowns loom.

In adopting Title II to enforce net neutrality, the FCC has made broadband Internet access a telecom service subject to regulation as a "common carrier." This reclassification means that the FCC could choose to invoke privacy authority under Title II's Section 222. That section, previously applied to phone and cable companies, mandates the protection of consumer information. Such information—called CPNI for Customer Proprietary Network Information—has kept phone companies from selling data on whom you call, from where you call and how long you spend on the phone. Consumers may have taken such protection for granted on their phone calls. But they have no such protection on their Internet activity—which, as noted, has been a multi-billion dollar safe house hideaway for corporate and criminal abusers of personal privacy.

Now, though, the FCC could put broadband Internet communications under Section 222 protection. To Scott Cleland, a telecom industry consultant who has often been ahead of the analytic pack, this would be a momentous decision.

When the smoke clears—and it hasn't yet—the FCC could make consumer identifiers like IP addresses the equivalent of phone numbers. Suddenly, the Internet companies that have trafficked in all that personal data would be subject to the same controls as the phone and cable companies.

Cleland argues that the risk for privacy abuses extends beyond broadband access providers like Comcast and Verizon to Internet giants like Google and Facebook that have until now flourished with all that personal data. "They are at risk and they are going to live under the uncertainty their business model could be ruled illegal by the FCC," Cleland said.[80]

Much has been written about the legal challenges broadband access providers intend to mount against the FCC's new rules. But Cleland argues that a very different type of legal action could engulf companies that have benefited from the use and sale of private data. Trial lawyers, he argues, will see opportunity in rounding up massive class action suits of Internet users whose privacy has been violated. What sorts of privacy abusers face legal action? Anyone who has "collected CPNI via some type of cookie," according to Cleland.

"Right now, edge providers like Google, Facebook and Twitter are at risk of being sued by trial lawyers," he said.[81]

Sounds great for consumers who care about privacy on the Internet and how it has been abused. But the FCC, Cleland was reminded, has never been a consumer advocate. "Bingo," replied Cleland. That's what makes the FCC's potential move into privacy protection so important and so surprising, he suggests.

There are other signs that the FCC under Tom Wheeler might actually become more consumer-friendly on the issue of data privacy. While Wheeler has brought some former associates from lobbying groups to the FCC, he has also peppered his staff with respected

privacy advocates. Indeed, he named Gigi Sohn, longtime president of the non-profit Public Knowledge, as Counsellor to the Chairman in April.

Another appointee with a privacy background is Travis LeBlanc, head of the FCC's Enforcement Bureau. In previous employment in California's Office of the Attorney General, LeBlanc was active in enforcing online privacy. LeBlanc has stated an interest in privacy and has already taken action against two firms that exposed personal information—including social security numbers—on unprotected Internet servers.

But many aspects of LeBlanc's approach to regulating Internet privacy under Title II remain unclear. Unfortunately, the FCC declined repeated requests to make LeBlanc available for an interview. (It also declined to answer written questions on its enforcement intentions in both privacy and cell tower infrastructure emissions.)

It remains to be seen if LeBlanc and his superiors at the FCC are really willing to take on privacy enforcement. Such a stance would require great courage as the entire Internet infrastructure is built around privacy abuse. It is also questionable whether the FCC would have the courage to challenge Google—a rare corporate ally in the battles over Net Neutrality.

Chapter Eight: Dependencies Power the Network of Corruption

As a captured agency, the FCC is a prime example of institutional corruption. Officials in such institutions do not need to receive envelopes bulging with cash. But even their most well-intentioned efforts are often overwhelmed by a system that favors powerful private influences, typically at the expense of public interest.

Where there is institutional corruption, there are often underlying dependencies that undermine the autonomy and integrity of that institution. Such is the case with the FCC and its broader network of institutional corruption.

As noted earlier, the FCC is a single node on a corrupt network that embraces Congress, congressional oversight committees and Washington social life. The network ties the public sector to the private through a frictionless revolving door—really no door at all.

Temptation is everywhere in Washington, where moneyed lobbyists and industry representatives throw the best parties and dinners. Money also allows industry to control other important factors, like the research agenda. All of this works together to industry's advantage because—as with other instances of institutional corruption—there are compromising dependencies. Policy makers, political candidates and legislators, as well as scientific researchers are all compromised by their dependence on industry money.

Dependency #1 – So much of the trouble here comes back to the core issue of campaign finance. Cable, cellular and educational tech interests know where to target their funds for maximum policy impact. And the contributions work, seemingly buying the silence of key committee congressmen—even those with past records as progressives. Key recipients of industry dollars include Massachusetts Senator Ed Markey and, until he retired, California Democrat Henry Waxman. Though they have intermittently raised their voices on such issues as data privacy and cellular health and safety, neither has shown any great inclination to follow through and take up what would have to be a long and tough fight on these issues.

Dependency #2 – Democrats might be expected to challenge industry now and then. They traditionally have done so, after all. But this is the post-*Citizens United* era where the Supreme Court has turned government into a giant auction house.

Bid the highest price and you walk home with the prize—your personal congressman, legislative loophole, even an entire political party.

Such is the case with technology industries and the Democrats. The communications/electronics industry is the third largest industry group in both lobbying and campaign contributions, according to the Center for Responsive Politics. In just 2013 and 2014, this industry sector spent well over $750 million on lobbying.[82]

Only the finance/insurance/real estate and health industries outspend the tech sector on lobbying. But those industry groups lean Republican. Over 62% of the finance/insurance/real estate campaign contributions go to the GOP. Health contributions lean Republican 57% to 43%. But the technology group leans sharply to Democrats, who got 60% of contributions in the 2013-2014 election cycle.[83] The two next largest industry groups—energy/natural resources and agribusiness—also lean heavily Republican. So of the top five industry groups whose money fuels and often tilts elections four are strongly Republican. The Democrats need the tech industry—and they show that dependence with consistent support, rarely raising such public interest issues as wireless health and safety and Internet privacy.

Dependency #3 – Spectrum auctions give the wireless industry a money-making aura. In recent Congressional testimony, an FCC official reminded legislators that the FCC has over the years been a budget-balancing revenue-making force.[84] Indeed, the auctions of electromagnetic spectrum, used by all wireless communications companies to send their signals, have yielded nearly $100 billion in recent years. The most recent auction to wireless providers produced the unexpectedly high total of $43 billion. No matter that the sale of spectrum is contributing to a pea soup of electromagnetic "smog" whose health consequences are largely unknown. The government needs money and Congress shows its appreciation with consistently pro-wireless policies.

Dependency #4 – Science is often the catalyst for meaningful regulation. But what happens when scientists are dependent on industry for research funding? Under pressure from budget cutters and deregulators, government funding for research on RF health effects has dried up. The EPA, which once had 35 investigators in the area, has long since abandoned its efforts.[85] Numerous scientists have told me there's simply no independent research funding in the U.S. They are left with a simple choice: work on industry-sponsored research or abandon the field.

Chapter Nine: A Modest Agenda for the FCC

Nobody is proposing that cell phones be banned. Nor does anyone propose the elimination of the Universal Service program or other radical reforms. But there are some steps—and most are modest—that the FCC can take now to right some of the wrongs that result from long years of inordinate industry access and influence:

1. Acknowledge that there may be health risks in wireless communications. Take down the dismissive language. Maturely and independently discuss the research and ongoing debate on the safety of this technology.

2. In recognition of this scientific uncertainty, adopt a precautionary view on use of wireless technology. Require prominent point-of-sale notices suggesting that users who want to reduce health risks can adopt a variety of measures, including headphones, more limited usage and storage away from at-risk body parts.

3. Back off the promotion of Wi-Fi. As Professor Lennart Hardell has noted, there are wired alternatives that do not expose children to wireless risk.

4. Petition Congress for the budgetary additions needed to expand testing of emissions on antenna sites. It was Congress after all that gave industry carte blanche for tower expansion so long as they comply with FCC standards. But there is evidence of vast non-compliance and Congress needs to ensure that tower infrastructure is operating within the law.

5. Acknowledge that children and pregnant women may be more vulnerable to the effects of RF emissions and require special protection.

6. Promote cable debundling as a way to lighten consumer cable bills, especially for those customers who don’t care about high-cost sports programming.

7. Apply more rigorous analysis to properly assess the value of technology in education. Evidence continues to pile up that technology in education is not as valuable as tech companies claim. Pay less attention to tech CEOs—pay more attention to the researchers who’ve actually studied the impact of trendy technology fixes on learning

8. Take over enforcement of personal privacy rights on the Internet. Of all the basic suggestions here, this would require the most courage as it would involve challenging many of the entrenched powers of the Internet.

Chapter Ten: Stray Thoughts

Some concluding thoughts:

Why do so many of the most dubious FCC policies involve technology?

In large part, of course, because the FCC has authority over communications and that is a sector that has been radically transformed—along with so many others—by technology.

Let's be clear, though. The problem is not technology, which unarguably brings countless benefits to modern life. The problem is with the over-extension of claims for technology's usefulness and the worshipful adulation of technology even where it has fearful consequences. Most fundamentally, the problem is the willingness in Washington—for reasons of both venality and naïveté—to give technology a free pass.

Personally, I don't believe that just because something can be done it should heedlessly be allowed. Murder, rape and Ponzi schemes are all doable—but subject to prohibition and regulation. Government regulators have the responsibility to examine the consequences of new technologies and act to at least contain some of the worst. Beyond legislators and regulators, public outrage and the courts can also play a role—but these can be muffled indefinitely by misinformation and bullying.

There are precedents for industries (belatedly perhaps) acting to offset the most onerous consequences of their products. In responding to a mix of litigation, public demand and regulatory requirement, the auto industry, for example, has in the last 50 years substantially improved the safety and environmental footprint of its products.

Padded instrument panels, seat belts, air bags, and crumple zones have all addressed safety issues. Environmental concerns have been addressed with tightened emissions and fuel consumption standards. The response to new safety challenges is ongoing. Before side air bags were widely deployed, sedan drivers side-swiped by much larger SUVs were at vastly disproportionate risk of death and dismemberment.[86] But the deployment of side air bags has "substantially" reduced the risk of collision deaths.[87] Overall, auto fatality rates per 100,000 persons have dropped by nearly 60% in the U.S. since 1966.[88] Today, automakers continue to work on advanced safety features like collision avoidance.

It can be argued that most of these safety improvements came decades after autos were in wide usage and only in response to outrage at Ralph Nader's 1965 revelations on the auto industry.[89] No matter the catalysts. The simple truth remains that the auto industry—and its regulators—have for the last half-century been addressing safety and environmental issues.

But with the overwhelming application of money and influence, information and communications technologies have almost totally escaped political scrutiny, regulatory control, and legal discipline.

Should the Internet have been allowed to develop into an ultra-efficient tool for lifting personal information that includes financial records, health histories and social security numbers? Should wireless communications be blindly promoted even as new clues keep suggesting there may be toxic effects? Should local zoning authorities and American citizens be stripped of the right to protect their own health? Should education be digitized and imposed just because technology companies want to develop a new market and lock in a younger customer base?

All these questions can perhaps be rolled up in one: do we all just play dead for the corporate lobbyists and spinners who promote the unexamined and unregulated application of their products?

Finally, a word about the structure of the FCC. With five commissioners—no more than three from the same party—the structure seems to make some kind of sense.

But in practice, it works out poorly. The identification of commissioners by party tends to bring out the worst in both Republicans and Democrats. Instead of examining issues with clear-sighted independence, the commissioners seem to retreat into the worst caricatures of their parties. The Republicans spout free market and deregulatory ideology that is most often a transparent cover for support of business interests. The Democrats seems satisfied if they can implement their pet spending programs—extension of broadband wireless to depressed urban and rural schools, cell phone subsidies for low income clients. The result is a Commission that fulminates about ideology and spends heavily to subsidize powerful interests.

Perhaps one solution would be to expand the Commission to seven by adding two public interest Commissioners. The public interest only rarely prevails at the FCC. So it would represent vast improvement if both Republican and Democrat commissioners had to vie for support of public interest representatives in order to forge a majority. The public interest, in other words, would sometimes carry the swing votes.

It’s very hard to believe, though, that Congress would ever approve such a plan. It simply represents too much of a threat to the entrenched political power of the two parties. Why would they ever agree to a plan that dilutes that power?

It’s also worth noting that the public interest is not always easy to define. Sometimes there are arguably conflicting definitions. Still, an FCC with public interest commissioners is an idea worth consideration. It would at least require party apologists to defend how they so consistently champion the moneyed interests that have purchased disproportionate access and power in Washington.

Appendix—Survey of Consumer Attitudes

What does the public believe about the science and politics of wireless health research? Under what conditions would people change wireless usage patterns? Is the FCC currently trusted to protect public health? How would confirmation of health risks affect trust in the FCC?

These are some of the questions Ann-Christin Posten[90] and Norm Alster[91] hoped to answer with an April 2015 online survey of 202 respondents. Participants were recruited through Amazon's Mechanical Turk online platform. All were U.S. residents and had achieved qualifying approval rates in prior Mechanical Turk surveys.

Participants were asked how likely they believed the following statements to be true:

Statement 1. Prolonged and heavy cell phone use can have a variety of damaging effects on health.

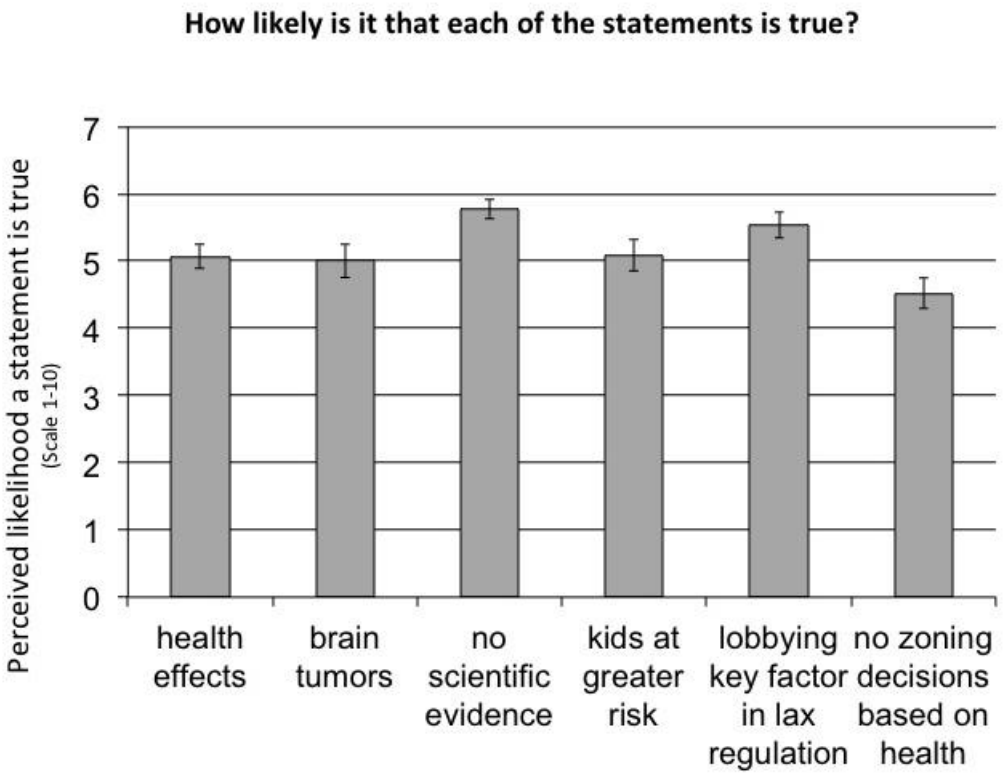
Statement 2. Prolonged and heavy cell phone use triples the risk of brain tumors.

Statement 3. There is no scientific evidence that proves that wireless phone usage can lead to cancer or a variety of other problems.

Statement 4. Children and pregnant women are especially vulnerable to radiation from wireless phones, cell towers and Wi-Fi

Statement 5. Lobbying and campaign contributions have been key factors in keeping the government from acknowledging wireless hazards and adopting more stringent regulation.

Statement 6. The U.S. Congress forbids local communities from considering health concerns when deciding whether to issue zoning permits for wireless antennae.

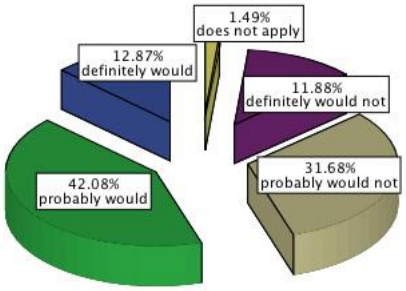


Two findings seem especially interesting:

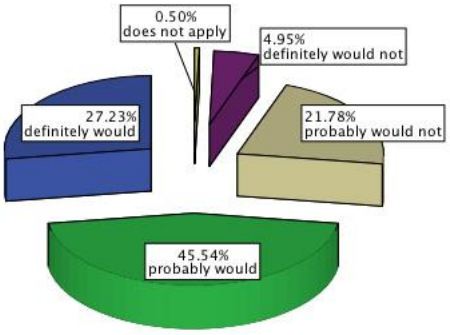
1. Statement 3 received a higher credibility rating than Statements 1 and 2. The different credibility levels are statistically significant. Respondents are more likely to trust in wireless safety than to believe there are general or specific health risks.

2. The only statement that is a matter of uncontested fact is Statement 6 on the outlawing of opposition to antenna sites on health grounds. (All other statements have been both proclaimed and denied.) And yet Statement 6 was least likely to be believed. Just 1.5% of respondents recognized this as an "absolutely true" statement. Over 14% thought this statement was "not true at all." Answers to this question would seem to reflect public ignorance on the political background to wireless health issues.

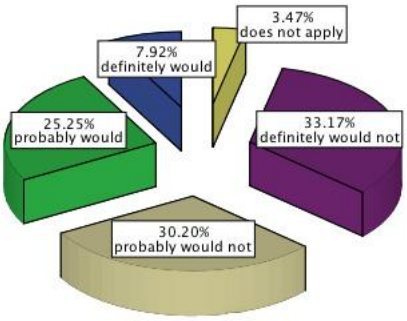
Participants were also asked how they would change behavior if claims of wireless health risks were established as true:



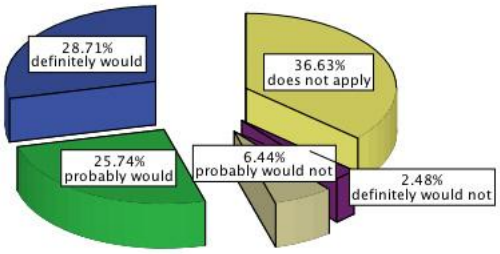
If statement 1 was true,
I would start using headphones.



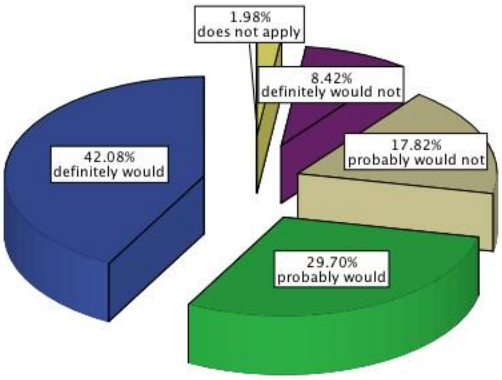
If statement 1 was true,
I would restrict the amount of time
I spend on the phone.



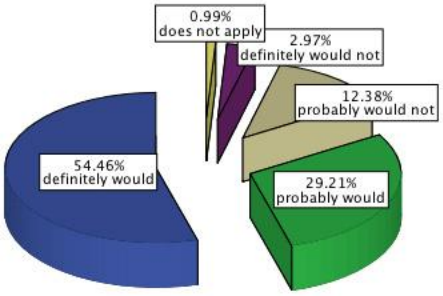
If statement 1 was true,
I would start up a new land line
account for home use.



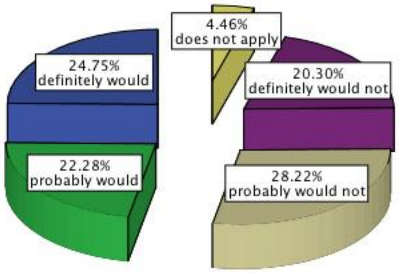
If statement 1 was true,
I would restrict my children's cell phone use.



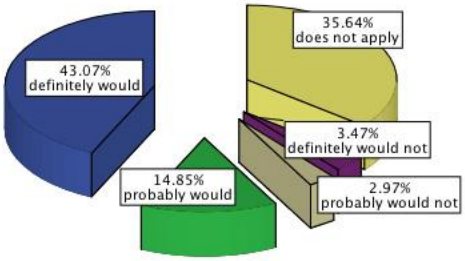
If statement 2 was true,
I would start using headphones.



If statement 2 was true,
I would restrict the amount of time
I spend on the phone.



If statement 2 was true,
I would start up a new land line
account for home use.



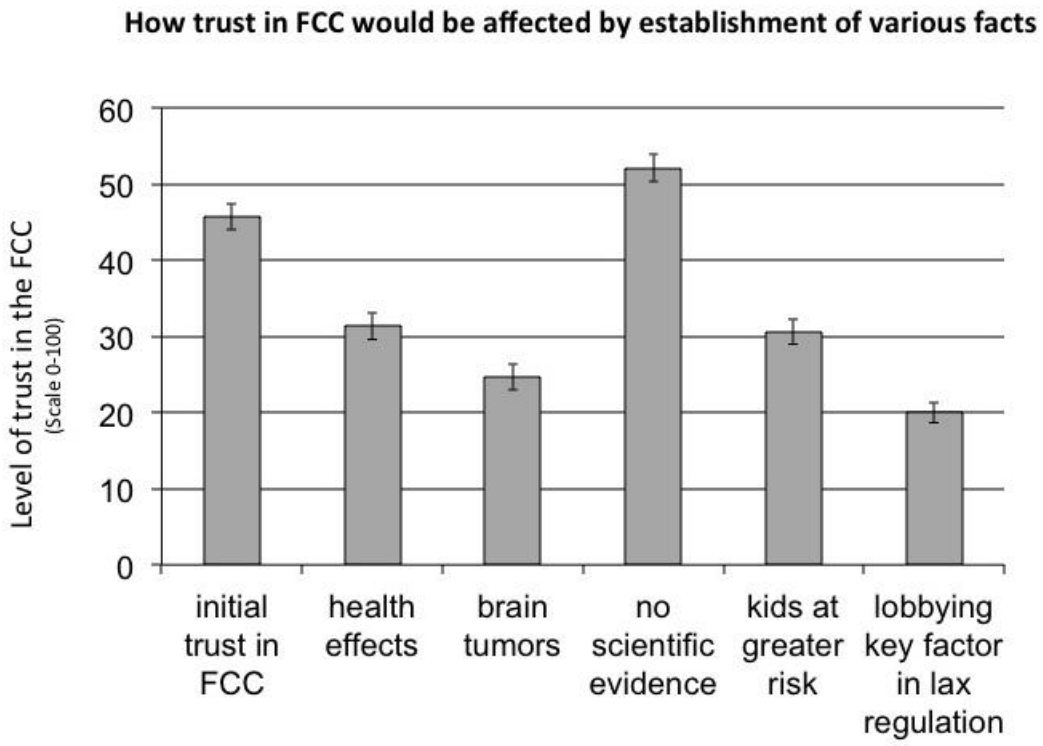
If statement 2 was true,
I would restrict my children's cell phone use.

The greatest impact on behavior came when respondents were asked to assume it is true that prolonged and heavy cell phone use triples the risk of brain tumors. More than half said they would “definitely” restrict the amount of time spent on the phone. Just over 43% would “definitely” restrict their children’s phone use. Perhaps most surprisingly, close to 25% would “definitely” start up a new landline phone account. (This last response suggests it may be foolishly premature for the phone giants to exit the landline business just yet.)

The inclination of consumers to change behavior should negative health effects be confirmed suggests the stakes are enormous for all companies that derive revenue from wireless usage.

This survey points to—but cannot answer—some critical questions: Do wireless companies better protect themselves legally by continuing to deny the validity of all troublesome research? Or should they instead be positioning themselves to maintain consumer trust? Perhaps there is greater financial wisdom in listening to the lawyers right now and denying all chance of harm. If so, however, why would anyone seriously concerned about health listen to the industry—or to its captured agency? That’s a question the FCC will eventually need to answer.

Trust could eventually become a central issue. Respondents were initially asked to describe their level of trust in the wireless industry and in the FCC as its regulator. Not surprisingly, establishment of any of the presumed health risks—or confirmation of inordinate industry pressure—resulted in statistically significant diminution of trust in both the industry and the FCC.



On a scale of 1 to 100, the FCC had a mean baseline trust level of 45.66. But if the tripling of brain tumor risk is established as definitely true, that number falls all the way to 24.68. If "lobbying and campaign contributions" have been "key factors" in keeping the government from acknowledging wireless hazards, the trust level in the FCC plummets to 20.02. All results were statistically significant.

It's clear that at this point confirmation of health dangers—or even of behind-the-scenes political pressures—from wireless will substantially diminish public trust in the FCC. Skeptics might argue that this gives the FCC motive to continue to downplay and dismiss further evidence of biological and human health effects. Those of a more optimistic bent might see in these findings reason to encourage an FCC concerned about public trust to shake itself loose from special interests.

Endnotes

[1] Former CTIA vice president John Walls in Kevin Kunze's documentary film *Mobilize*, introduced in 2014 at the California Independent Film Festival.

[2] November 2014 interview with Renee Sharp.

[3] December 2014 interview with Twaun Samuel.

[4] Dr. George Carlo and Martin Schram, *Cell Phones, Invisible Hazards In The Wireless Age* (Carroll & Graf, 2001), 18.

[5] Center for Responsive Politics.

[6] Id.

[7] November 2014 interview with Michael Copps.

[8] January 2015 interview with Newton Minow.

[9] Daniel Lathrop, "From Government Service to Private Practice: Writers of Telecom Law Move to K Street," Center for Public Integrity, October 28, 2004, http://www.publicintegrity.org/2004/10/28/6597/government-service-private-practice.

[10] B. Blake Levitt and Henry Lai, "Biological Effects from Exposure to Electromagnetic Radiation Emitted By Cell Tower Base Stations and Other Antenna Arrays," NRC Research Press Web site, November 5, 2010.

[11] Id., 381.

[12] Id.

[13] S. Sivani and D. Sudarsanam, "Impacts of Radio-Frequency Electromagnetic Field (RF_EMF) from Cell Phone Towers and Wireless Devices on Biosystem and Ecosystem – A Review," *Biology and Medicine* 4.4 (2013): 202.

[14] Id., 206-208.

[15] January 2015 interview with Robert Weller.

[16] Letter from Michelle C. Farquhar, Chief of the FCC's Wireless Telecommunications Bureau, to Thomas Wheeler, President and CEO of the Cellular Telecommunications Industry Association, January 13, 1997.

[17] Id.

[18] Letter from FCC Chairman Thomas Wheeler to former FCC Commissioner Jonathan Adelstein, President and CEO, PCIA-The Wireless Infrastructure Association, March 14, 2014.

[19] December 2014 interview with James R. Hobson.

[20] January 2015 interview with Marvin Wessel.

[21] Id.

[22] January 2015 interview with Janet Newton.

[23] Robert Weller interview.

[24] Best's Briefing, "Emerging Technologies Pose Significant Risks with Possible Long-Tail Losses," February 11, 2013, http://www.ambest.com/directories/bestconnect/EmergingRisks.pd.

[25] Online survey conducted in April 2015 on Amazon's Mechanical Turk platform.

[26] CTIA, "Policy & Initiatives: Innovation," http://www.ctia.org/policy-initiatives/policy-topics/innovation.

[27] February 2015 interview with Dennis Kucinich.

[28] Alexander Lerchl, Melanie Klose, and Karen Grote et al., "Tumor Promotion by Exposure to Radiofrequency Electromagnetic Fields below Exposure Limits for Humans," *Biochemical and Biophysical Research Communications* 459.4 (2015): 585-590.

[29] WHO/International Agency for Research on Cancer (IARC), "IARC Classifies Radiofrequency Electromagnetic Fields As Possibly Carcinogenic To Humans," Press Release No. 208, May 31, 2011.

[30] Medscape, "Brain Cancer CME Learning Center," http://www.medscape.org/resource/brain-cancer/cme.

[31] Anke Huss, Matthias Egger, Kerstin Hug, Karin Huwiler-Muntener, and Martin Roosli, "Source of Funding and Results of Studies of Health Effects of Mobile Phone Use: Systemic Review of Experimental Studies," *Environmental Health Perspectives* 115.1 (2007): 1-4, 1.

[32] Id.

[33] Federal Communications Commission, "Wireless Devices and Health Concerns," http://www.fcc.gov/guides/wireless-devices-and-health-concerns.

[34] Lennart Hardell, Michael Carlberg, Fredrik Soderqvist, and Kjell Hansson Mild, "Case-Control Study of the Association between Malignant Brain Tumours Diagnosed between 2007 and 2009 and Mobile and Cordless Phone Use," *International Journal of Oncology* 43.6 (2013): 1833-1845.

[35] Lennart Hardell and Michael Carlberg, "Use of Mobile and Cordless Phones and Survival of Patients with Glioma," *Neuroepidemiology* 40.2 (2012): 101-108.

[36] Lennart Hardell and Michael Carlberg, 'Using the Hill Viewpoints from 1965 for Evaluating Strengths of Evidence of the Risk for Brain Tumors Associated with Use of Mobile and Cordless Phones," *Reviews on Environmental Health* 28.2-3 (2013): 97-106.

[37] Gaelle Coureau, Ghislaine Bouvier, and Pierre Lebailly, et al., "Mobile Phone Use and Brain Tumors in the CERENAT Case-Control Study," *Occupational and Environmental Medicine* 71.7 (2014): 514-522, doi:10.1136/oemed-2013-101754.

[38] October 2014 interview with Lennart Hardell.

[39] December 2014 interview with Martin Blank.

[40] Id.

[41] Norm Alster, "Cell Phones: We Need More Testing," *BusinessWeek*, August 14, 2000, 39.

[42] Quoted in American Academy of Pediatrics, "American Academy of Pediatrics Endorses Cell Phone Safety Bill," Press Release, December 20, 2012, http://www.ewg.org/release/american-academy-pediatrics-endorses-cell-phone-safety-bil.

[43] Om P. Gandhi, L. Lloyd Morgan, Alvaro Augusto de Salles, Yueh-Ying Han, Ronald B. Herberman, and Devra Lee Davis, "Exposure Limits: The Underestimation of Absorbed Cell Phone Radiation, Especially in Children," *Electromagnetic Biology and Medicine* 31.1 (2012): 34-51.

[44] November 2014 interview with Joel Moskowitz.

[45] February 2015 interview with Carl Blackman.

[46] Id.

[47] Id.

[48] Lawrence Lessig, Roy L. Furman Professor of Law and Leadership at Harvard Law School, helped to draft the Right to Know ordinance and has offered pro bono legal representation to the city of Berkeley. Professor Lessig was director of the Lab at Harvard's Safra Center for Ethics, from which the Project on Public Narrative was spun off in November of 2014.

[49] May 2015 interview with Berkeley City Attorney Zach Cowan

[50] December 2014 interview with Jerry Phillips.

[51] Id.

[52] February 2015 interview with Om P. Gandhi.

[53] Id.

[54] Radio interview on WBAI-FM, "Wireless Radiation: What Scientists Know and You Don't, With Dr. Joel Moskowitz," March 10, 2015.

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[60] October 2014 interview with Lennart Hardell.

[61] Jacob L. Vigdor and Helen F. Ladd, "Scaling the Digital Divide: Home Computer Technology and Student Achievement," Calder Urban Institute Working Paper, No. 48, June 2010.

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[63] John Rogers, "L.A. Students Get iPads, Crack Firewall, Play Games," *Associated Press,* October 5, 2013, http://bigstory.ap.org/article/la-students-get-ipads-start-playing-video-games.

[64] April 2015 interview with Kentaro Toyama.

[65] Id.

[66] Id.

[67] FCC Chairman Tom Wheeler, quoted in Grant Gross, "FCC Approves Plan to Spend $1B a Year on School Wi-Fi," IDG News Service, July 11, 2014.

[68] Michael O'Rielly, "Dissenting Statement by Commissioner Michael O'Rielly," 2, http://e-ratecentral.com/files/fcc/DOC-328172A7.pdf, after FCC in July of 2014 voted to increase Wi-Fi spending.

[69] February 2015 interview with Charles Davidson and Michael Santorelli.

[70] Id.

[71] The University of Michigan's American Customer Satisfaction Index, http://www.theacsi.org/the-american-customer-satisfaction-index.

[72] September 2014 interview with Michael Copps.

[73] Susan Crawford, *Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age* (Yale University Press, 2013), 212.

[74] October 2014 interview with Susan Crawford.

[75] Norm Alster, "A Little Help from the Feds," *BusinessWeek,* January 24, 2000, 42.

[76] 1992 Supreme Court decision in *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

[77] February 2015 conversation with Jeff Chester**.**

[78] April 2015 interview with Harold Feld.

[79] March 2015 interview with Jonathan Mayer.

[80] April 2015 interview with Scott Cleland.

[81] Id.

[82] Center for Responsive Politics.

[83] Id.

[84] "Testimony of Jon Wilkins, Managing Director, Federal Communications Commission," Before the Committee on Energy and Commerce, Subcommittee on Communications and Technology, U.S. House of Representatives, March 4, 2015.

[85] Alster, "Cell Phones: We Need More Testing," 39.

[86] Danny Hakim and Norm Alster, "Lawsuits: This Year's Model," *New York Times,* May 30, 2004, http://www.nytimes.com/2004/05/30/business/lawsuits-this-year-s-model.html.

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[89] Ralph Nader, *Unsafe At Any Speed: The Designed-In Dangers of the American Automobile* (Grossman Publishers, 1965).

[90] Lab Fellow, Edmond J. Safra Center for Ethics, Harvard University.

[91] Investigative Journalism Fellow, Project on Public Narrative at Harvard Law School.

Climate Change: Hard-wiring underground broadband fiber optic good; 5G wireless bad

2 messages

'Tasha Witt' via cityclerk <cityclerk@ci.carmel.ca.us> Tue, Jun 7, 2022 at 8:08 AM
Reply-To: Tasha Witt <tashawitt@me.com>
To: Dave Potter <dpotter@ci.carmel.ca.us>, Bobby Richards <brichards@ci.carmel.ca.us>, jbaron@ci.carmel.ca.us, Karen Ferlito <kferlito@ci.carmel.ca.us>, ctheis@ci.carmel.ca.us, City Clerk <cityclerk@ci.carmel.ca.us>

Honorable Mayor Dave Potter, Mayor Pro-Tem Bobby Richards,
Council Members Jeff Baron, Karen Ferlito, Carie Theis,

As you are making very important climate change preparations and also updating our city's design and review guidelines and wireless ordinance laws this year, I wanted you to have this information.

"This paper sets the record straight and fills our current information vacuum, offering consumers, business leaders, and policy makers the critical facts they need to rethink a more intelligent and secure future with reliable, secure, wired communications more resilient to storm, flood, and fire, and reducing the enormous carbon footprint from the present wireless approach. It also demonstrates why the mistaken upcoming 5G frenzy, with its millions of small cell antennas destined to clutter all neighborhoods and public right-of-ways, is dangerous, wasteful, and unnecessary."

http://electromagnetichealth.org/wp-content/uploads/2018/05/Wires.pdf

"Massive increases in 5G equipment=massive increases in energy use"

"5G is an energy hog"

"5G is not sustainable"

""Smart" is Not Smart"

"The push for all things wireless is the wrong direction."

5G wireless networks are bad for the environment and have very serious global effects on bees, birds and trees in relation to climate change.

https://ehtrust.org/wp-content/uploads/5G-and-Climate-Change-Flyer-EHT.pdf

Hard-wired networks of broadband fiber optic under-grounding cabling is the way to go for faster, higher speed and sustainable networks for our future.

I know you care as much as I do about making the best decisions for Carmel-by-the-Sea and our planet. I appreciate all of your hard-work!

Thank you for your time,

Tasha Witt
Carmelo 2NW of 9th
Carmel-by-the-Sea, CA 93921

Carmel-by-the-Sea

Yashin Abbas <yabbas@ci.carmel.ca.us>

6/7/22 City Council Meeting - Agenda Item 3 - Proposed Resolution 2022-036 - appointment to Planning Commission

2 messages

Richard Luther <rfl880@gmail.com> Mon, Jun 6, 2022 at 9:42 PM
To: dpotter@ci.carmel.ca.us, jbaron@ci.carmel.ca.us, ctheis@ci.carmel.ca.us, kferlito@ci.carmel.ca.us, brichards@ci.carmel.ca.us
Cc: cityclerk@ci.carmel.ca.us

Mr. Mayor and City Council Members:

I learned today that the City Council is being asked to appoint Erin Allen to the Planning Commission in lieu of reappointing Gail Lehman for another term. I believe that action would be a grievous error.

Gail is singularly qualified to serve on the Commission as a result of her extensive background in design and development, her previous years of service on the Commission, and her decades of residing in the city. The candidate who is proposed to replace Gail appears to have none of those qualifications.

As a resident of Carmel for the last 8 years, I have watched the Planning Commission. I believe Gail has been one of the strongest members of the Commission during my time in the city. She is always well prepared and organized and has very thoughtful comments. She speaks clearly and demonstrates that she understands the issues at hand. Gail is often able to bridge the gap between opposing sides, or to at least promote a return to civility.

I would strongly urge the Council to reappoint Gail Lehman to the Planning Commission.

Thank you for your consideration of my views.

Richard Luther

Cost

1 message

'Sue McCloud' via cityclerk <cityclerk@ci.carmel.ca.us> Tue, Jun 7, 2022 at 1
Reply-To: Sue McCloud <cloud93921@aol.com>
To: dpotter@ci.carmel.ca.us, bobbyrichards6@gmail.com, karen@karenferlito.com, carrie@hofsashouse.com, jeff@carmel2018.com
Cc: cityclerk@ci.carmel.ca.us

As a former Board member of the SPCA I looked into comparative costs--not to mention miles each way from SPCA to Salinas and ONCE THAT ROADWORK STARTS WILL BE MUCH WORSE.. The one thing that Scott does not mention is that the more people who visit the SPCA this will undoubtedly help in finding new homes for the denizens of the SPCA! Most of the Peninsula cities as I recall do use SPCA--I can get you that list if you wish.

sue mccloud

From: sdelucchi@spcamc.org
To: cloud93921@aol.com
Sent: 6/7/2022 9:21:59 AM Pacific Standard Time
Subject: Re: Cost

Good morning, Sue. . The one financial piece that people focus on is the sheltering rate. I see from the information you provided that Monterey County Animal Services will be charging Carmel **$239/animal** for the first five days. The SPCA's rate for jurisdictions is as follows:

July 1, 2022 - June 30, 2023 **$175/animal**
July 1, 2023 - June 30 2024 **$184/animal**

A city considering animal sheltering options might also care about quality of care, outcomes for animals (the sheltering partner's "save rate"), and accessibility for their officers and residents (we are open 7 days/week). Officers from Carmel bringing stray animals to their sheltering partner and Carmel residents visiting "their" shelter for lost pets drive past the SPCA and continue another 7 miles to reach their sheltering partner.

The SPCA brings a few additional services at no cost to the city or its residents: we care for injured wildlife, respond to pet owners displaced during disasters, respond to animal cruelty calls, visit schools, and distribute free pet food for struggling owners.

We don't benefit financially by increasing our number of sheltering contracts, we don't go out of our way to increase our number of contracts and have no interest in creating custom contracts for any one city but instead look to maintain consistency. We do feel we provide the best option for any city (its residents and animals) and are always willing to listen and answer questions.

Hope this helps!

Scott

	Honorable Mayor and City Council Members
SUBMITTED BY:	Chip Rerig, City Administrator
APPROVED BY:	Chip Rerig, City Administrator
SUBJECT:	Resolution 2022-044 authorizing the City Administrator to extend the contract for animal services with the Monterey County Health Department's Animal Services Division ending June 30, 2024

RECOMMENDATION:

Adopt Resolution 2022-044 authorizing the City Administrator to extend the contract (Amendment 3) for animal services with the Monterey County Health Department's Animal Services Division ending June 30, 2024.

BACKGROUND/SUMMARY:

In August 2014, the City entered into an agreement with the Monterey County Health Department's Animal Services Division to provide animal services. This agreement was entered into on July 1, 2014, and was for three years, expiring June 30, 2017. Two extensions were executed by the City since the original agreement. The Agreement and all Amendments are
attached (Attachment 2).

The Monterey County Health Department's Animal Services Division is responsible for providing animal control services in the unincorporated areas of Monterey County. It also operates an Animal Services Center located at 160 Hitchcock Road, Salinas, CA that offers an array of services, including but not limited to shelter, veterinary, quarantine, and licensing services. The Animal Service Center was built in conjunction with the Cities of Carmel-by-the-Sea, Gonzales, Greenfield, Sand City, Seaside, Soledad, and King City. Each of these cities has paid a share of the Animal Services Center's construction costs and is offered the option to contract with the County for the use of the shelter and other services.

The City of Carmel-by-the-Sea desires to continue its contract with the County for the provision of services at the Animal Services Center as delineated in the Agreement. Generally, the services to be provided to the City of Carmel-by-the-Sea by the County Health Department's Animal Services Division include shelter at the Animal Service Center, emergency medical treatment, rabies quarantine and management, and other services for stray domestic animals found within the incorporated boundaries of the City. The City of Carmel-by-the-Sea will compensate the County for provision of animal services as set forth in the agreement. The contract agreement has been reviewed by the City Attorney and approved to form.

For the first time since inception, with this extension, Monterey County has introduced an increase to the fees. Additionally, Monterey County has added new service categories. The fees and categories are represented in Exhibit A to the Agreement. Staff has reviewed these increases and do not believe it represents significant City impacts.

FISCAL IMPACT:

The Police Department FY 22/23 budget has allocated funds to cover costs related to Monterey County Animal Services under Contract Services Account 101-116-00-42001. For this budget year, allocated funds were increased by $500 to account for Monterey's increase in fees.

Attachment 7

PRIOR CITY COUNCIL ACTION:

August 2014 - The City entered into a three-year agreement with the County of Monterey for use of Animal Services.

August 2017 - The City approved a two-year extension of the existing contract with Monterey County for use of Animal Services.

October 2020 - The City approved a two-year extension of the existing contract with Monterey County for use of Animal Services.

ATTACHMENTS:

Attachment 1: Resolution 2022-044
Attachment 2: Agreement with Exhibit

--
Scott Delucchi
President & CEO
SPCA Monterey County
PO Box 3058
Monterey, CA 93942
Direct: 831-264-5420
www.SPCAmc.org

Facebook Twitter Donate

SPCA
Monterey County
Changing Lives