

# Cross Tabulation by Topic

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This document provides a summary of what each of 19 planning documents says about a range of topics relevant to the Measure Q Vision Plan. The planning documents included in this summary are:

- Capitola Climate Action Plan
- City of Santa Cruz Climate Action Plan
- Watsonville Climate Action Plan
- Regional Project Prioritization
- Santa Cruz Emergency Operation Plan
- 2021 Santa Cruz County Climate Action and Adaptation Plan
- 2014 Santa Cruz County Integrated Regional Water Management Plan
- 2019 Pajaro River Watershed Integrated Regional Water Management Plan
- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan
- 2022 Santa Cruz County Regional Conservation Investment Strategy
- 2018 Santa Cruz County Parks Strategic Plan
- 2023 Santa Cruz County Parks Strategic Plan Update
- 2021 Santa Cruz County Local Hazard Mitigation Plan
- 2020 California Adaptation Planning Guide
- 2023 California Water Plan Update
- 2021 California Wildfire and Forest Resilience Action Plan
- 2023 California Outdoors for All Strategy
- 2022 Pathways to 30x30 California
- 2021 Natural and Working Lands Climate Smart Strategy

The topics summarized are:

- Water Resource Protection
- Wildfire Risk Reduction and Forest Health
- Wildlife and Habitat Protection
- Parks, Recreation, and Public Access
- Working Lands and Agricultural Stewardship
- Coastal Protection
- Climate Resilience and Adaption
- Match Funding
- Multi Benefit
- Disadvantaged Communities
- Geographic Scope
- Community Engagement

For each topic, the document lists the relevant content from each planning document. Plan names are bolded for clarity. This summary is intended to support synthesis and comparison across planning efforts, highlighting common priorities and areas of emphasis by topic.

## Water Resource Protection

**- Capitola Climate Action Plan\*:** The sources address water quality and supply protection and enhancement primarily through strategies focused on water conservation and efficiency (7-35, 7-36). The City of Capitola plans to achieve this by amending the Green Building Ordinance to require water-efficient fixtures and landscaping in new developments and substantial remodels, as well as promoting water conservation through standards for watering timing (7-35, 7-36). They also aim to implement a water efficiency retrofit ordinance (7-35) and continue to require retrofits at the point of sale. Collaboration with the Soquel Creek Water District and Santa Cruz Water Department is planned to enact conservation programs and promote water audits and rebates (7-35). Furthermore, the City intends to encourage greywater use and rainwater catchment systems (7-38) and investigate the feasibility of a reclaimed water distribution system (7-40). Promoting drought-tolerant landscaping and recycled water for irrigation is also a key strategy (7-36, 7-37), and the City aims to update its Water-Efficient Landscaping Ordinance. Additionally, reducing municipal water use through an ultra-low water use policy is part of their approach (7-35, 7-36, 7-37). The role of open space and urban forests in creating habitat is also noted (7-46, 7-48), and green building practices can alleviate stormwater runoff (7-14).

**- City of Santa Cruz Climate Action Plan\*:** The source addresses water quality and supply protection and enhancement through several strategies. To promote efficient water use and reduce demand, the City plans to continue public engagement and conservation programs, focusing on frontline communities, including providing free water conservation devices and rebates (92). The Climate Action Plan also includes expanding a watershed stewardship school program to include water conservation (93). For wastewater, the City intends to explore opportunities for capturing and converting methane to biofuel and collaborate regionally to support emissions reduction at wastewater facilities (101). Additionally, the City aims to increase tree cover through an Urban Forest Master Plan, which can contribute to groundwater recharge and soil erosion control (13, 102). Implementing green stormwater infrastructure on City facilities is also planned (127). Furthermore, the plan explores increasing carbon sequestration in vegetation and soils by developing an Urban Forest Master Plan and planting trees (13), exploring new carbon sequestration and capture opportunities (104), and increasing carbon sequestration by applying compost throughout the community (13, 105, 106). Finally, the City aims to strengthen current open space habitat preservation policies (109).

**- Watsonville Climate Action Plan:** The City of Watsonville's CAAP addresses water quality and supply protection and enhancement through several strategies. To improve watershed health and manage stormwater, the plan includes implementing watershed

improvements and habitat enhancements for sloughs, storm culverts, and open channels as part of the strategy to increase local greenspace (2-51). A Green Infrastructure Plan incorporating stormwater features and habitat is also a supporting effort (2-52, 4-2). Regarding water pollution, the CAAP supports programs to reduce plastic use in agriculture and implement plastic take-back programs (2-48). To address the challenges of an overdrafted groundwater basin and saltwater intrusion, the plan mentions the necessity of increased water conservation practices and continued efforts to reduce groundwater overdraft and saltwater intrusion in the context of adapting to drought (3-20). Promoting climate-smart agriculture is highlighted as a way to potentially reduce the use of synthetic fertilizers and pesticides, thereby protecting water quality (3-23). Furthermore, wetland protections and expansion and watershed protections are identified as strategies for carbon sequestration, which also contribute to overall ecosystem health (4-1).

**- Regional Project Prioritization\*:** The Community Wildfire Protection Plan (CWPP) emphasizes the importance of protecting water quality and supply infrastructure from wildfire risks (14, 35). Strategies include implementing **\*\*fire risk reduction projects** around water storage facilities, water treatment plants, pump stations, and pipelines (36)**\*\***, as well as projects that **\*\*protect the watershed from fire\*\***. The CWPP also highlights the need to **\*\*identify existing and potential additional water supplies in wildland areas\*\*** for fire suppression (34). Furthermore, in the context of sensitive habitats, the plan recommends **\*\*avoiding work in riparian corridors and wetlands\*\*** if possible, and if vegetation modification is necessary, to **\*\*leave mature vegetation near water bodies, retain native trees and understory, separate the canopy from the understory, and minimize disturbance\*\*** to protect aquatic ecosystems and water quality (46). General recommendations for permitting also advise landowners to **\*\*maintain vegetative cover or apply appropriate mulch to minimize erosion\*\*** and hillside destabilization (47), and to **\*\*minimize clearing of mature vegetation\*\***. Protecting watersheds and water supply is consistently identified as a priority for both San Mateo and Santa Cruz Counties. (57, 112, 233, 136

**- Santa Cruz Emergency Operation Plan\*:** The source identifies water as a critical utility, falling under the purview of ESF 12 (66, 135), which coordinates its effective utilization and restoration during emergencies. ESF 12 includes the involvement of the Community Development and Infrastructure (CDI), the Office of Response, Recovery & Resilience (OR3), the General Services Department (GSD) for fuel for critical facility backup generation, and Water Districts (66). The plan emphasizes operational strategies for prioritizing key at-risk facilities dependent on utilities, including hospitals, long-term care facilities, and shelters (135). While flood hazards are acknowledged as a risk, often linked with coastal storms and heavy rainfall (38, 170)), and the importance of FEMA's floodplain mapping is mentioned, specific strategies for water quality and supply protection and enhancement like groundwater recharge, soil erosion control, watershed health, water pollution, saltwater intrusion, or nature-based flood protection are not detailed in the provided excerpts. The plan does note the potential for water pollution as an emergency that could develop (39)

and mentions the coordination of agencies for actual or potential releases of hazardous materials, including oil in land or marine environments, which could impact water (134).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP prioritizes the protection and management of local aquifers by identifying county-owned parcels suitable for recharge projects and exploring stormwater solutions for sites with high impervious surfaces. The plan also aims to increase the use of recycled wastewater and stormwater for irrigation and general use, with the ongoing evaluation of the Boulder Creek Water Quality and Recovery Project expansion (43-44). Drought is identified as a major climate hazard impacting drinking water supplies and aquatic habitats (25).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan aims to address water sustainability and quality issues through a multi-pronged approach, incorporating conservation, supply diversification, and pollution reduction strategies. To enhance water supply: The plan promotes increasing conservation measures, including rebates, conservation pricing, and policies to minimize demand from new growth. It also recommends investigating the feasibility of developing alternative or supplemental water sources, including infrastructure for inter-district transfers. Maximizing the production from existing sources by improving the ability to capture, store, and transfer winter storm volumes is also suggested (C5-3). To protect water quality: Upgrading and maintaining rural and urban sewage systems (including septic systems, sewer lines, and laterals) is crucial to minimize leakage, spills, and failures. Implementing erosion control measures to reduce sediment from various sources, such as roads, timber harvesting, and agriculture, is also emphasized (C5-3). Watershed health and nature-based solutions: Acquiring, enhancing, and protecting riparian zones is identified as a key strategy for multiple benefits. This includes actions like widening riparian corridors, increasing vegetation complexity, and restoring their natural functions (C5-3, C5-4). Groundwater recharge and protection: The plan emphasizes managing impervious surfaces to increase groundwater recharge. This includes disconnecting impervious surfaces, increasing localized infiltration through low impact development (LID), constructing and maintaining recharge basins, and preventing or removing impervious surfaces in recharge zones (C5-4). Protection of groundwater recharge zones involves limiting development in these areas to one unit per 10 acres to prevent pollution and ensure sufficient recharge (C5-14). Further, shifting groundwater pumping away from the coastal zone is suggested to protect against saltwater intrusion (C5-5).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management Plan outlines numerous strategies to protect and enhance water quality and supply, focusing on groundwater recharge, soil erosion control, watershed health, water pollution prevention, saltwater intrusion mitigation, and nature-based flood protection. Recognizing that groundwater is the primary water source in the region, the plan promotes recharge area protection, safeguarding these areas from pollution to maintain groundwater quality (95). To address seawater intrusion, a significant concern in the coastal areas, the plan advocates for salt and

salinity management, including techniques like over-irrigation to flush salts from the root zone, dilution with lower salinity water, and treatment to remove salts from water supplies (99). Additionally, the plan emphasizes conjunctive management and groundwater storage to optimize groundwater use and mitigate overdraft (96). Recognizing the interconnectedness of the watershed, the plan calls for watershed management using a coordinated approach for all strategies to improve drought preparedness, water quality, operational flexibility, flood management, and environmental benefits (101). Addressing water pollution, the plan advocates for pollution prevention strategies such as implementing land management practices to prevent pollutants from entering source waters, establishing drinking water source protection programs, and addressing improperly managed wells (99). Acknowledging the importance of nature-based flood protection, the plan supports flood risk management through floodplain preservation projects, watershed studies, and creek restoration projects (125-126).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:**

Wildfires can negatively affect water quality. During active burning, ash can settle on reservoirs used for drinking water. Burned areas are also prone to greater rates of erosion, increasing the accumulation of sediment in streams and reservoirs, which decreases water quality and storage capacity. Thus, fire risk reduction projects around water storage, water treatment facilities, pump stations, and pipelines can be vital to protecting water supplies. Projects that protect water infrastructure directly or protect the watershed from fire are priorities (36).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** The Santa Cruz County Regional Conservation Investment Strategy (RCIS) recognizes the importance of water quality and supply protection. One strategy is to protect riparian corridors along waterways to maintain their function as essential corridors for aquatic and terrestrial species and to filter runoff (164). Another strategy is to implement floodplain restoration and expansion projects that restore natural sediment transport dynamics, channel evolution, and channel complexity (174). The RCIS also advocates for promoting water conservation measures and acquiring water rights to support aquatic systems and species (457). Additionally, the RCIS suggests managing working lands to enhance water quality by reducing erosion, managing irrigation, and promoting water treatment techniques (463). The plan also calls for groundwater recharge projects to reduce dry-season diversions and elevate dry-season water tables (194). Lastly, the RCIS emphasizes the creation, expansion, and maintenance of groundwater recharge systems and recycling programs to increase water supply for ecosystem function (223, 248).

**- 2018 Santa Cruz County Parks Strategic Plan:** The source does not provide specific strategies related to water quality and supply protection and enhancement.

**- 2023 Santa Cruz County Parks Strategic Plan Update:** The Santa Cruz County Parks system is facing increasing pressure from climate change, leading to more intense droughts and storms. This can harm park infrastructure, threaten coastal access, and exacerbate

water shortages. The Parks Department is exploring water usage reduction efforts to address this issue (6).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** Protecting water quality and supply is a crucial element of the Santa Cruz County LHMP. Key strategies focus on: Promoting effective groundwater storage through increased recharge. This includes projects like the Pure Water Soquel project, which will purify and inject water into the Mid-County Groundwater Basin to address supply and seawater intrusion concern (259). Water transfers, recharge, and conjunctive use: The county supports water agencies in exploring options for water exchanges, leveraging surface water during wet periods, increasing recycled water use and groundwater storage, and enhancing stream baseflow (261). Stormwater recharge and infiltration: Projects like the stormwater recharge project at the Seascape Golf Course aim to capture and recharge groundwater. Regulations also mandate maintaining pre-development infiltration rates for new developments (106). Addressing overdraft and water supply shortfalls: The plan emphasizes water conservation efforts, including promoting efficient landscaping, prohibiting wasteful practices, and supporting water agency conservation programs (105). Regional Collaboration and Partnerships: Santa Cruz County actively participates in regional initiatives like the Integrated Regional Water Management Plan (IRWMP) to address water resource challenges collaboratively (103).

**- 2020 California Adaptation Planning Guide^:** Integrated watershed management is presented as a key strategy for enhancing water quality and supply, addressing both flood and drought risks. This involves coordinating efforts across a watershed to balance water availability, demand, and ecological needs. Key actions include conserving wetlands, especially upstream, to mitigate flooding and managing undeveloped areas to promote soil health and drought resilience (D-39). Low-impact development is another important approach, focusing on stormwater management through the implementation of bioretention elements like rain gardens and bioswales. This helps reduce local flooding, enhance groundwater recharge, and moderate streamflow (D-8, D-39). To address potential water shortages, increasing water use efficiency is crucial. Measures such as graywater systems, reduced outdoor water use, and low-flow fixtures are recommended. Finally, upgrading water and wastewater systems is necessary to adapt to projected changes in water quality and availability. This might involve deepening wells and intakes, improving treatment systems, and expanding storage capacity (D-40).

**- 2023 California Water Plan Update^:** The California Water Plan Update 2023 (Update 2023) identifies a number of critical water resource challenges and considerations related to water quality and supply protection, with a focus on strategies for enhancing watershed resilience. The plan promotes managed aquifer recharge, recognizing the role of aquifers as natural infrastructure, and suggests increasing opportunities for this strategy while also advancing strategies that halt or minimize land subsidence, which can damage critical infrastructure (8-7, 8-9). Recognizing that groundwater-reliant communities are particularly vulnerable to drought, Update 2023 advocates for the continued implementation of the Drinking Water Well Principles and Strategies Framework (6-23, 8-

11). To address water quality issues, which are especially acute in the San Joaquin Valley and portions of the Central Coast, the plan recommends expanding and improving groundwater data collection programs, expanding monitoring and data collection overall, and managing aquifers for their multi-benefit ecosystem services (2-20, 8-3, 8-4, 8-10). Finally, Update 2023 stresses the importance of nature-based solutions, such as ecosystem restoration to protect and enhance ecosystem services (8-7).

- **2021 California Wildfire and Forest Resilience Action Plan**<sup>^</sup>: The source does not explicitly discuss strategies related to water quality and supply protection and enhancement. However, it does mention the importance of healthy forests for safeguarding water quality and protecting municipal water sources threatened by wildfires (24). It also emphasizes the significance of mountain meadows for their role in sustaining California's headwaters, particularly during drought years (36).

- **2023 California Outdoors for All Strategy**<sup>^</sup>: The sources primarily focus on expanding access to outdoor recreation and do not provide strategies for water quality and supply protection and enhancement. However, the document mentions that restoring a farm prone to frequent flooding to natural riverside habitat will help nature restore underground water storage (21).

- **2022 Pathways to 30x30 California**<sup>^</sup>: The 30x30 initiative aims to protect California's water security through watershed, meadow, and floodplain restoration projects, as well as ecological forestry, to increase snowpack retention. It also supports restoring natural groundwater-surface interactions (48). For coastal water quality, the strategy suggests exploring the development of a state water quality protected areas designation process to protect the Marine Protected Areas network from land-based pollution (57). Additionally, targeted water quality monitoring should focus on impacts to sensitive marine habitats like eelgrass and kelp (61).

- **2021 Natural and Working Lands Climate Smart Strategy**<sup>^</sup>: Protecting and restoring wetlands and riparian areas can improve water quality, increase carbon storage, and reduce the risks of flooding and soil erosion. This strategy can also increase the richness and diversity of soils and coastal habitats, sustain cold-water habitats for native species, and create outdoor recreation opportunities (8). Restoring mountain meadow function and hydrology through site-appropriate solutions, such as beaver reintroduction, can enhance water quality and reliability, biodiversity, carbon storage, and natural system connectivity (38). Other water-centric nature-based solutions include protecting and restoring state waters, ensuring sufficient flows in rivers and streams for ecological and climate-resilience functions, and bringing groundwater basins into sustainable conditions (58). Additionally, increasing managed groundwater recharge on working croplands can capture rain and storm runoff, allowing water to replenish aquifers (34).

## Wildfire Risk Reduction and Forest Health

- **Capitola Climate Action Plan\***: The sources mention open space and urban forests and their role in sustainability (2-13, 7-45, 7-48). Increasing and enhancing open space and urban forests, and supporting community tree plantings are identified as measures (7-48). These actions primarily contribute to carbon sequestration by storing carbon in biomass and can help reduce urban heat-island effects (7-45, 7-48). While the sources note that drought conditions can increase the risk of wildfires (2-12), they do not explicitly detail strategies like shaded fuel breaks or defensible space for wildfire risk reduction or specific practices for fire-resilient stewardship within forests.

- **City of Santa Cruz Climate Action Plan\***: The source addresses wildfire risk reduction and forest health primarily within the Climate Restoration section. One key strategy is to pursue funding to expand forest management to promote carbon sequestration and reduce the threat of intense fires (103). The City also plans to reforest or afforest areas... in line with other City parks and open space plans (107). Developing and implementing an Urban Forest Master Plan is another overarching strategy that can contribute to forest health (102). Additionally, the City aims to protect and replace urban trees on public and private property. These actions collectively suggest a focus on proactive forest management and increasing tree cover in a way that enhances carbon sequestration and reduces wildfire risk (102).

- **Watsonville Climate Action Plan**: The CAAP addresses wildfire risk reduction and forest health primarily in the context of protecting infrastructure and building energy resilience. The plan acknowledges that extreme heat and wildfires pose a significant threat to electricity generation capacity (3-2) and that the City is surrounded by areas with high wildfire risk (3-8). One specific strategy involves working with PG&E to underground transmission lines in fire risk areas (2-45). The City's Local Hazard Mitigation Plan (LHMP) outlines plans to prepare for natural disasters, including wildfires, and addresses the vulnerability of critical infrastructure (ES-5). Furthermore, the CAAP aims to build local energy resilience in response to the increased severity and frequency of wildfire events, which can lead to power disruptions (3-11). While the plan doesn't detail specific forest health strategies like shaded fuel breaks or defensible space, the focus is on mitigating the impacts of wildfires on the community's energy infrastructure and overall safety through existing hazard mitigation plans and grid improvements.

- **Regional Project Prioritization\***: The Community Wildfire Protection Plan (CWPP) outlines several key strategies for wildfire risk reduction and promoting forest health. A central strategy involves the creation and maintenance of **shaded fuel breaks** along roadsides, around communities, and strategically across the landscape to reduce flame lengths and provide safer access for firefighters (19-24, 27-29, 50). The CWPP emphasizes the importance of **defensible space** around structures, recommending measures such as creating a firebreak within 30 feet of structures by removing flammable vegetation, clearing dead fuels between 30 and 100 feet, and establishing an ember-resistant zone within 5 feet using noncombustible materials (15-16, 18-21). Furthermore, the plan promotes **fire-**



resilient stewardship\*\* through recommendations for appropriate plant selection in landscaping, favoring native, drought-tolerant, and fire-resistant species (22). Landscape-level needs include mapping and maintaining truck trails for access, considering environmentally acceptable landscape-level fuel breaks, and addressing the risks posed by invasive, highly flammable vegetation like eucalyptus and acacia through thinning, removal, and pruning (34, 37, 39). The CWPP also acknowledges the importance of managing forest fuels through methods like manual labor, livestock grazing, mechanical means, and prescribed fire, while considering the sensitivity of local habitats (31-32, 40).

**- Santa Cruz Emergency Operation Plan\*:** The source identifies fire hazard as a significant risk, particularly in the Wildland Urban Interface (WUI), where the risk to human life and property is considerably greater than in uninhabited natural areas (169). Factors such as human activity, climate change, forest management, and deteriorating utility systems are noted as having substantially expanded the range and number of potential ignition sources (169). The California Department of Forestry and Fire Protection (CalFire) has mapped fire hazard severity zones (Very High, High, and Moderate) within the State Responsibility Area (SRA) and Local Responsibility Areas (LRA) based on factors like fuels, terrain, and weather. Emergency Support Function (ESF) 4, Firefighting, is responsible for coordinating activities directly related to the detection and suppression of wildland, rural, and urban fires and the provision of resources to support other response entities (65, 131). While the document highlights the risk and the responsible ESF, it does not provide specific details on strategies like shaded fuel breaks, defensible space, or fire-resilient stewardship within the excerpts provided.

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP focuses on reducing wildfire risk through improved forest health management. This includes developing a Community Wildfire Prevention Plan, prioritizing fuel reduction projects like shaded fuel breaks, and establishing vegetation management standards (49). The plan also aims to reduce wildfire risk to structures in at-risk communities by developing water infrastructure improvement plans and promoting wildfire risk reduction education for landowners (50). Additionally, the CAAP seeks to improve the carbon sequestering ability of forests by reforestation with drought-adapted trees (49).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** Ecosystem restoration and protection and fire preparedness (e.g., defensible space, chipping) activities help reduce the threat and impact of wildfire (C7-5). Strategies for forest management include meadow restoration for increased groundwater storage, riparian forest restoration, fuels/fire management, and road management (C5-13).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** While the sources emphasize the importance of forest management for water quality and downstream users, they don't directly connect forest management practices to wildfire mitigation (94-95).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The 2022 CWPP update for Santa Cruz and San Mateo Counties outlines several strategies for wildfire risk reduction and forest health in Santa Cruz County, focusing on fuel management techniques and recognizing the heightened risk posed by invasive species.

**Creating Defensible Space:** This involves strategically modifying vegetation around structures to reduce the risk of fire spreading to buildings. The sources recommend maintaining a 100-foot defensible space around homes, clearing flammable vegetation, and replacing wooden fencing near structures with non-flammable materials (19-21).

**Fuel Breaks:** These strategically altered zones disrupt wildfire pathways, reducing intensity and providing anchor points for firefighting efforts (27). **Shaded fuel breaks:** These breaks thin vegetation while preserving taller trees to create a shaded canopy that reduces surface temperatures and fire intensity. This method is often implemented over the removal of all vegetation due to lower costs, easier maintenance, and minimal impact on sensitive habitats (28). **Roadside fuel breaks:** Reducing fuel loads along roadsides is crucial for preventing ignitions and ensuring access for emergency responders and evacuations. These breaks typically extend 10 to 40 feet from the road (29).

**Managing Invasive Species:** The sources identify eucalyptus and acacia as highly flammable invasive species that significantly increase wildfire risk. They advocate for eucalyptus removal or modification due to its rapid spread and tendency to fuel intense fires and acacia elimination along roadsides to prevent its spread and reduce fuel loads (38-39).

**Vegetation Removal Methods:** The sources suggest various methods for removing vegetation in fuel breaks, including chipping, pile burning, prescribed herbivory, and prescribed burns (30-32).

The sources underscore that the effectiveness of these strategies relies heavily on collaboration between agencies, communities, and landowners.

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** Managing fire and vegetation through treatments that mimic fire's benefits is crucial for creating a resilient and biodiverse landscape in Santa Cruz County. These treatments aim to create and maintain a mosaic of native plant communities at various successional stages, fostering diverse habitat conditions. By doing so, a range of microclimatic and abiotic conditions is maintained, increasing resilience against climate change (338, 355, 386, 405). Additionally, reducing fuel loads in watersheds with high fire hazard severity is essential to proactively mitigate the risk of catastrophic wildfires and the resulting post-fire erosion hazard (190). These strategies are particularly important in areas with a history of fire suppression, which has led to the accumulation of fuels and increased the risk of severe wildfires (104).

**- 2018 Santa Cruz County Parks Strategic Plan:** The source does not provide specific strategies related to wildfire risk reduction.

**- 2023 Santa Cruz County Parks Strategic Plan Update:** While the document doesn't outline specific strategies for wildfire risk reduction, it highlights the impact of the 2020 CZU Lightning Complex fires, which burned over 86,000 acres and destroyed many structures. During the fires, the Parks Department transformed Simpkins Family Swim

Center into a shelter for evacuees, deployed staff as Disaster Service Workers, and assisted in delivering water and building horse stalls for evacuees (5).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** The LHMP recognizes the significant threat of wildfires to the county. Strategies to mitigate this risk include: Hazardous fuel reduction projects: These initiatives include employing indigenous land use practices like controlled burns, removing hazardous fuels, and implementing shaded fuel break burn strategies to decrease fire risk in the Wildland-Urban Interface (WUI) (176). Defensible Space Enforcement: Enforcing regulations requiring property owners in State Responsibility Areas (SRA) to maintain defensible space around structures to prevent fire spread. This is achieved through inspections, educational materials, and collaborative efforts with fire agencies. Fire Safe Building Regulations: Enforcing building codes that mandate the use of ignition-resistant materials and design standards to enhance the fire resilience of structures, particularly in high-risk areas. Community Collaboration: Working with communities and organizations, such as the Soquel, South Skyline, and Bonny Doon Fire Safe Councils, to implement hazardous fuel reduction projects and conduct community education on fire safety (65). Community Wildfire Protection Plan (CWPP): Implementing the CWPP, developed in collaboration with various agencies and community members, to identify fire hazards, prioritize fuel reduction areas, and recommend measures to reduce structure ignitability (66).

**- 2020 California Adaptation Planning Guide<sup>6</sup>:** Active forest management is critical for reducing wildfire risks. The sources recommend establishing local forest management task forces that bring together diverse stakeholders to coordinate fuel load management efforts<sup>6</sup>. These task forces can oversee thinning, brush removal, and prescribed burns on both public and private lands (D-18). Educating homeowners about wildfire risks and mitigation measures is also essential. Public information campaigns can highlight statutory vegetation management requirements and promote the creation of defensible spaces and fuel breaks around structures (D-19). Incentivizing private landowners to engage in forest protection is another key strategy. This can be achieved through easements, working forest programs that allow for sustainable timber harvesting, and other financial mechanisms. Expanding and managing urban forests can also contribute to wildfire risk reduction, in addition to providing other benefits like heat mitigation and flood control. This involves developing policies and management plans to guide urban forestry efforts and incentivize long-term maintenance and preservation of urban trees (D-20).

**- 2023 California Water Plan Update<sup>7</sup>:** The sources emphasize the increasing threat of wildfires in California and highlight the need for wildfire resilience efforts, particularly in high-risk watersheds. One key strategy is to accelerate efforts to restore forest health, recognizing the interconnectedness of forest health, wildfires, water supply, flood management, and water quality. This involves coordinating with organizations like the California Wildfire and Forest Resilience Task Force to identify critical watersheds for direct action (8-8). Additionally, the sources acknowledge the traditional ecological knowledge (TEK) of Native American Tribes, who have practiced cultural burning for

centuries to maintain healthy and resilient landscapes. Embracing and integrating TEK, including cultural burning practices, can play a crucial role in mitigating wildfire risks and restoring the ecological balance of California's watersheds (7-13, 7-14).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** The sources emphasize a multi-pronged approach to wildfire risk reduction. This includes increasing the pace and scale of forest health projects, such as prescribed fire and thinning, to restore forest health and reduce fuel loads (13). The plan calls for treating one million acres annually by 2025, with CAL FIRE and other state entities responsible for 500,000 acres and the USFS responsible for the other 500,000 acres (7). The plan also prioritizes strengthening community protection through measures like defensible space, fuel breaks, and home hardening (27). CAL FIRE will develop and maintain a list of over 500 fuel break projects across the state (29). They will also assist the Board of Forestry and Fire Protection (BOF) in updating defensible space regulations, requiring a five-foot ember-resistant zone around homes (53). For utilities, the plan aims to improve oversight and enforcement of wildfire safety regulations to reduce utility-related ignitions (32). The plan also recommends managing forests to achieve the state's economic and environmental goals (56). Finally, the plan emphasizes the importance of using best available science and driving innovation to address the wildfire crisis (41).

**- 2023 California Outdoors for All Strategy^:** The sources note that outdoor spaces help communities adapt to climate change by serving as a refuge from extreme heat and by storing carbon dioxide in trees (9). In terms of post-wildfire recovery, the document suggests developing recreational opportunities to sustain outdoor recreation-based economies (23).

**- 2022 Pathways to 30x30 California^:** To address the growing threat of wildfires, the 30x30 plan advocates for the restoration of ecologically and culturally appropriate fire regimes in conserved areas. This includes promoting natural patterns of fire frequency and intensity to support the resilience of native ecosystems. The strategy also highlights the importance of post-fire restoration efforts to ensure the recovery of these ecosystems and prevent habitat type conversion after severe fires (49).

**- 2021 Natural and Working Lands Climate Smart Strategy^:** Climate-smart forest management, including prescribed and cultural burns and managed natural wildfire, can reduce the risk of catastrophic wildfire, increase carbon sequestration rates, and stabilize carbon storage (26). These efforts can also capture and clean water supplies, improve air quality, provide habitat for wildlife, create high-road jobs, and support local economies (8). Reducing wildfire risks through climate-smart management of lands near communities and transportation infrastructure, including through development of buffer zones, is also crucial, particularly in shrubland and chaparral landscapes. Managed grazing with goats can be an effective carbon-neutral fuels management technique to maintain fuel breaks in these areas (30).

## Wildlife and Habitat Protection

- **Capitola Climate Action Plan\***: The sources discuss biodiversity, wildlife, and habitat primarily in the context of preserving natural undeveloped areas like habitat and open green spaces (1-1). The Capitola Climate Action Plan recognizes the importance of these areas and aims to maintain respect for its beautiful natural setting (1-1). One key strategy mentioned is increasing and enhancing open space and urban forests and supporting community tree plantings (7-48). This is identified as a way to increase locations for carbon-storing biomass and reduce urban heat-island effects. Additionally, the promotion of community gardens is noted for its potential to provide additional habitat and foraging opportunities for wildlife (7-46). Certain green building practices, such as green roofs, bioswales, and living walls, are also mentioned as potentially providing habitat and foraging opportunities for urban wildlife (7-18). The Climate Action Plan also aims to limit the loss of natural and farmland areas beyond Capitola by promoting infill development (7-2).

- **City of Santa Cruz Climate Action Plan\***: The source addresses biodiversity, wildlife, and habitat restoration, protection, and enhancement primarily within the Climate Restoration measures. One strategy involves developing an Urban Forest Master Plan and planting 3,000 new trees by 2030 (13, 102). The plan also includes efforts to protect and replace urban trees on public and private property (102). Additionally, the City intends to increase carbon sequestration through various means, such as applying compost throughout the community. This includes exploring collaborations with UCSC on regenerative agriculture and permaculture (107). Furthermore, the City plans to evaluate policies to strengthen current open space habitat preservation. These actions aim to enhance natural resources and urban parks, contributing to habitat health. (108-109)

- **Watsonville Climate Action Plan**: The CAAP emphasizes habitat restoration and protection as key components of climate restoration and enhancing biodiversity (ES-3, ES-6). One primary strategy involves increasing local greenspace by preserving or restoring an additional 5 acres within City limits by 2030, which includes implementing a 100-foot development buffer around all sloughs and undertaking watershed improvements and habitat enhancements for sloughs, storm culverts, and open channels (2-51). The development and implementation of a Green Infrastructure Plan that includes habitat is also a supporting effort. (2-52, Furthermore, the City aims to identify strategies for grassroots implementation of green infrastructure and restoration by residents (2-52), work with existing landowners to replace missing landscaping to increase green space (2-52, 5-1), and coordinate with Indigenous people to discuss best practices on restoration strategies and actions. Exploring natural resource protection policies, specifically for native plants, as well as invasive species management policies, are also identified as supporting efforts (2-49). The plan also mentions wetland protections and expansion as a strategy for carbon sequestration, which simultaneously supports habitat preservation (4-1). Finally, quantifying the sequestration provided by the slough system is noted, recognizing its ecological importance (2-49).

**- Regional Project Prioritization\*:** The Community Wildfire Protection Plan (CWPP) addresses biodiversity, wildlife, and habitat by providing guidance on natural resource protection in conjunction with fuel load management (40). A key strategy is to **balance habitat protection and degradation in the context of high-severity wildfires**. For specific sensitive species like the Santa Cruz Long-toed Salamander and the San Francisco Garter Snake, the plan recommends strategies such as **leaving as much native vegetation on site as possible**, **controlling the invasion and spread of non-native plants** (like French broom, eucalyptus, and ice plant), **avoiding soil disturbance**, **maintaining a 12 to 18 inch tall understory of native vegetation separated from the canopy**, and **leaving damp logs in place** (41, 42). For the Marbled Murrelet, strategies include **avoiding critical habitat**, **maintaining old-growth trees**, **limiting limbing to the lower 10 feet of old-growth trees**, and **performing activities after September 15th to avoid the nesting season** (42). In sandhills habitat, the plan emphasizes **leaving as much native vegetation as possible**, **controlling non-native plant invasion**, **revegetating with local native sandhills plants if applicable**, and **avoiding actions that could harm native plants and insect larva** (44). For maritime chaparral, the strategy involves **controlling the spread of invasive non-native plants**. For oak woodlands, the plan recommends to **retain as many healthy trees and native understory as possible** and to **separate the canopy from the understory**. Regarding riparian corridors and wetlands, the primary strategy is to **avoid work in these areas if possible**, and if necessary, to **leave mature vegetation near water bodies, retain native trees and understory, separate the canopy, and minimize noise and disturbance** (46). The plan also notes that **wildfires play a natural and vital role in maintaining biological diversity** and can have a regenerative role for species and habitats (40).

**- Santa Cruz Emergency Operation Plan\*:** The source mentions the priority of preserving the environment and cultural resources from damage during an emergency (41). Santa Cruz County is described as an ecological hub and the "Gateway to the Monterey Bay National Marine Sanctuary," with old-growth coastal redwood forests and other protected areas and wildlife species (19). Additionally, the southern part of the county is noted for its fertile soil and productive agricultural lands. Emergency Support Function (ESF) 11, Food & Agriculture, provides guidance on how to protect and adequately address emergencies that directly impact the County's agricultural, natural, and cultural resources, and historic properties, including coordinating plant, animal, and agricultural health issues (135). However, the provided excerpts do not detail specific strategies for biodiversity, wildlife, and habitat restoration, protection, and enhancement such as wildlife corridors, wildlife-friendly infrastructure, wetland restoration, or anadromous fish recovery.

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The sources mention the importance of healthy ecosystems and their role in climate change mitigation and adaptation (27). The CAAP promotes carbon sequestration strategies through conservation and restoration of natural habitats and sustainable farming practices (46-47). The sources do not provide specific details regarding wildlife corridors, wildlife-friendly infrastructure, wetland restoration, or anadromous fish recovery.

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan places a strong emphasis on restoring, protecting, and enhancing aquatic ecosystems to support biodiversity and species recovery. Streamflow and habitat improvement: Reducing stream withdrawals and increasing baseflow to achieve streamflow targets is essential for maintaining healthy aquatic ecosystems. This includes identifying and eliminating illegal diversions that negatively impact streamflow. Restoration efforts focus on natural stream form and function, such as restoring stream hydro-geomorphic function. Riparian and wetland management: Acquiring/obtaining easements for riparian zones and reducing riparian encroachment are vital to protect and enhance these critical areas. Sediment and erosion control: The plan highlights reducing erosion and sedimentation from various sources, including roads, unpermitted grading, and other activities. Habitat features: Preserving and enhancing large woody debris (LWD) in streams and the riparian zone, removing non-native species, conducting riparian revegetation, removing or retrofitting fish passage barriers, and increasing/enhancing physical structure and biotic habitat complexity are all crucial aspects of habitat restoration and enhancement efforts. Additionally, promoting natural sand bar function and improving wetland hydrology to support desired biota contribute to healthy and diverse ecosystems. Reducing illegal dumping and illegal diversions are additional steps taken to protect sensitive ecosystems (C5-7).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The plan emphasizes the value of ecosystem restoration and advocates for strategies such as increasing setback levees and floodwater bypasses, creating programs that support the identification of streamflow needs, and establishing biological reserve areas that connect habitat patches<sup>1</sup>. The plan stresses expanding riparian habitat, developing climate change adaptation plans that benefit ecosystems, reproducing natural flows in streams and rivers, controlling non-native invasive plant and animal species, and filtering pollutants to recharge aquifers (94). The plan also highlights the importance of anadromous fish recovery, particularly for the South-Central California Coast Steelhead. To aid in the recovery of the steelhead population, the plan advocates for modifying fish passage impediments, managing instream mining activities to minimize habitat impacts, and restoring estuarine rearing habitat (71). The plan recognizes the importance of wetland restoration and notes that wetland areas provide habitat and movement corridors for wildlife, including sensitive species like the California red-legged frog and the California tiger salamander (70). The plan also acknowledges the need to protect, enhance, or restore habitats to support the Monterey Bay National Marine Sanctuary's marine life (80, 83).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The sources emphasize the importance of protecting sensitive habitats and species during fuel reduction activities. Recommendations include minimizing disturbance in areas inhabited by the Santa Cruz Long-toed Salamander, California red-legged frog, San Francisco Garter Snake, and San Francisco dusky-footed woodrat (41-43). Retaining native vegetation and controlling invasive species like French broom, eucalyptus, and ice plant to promote habitat health (42). Preserving old-growth trees and limiting limbing to protect marbled murrelet

nesting sites (42-43). Maintaining vegetation buffers along riparian corridors and wetlands to protect water quality and provide habitat for steelhead and Coho salmon (46). Employing prescribed herbivory, especially with goats and sheep, as a fuel reduction method that also offers ecological benefits like nutrient cycling and soil aeration (31). Protecting sandhill and maritime chaparral habitats by carefully managing vegetation removal, controlling invasive species, and revegetating with native plants (44-45). Retaining healthy trees and understory vegetation in oak woodlands to preserve habitat diversity (46).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** The Santa Cruz County Regional Conservation Investment Strategy (RCIS) outlines a range of strategies to address the conservation needs of diverse habitats and species. These strategies encompass the five core elements of the RCIS: natural communities, other conservation elements (habitat connectivity, working lands, bat habitat), focal species, non-focal species, and co-benefitted species (xiv). Recognizing that habitat protection alone is insufficient for regional conservation, the RCIS emphasizes a multi-faceted approach, including habitat protection, restoration, enhancement, and species-specific actions (130).

One primary strategy is the protection of existing intact habitats, focusing on acquiring land or conservation easements to prevent conversion or degradation (170). Restoration and enhancement strategies are also critical, encompassing actions like removing invasive species, promoting native plant revegetation, and restoring natural processes (130). The RCIS specifically emphasizes riparian corridor restoration to enhance connectivity and improve habitat for various species, including the California red-legged frog (65). To address the unique challenges posed by habitat fragmentation, the RCIS advocates for implementing wildlife-friendly infrastructure, such as wildlife crossings and modified road infrastructure (443, 452). For wetland restoration, the strategy highlights actions like increasing open water habitat, planting emergent vegetation, controlling predators, and improving hydrologic periods (239). In the case of anadromous fish recovery, a key objective is restoring unfettered access to historical habitats by removing fish passage barriers and enhancing in-stream complexity (155, 179, 202). The RCIS also recognizes the importance of addressing climate change impacts and stresses the need for adaptive management strategies to ensure long-term resilience of these ecosystem (170).

**- 2018 Santa Cruz County Parks Strategic Plan:** The source acknowledges a need to protect natural, cultural, and historical resources. These strategies include partnering with other agencies, organizations, and landowners for resource management, protecting cultural and historical resources within the parks system, offering interpretive programs to promote awareness and appreciation of these resources, establishing a dedicated program within the parks department for managing natural resources and open spaces, expanding interpretive programs, and fostering volunteer and intern programs for experiential learning and land stewardship (12).

**- 2023 Santa Cruz County Parks Strategic Plan Update:** The source does not provide specific details regarding strategies for biodiversity, wildlife, and habitat.



- **2021 Santa Cruz County Local Hazard Mitigation Plan:** The sources do not provide specific strategies for biodiversity, wildlife, and habitat restoration.

- **2020 California Adaptation Planning Guide<sup>^</sup>:** The sources highlight the importance of a multi-pronged approach to protecting biodiversity in the face of climate change. A key strategy is to conserve lands that become newly suitable for habitats and species of concern as climate conditions shift. This involves identifying areas projected to become suitable in the future and taking steps to protect them from development. Additionally, protecting corridors between current and future suitable areas is essential to facilitate species movement and prevent habitat fragmentation (D-5). Restoring degraded ecosystems can enhance their resilience to climate change and support biodiversity. This might involve removing invasive species, replanting native vegetation, and improving hydrological conditions (D-6). Public education and outreach play a vital role in fostering support for biodiversity conservation. Educating community members about the importance of safeguarding natural systems can increase awareness and encourage action. Promoting economic opportunities that are responsive to changes in available natural resources can help ensure the long-term sustainability of biodiversity conservation efforts. For example, this might involve supporting sustainable forestry or ecotourism initiatives (D-7). Finally, using nature-based solutions, also known as “green infrastructure,” for resilience projects can provide adaptation benefits while also creating habitat for flora and fauna. Examples include rain gardens, bioswales, restored wetlands, and living shorelines (D-8).

- **2023 California Water Plan Update<sup>^</sup>:** The sources recommend restoring critical geomorphic, hydrologic, and ecological processes to build resilience for human and natural communities. Examples include reconnecting floodplains, managing rivers to support salmon, and managing forests to encourage natural succession. The sources highlight the importance of integrating Traditional Ecological Knowledge by including Tribal participation in the design, implementation, and co-management of large-scale ecosystem restoration projects (4-26). They identify the need for more watershed and ecosystem restoration, including cultural burns and meadow restoration, using Tribal Ecological Knowledge and nature-based solutions (3-12). The sources note that Tribal members played a defining role in the design and implementation of post-dam-removal activities in the Klamath River Renewal Project, including ecological restoration at reservoir footprints and upstream tributaries (7-18).

- **2021 California Wildfire and Forest Resilience Action Plan<sup>^</sup>:** The California Natural Resources Agency (CNRA) is working to develop a strategy that conserves at least 30 percent of California's land and coastal waters (36). In coordination with this strategy, they are creating a set of incentives to increase ecologically and financially sustainable timber harvesting, including consideration for multi-age stands, increased carbon storage, and biodiversity (16). CAL FIRE and the California Department of Fish and Wildlife (CDFW) are developing tools to assist timber landowners in conserving northern spotted owls and their habitat (26).

- **2023 California Outdoors for All Strategy^**: Connecting different-sized outdoor spaces, including statewide and regional trail networks, can create wildlife corridors (23). Trails and other features should be designed to integrate best with natural environments to minimize wildlife impacts. The sources also highlight the transformation of a farm into natural riverside habitat as a win for biodiversity (21).

- **2022 Pathways to 30x30 California^**: A major component of the 30x30 initiative is protecting and restoring biodiversity by ensuring conservation of habitats that represent the full diversity of California's ecosystems, especially rare or remnant habitat types. Protecting areas adjacent to or linked to existing conserved areas to support large, interconnected watersheds and seascapes is another important strategy. Restoration efforts focus on degraded habitats, especially rare ecosystems and wetlands. Targeted areas for conservation include those with high species richness, endemism, and species rarity. Places that support exceptional biocultural significance, accounting for the interconnected nature of people and places, are also prioritized. Conserving and restoring river corridors is essential for fish and wildlife movement and serves as climate refugia for native species (13). Specific projects include restoring connectivity and fish passage of impaired waterways, meadows, riparian areas, floodplains, and wetlands. This can be achieved by utilizing natural flood protection tools and removing unnecessary or obsolete barriers from waterways (48).

- **2021 Natural and Working Lands Climate Smart Strategy^**: Protecting landscapes with high biodiversity, restoring vulnerable ecosystems, and enhancing ecological connectivity are crucial for supporting biodiversity in a changing climate (10). Restoring vulnerable ecosystems can enhance biodiversity by creating and expanding wildlife habitats while also building the resilience of human communities through services like water storage and flood mitigation. Restoration efforts can include invasive species removal, revegetation, and reintroduction of keystone species (11). Maintaining habitat connectivity is also essential for supporting migrating species and enabling species movement across the landscape to adapt to shifting habitats and food sources due to climate change (10). Reconnecting aquatic habitats within forests is crucial for helping fish and wildlife adapt to climate change and endure drought (26).

## **Parks, Recreation, and Public Access**

- **Capitola Climate Action Plan\***: The sources address "Parks, recreation, and public access" through several strategies. The Climate Action Plan identifies preserving open space and parks as a way to meet sustainability goals (1-1). Strategies include increasing and enhancing open space and urban forests (7-48), which can provide opportunities for recreation and improve public health (7-46). The City aims to promote the ability of all residents to safely walk and bicycle to public parks, identify needed improvements, and incorporate these into the City's Capital Improvement Program (7-11). Additionally, the plan considers allocating portions of a Transportation Impact Fee to bicycle and pedestrian facility projects (7-12) and aims to maintain an environment within the Village and Capitola

Mall that prioritizes the safety and convenience of pedestrians and bicyclists (7-11). The establishment of community gardens in parks and on public easements is also proposed (7-46), which can contribute to public health (7-46). Furthermore, the City suggests exploring events like a "star nights" event (7-21).

**- City of Santa Cruz Climate Action Plan\*:** The source emphasizes the importance of protecting and enhancing natural resources and urban parks as a community value (1, 19, 34). To this end, the development and implementation of an Urban Forest Master Plan is a key strategy, which includes planting 3,000 new trees by 2030 (102). This tree planting will prioritize frontline neighborhoods (102). The City also intends to enhance its landscaping capacity to effectively plant and maintain street trees and landscapes (102). Furthermore, there are plans to increase urban forest restoration outreach opportunities with frontline and other neighborhood groups (103). The source also mentions expanding watershed stewardship school programs to include water conservation, which can connect environmental education with recreational spaces like watersheds. (94) Additionally, the City aims to evaluate and increase green stormwater infrastructure on City facilities, which can enhance the ecological function and potentially the accessibility of these spaces. (127) Finally, the development of a green event checklist/guide is mentioned as a way to support climate action within public spaces and events. (130)

**- Watsonville Climate Action Plan:** The CAAP outlines several strategies to enhance parks, recreation, and public access, often integrated with climate action and adaptation goals. To promote active transportation and recreation, the plan focuses on increasing multimodal transportation facilities through measures like requiring pedestrian improvements in new developments, implementing pedestrian and cyclist enhancements on key corridors, and developing new trails and completing existing ones (2-17, 2-18). The City-wide Bike & Trails Master Plan is also slated for updates (ES-4). To increase local greenspace, the CAAP aims to preserve or restore additional acreage within City limits and implement a development buffer around sloughs, supported by a Green Infrastructure Plan (2-51, 2-52). Tree planting on public and private property is incentivized, and park impact fees may be modified to further support this (2-52). Additionally, the plan supports programs like Ebike Share to enhance community-based travel (ES-4). While the document doesn't explicitly detail strategies for litter removal or specific recreation and after-school programs, the focus on creating more accessible trails and green spaces (2-17, ES-4, 2-51) and promoting environmental education through eco-literacy initiatives (2-52) aligns with the broader goals of enhancing public access and environmental awareness.

**- Regional Project Prioritization\*:** The Santa Cruz and San Mateo County Community Wildfire Protection Plan (CWPP) identifies parks and recreation areas as important assets at risk from wildfire in various planning areas (57, 65, 73, 82, 91, 102). The primary strategy discussed in the source to protect these assets is through fuel reduction projects such as roadside fuel reduction, shaded fuel breaks, and fuel reduction around homes, which aim to reduce wildfire hazards across the landscape (1, 24, 50). The CWPP highlights the importance of landscape-level planning and collaboration among stakeholders to

prioritize these projects and protect community assets, including parks and open spaces (37) While the document doesn't specifically detail strategies for clean and accessible parks or recreation programs, its overall goal is to mitigate wildfire risk, which would inherently contribute to the safety and preservation of these areas for public access and enjoyment (2).

**- Santa Cruz Emergency Operation Plan\*:** The source mentions County Parks Department as part of the County Emergency Management Organization and as a department that could be designated, requested, or needed during an emergency (59). While the source does not explicitly detail strategies for the routine maintenance, accessibility, or programming of parks, recreation, and public access in a non-emergency context, it does outline how these areas might be considered during emergencies. For example, Emergency Support Function (ESF) 1: Transportation coordinates the movement of special equipment (129), which could be relevant to accessing park facilities. Additionally, ESF 6: Mass Care and Shelter emphasizes ensuring physical and programmatic accessibility of identified sites (132), which could include recreation facilities used as emergency shelters. The Volunteer Center of Santa Cruz, a supporting department for ESF 7: Logistics (66, 133), could potentially coordinate volunteers to assist with tasks related to parks and recreation during or after an emergency. The source also prioritizes preserving the environment and cultural resources during an emergency (41, 135) which would include parklands.

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP mentions the role of the Parks Department in collaborating with community groups for tree planting and maintenance on public and private property (48). Additionally, it discusses establishing all-hazard resiliency community centers, with the feasibility of using County libraries for this purpose, ensuring accessibility for disadvantaged communities (51). The sources do not contain specific information related to litter removal, recreation and after-school programs, or environmental education.

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** While acknowledging the significance of water-dependent recreation in the region, the provided sources do not outline specific strategies for improving parks, recreation, and public access within the Santa Cruz IRWM Plan. The sources do mention that providing for water-dependent recreation is a priority for the region, and ensuring water quality that supports recreational uses is paramount (C5-14). While the sources do mention the importance of supporting school programs and community stewardship, these are primarily framed within the context of ecosystem restoration and protection, not park and recreation development (C5-7).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The source emphasizes the importance of considering recreational needs in conjunction with water management projects. Stakeholders aim to create lasting policies that educate the public about the watershed's significance and promote their role as caretakers of the riparian environment. This includes incorporating elements that protect, preserve, and restore native plants, wetlands, open space, wildlife habitats, and riparian forests. The source highlights the significance of cooperation among water supply, water quality, and

flood management agencies with environmentally focused agencies and municipalities to incorporate environmental benefits when implementing projects (32).

- **2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The sources do not contain any information relevant to this topic.

- **2022 Santa Cruz County Regional Conservation Investment Strategy:** One strategy for promoting biodiversity conservation is managing recreation in public lands to minimize negative impacts on sensitive communities and rare species. This can involve regulating access using signage, fences, trails, and patrols, as well as conducting outreach to recreators and user groups to promote practices that minimize the risk of spreading sudden oak death or other pathogens (266, 268, 269, 278, 290, 293, 301, 314, 317, 326, 339, 343, 356, 360, 371, 375, 387, 393, 395, 406, 410, 412, 420, 429, 441, 450). Additionally, creating, installing, and maintaining bat roosting structures can serve the dual purpose of supporting bat populations and providing educational opportunities for the community to learn about the importance of bats and their conservation (430).

- **2018 Santa Cruz County Parks Strategic Plan:** The Santa Cruz County Parks Department has outlined various strategies to ensure clean, safe, and accessible parks and recreational opportunities. To maintain and update facilities, the Department will establish consistent maintenance standards and staffing levels, assess operational costs for new projects, and prioritize system-wide needs for deferred maintenance. To ensure safety and cleanliness, they plan to increase staff presence, engage community and volunteers in maintaining clean parks, and partner with law enforcement. To improve accessibility, the Department will conduct accessibility assessments, prioritize improvements, and ensure parks cater to diverse demographics, including youth, seniors, and families. To address deferred maintenance, they will identify priority projects, develop budgets and timeframes, secure funding, and implement the plan in stages (9). To meet community recreational needs, the Department will offer free and low-cost programs and events and promote program scholarships. Finally, they plan to increase community engagement by conducting outreach to diverse communities, providing various volunteer opportunities, and establishing Adopt-A-Park programs (11).

- **2023 Santa Cruz County Parks Strategic Plan Update:** The community desires cleaner and more accessible bathrooms, increased staffing and hours at Simpkins Swim Center, and more parking. They also want the County to address safety concerns stemming from homelessness and drug use in park (12). The community's feedback revealed a desire for more diverse programming options, including programs for seniors and young children, more swimming lessons, and bilingual programs (14). The community also supports the County's implementation of more interpretive trails, signs, and programs and its partnerships with schools and academic institutions. Finally, the community wants expanded opportunities to participate in environmental volunteer programs and youth programs dedicated to caring for nature (15). The sources note that while the community supports increased stewardship efforts, additional resources are needed to fully implement these strategies.

- **2021 Santa Cruz County Local Hazard Mitigation Plan:** The sources do not provide specific strategies for parks, recreation, and public access.

- **2020 California Adaptation Planning Guide<sup>^</sup>:** Coastal management plans are essential for protecting park infrastructure and natural resources from the impacts of sea level rise and flooding. These plans can include provisions for preserving open space, restoring dune habitat, using soft or natural solutions to protect structures, mitigating impacts to public access, and adapting recreation facilities (D-29). Ensuring equitable access to parks and recreation is another key consideration. Identifying and addressing the needs of “park-poor” communities is crucial. This might involve establishing new parks and trail systems within walking distance of underserved populations, ensuring connectivity to high-density infill, homes, and offices (D-30). Public education programs can raise awareness about the importance of safeguarding cultural resources, including historic, cultural, and tribal cultural resources. Educational and outreach efforts can highlight the climate risks to these resources and the need for their protection (D-31).

- **2023 California Water Plan Update<sup>^</sup>:** The sources mention that watersheds provide recreation benefits, but they do not specifically address strategies for improving parks, recreation, and public access (5-1).

- **2021 California Wildfire and Forest Resilience Action Plan<sup>^</sup>:** The CNRA, in coordination with California State Parks, will update the Statewide Comprehensive Outdoor Recreation Plan (SCORP) in 2021. The updated SCORP will emphasize equitable access to underserved communities and rural recreation-dependent communities.<sup>14</sup> The USFS, in accordance with the Shared Stewardship Agreement, will coordinate the development of a joint strategy to improve access to sustainable recreation (39).

- **2023 California Outdoors for All Strategy<sup>^</sup>:** California's Outdoors for All strategy outlines various strategies to increase access to clean, safe, and accessible parks, trails, and facilities. The strategy focuses on increasing funding for park development and revitalization, particularly in park-poor and underserved communities. This includes prioritizing features that cater to individuals with disabilities and older adults (20). The strategy emphasizes the importance of collaborating with schools to enhance green schoolyards and explore opportunities for their community use outside of school hours (22). Further strategies include supporting deferred maintenance projects, bolstering the state's capacity to address maintenance needs through technical skill-building programs, connecting different types of outdoor spaces, and supporting the development and maintenance of regional and statewide trail networks (21, 23). The strategy promotes a multi-benefit approach by encouraging the development of outdoor spaces that are not only accessible but also beneficial to the environment, such as trails that integrate with natural environments and minimize wildlife impacts (21).

- **2022 Pathways to 30x30 California<sup>^</sup>:** The 30x30 strategy seeks to improve public access on state-owned conserved lands (38). This includes expanding access points and trails within existing natural areas, including coastal areas and urban rivers. The 30x30 initiative

also promotes programming, education, outreach, and engagement accessible to and representative of California's cultural diversity (15). Additionally, it supports working with local communities and conservation networks to acquire public-access lands and waterways in and around communities (40).

- **2021 Natural and Working Lands Climate Smart Strategy^**: The source highlights the importance of investing in land acquisition, improvements, urban greening, and high-quality management of parks and green spaces in and around cities. These efforts benefit communities, particularly those disproportionately affected by air pollution and extreme heat. Expanding and maintaining urban tree canopy and green spaces moderates urban heat islands, reduces energy use, and contributes to carbon sequestration. Additionally, connecting communities with greenways/greenbelts provides recreational opportunities and can protect communities from climate impacts (46).

### **Working Lands and Agricultural Stewardship**

- **Capitola Climate Action Plan\***: The sources address "Working lands and agricultural stewardship" primarily through the lens of increasing locally-sourced food and supporting community gardens. The Climate Action Plan includes strategies such as identifying and inventorying potential community garden and urban farm sites on various public and private lands, and developing a program to establish them (7-46). It also suggests encouraging significant new residential developments to include space for growing food (7-46). Furthermore, the City aims to promote food grown locally through marketing, outreach, and by serving locally sourced food at City events (7-46). Encouraging local grocery stores, farmers markets, and institutions to increase their use of locally-grown and prepared goods is another identified strategy (7-46). The Zoning Ordinance Update is intended to identify and address barriers to urban farming and produce sales directly from farmers to consumers (7-46). These measures aim to support local food production, potentially reducing the transportation needs for food distribution and boosting the local economy. The concept of preserving farmland areas beyond Capitola is also mentioned as a benefit of promoting infill development (7-2). While the sources touch upon the benefits of local food systems, they do not provide detailed strategies specifically focused on broader agricultural stewardship practices, ecosystem function on working lands, soil health, or technical assistance and outreach to private landowners beyond the scope of community and urban gardens within Capitola's sphere.

- **City of Santa Cruz Climate Action Plan\***: The source addresses working lands and agricultural stewardship primarily within the Climate Restoration section. One key strategy involves increasing carbon sequestration by applying compost throughout the community (106). This includes exploring collaborations with UCSC to pilot opportunities for regenerative agriculture and permaculture (106). The City also aims to set goals around compost development and application by engaging with community gardeners, the agriculture industry, master gardeners, and the Homeless Garden Project. Furthermore, the plan includes a strategy to adopt regenerative landscaping policies and promote trainings to

support commercial and residential land owners to better maintain native and carbon sequestering landscapes (107). These actions suggest a focus on promoting soil health through compost application and regenerative agricultural practices, although direct engagement and technical assistance to private agricultural landowners are not explicitly detailed.

**- Watsonville Climate Action Plan:** The CAAP emphasizes promoting climate-smart agricultural practices to enhance ecosystem function, soil health, and water quality (2-51, 3-23). A key strategy involves advocating at the regional level for and participating in the development of a regional agricultural plan to preserve agricultural land and facilitate the adoption of these practices (3-23). The City also aims to publicize resources, programs, and grant opportunities to assist local farmers in accessing technical assistance and funding for climate-smart initiatives (2-49, 2-52, 2-54, 2-55). Exploring partnerships with community-based organizations to provide resources to farmers, farmworkers, and the community about the impacts of climate change on agriculture is another identified strategy (2-51, 3-25). Furthermore, the CAAP includes a supporting effort to explore a pilot project to promote regenerative agriculture on City farm land (2-54, ES-3).

**- Regional Project Prioritization\*:** The source identifies agricultural lands as assets at risk from wildfire in several planning areas (57, 65, 73, 82, 130). While it doesn't explicitly detail comprehensive strategies for "Working lands and agricultural stewardship" encompassing ecosystem function and soil health, the CWPP does address water quality, noting that fire risk reduction projects around water infrastructure are vital to prevent wildfires from negatively affecting water supplies, which is crucial for agricultural use (14, 35). Furthermore, the plan emphasizes the importance of considering natural resources when implementing fuel load management activities (40), which would implicitly include the environmental context of agricultural lands. The CWPP generally promotes fuel reduction projects like roadside fuel breaks and defensible space as overarching strategies to protect all community assets, including agricultural areas, from wildfire damage (40, 50).

**- Santa Cruz Emergency Operation Plan\*:** The source acknowledges the significant role of agriculture in Santa Cruz County, particularly in the Pajaro Valley with its fertile soil (19, 20, 38). Emergency Support Function (ESF) 11, Food & Agriculture, is the primary entity that provides guidance on how to protect and address emergencies directly impacting the County's agricultural, natural, and cultural resources (66, 135). This includes coordinating plant, animal, and agricultural health issues. The Agricultural Commissioner is also part of the County's Policy Group (59). However, the provided excerpts do not detail specific strategies related to ecosystem function, soil health, water quality in the context of agricultural stewardship, technical assistance, or outreach to private landowners beyond the scope of emergency response.

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP emphasizes enhancing carbon sequestration strategies through sustainable farming practices and engaging with agricultural organizations to discuss sustainability strategies and data sourcing improvements (46-47). The plan also aims to increase the demand for organic



waste products like biochar, compost, and mulch through community outreach to farmers and garden centers (46).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan recognizes the importance of agricultural lands stewardship for ecosystem health, water quality, and economic vitality. Sustainable farming practices: The plan promotes irrigation and nutrient management to optimize water use and minimize pollution (C5-10, C5-13). Rural road maintenance is crucial for reducing erosion and sedimentation (C5-3). Developing and implementing Farm Plans that include effective nutrient, sediment, and irrigation measures is a key strategy for promoting sustainable agriculture and protecting water resources (C5-6).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The plan emphasizes strategies that conserve and improve land for both conservation purposes and the protection of open spaces and rural communities. These strategies aim to protect environmentally sensitive lands, improve water quality, and increase carbon sequestration in the soil. Specific strategies include: stabilizing streambanks to reduce bank erosion and filter drainage water from fields; installing windbreaks to control soil erosion, conserve soil moisture, improve crop protection, and provide other benefits; performing conservation tillage to increase water infiltration and soil water conservation and reduce erosion and water runoff; encouraging irrigation tailwater recovery to capture and reuse irrigation runoff water to benefit water conservation and off-site water quality; and encouraging stormwater capture infrastructure on agricultural lands to provide groundwater recharge, such as Flood-Managed Aquifer Recharge (Flood-MAR) (93). The plan emphasizes the need for technical assistance and outreach to private landowners to achieve these goals<sup>34</sup>. The Pajaro Valley Water Management Agency (PV Water) has implemented a Pilot BMP Conservation Program that focuses on agricultural water conservation and provides conservation services for domestic water users (120, 125).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The California Vegetation Treatment Program (Cal VTP) and the CAL FIRE Vegetation Management Program (Cal VMP) may help landowners reduce wildland fire fuel hazards (32). Consider prescribed herbivory as a fuel and vegetation management option. Prescribed herbivory offers the ecological benefits of nutrient reincorporation via feces and soil aeration from hooved animals (31-32).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** Protecting working lands from conversion to more intensive uses is a key strategy for conserving the valuable habitat they provide. The plan aims to protect at least 21,052 acres of sustainable working lands, including forests, rangelands, and cultivated land (460). Enhancing management practices on these lands is also crucial for promoting biodiversity and protecting natural resources. This includes controlling invasive species, enhancing riparian buffers, and promoting water conservation measures. Collaborating with working land managers is essential for successful implementation. The plan emphasizes the importance of partnerships, technical assistance, and financial incentives to encourage sustainable

practice (457). Addressing water quality and quantity on working lands is crucial for both ecological and economic sustainability<sup>11</sup>. The plan calls for implementing collective water treatment projects, promoting water conservation measures, and increasing groundwater recharge. Promoting fallowing of marginal land can help to reduce groundwater overdraft and improve the long-term sustainability of agriculture in the region (463).

- **2018 Santa Cruz County Parks Strategic Plan:** The source does not provide information on working lands and agricultural stewardship.

- **2023 Santa Cruz County Parks Strategic Plan Update:** No specific strategies for working lands and agricultural stewardship are mentioned in the source.

- **2021 Santa Cruz County Local Hazard Mitigation Plan:** The provided source text does not offer specific details on working lands and agricultural stewardship strategies. However, it mentions the Pajaro Valley Water Management Agency partnering with the Resource Conservation District to encourage water conservation in agriculture (261).

- **2020 California Adaptation Planning Guide<sup>^</sup>:** The sources offer several strategies to enhance the resilience of working lands and promote agricultural stewardship. One strategy is to encourage the breeding of livestock and the adoption of crops that are better adapted to warmer temperatures and increased precipitation variability. Another strategy is to revise land use plans to accommodate changes in agricultural activities and allow for shifts in agriculturally viable areas. Additionally, changing soil management and planting and growing techniques can improve soil and plant health (D-1). Providing sufficient habitat for native pollinators and beneficial species in and adjacent to agricultural areas is also important (D-3). Finally, providing private landowners with incentives for forest protection through easements and working forests can help prevent land fragmentation and conversion to non-forest land uses (D-20).

- **2023 California Water Plan Update<sup>^</sup>:** The sources highlight several strategies for improving ecosystem function, soil health, and water quality on these lands, with an emphasis on technical assistance and outreach to private landowners. One key strategy is the promotion of climate-smart agriculture programs that encourage practices such as improved manure management, healthy soils, and water efficiency. These programs aim to conserve water, protect water quality, and integrate with other resilience efforts like the Sustainable Groundwater Management Act (SGMA) (8-6, 8-7). Another important strategy is the expansion and acceleration of ecosystem restoration, employing nature-based solutions to protect and restore natural communities, thereby enhancing the provision of ecosystem services (8-8). Recognizing the vital link between the resilience of natural and built infrastructure, the sources advocate for managing aquifers as natural infrastructure with multiple ecosystem service benefits. This approach supports actions to accelerate aquifer replenishment and remediation while prioritizing surface water and groundwater connectivity for optimal water management (8-7).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** CAL FIRE is creating a comprehensive program to help small landowners conduct forest assessments, thinning, and prescribed fire, as well as recover after wildfires (16). CAL FIRE will also provide funding for fuel treatments and maintenance while requiring landowners to contribute at least 10% of costs. The agency plans to prioritize funding projects in locally coordinated forest management and post-fire restoration projects that benefit broader landscapes across multiple ownership types. CAL FIRE will maintain a Forest Stewardship Workshop program to help forest landowners develop management plans and implement stewardship projects (17).

**- 2023 California Outdoors for All Strategy^:** The sources suggest restoring and repurposing former working landscapes for environmental, cultural, and societal use, including those previously used for agriculture. They also encourage exploring the use of partnership, joint-use, lease, and other access agreements to develop and allow recreation on private lands, including working lands, and identifying and sharing agreement best practices (23).

**- 2022 Pathways to 30x30 California^:** The 30x30 plan recognizes the importance of working lands for biodiversity, economic prosperity, and mitigating climate change (10, 21). The plan advocates for using voluntary and collaborative approaches to identify and conserve these lands, ensuring they contribute to both conservation and economic goals. Key strategies include providing training and workforce development opportunities in conservation-related fields, promoting climate-smart land management actions, and supporting programs that enhance food system sustainability. These programs focus on improving soil health, water quality, and pollinator protection (21). Additionally, the plan encourages using conservation easements to incentivize landowners to conserve and effectively repurpose working lands that are voluntarily being fallowed (41). By supporting and empowering private landowners, the 30x30 plan aims to create a more sustainable and resilient agricultural landscape in California (26).

**- 2021 Natural and Working Lands Climate Smart Strategy^:** The sources identify several strategies for improving agricultural stewardship on California's croplands, with a strong emphasis on soil health. The report advocates for scaling up a suite of soil health practices, such as cover cropping, the use of compost and biochar, and the planting of hedgerows, all of which can enhance carbon sequestration, reduce greenhouse gas emissions, and improve water and air quality (34). The sources underscore that croplands have significant potential to store additional carbon (33). To prevent the loss of agricultural lands and their carbon storage potential, the sources recommend protecting at-risk farmland from development through conservation easements, the Williamson Act, and agricultural zoning. Enhancing water conservation on farms is also vital, and the sources suggest implementing climate-smart irrigation and increasing managed aquifer recharge to capture runoff and replenish groundwater supplies (34). Recognizing the importance of supporting all farmers in the transition to climate-smart agriculture, the report stresses providing technical assistance and outreach, particularly to socially disadvantaged farmers

(21, 34). The report advocates for facilitating the growth of culturally and historically significant crops by California Native American tribes and identifies reactivating floodplains on croplands and scaling up integrated pest management as other important strategies (34).

## Coastal Protection

**- Capitola Climate Action Plan\*:** The sources address "Coastal areas and marine life protection" through a focus on maintaining respect for Capitola's beautiful natural coastal setting (1-1). While not explicitly detailing specific strategies for marine life protection, the Climate Action Plan, as a long-range strategy, aims for greater conservation of resources. The plan also mentions that climate change adaptation was an important component of the General Plan Advisory Committee's meeting on safety (1-6), suggesting that potential impacts like sea-level rise and erosion are considered at a broader level. Furthermore, the city's awareness of its proximity to sensitive coastal waters is indicated in the context of wastewater management (3-6). Strategies focused on water conservation are expected to leave more water in natural waterways, which can indirectly benefit aquatic ecosystems (7-34). Additionally, preserving open space and parks can create wildlife habitat, potentially including coastal areas (7-46). Certain green building practices are mentioned as ways to alleviate stormwater runoff (7-17), which could help reduce pollution entering coastal waters.

**- City of Santa Cruz Climate Action Plan\*:** The source addresses coastal areas and marine life protection primarily under the theme of protecting and enhancing natural resources and urban parks and within the Climate Restoration section (1, 102). Strategies include developing an Urban Forest Master Plan, which can indirectly benefit coastal areas through watershed health. The City also recognizes its vulnerability to sea level rise (SLR), which will exacerbate coastal storm events and erosion (28). While specific green infrastructure strategies for sea-level rise and erosion are not detailed within the measures and actions, the City is actively engaged in coastal monitoring and has an Adaptation Plan 2018-2023 and an upcoming 2024-2029 Climate Adaptation Plan to prepare for and mitigate these threats (29, 30). Additionally, the City has filed a lawsuit seeking to hold fossil fuel companies accountable for damages associated with sea level rise and other climate change consequences (29-30). While the plan mentions the Amah Mutsun Tribal Band's interest in contributing indigenous knowledge on trees and kelp forests (102), explicit strategies for broader marine life protection beyond this are not extensively detailed in the provided excerpts.

**- Watsonville Climate Action Plan:** The CAAP addresses coastal areas and marine life protection primarily through strategies focused on mitigating the impacts of sea-level rise and reducing pollution. To address the vulnerability of coastal agricultural land to sea-level rise and coastal flooding, the plan supports the development of a regional agricultural plan (3-23). While not exclusively focused on marine life, the CAAP includes supporting efforts to reduce plastic use in agriculture and collaborate in regional efforts to implement a plastic

take-back program (2-48), which would indirectly benefit coastal and marine environments by reducing pollution. Furthermore, the development and implementation of a Green Infrastructure Plan (2-52) is mentioned as a supporting effort to increase local greenspace and manage stormwater, which can also have positive effects on coastal water quality. The plan also acknowledges the potential for saltwater intrusion impacting agricultural soil due to sea-level rise (3-21).

**- Regional Project Prioritization\*:** The source acknowledges the presence of coastal areas within both San Mateo and Santa Cruz Counties, noting their unique ecosystems and biological diversity, including the Monterey Bay National Marine Sanctuary (40). While the CWPP focuses primarily on wildfire risk reduction, it does discuss strategies that have implications for coastal areas. For example, the emphasis on controlling the invasion and spread of non-native plants like ice plant (*Carpobrotus* spp.) and eucalyptus (*Eucalyptus* spp.) in sensitive habitats, including those found in coastal regions, can contribute to the health of these ecosystems (41, 42, 45). Additionally, the recommendation to leave as much native vegetation on site as possible during fuel reduction projects aims to minimize habitat disturbance in areas that may include coastal habitats (41). The plan also mentions vegetation removal along the coast potentially impacting Coastal Terrace Prairie habitat with rare and endangered plants, suggesting caution in these areas (43). Overall, the strategies are geared towards balancing wildfire safety with the preservation of sensitive natural resources, including those found in coastal environments.

**- Santa Cruz Emergency Operation Plan\*:** The source indicates that coastal areas are vulnerable to sea-level rise, high swell/storm surge events, and tsunamis (38). Santa Cruz County is located along the northern edge of Monterey Bay and is described as the "Gateway to the Monterey Bay National Marine Sanctuary" (19). The Santa Cruz Port District / Santa Cruz Small Craft Harbor is highlighted as a significant feature of the coastal area, providing refuge and recreational opportunities, but also posing security, safety, and access issues during storm or tsunami watches or warnings (34). Emergency Support Function (ESF) 10, Hazardous Materials, coordinates responses to potential releases of oil (land or marine-based) or other hazardous materials to protect health, safety, property, and the environment (135). While the source identifies these vulnerabilities and the relevant ESF for pollution response, it does not provide specific strategies for safe and accessible beaches or green infrastructure for sea-level rise and erosion within the provided excerpts. The general priority of the Emergency Management Organization (EMO) includes efforts to "Preserve the Environment and Cultural Resources" from damage during an emergency (41).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The sources acknowledge sea level rise as a climate hazard, projecting up to 6.9 feet of rise by 2100, and seawater intrusion as a consequence (25). However, they do not offer specific details regarding coastal areas and marine life protection, safe and accessible beaches, pollution, or green infrastructure for sea-level rise and erosion.

- **2014 Santa Cruz County Integrated Regional Water Management Plan:** The sources provided offer limited information regarding strategies specifically aimed at coastal areas and marine life protection within the Santa Cruz IRWM Plan. They do highlight salt management as a persistent concern because much of the region's water supply is derived from groundwater aquifers adjacent to the ocean (C5-12). This suggests that preventing saltwater intrusion is a key consideration in water management strategies.

- **2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The sources highlight the importance of addressing opportunities to protect, enhance, or restore habitats in conjunction with water management strategies to support the Monterey Bay National Marine Sanctuary's marine life (80, 83). The quality of the Pajaro River's water is critical to the protection and sustainability of this offshore environment. The sources also recommend regional monitoring of the geomorphological and ecological response of marshes and mudflats to observed sea-level rise and the development of regional adaptation strategies that incorporate both evolution of the natural shorelines and protection of the built environment. Specific strategies include identifying opportunities for the realignment of existing flood risk management levees to create more resilient shorelines, and developing demonstration projects of shorelines that incorporate "green infrastructure" or "living shorelines" principles (230).

- **2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The document does not contain strategies specifically related to coastal areas and marine life protection.

- **2022 Santa Cruz County Regional Conservation Investment Strategy:** Protecting coastal habitats is fundamental to preserving marine life and ensuring the health of coastal ecosystems. The plan seeks to protect at least 202 additional acres of beaches, dunes, and rocky cliffs (265). Enhancing understanding and management of coastal resources is essential for effective conservation. The plan calls for increased research and monitoring to better understand the conservation needs of rare species, sensitive communities, and the impacts of climate change. Adapting to sea-level rise is a critical consideration for coastal conservation. The plan emphasizes the need to monitor the effects of sea-level rise and implement strategies to mitigate its impacts (270).

- **2018 Santa Cruz County Parks Strategic Plan:** The source mentions providing and maintaining coastal access points, sometimes including restrooms, trash receptacles, plantings, and infrastructure like stairs and fencing to protect sensitive areas (23, 25). However, it lacks detailed strategies for marine life protection or addressing sea-level rise.

- **2023 Santa Cruz County Parks Strategic Plan Update:** The source doesn't outline specific strategies for coastal and marine life protection, but it acknowledges the threats posed by climate change and intense storms to coastal access points and beaches (6).

- **2021 Santa Cruz County Local Hazard Mitigation Plan:** Protecting coastal areas is another focus of the LHMP. Key strategies include: Coastal Protection Structures:

Implementing hard protection devices, such as seawalls and rock revetments, to mitigate beach loss and coastal erosion. Modern designs can improve coastal access by incorporating stairways and viewing platforms (124, 128). Managed Retreat: Recognizing the natural erosive processes along the coast, the plan suggests considering managed retreat as a long-term option where relocation of development away from hazardous areas is feasible. Development Regulations: The plan advocates for updating development regulations to discourage construction in high geologic hazard areas along the coast, thereby minimizing future risk (128). Restoration Efforts: Protecting and preserving the coastline and infrastructure through restoration initiatives to mitigate coastal erosion and enhance the coastal environment (195).

**- 2020 California Adaptation Planning Guide^:** Adaptive management plans are critical for addressing the long-term impacts of sea level rise. These plans should include an assessment of local vulnerability, considering both built infrastructure and natural ecosystems. The plans should also propose strategies for flood and erosion protection, identify priority areas for intervention, and outline long-term indicators for monitoring and evaluation (D-26). Transfer of development rights (TDR) can be a useful tool for managing development in coastal areas. This approach allows landowners in high-risk areas to sell their development rights, transferring them to lower-risk locations. This can help prevent development in flood-prone areas while compensating landowners for the loss of development potential (D-28).

**- 2023 California Water Plan Update^:** The sources identify several challenges related to coastal areas, including sea-level rise, flooding, and drought. They recommend developing and implementing climate change adaptation strategies to mitigate these impacts to communities, power and wastewater facilities, wetlands, and other habitats (3-27).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** While the source mentions coastal areas, it focuses on wildfire risk and forest management in these regions and does not discuss strategies related to safe and accessible beaches, pollution, or green infrastructure for sea-level rise and erosion.

**- 2023 California Outdoors for All Strategy^:** The sources emphasize the importance of building lower-cost accommodations to increase coastal access. They suggest exploring opportunities to offer discounts or reduce barriers to accessing existing programs that provide free or discounted access to state parks, including coastal areas (30). The sources also advocate for prioritizing funding and a streamlined process for building new lower-cost coastal accommodations and considering financial or permitting incentives for developers (31).

**- 2022 Pathways to 30x30 California^:** The 30x30 initiative seeks to restore coastal wetlands, seagrass beds, and kelp forests to improve biodiversity. These restoration efforts also aim to protect blue carbon stores and build resilience to sea level rise, storm surge, and ocean acidification. Reconnecting wetlands to ocean tides by removing human-made barriers can deliver successful outcomes for biodiversity, blue carbon sequestration, and

ecosystem health. The strategy also prioritizes restoring essential habitats near coastal upwelling zones, which are important for salmon, seabirds, and other species. To address sea-level rise, the 30x30 plan supports implementing restoration that allows habitats to transgress inland and protects near-shore areas from storm surge (49).

**- 2021 Natural and Working Lands Climate Smart Strategy^:** Protecting and restoring seagrass and kelp ecosystems are essential for coastal areas and marine life protection. Constructing living shorelines using natural materials like native seagrasses can support carbon sequestration, build resilience to sea-level rise, improve water quality, and provide habitat. Managing California's statewide network of marine protected areas to protect biodiversity and exploring sustainable aquaculture options that benefit ecosystems and tribal practices are also recommended (42).

## Climate Resilience and Adaption

**- Capitola Climate Action Plan\*:** The sources indicate that the City of Capitola recognizes the need for climate resilience and adaptation to extreme weather and other climate change impacts. While a dedicated section on climate adaptation strategies is not present, the document integrates resilience into several areas. Climate change adaptation was an important component of the General Plan Advisory Committee's meeting on the Safety Element of the General Plan (1-6). Strategies to enhance resilience include water conservation to address drought conditions (2-12), and increasing and enhancing open space and urban forests and implementing green building practices to mitigate urban heat-island effects and stormwater runoff, thereby making the community more livable and resilient in the face of extreme weather (7-17, 7-45). Furthermore, the City plans to participate fully in local, regional, State, and federal efforts to... mitigate the impacts resulting from climate change (7-50).

**- City of Santa Cruz Climate Action Plan\*:** The source emphasizes the need to build adaptive capacity into policies, plans, programs, and infrastructure to address climate resilience and adaptation to extreme weather, natural disasters, and other climate change impacts (28). Key strategies mentioned include the development and implementation of Climate Adaptation Plans, with the City having a 2018-2023 plan and an upcoming 2024-2029 plan (30). The City is also engaged in coastal monitoring to understand and respond to impacts like sea-level rise. Furthermore, the plan mentions implementing green stormwater infrastructure on City facilities which can contribute to nature-based flood protection (127). The Local Hazard Mitigation Plan Updates are also part of the City's approach to preparing for and mitigating risks. (20) Additionally, the Resilient Coast Santa Cruz initiative is highlighted as a relevant prior effort (31). The City also seeks to ensure that new development considers climate change impacts (147). Finally, the City's lawsuit against fossil fuel companies aims to ensure that the costs of measures needed to protect Santa Cruz from climate change consequences are borne by those responsible (30).



**- Watsonville Climate Action Plan:** The CAAP emphasizes building climate resilience and adaptation through a multi-pronged approach. Recognizing the increasing threats of extreme weather and natural disasters, the City will leverage its Local Hazard Mitigation Plan (LHMP) to prepare for events like flooding and wildfires (ES-5, 1-6). To enhance energy resilience, strategies include exploring off-grid alternatives like solar and battery systems, implementing policies to advance the deployment of solar with storage at community-serving facilities, and piloting a “resilience hub” (2-35, 3-2, 3-11, 3-15). The City also aims to increase its capacity to respond to power disruptions through staff assessment and community preparedness outreach (3-17). For agricultural resilience and food security, the CAAP supports the development of a regional agricultural plan and seeks to remove barriers to and invest in urban agriculture and community gardens (3-3, 3-19, 3-23, 3-24). Furthermore, the plan includes preparing for specific climate change impacts such as extreme heat and sea-level rise (ES-5).

**- Regional Project Prioritization\*:** The Community Wildfire Protection Plan (CWPP) explicitly addresses climate change and its expected impacts on San Mateo and Santa Cruz Counties (10). The source states that the region is likely to experience increased temperatures, increased winds, and generally drier conditions, along with a prediction of longer, deeper droughts punctuated by rare, but more frequent, extremely wet winters, which sets the stage for longer and more intense fire seasons (11). A key strategy identified in the CWPP to build climate resilience is fuels reduction projects, which are described as imperative for community protection in the face of increasing wildfire frequency, duration, and intensity linked to climate change. Additionally, the plan notes that increased tree mortality, linked to cyclic drought and disease pressures like Sudden Oak Death, further contributes to fire risk, underscoring the need for fuel management. The CWPP also mentions that changing climate conditions can negatively affect aquifer recharge and water supply, creating more challenges in wildfire management, thus highlighting the importance of protecting water infrastructure as a climate adaptation measure (13, 35-36).

**- Santa Cruz Emergency Operation Plan\*:** The source emphasizes climate change as a significant and increasing factor impacting Santa Cruz County, leading to more frequent and severe extreme weather events and natural disasters (38). The County has developed a Climate Action and Adaptation Plan (CAAP) (14, 22), which includes a vulnerability assessment and a social sensitivity index to understand climate risks (22). This data also serves as an all-hazards planning tool. The CAAP outlines “equity guardrails” to ensure climate justice. The Office of Response, Recovery & Resilience (OR3) is specifically tasked with enhancing the County’s overall climate change resilience (57) and aims to integrate proactive climate resilience measures into all facets of emergency management (58). A strategic theme of the County’s Whole Community Approach includes “advocating for improved critical infrastructure” such as roads, telecommunications, digital access, and power stability (47). The source also highlights the importance of reconciling the Local Hazard Mitigation Plan (LHMP) with the CAAP due to changing climate-driven hazards (121). The Readiness Working Group (RWG) is intended to converge and align emergency management and climate resilience efforts for increased synergy (48).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP focuses on climate resilience and adaptation through various strategies, including building and rehabilitating County infrastructure to accommodate extreme weather, supporting climate-impacted communities at risk of natural disasters, and providing temporary shelter support during a disaster (52-53). The plan also emphasizes adapting to community needs and legislative requirements through monitoring and evaluation (54). It identifies extreme heat, wildfire, landslides, flooding, sea-level rise, seawater intrusion, air quality, and drought as significant climate hazards impacting vulnerable populations, natural resources, and infrastructure (23-25).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan acknowledges the importance of climate resilience and adaptation in its water management strategies. Proactive planning: The sources emphasize that strategies identified in the plan encourage and promote projects that implement climate change mitigation and adaptation measures. This includes prioritizing projects that demonstrate these measures and/or reduced greenhouse gas emissions compared to alternatives (C4-7). The plan highlights several key strategies that contribute to climate resilience. Water conservation: Increasing infiltration opportunities through various methods (disconnecting impervious surfaces, promoting LID, etc.) is crucial for retaining greater annual volumes of water on the landscape, mitigating projected climate change impacts, such as a longer, warmer dry season, and increased drought frequency (C5-4). Riparian protection: Protecting riparian zones is identified as crucial for reducing the region's vulnerability to climate change impacts (C5-3). Forest and land management: Forest management and land use planning that considers impacts to natural resources and encourages conservation are also highlighted as crucial for climate resilience (C5-13, C5-14).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed IRWM Plan outlines several strategies for building climate resilience and adapting to extreme weather events, natural disasters, and climate change impacts (78, 89, 210). Recognizing vulnerabilities like reduced imported water supplies and increased flooding, the plan emphasizes implementing Resource Management Strategies (RMS). Key strategies include promoting water use efficiency in agriculture and urban areas, optimizing groundwater storage, and investing in recycled water systems. Additionally, the plan highlights the importance of regional and local conveyance options, suggesting that diversification of water sources is crucial for adapting to potential climate change impacts on water availability (227-228). Furthermore, the plan advocates for incorporating climate change considerations into project prioritization, giving preference to projects that demonstrate resilience and adaptation measures (106, 228).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** While the sources acknowledge that climate change is likely to increase wildfire risk in Santa Cruz and San Mateo Counties, they do not present specific climate adaptation strategies (11). The sources primarily focus on wildfire risk reduction strategies, such as

fuel breaks, defensible space, and prescribed burns, which indirectly contribute to climate resilience by mitigating the impacts of wildfires.

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** The Santa Cruz County Regional Conservation Investment Strategy (RCIS) acknowledges the potential impacts of climate change and emphasizes the need to incorporate resilience and adaptation strategies into its conservation efforts (108, 113). The RCIS recognizes that a changing climate will likely lead to shifts in community types and could reduce the ability of species to recolonize habitats following disturbances such as fire or floods. These factors can also impact habitat connectivity and reduce genetic diversity, making populations more vulnerable to climate change (434). To address these challenges, the RCIS suggests protecting large habitat patches, enhancing connectivity between them, and promoting active management practices to mitigate climate-related stressors (435). These actions aim to provide species with the space to migrate and adapt as conditions change, help sustain genetic diversity, and facilitate recolonization after disturbances. The RCIS emphasizes prioritizing projects that can create climate refugia, such as riparian corridors, wetlands, and areas with cooler microclimates (63).

**- 2018 Santa Cruz County Parks Strategic Plan:** While the document acknowledges changing demographics and environmental conditions, it does not explicitly address climate resilience or adaptation strategies for extreme weather events, natural disasters, or other climate change impacts.

**- 2023 Santa Cruz County Parks Strategic Plan Update:** The Santa Cruz County Parks Department recognizes climate change's impact on the parks system and aims to address the challenges it brings. Aside from evaluating water usage reduction, the document doesn't provide specific adaptation strategies (6).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** The Santa Cruz County Local Hazard Mitigation Plan (LHMP) emphasizes a multi-faceted approach to building climate resilience, acknowledging that climate change will intensify existing hazards. To counter these intensifying hazards, the LHMP advocates for proactive risk reduction, encouraging actions that address current vulnerabilities and future impacts. The LHMP highlights multi-hazard mitigation, which involves supporting efforts to reduce risks from various environmental threats (169). The plan underscores the importance of resilient infrastructure and programs by calling for the integration of climate change resilience into all county planning and development processes (204). This includes incorporating climate considerations into the Public Health Preparedness Plan, the General Plan, and County Codes and revising regulations to improve flood protection and account for sea level rise in development (206). Further, the LHMP emphasizes community engagement and encourages collaboration with stakeholders to develop adaptive land use policies (206). Finally, the LHMP proposes creating a program to evaluate areas suitable for managed retreat as a potentially more sustainable long-term solution compared to engineered protection structures (316).

**- 2020 California Adaptation Planning Guide^:** The sources emphasize the importance of a multifaceted approach to building climate resilience and adapting to extreme weather, natural disasters, and other climate change impacts. A key strategy is integrating climate change considerations into existing planning frameworks, such as general plans, local hazard mitigation plans, and emergency operations plans (D-21). Collaboration is also crucial: working with local and regional partners, including state and federal agencies, tribal nations, and community-based organizations, allows communities to share resources, knowledge, and best practices (43). Developing robust emergency management systems that account for changing hazard profiles and incorporate climate vulnerability findings into all planning phases is also essential (D-9). Given the escalating risks posed by climate change, proactive adaptation measures, such as hardening critical infrastructure (D-13), promoting climate-smart land use practices (D-5, D-22), and transitioning to climate-smart energy sources (D-14), are highlighted. The sources underscore the need for ongoing monitoring and evaluation of adaptation strategies to ensure their effectiveness and make necessary adjustments as conditions change (150).

**- 2023 California Water Plan Update^:** The sources strongly emphasize the need for climate resilience and adaptation as a primary focus. They call for transitioning the state to net-zero carbon emissions, expanding on lessons learned and past successes in water resource planning, and safeguarding water supply and quality (ES-3). They recommend robust, science-driven climate vulnerability and risk assessments at the watershed scale and identify the risks and vulnerabilities of climate hazards such as drought, flooding, extreme precipitation, heat impacts, fire, and sea level rise (4-6). The sources highlight ongoing efforts to understand and address the disproportionate effects of climate change on California's frontline communities (ES-1, ES-17, 1-1). They recommend improving community outreach and engagement, local capacity building, and access to State assistance programs (E-19). The sources suggest exploring opportunities to continue to enhance data collection such as expanding California's stream gauge networks and identifying linkages between aquifer systems within watersheds (8-3, 8-4).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** The sources acknowledge the role of climate change in exacerbating wildfire risk and impacting forest health (10). The plan aims to improve the health and resilience of forested landscapes, which will increase climate resilience (13). One strategy is to increase the use of prescribed fire, which helps to reduce fuels buildup and the risk of catastrophic wildfires while increasing climate resilience and supporting native plants and soil health (19). The plan also promotes sustainable land use practices to mitigate the impact of climate change on forests. Furthermore, it outlines efforts to improve and align forest management regulations to enhance the efficiency and effectiveness of climate resilience actions (9). The plan also emphasizes the importance of utilizing the best available science and accelerating applied research to enhance understanding of climate change impacts on wildfire regimes and inform management decisions (41).

- **2023 California Outdoors for All Strategy**<sup>^</sup>: The Outdoors for All strategy recognizes the role of outdoor spaces in climate resilience. The state will prioritize acquiring and restoring lands that act as natural buffers to climate change impacts while providing recreational access. Additional strategies include developing recreational opportunities around post-fire recovery and restoring and repurposing former working landscapes for environmental, cultural, and societal use, aligning with California's Natural and Working Lands Climate Smart Strategy (23).

- **2022 Pathways to 30x30 California**<sup>^</sup>: The 30x30 initiative aims to conserve and manage lands and coastal waters to remove and store carbon dioxide from the atmosphere, in line with the Natural and Working Lands Climate Smart Strategy and Scoping Plan. It also prioritizes conserving land and coastal waters that buffer climate impacts and build resilience to protect climate-vulnerable communities and ecosystems. Establishing and conserving areas that will persist under future climate conditions and accommodate habitat range shifts is also key to the plan. The 30x30 plan also focuses on improving habitat connectivity and other actions that build the resilience of species and habitats by facilitating plant and animal migration and gene flow (17). Additionally, the strategy promotes restoring degraded landscapes and waterways to achieve the most significant climate benefits, such as protecting carbon stores, sequestering carbon, and buffering human and natural communities from climate change impacts (48).

- **2021 Natural and Working Lands Climate Smart Strategy**<sup>^</sup>: Nature-based solutions are essential for addressing climate change impacts across various landscapes (8). Implementing climate-smart forest management can protect communities, tribal resources, and native species habitats from climate change (25). Protecting existing shrublands and chaparral systems from development and conversion, and restoring degraded systems, can increase connectivity, enhance system resilience, and reduce carbon loss (30). These efforts can also reduce wildfire risk, protect water supplies, stabilize eroding slopes, and maintain habitat (29). In coastal areas, protecting and restoring seagrass ecosystems and kelp forests can help buffer against storms and changing ocean conditions (41).

## Match

- **Capitola Climate Action Plan**<sup>\*</sup>: The sources highlight several strategies related to projects that leverage additional funding. A key strategy is to develop and adopt a Climate Action Plan (CAP) that aligns with state goals, as this will ensure Capitola is eligible for transportation and land use grant funding (1-2). The adoption of specific greenhouse gas (GHG) reduction measures within the CAP is also crucial, as it could position the City to be eligible for State and regional grants (7-1). To leverage funding for specific projects, the City plans to work with regional agencies to explore additional funding sources for multi-modal transportation infrastructure (7-4) and to seek funding for potential implementation of local low-income weatherization assistance programs (7-23). Furthermore, the City intends to pursue funding sources to provide rebates and reduce permit fees for cisterns related to water recycling and rainwater catchment (7-38) and will coordinate with the Monterey Bay

Area Green Business Program to potentially support it via contributions (7-29, 7-30). The City also aims to partner with knowledgeable organizations to publicize the availability of grants, loans, and tax incentives for energy efficiency upgrades (7-21). In some cases, potential costs for local incentives could even be covered through grants or other statewide programs (7-3).

**- City of Santa Cruz Climate Action Plan\*:** The source emphasizes the strategic pursuit of additional funding as a key component of its Climate Action Plan 2030 implementation. One prominent strategy involves actively seeking grant funding from various sources, including state and federal entities, to support the decarbonization and electrification of municipal buildings (113, 123, 128), off-road equipment (89), and to advance climate restoration efforts such as forest management (103). The City also plans to collaborate regionally with partners like PG&E and CCCE to identify and redirect funding towards electrification projects and remove obsolete natural gas infrastructure (61). Furthermore, the City intends to develop funding pathways to make existing building electrification possible, particularly for low-income residents (59). The Climate Action Plan highlights the importance of multi-scalar coordination with internal and external partners to successfully and rapidly access financing for implementation. The development of a funding and financing pathways matrix is identified as a tool for this purpose (137).

**- Watsonville Climate Action Plan:** The CAAP highlights that leveraging additional funding, particularly through state and federal grants, is crucial for the successful implementation of several key strategies (ES-4). Specifically, the plan notes that achieving its goals for facilitating electric vehicle (EV) infrastructure and getting people into EVs will require significant outside funding (ES-4). Similarly, the major program focused on retrofitting existing buildings to be all-electric also necessitates substantial state and federal financial support (2-29). Across various sectors, the CAAP emphasizes the importance of working with community partners to identify, prioritize, and apply for grant programs to fund energy resilience initiatives, such as those offered by Central Coast Community Energy (3CE) (2-29, 2-35). Furthermore, the development of a local carbon offset and sequestration program will involve seeking funding opportunities (2-54). The CAAP generally acknowledges that additional funding streams are necessary to support its overall implementation, and the City commits to pursuing equitable green economic recovery wherever possible (4-2). In terms of implementation, the City may apply for grant funding alongside other financial mechanisms like existing and new fees, and the general fund. Even at the supporting effort level, activities like conducting assessments for applying for grants to improve active transportation infrastructure are mentioned (6-2). The strategy to reduce natural gas in new development also specifies working with 3CE or other funding sources (2-34).

**- Regional Project Prioritization\*:** The source explicitly states that a Community Wildfire Protection Plan (CWPP) serves as a tool for the accrual of grant funding to aid in the implementation of wildfire prevention projects (1). It further notes that fuel reduction projects identified in an approved CWPP receive priority for federal funds (2). The CWPP

also highlights that communities with a CWPP in place are given priority for funding of hazardous fuels reduction projects, which is primarily made available through the California Fires Safe Council's grant clearinghouse that combines federal and state funding sources (3). Moreover, the document points out that community-established WUI boundaries can improve and influence access to funding sources since federal agencies are required to give them high priority (3). The plan also indicates that organizations such as Firesafe Councils and RCDs regularly apply for grant funding on behalf of the community<sup>4</sup>. Therefore, the key strategy discussed for leveraging additional funding is the development and utilization of the CWPP to prioritize projects and access available grant opportunities at the federal and state levels.

**- Santa Cruz Emergency Operation Plan\*:** The source highlights several strategies related to projects that leverage additional funding. The Office of Response, Recovery & Resilience (OR3) submitted a grant application in September 2023 to establish Community Resilience Centers (CRCs) (20, 49). These CRCs aim to enhance existing infrastructure and connect resources to vulnerable residents (191) and demonstrate the necessity of combining efforts under climate action and emergency management initiatives, potentially accessing funding from both areas. The source also notes that a well-documented Local Hazard Mitigation Plan (LHMP) with clearly articulated projects and priorities can help maximize available mitigation grants and programs pre- and post-disaster (122). Furthermore, the Readiness Working Group (RWG) is intended to help harness and synergize various funding options, including state and federal grants, to avoid duplication of effort and create powerful outcomes for readiness and resilience (48, 186). The Finance Department is responsible for coordinating the county's efforts to properly apply for state and federal reimbursement for disaster-related costs and obligations (109). The County is also in the process of establishing Standby contracts with nonprofit partners to facilitate role clarity and improved cost recovery (113).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP consistently highlights seeking grant funding and exploring alternative financing options for various projects. For instance, it mentions pursuing grants for charging infrastructure (41), applying for fire prevention and forest health grants (49), seeking funds for recharge projects and stormwater solutions (44), and pursuing FEMA and HUD funding for disaster recovery programs (50-53).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan emphasizes securing funding from various sources, including user rates, fees, special assessments, general funds, revenue bonds, and philanthropic contributions (C10-3, C10-4). State grants, especially those from voter-approved bonds, are recognized as essential funding sources for past IRWM projects (C10-2). However, the plan acknowledges the need for diversified funding due to the uncertainty of future state and federal contributions. The plan encourages a collaborative approach among agencies and stakeholders to explore funding opportunities, minimize costs, and leverage economies of scale (C10-8).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management (IRWM) Plan recognizes the importance of exploring diverse funding sources beyond traditional IRWM grants to support project implementation. The plan emphasizes coordinating and sharing information with stakeholders and project sponsors on various state and federal funding programs (152). Here are some examples of potential funding sources mentioned in the plan:

State Programs: Proposition 1E (flood protection and stormwater management), State Revolving Fund (drinking water and clean water infrastructure), and the Water Recycling Funding Program (152-154)

Federal Funding: Environmental Protection Agency (source reduction and wetland program development), Water Resources Development Act (Corps projects), and the U.S. Bureau of Reclamation's WaterSMART Grant Programs (155-157)

Local Funding Mechanisms: Capital improvement funds, development impact fees, and general funds from cities, counties, and other local agencies (157-158).

By diversifying funding sources, the plan aims to ensure that projects benefitting the watershed and its communities are successfully implemented, contributing to a more sustainable water management strategy

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** Community Wildfire Protection Plans (CWPPs) can aid in securing grant funding for wildfire prevention projects. The funding is made available primarily through the California Fire Safe Council's grant clearinghouse. Communities with CWPPs in place are given priority for funding of hazardous fuels reduction projects (3).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** While mitigation projects can provide substantial support, the RCIS emphasizes the importance of leveraging additional funding sources to maximize its impact (480). One key strategy involves attracting public and private grants. The RCIS suggests that its framework can serve as a valuable screening tool for agencies and foundations seeking to invest in conservation. Existing grant programs from organizations like the United States Fish and Wildlife Service, NOAA's Restoration Center, Wildlife Conservation Board, and private foundations could prioritize projects aligned with RCIS goals and objectives (482). The RCIS also highlights the potential for developing new funding programs specifically dedicated to its implementation, similar to those supporting Integrated Regional Water Management Plans. This dedicated funding, potentially including local funding measures, could be used to match state, federal, and private investments, further amplifying the RCIS's impact (483).

**- 2018 Santa Cruz County Parks Strategic Plan:** The Santa Cruz County Parks Department Strategic Plan focuses on identifying and securing funding from a variety of sources to support operations, services, and capital projects. The plan suggests pursuing opportunities for generating new revenue and creating a dedicated funding source, like a parcel or sales tax, through a collaborative countywide parks funding measure. Updating park dedication



fees to reflect current economic conditions and working with the County Administrative Office and Board of Supervisors to ensure sufficient. General Fund allocations are also recommended strategies for achieving financial stability (17).

- **2023 Santa Cruz County Parks Strategic Plan Update:** The source highlights the need for additional funding to address the increasing demand for park system improvements, including expanded programming and upgraded facilities, particularly in South County (24).

- **2021 Santa Cruz County Local Hazard Mitigation Plan:** The Santa Cruz County Local Hazard Mitigation Plan (LHMP) highlights the significance of securing funding from various sources for hazard mitigation projects. The plan acknowledges that funding availability often limits the implementation of these programs (33). The LHMP emphasizes the pursuit of funding opportunities like federal grants, state grants, and local budget allocation (5). For example, the plan mentions that a federal grant helped update the countywide Community Wildfire Protection Plan (CWPP) (66). Additionally, the LHMP underscores the importance of sustainable funding sources to ensure long-term viability for these programs (287). However, the LHMP also notes that some projects are infeasible due to budget constraints (91).

- **2020 California Adaptation Planning Guide^:** The sources recommend several strategies for securing additional funding for climate adaptation projects. One approach is to pursue grant funding, particularly from state programs funded through cap-and-trade revenue. The Adaptation Clearinghouse maintains a list of funding opportunities organized by adaptation sector (144). Another strategy is to collaborate with regional partners to engage in joint planning and resource sharing, as well as cooperative purchasing agreements (146). Public-private partnerships can also provide increased investment and resources for adaptation projects (72). Local governments can also consider establishing new fee systems or using bond funding for larger, structural projects (141). However, it is important to ensure that these funding mechanisms do not disproportionately burden low-income communities (D-40).

- **2023 California Water Plan Update^:** The sources mention the need for increased funding for Tribal participation in watershed planning and resource management (2-8), but they don't explicitly focus on strategies for leveraging additional funding for specific projects. The sources do identify funding challenges and opportunities for Tribes (7-24) and suggest aligning statewide definitions for funding disadvantaged communities and Tribal communities to improve understanding and appropriate use of mapping tools and criteria (7-25).

- **2021 California Wildfire and Forest Resilience Action Plan^:** The plan outlines strategies to secure additional funding sources for its implementation. It proposes developing a regional pipeline of shovel-ready projects to attract dedicated funding and creating a consolidated forest conservation program that aligns with state and federal funding opportunities (23). The plan also recommends expanding the wood products

market to attract private sector investments and seeking private capital for forest biomass utilization through initiatives like the Catalyst Fund (38).

- **2023 California Outdoors for All Strategy**<sup>^</sup>: The sources advocate for assisting tribal, local, and regional entities to bring federal investment to California for outdoor space renovation and acquisition, especially in underserved communities (20). They also suggest seeking opportunities to leverage available funding to acquire and restore land for multi-benefit projects (21).

- **2022 Pathways to 30x30 California**<sup>^</sup>: One strategy for leveraging additional funding for 30x30 projects is coordinating with federal agencies to identify and secure emerging federal funding for new conservation acquisitions. This includes funds from the recently approved federal infrastructure bill and the expansion of the Land and Water Conservation Fund (40). The 30x30 initiative also encourages working with state and federal partners to improve and standardize easement review and recordation processes for conserved lands (42).

- **2021 Natural and Working Lands Climate Smart Strategy**<sup>^</sup>: The sources highlight scaling investment through public-private partnerships, demonstration projects, and leveraging federal funds. Identifying opportunities to drive climate action through incentives, markets, and other relevant mechanisms that increase equity and economic opportunity is also important. However, the sources do not provide specific examples of projects that have successfully leveraged additional funding (107).

## Multi Benefit

- **Capitola Climate Action Plan**<sup>\*</sup>: The source highlights numerous strategies that offer projects providing multiple benefits. Measures aimed at reducing Vehicle Miles Traveled (VMT) and transportation emissions are expected to not only decrease GHG emissions but also lead to reduced traffic congestion, improved mobility, better air quality, enhanced public health through increased walking and biking, and less wear on city streets (7-1). Promoting infill development as part of these measures could also help preserve natural and farmland areas (7-2). Similarly, parks, open space, and agriculture measures, while having limited direct GHG reduction, offer benefits such as recreation, improved public health, wildlife habitat creation, and mitigation of urban heat-island effects (7-45). For instance, community gardens can enhance public health and increase local food production (7-46). Energy conservation measures not only cut GHG emissions but also reduce other pollutants, save energy costs, lower energy demand, and lessen the environmental impacts of fossil fuel extraction (7-17). Green building practices can conserve energy and water, alleviate heat-island effects and stormwater runoff, improve indoor air quality, and even provide urban wildlife habitat. Water and wastewater measures offer resilience against water shortages, can reduce the need for infrastructure expansion, and benefit natural waterways and wildlife in addition to saving energy (7-34). Finally, public education and outreach campaigns related to sustainable transportation and energy efficiency can lead to improved health, air quality, and reduced congestion (7-8).

**- City of Santa Cruz Climate Action Plan\*:** The source highlights a key strategy of prioritizing and implementing projects that provide multiple co-benefits (3, 9, 56). These co-benefits are frequently identified within the description of individual measures and actions, spanning areas such as community health, GHG reduction, resilience, local green jobs, and environmental restoration (56). For instance, implementing programs for active transportation (walking and biking) not only aims to reduce GHG emissions but also improves community health and accessibility (73). Similarly, building electrification measures are expected to decrease GHG emissions while simultaneously improving indoor air quality and potentially creating local green jobs (60-62). Urban forestry initiatives, such as planting trees, are intended to sequester carbon and enhance the urban environment, contributing to both climate restoration and community well-being (102). The Climate Action Plan also emphasizes aligning climate measures with the City's Health in All Policies (HiAP) initiative, ensuring that actions support broader community well-being outcomes in addition to climate goals (3,9). Furthermore, the community engagement process was intentionally designed to uplift equity, seeking co-benefits around community health, wealth, and well-being, particularly for frontline communities, demonstrating a strategy to address social equity alongside climate action. (2)

**- Watsonville Climate Action Plan:** The CAAP emphasizes that many of its proposed strategies and measures are designed to provide multiple benefits beyond just greenhouse gas (GHG) emissions reduction, including improvements in air quality, habitat, recreation opportunities, cost savings, health benefits, job creation, and water quality protection (2-12, 2-13). For instance, strategies aimed at increasing multimodal transportation facilities, such as new pedestrian improvements and bike lanes, are expected to reduce vehicle miles traveled (VMT) and thus GHG emissions, while also enhancing recreation opportunities, improving air quality, and offering health benefits (2-17, 2-20). Similarly, the strategy to increase local greenspace by preserving or restoring land and planting trees is intended to sequester carbon, provide habitat, improve air quality, create recreation opportunities, and enhance water quality (2-51, 2-53). Furthermore, the focus on an equitable green recovery seeks to implement projects in areas like green job creation (e.g., solar installation, building electrification) and green infrastructure (e.g., rain gardens, permeable pavement) that simultaneously reduce emissions, enhance resilience, and create economic opportunities (ES-6). The CAAP explicitly lists co-benefits for each strategy in Chapter 2, highlighting the integrated nature of the plan's proposed actions (2-1 – 2-50).

**- Regional Project Prioritization\*:** The source emphasizes that wildfire prevention projects can yield multiple benefits beyond just reducing fire risk. One key strategy is implementing projects that aim to restore healthier, more resilient ecosystems while also protecting life and property (1). For example, the use of prescribed burns is mentioned as a means for both fuel reduction and habitat improvement (32). Similarly, prescribed herbivory using livestock is presented as a method to reduce vegetation density while also providing ecological benefits such as nutrient reincorporation and soil aeration (31). The creation of defensible space around structures not only reduces the risk of structural ignition but also improves access for firefighters (20). Furthermore, the implementation of

shaded fuel breaks can be preferred as they are often cheaper and easier to maintain, less detrimental to sensitive habitat, and garner more support from adjacent property owners compared to complete vegetation removal (28). The document also notes the importance of balancing habitat protection and fuel load management, suggesting that well-planned fuel reduction can contribute to both public safety and environmental preservation (40). Finally, collaborative efforts on fuel reduction projects can benefit multiple stakeholders, such as utility companies partnering to protect infrastructure and the surrounding community (35).

**- Santa Cruz Emergency Operation Plan\*:** The source explicitly highlights Community Resilience Centers (CRCs) as projects that provide multiple benefits by aiming to enhance the capacity of existing infrastructure and connect both physical and social resources to vulnerable residents countywide (49), thus serving both broader emergency management and climate action initiatives. The Readiness Working Group (RWG) is also structured to provide multiple benefits by serving as a forum for diverse stakeholders to coordinate planning and response across the entire emergency management cycle, fostering a more integrated and resilient community. Furthermore, a well-articulated Local Hazard Mitigation Plan (LHMP) offers the benefit of not only identifying and mitigating hazards but also maximizing the potential for securing pre- and post-disaster mitigation grants and programs (121). The RWG is also intended to help converge and align emergency management and climate resilience efforts, suggesting projects under this umbrella would offer benefits in both domains (48).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** Several projects outlined in the CAAP offer multiple benefits. For example, the installation of electric vehicle charging infrastructure at County-owned properties reduces GHG emissions from transportation while also generating revenue through a cost recovery system (41). Similarly, the development of all-hazard resiliency community centers in County libraries enhances community preparedness for various disasters while also promoting community engagement and providing access to resources (51). Promoting sustainable farming practices not only contributes to carbon sequestration but also supports local agriculture and food systems (46).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The project review process and ranking system (Table 6-1) incentivize projects that offer multiple benefits (C6-6). Examples of strategies that provide multiple benefits are included. Riparian enhancement: can improve flood conveyance, reduce flood hazards, and increase habitat quality. Functional riparian zones: improve water quality, remove pollutants, and improve salmonid spawning habitat quality as well as benthic invertebrate abundance and diversity. Improved riparian conditions: reduce water treatment requirements, increase local recharge and retention of water volumes, and contribute to the goal of providing a sustainable water supply (C5-3). Flood risk management strategies: maximize the benefits of floodplains, minimize or mitigate development in the floodplain, minimize the loss of life and damage to property from flooding, and recognize the benefits to ecosystems from periodic flood events (C5-15).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management (IRWM) Plan strongly advocates for projects that yield multiple benefits, aiming to improve the watershed's overall health and address the community's diverse needs. The plan emphasizes that shifting from single-purpose to multi-benefit projects increases value and cost-effectiveness by integrating various approaches (117). For instance, the plan discusses how incorporating flood management strategies that provide multiple benefits, such as enhancing water supply, improving water quality, and supporting environmental protection, can better serve the watershed's needs (82). The plan further encourages integrating recreational and public access opportunities with flood management actions, incorporating fish migration elements into water supply projects, and combining habitat restoration with water quality improvement efforts (115).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** The Community Wildfire Protection Plan (CWPP) for San Mateo and Santa Cruz Counties emphasizes the importance of multi-benefit projects that address both community safety and ecological health (2). The plan highlights strategically placed fuel breaks as a key strategy, noting their ability to act as anchor points for fire suppression, create safer evacuation routes, and enhance community protection (27). Roadside fuel reduction is also prioritized as it not only improves access for emergency responders and residents but also reduces the occurrence of roadside fire ignitions (24). Additionally, the plan calls for protecting critical infrastructure, including communication facilities, power lines, and water systems, as these assets are essential for maintaining community services and supporting ecosystem function (35-36).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** The plan emphasizes the importance of identifying and implementing projects that provide multiple benefits, maximizing the return on conservation investments (487). For example, projects might be designed to achieve multiple habitat protection objectives, contribute to water quality and supply, and provide recreational opportunities (138). Site selection is crucial to ensure that projects are located in areas where they can achieve multiple objectives cost-effectively. The maps and spatial database used to develop the plan are valuable tools for identifying such locations (487). Implementing multi-benefit flood management projects is also a priority. These projects aim to restore natural floodplain functions while also reducing flood risk to communities. This often involves removing or modifying hardened infrastructure to improve habitat complexity (152).

**- 2018 Santa Cruz County Parks Strategic Plan:** The Santa Cruz County Parks Department Strategic Plan highlights the importance of undertaking projects that provide multiple benefits to the community. The plan suggests establishing a natural resources and open space management program to improve ecological outcomes and protect the environment. Collaboration is also emphasized, with the plan recommending partnerships with other agencies, organizations, and landowners to protect and enhance natural, cultural, and historical resources (8). Additionally, the plan suggests expanding interpretive programs

and facilities to educate the public and foster a sense of community ownership of the parks system (12).

**- 2023 Santa Cruz County Parks Strategic Plan Update:** The source emphasizes a holistic approach to park management. The document suggests potential projects that could provide multiple benefits. For example, improving accessibility not only serves people of all abilities and backgrounds but also fosters a more inclusive park experience (12). Enhancing stewardship programs can contribute to climate resilience, educate the public, and promote community engagement (15).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** The LHMP underscores the importance of considering the interconnectedness of hazards and the potential for mitigation activities to have positive and negative impacts across different hazard types. For instance, while underground utilities are less susceptible to fire damage, they are more vulnerable to damage from landslides and earthquakes. The plan advocates for evaluating all implications of risk reduction measures when planning mitigation activities to ensure multiple benefits and avoid unintended consequences (165).

**- 2020 California Adaptation Planning Guide^:** The sources stress the importance of prioritizing projects that offer multiple benefits, enhancing overall community well-being and sustainability. Natural and green infrastructure solutions are highlighted for their ability to provide numerous co-benefits. These nature-based approaches can improve water and food security, support habitat for fish and wildlife, enhance coastal resources, promote human health, and create recreational opportunities. They can also contribute to climate change mitigation by sequestering carbon. Projects that promote equity and address the needs of disadvantaged communities often provide multiple benefits. By improving the resilience of vulnerable populations, these projects can enhance social justice, reduce economic disparities, and create a more equitable and sustainable society (9).

**- 2023 California Water Plan Update^:** The sources highlight the importance of investing in multi-benefit and multi-sector adaptation strategies at the watershed scale (4-6). The sources call for multi-sectoral collaboration and multi-benefit adaptation and management strategies in developing climate change adaptation plans (5-9). The Merced Flood-MAR Reconnaissance Study is provided as an example of a multi-benefit project (5-4).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** The sources stress the multifaceted benefits derived from healthy forests, which include bolstering climate resilience, enhancing carbon sequestration, safeguarding water supplies, improving air quality, mitigating heat in communities, providing wildlife habitat, and supporting local economies. The plan advocates for a comprehensive approach to forest management that recognizes these interconnected benefits (13). While the sources don't pinpoint specific projects, they strongly encourage the integration of forest management into broader state climate and biodiversity strategies (35).

- **2023 California Outdoors for All Strategy^**: The Outdoors for All strategy promotes multi-benefit projects. Specific strategies include acquiring and restoring land that creates access to nature, preserves biodiversity, protects waterways, and provides nature-based solutions for climate resilience (21). Additionally, they recommend prioritizing funding for projects that advance multi-benefit access projects and meet the goals of multiple state programs, like Outdoors for All, 30x30, and Nature-Based Solutions (39).

- **2022 Pathways to 30x30 California^**: The 30x30 initiative prioritizes restoration projects and stewardship activities that provide multiple benefits. These benefits include creating and supporting functional ecosystems in urban areas and increasing connectivity across regions and/or watersheds (47). The plan also promotes incorporating important mitigation projects from strategically designed conservation plans (such as NCCP, HCPs, RCISs) into mitigation programs for state-funded development projects. The 30x30 strategy encourages prioritizing advance mitigation projects that improve environmental and biodiversity outcomes while also achieving climate and access goals (46).

- **2021 Natural and Working Lands Climate Smart Strategy^**: The sources advocate for multi-benefit, collaborative, landscape-level approaches that engage communities and landowners (23). Prioritizing nature-based solutions that address climate change impacts while delivering additional community benefits is essential (47). For instance, restoring wetlands improves water quality and supply, enhances biodiversity, and provides flood protection (37). Climate-smart agricultural practices enhance soil health, improve water quality, increase carbon sequestration, and support food security (33). Urban greening can reduce extreme heat, improve air and water quality, offer recreational opportunities, and enhance community well-being (45).

## Disadvantaged Communities

- **Capitola Climate Action Plan\***: The sources address disadvantaged and lower-income communities primarily in the context of energy efficiency and transportation. One key strategy is to participate in Weatherization Assistance Programs to improve the insulation and energy efficiency of the homes of low-income households (7-23). This includes seeking funding for local programs and publicizing existing federal and utility-based assistance programs (7-23). In the realm of transportation, a strategy involves encouraging the development of affordable housing in areas of Capitola best served by current or expanded alternative transportation options (7-12). Furthermore, the General Plan Advisory Committee (GPAC) suggested that GHG reduction measures should emphasize equity (1-6), indicating a broader consideration for vulnerable populations in the development of climate action strategies. The discussion of transportation measures also notes potential benefits such as improved air quality, which can disproportionately affect children (7-2).

- **City of Santa Cruz Climate Action Plan\***: The source demonstrates a strong focus on disadvantaged, marginalized, under-resourced, underserved, poverty, frontline, impoverished, socially vulnerable, and lower-income communities, as well as communities

of color and those with fewer resources, and outlines several key strategies to ensure an equitable climate action plan (2, 28). Centering equity was a guiding principle throughout the CAP 2030 development process, with specific efforts made to engage community members who have historically experienced injustices and whose voices have been underrepresented (31). The City compensated frontline groups for their participation to recognize the value of their time and expertise (ix). A crucial strategy was the development and application of an equity screening tool, used to evaluate all proposed actions to ensure they address equity considerations and do not negatively impact frontline communities (32, 36, 49). The plan prioritizes investments and infrastructure development in frontline neighborhoods, such as for active transportation (73, 74) and the installation of EV chargers (83). Strategies also include developing an Equitable Existing Building Electrification Strategy (EEBES) (59) and working with partners to mitigate potential equity impacts of electrification ordinances (63). Ensuring affordable access to the benefits and services of climate actions is a key consideration, with actions designed so that accessible funding and financing mechanisms prioritize and support frontline community transition (53, 59). The City commits to providing targeted outreach and education to these communities on topics like water conservation (92) and waste diversion (97). Furthermore, some measures include income-tiered incentives to ensure affordability and equitable participation (84, 90). The CAP aims to achieve co-benefits around community health, wealth, and well-being, particularly for frontline groups, and aligns with the City's Health in All Policies (HiAP) initiative to promote equity and public health (9, 69). Collaborating with local community-based organizations that have connections to frontline communities is another key strategy for effective outreach and implementation (59, 60). Addressing transportation equity involves prioritizing public transportation and creating safe bicycle and pedestrian pathways in frontline neighborhoods (73).

**- Watsonville Climate Action Plan:** The CAAP explicitly focuses on energy and food justice (3-11, 3-18) to address the needs of disadvantaged and marginalized communities. In the context of energy, the City aims to achieve equity in the social and economic participation in the energy system and remediate burdens on those disproportionately harmed (3-4). Strategies include actively advising Central Coast Community Energy (3CE) to ensure that future programs and policies benefit frontline and disadvantaged communities in Watsonville and ensuring the City's representation on the 3CE Community Advisory Committee (CAC) to secure representative investments based on the proportion of disadvantaged and low-income residents (2-38, 2-40, 3-13, 3-17). The plan also supports programs to bring electric vehicle (EV) charging infrastructure to existing multi-family and low-income households (2-28). Regarding food justice, the CAAP aims to increase local food resilience by removing barriers to local production, distribution, and access to healthy food for all community members (3-3, 3-19). The public engagement process specifically included outreach to food distribution sites to reach a wider range of residents (5-5). The concept of an equitable green recovery is central to the plan, ensuring that investments aimed at stimulating the local economy also reduce GHG emissions and build resilience in an inclusive manner, potentially benefiting communities with fewer resources (4-2).



**- Regional Project Prioritization\*:** The Community Wildfire Protection Plan (CWPP) identifies "disadvantaged communities" as one of the factors for prioritizing fuel reduction projects, particularly when located within or adjacent to the wildland urban interface (WUI) (14). This suggests that a key strategy is to direct resources and prioritize wildfire prevention efforts in areas where these communities are located to reduce their risk. The document also mentions "special needs" communities in the same context. While the source does not elaborate extensively on specific strategies tailored to these communities, the prioritization indicates an understanding of their potential heightened vulnerability to wildfire risks and the need for focused attention in planning and project implementation.

**- Santa Cruz Emergency Operation Plan\*:** The Santa Cruz County EOP recognizes that disadvantaged, marginalized, under-resourced, underserved, poverty-stricken, frontline, impoverished, socially vulnerable, and lower-income communities, as well as communities of color and communities with fewer resources, often experience disproportionately severe impacts from hazards (16, 21). The plan emphasizes a "whole community" approach that prioritizes diversity, equity, inclusion, and accessibility (DEIA) in all phases of emergency management (46). Strategies include targeted and deliberate outreach to these communities to understand their specific needs and ensure their inclusion in planning processes (25). The EOP aims to provide culturally competent, inclusive, accessible, and equitable services (15) and to better serve and support historically and disproportionately impacted individuals (16). The Readiness Working Group (RWG) will conduct outreach to historically marginalized, underserved, and disadvantaged communities to understand their unique cultural and access needs (47-49), and a dedicated DAFN and Cultural Competency Working Group will advocate for these communities in emergency management initiatives. The plan also stresses the need to address systemic barriers that limit access to critical resources and impede response and recovery for those most at risk (24).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP explicitly addresses equity concerns and prioritizes the needs of vulnerable populations in various strategies. It acknowledges that climate hazards disproportionately impact at-risk populations and proposes strategies to reduce impacts or build adaptive capacity (6). The plan utilizes Equity Guardrails to evaluate potential negative impacts on vulnerable populations and ensure equitable distribution of benefits and costs (14-15). Specific examples include prioritizing the location of all-hazard resiliency community centers in proximity to disadvantaged communities (51), supporting low-income residents in purchasing electric vehicles (41), and providing backup power to vulnerable populations experiencing frequent power outages (39).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan prioritizes the water-related needs of disadvantaged communities (DACs), which are defined as communities with a median household income less than 80% of the state average (C13-11). The plan uses census data and mapping tools, in combination with local knowledge, to identify and assess DACs and socially vulnerable communities (C13-13). Specific efforts to engage DACs include the IRWM Planning Grant for Disadvantaged

Community Outreach, which focuses on empowering communities like Watsonville and Davenport by providing technical support for project development and prioritizing projects that address their specific needs (C1-9). These initiatives aim to ensure that all communities, regardless of their socioeconomic status, have access to safe, reliable, and affordable water resources.

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management Plan acknowledges the presence of disadvantaged communities (DACs) and Native American tribal communities within the watershed and emphasizes the importance of addressing their specific needs. The plan defines DACs as communities with an annual median household income (MHI) below 80% of the statewide MHI3 (128). Based on 2010-2014 census data, the communities of Pajaro, Watsonville, Amesti, and Freedom, along with other areas within the watershed, were identified as DACs (75). The plan recognizes the vulnerability of these communities to flooding and the need to prioritize flood protection projects that benefit them (129). Additionally, the plan emphasizes the significance of involving DACs in the planning process and addressing their water supply and quality concerns (128). Specific objectives include identifying and addressing the water supply needs and drinking water quality of disadvantaged communities (82). The plan underscores the commitment to ensuring that project and plan implementation does not adversely affect DACs and that ongoing coordination and public involvement mitigate potential environmental justice impacts (129).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** Prioritize fuel reduction projects within the wildland urban interface (WUI) and/or adjacent to the WUI in high density, special needs, or disadvantaged communities (14).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** This topic is not directly addressed in the sources.

**- 2018 Santa Cruz County Parks Strategic Plan:** The Santa Cruz County Parks Department Strategic Plan is committed to improving equity in parks and recreation. The plan recognizes that as demographics in the county change, some community groups may face barriers to accessing parks and programs. For example, the growing proportion of the county identifying as Latino, as well as the increasing median age, may lead to those demographic groups being underserved (32). To address inequities, the plan aims to provide universal accessibility in parks and increase the number of youth programs available, particularly in underserved communities (41). Additionally, the plan focuses on removing language barriers by offering signage and materials in both English and Spanish. Recognizing the role of transportation in accessing parks, the plan suggests improving pedestrian and bicycle infrastructure and expanding public transportation options (43). Finally, the plan prioritizes outreach, recommending the department increase its efforts to engage with underrepresented communities and ensure all residents are aware of and can use the parks system (11).

**- 2023 Santa Cruz County Parks Strategic Plan Update:** Santa Cruz County Parks' 5-Year Strategic Plan Update demonstrates a commitment to addressing the needs of disadvantaged communities. The plan includes several key objectives aimed at promoting equity, including adopting equity metrics to guide resource allocation, strategically locating new parks and maintenance programs in disadvantaged communities based on these metrics, and tailoring programming to meet the unique needs and interests of these communities. Further, the plan calls for prioritizing stewardship efforts in disadvantaged communities by fostering community involvement in decision-making and collaborating with trusted organizations already serving these areas (22). The action plan also highlights the development of a natural resource plan specifically for disadvantaged communities and the expansion of educational programs focused on natural resource care. By working directly with land stewards in these communities, the County aims to promote climate justice, action, and understanding across all communities in Santa Cruz County (24).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** While the sources emphasize community engagement and public-private partnerships, specific strategies for supporting disadvantaged or vulnerable communities are not extensively detailed. However, the plan does mention the importance of considering these communities in emergency planning and response, citing the example of providing information in both English and Spanish during the CZU Lightning Complex Fire (14).

**- 2020 California Adaptation Planning Guide^:** The sources emphasize that disadvantaged, marginalized, under-resourced, underserved, and lower-income communities, particularly communities of color, experience a disproportionate burden of climate change impacts. This heightened vulnerability stems from a complex interplay of factors, including historical and ongoing systemic discrimination, resource deprivation, and socioeconomic disparities (28, 62, 63). The sources use terms like "frontline communities" and "vulnerable populations" to underscore that these groups are often the first and most severely affected by climate hazards and have fewer resources to cope, adapt, and recover (156, 158). The California Adaptation Planning Guide (APG) stresses the importance of recognizing and addressing the root causes of these vulnerabilities through equitable adaptation planning. This involves actively engaging these communities in research, planning, implementation, and decision-making processes (120-121). The APG suggests incorporating the unique assets, coping skills, and knowledge of these communities to enhance overall climate resilience (28) and recommends strategies such as targeted funding, accessibility measures, and mechanisms to ensure particular benefits for these populations (132). Moreover, the sources highlight the need to address systemic issues that contribute to vulnerability, including lack of access to healthcare, affordable housing, and equitable emergency management services (D-33, C-34).

**- 2023 California Water Plan Update^:** The sources dedicate an entire chapter to understanding and addressing equity in the management of California's water resources, recognizing that current inequities exist and that resilience for California must include resilience for all (6-1). They emphasize improving community outreach and engagement,

local capacity building efforts, and access to State assistance programs (ES-19). The sources highlight the importance of supporting underserved and underrepresented communities and Tribes, facilitating their participation, promoting capacity building, and assuring equitable benefits and impacts. They call for genuine inclusion for underserved communities in decision-making processes (5-9, 5-10).

**- 2021 California Wildfire and Forest Resilience Action Plan<sup>^</sup>:** The source explicitly acknowledges the need to consider socioeconomic factors and vulnerable populations when assessing communities at greatest risk from wildfire.<sup>34</sup> It calls for prioritizing communities with high fire danger and high indicators of social vulnerability (65). It also emphasizes the importance of equitable access to outdoor recreation for underserved communities in the SCORP update (39). Additionally, it mentions targeting disadvantaged and low-income communities for urban tree canopy increases (40).

**- 2023 California Outdoors for All Strategy<sup>^</sup>:** The Outdoors for All strategy recognizes that access to parks and nature is not equitably distributed and prioritizes addressing the needs of disadvantaged, marginalized, and lower-income communities (10). It aims to ensure these communities benefit from and are actively involved in shaping outdoor spaces. Key strategies include prioritizing funding for park development and renovation in park-poor communities (39); providing free access to state parks for low-income communities; creating transportation options to connect these communities to the outdoors (29, 30); offering discounted gear, outings, and classes; supporting community engagement in planning and decision-making processes (33, 34); and building workforce diversity in environmental and outdoor fields (36, 37).

**- 2022 Pathways to 30x30 California<sup>^</sup>:** The 30x30 plan emphasizes ensuring historically marginalized communities, communities of color, and California Native American tribes have full and equal access to the benefits of nature. It promotes projects that improve and expand public health, Native American land stewardship, community resilience to climate change, high-quality jobs, and meaningful access to nature. It prioritizes intersectional strategies and inclusive approaches that are proactive, community-based, localized, and rely on meaningful engagement and capacity building. These efforts include workforce development and technical assistance. The 30x30 initiative also prioritizes implementing projects that do no further harm to or pose unintended consequences for historically marginalized communities. It seeks to amplify diverse perspectives by elevating the voices of historically marginalized communities and creating more representative leadership teams, boards, and staff advancing conservation (19).

**- 2021 Natural and Working Lands Climate Smart Strategy<sup>^</sup>:** Addressing equity and environmental justice is paramount in climate-smart land management, focusing on benefiting climate-vulnerable communities. This includes directing funding, workforce development, capacity building, and support towards these communities (106). Key strategies encompass increasing workforce development opportunities, mitigating extreme heat risks in vulnerable schools, investing in tribally-led climate adaptation research, and expanding support for historically disadvantaged small-scale farmers (106-108).

## Geographic Scope

- **Capitola Climate Action Plan\***: The sources indicate that the primary geographic scope of the Climate Action Plan (CAP) is the City of Capitola, addressing communitywide activities that occur within its boundaries and the municipal operations of the City government (1-3). However, a significant aspect of Capitola's approach involves working with regional partners to achieve its sustainability goals (7-4, 7-10, 7-11). For transportation emissions, the accounting includes trips originating and ending in Capitola, as well as a portion of trips with one end outside the city, acknowledging the interconnectedness of the region (3-2). Strategies explicitly mention coordinating with regional agencies like the Santa Cruz County Regional Transportation Commission (SCCRTC) and the Association of Monterey Bay Area Governments (AMBAG) on transportation planning and funding (7-4, 7-6, 7-10, 7-11). Furthermore, Capitola's plans aim to be consistent with regional plans such as the Moving Forward 2035 Monterey Bay to ensure eligibility for funding (2-10). The City also intends to support regional efforts for economic development and workforce initiatives to reduce commute trips (7-11, 7-13). Collaboration extends to utility providers like PG&E and water districts such as the Soquel Creek Water District and Santa Cruz Water Department for energy and water conservation measures (7-22, 7-35, 7-39). Finally, future GHG emissions inventories are planned in partnership with regional municipalities, AMBAG, and PG&E, highlighting the collaborative approach to assessing progress at a broader geographic scale (7-51).

- **City of Santa Cruz Climate Action Plan\***: The geographic scope of the Climate Action Plan 2030 is primarily centered on the City of Santa Cruz. The strategies outlined in the plan largely focus on actions and policies to be implemented within the city limits, aiming to reduce community-wide greenhouse gas emissions from sectors like transportation, buildings, waste, and water and wastewater within this defined area (26, 37). However, the plan also incorporates strategies that extend beyond the city's immediate boundaries through regional collaboration and advocacy (69, 91). The City intends to partner with regional entities such as the Association of Monterey Bay Area Governments (AMBAG), Central Coast Community Energy (CCCE), and the Santa Cruz County Regional Transportation Commission (SCCRTC) on issues like energy efficiency programs, public transportation planning, and regional compost trading (78, 94). Furthermore, certain strategies adopt a more localized geographic focus within the City, prioritizing investments and infrastructure improvements in frontline neighborhoods to ensure equitable access to benefits like active transportation and EV charging infrastructure (74, 83). The concept of promoting 15-minute neighborhoods also highlights a strategy of localized planning within the city to reduce transportation needs (75). Additionally, the plan considers the broader watershed in its water conservation and stewardship efforts and explores regional opportunities for carbon sequestration and capture (93, 104).

- **Watsonville Climate Action Plan**: The CAAP outlines strategies with varying geographic scopes. Many strategies are focused on implementation within the City of Watsonville's boundaries, such as increasing local greenspace (2-51) and implementing municipal commute reduction programs (2-30). Several strategies have a more localized focus,

specifically targeting the Downtown Watsonville area, for example, implementing parking management strategies (2-20) and including transit-oriented development in the Downtown Specific Plan (2-16). Conversely, a number of strategies necessitate regional collaboration and coordination. This includes working with the Association of Monterey Bay Area Governments (AMBAG) on transportation planning (1-6, 2-23), coordinating with the Santa Cruz County Regional Transportation Commission on multimodal enhancements, advocating for and participating in the development of a regional agricultural plan (2-19, 3-23), and collaborating with the Central Coast Community Energy (3CE) on energy-related initiatives (2-35, 2-38). The plan also considers partnerships within Santa Cruz County and the broader Central Coast region for various initiatives (2-54, 5-3).

**- Regional Project Prioritization\*:** The Community Wildfire Protection Plan (CWPP) has a geographic scope encompassing both San Mateo and Santa Cruz Counties (1). To manage the diversity within this large area, a key strategy employed by the CWPP is to divide the two counties into ten separate CWPP planning areas (13, 49). This division allows for more efficient local planning, with the understanding that projects within San Mateo County are not directly compared to or competing with those in Santa Cruz County. Furthermore, due to geographic and political differences, the strategy for prioritizing projects was implemented within each of these ten planning areas individually, rather than across the entire two-county region (13). The CWPP also includes maps detailing each planning area's boundaries as well as the Wildland Urban Interface (WUI) boundaries within them. While the focus is on these localized planning areas, the plan acknowledges the interconnectivity between them and between the two counties (13).

**- Santa Cruz Emergency Operation Plan\*:** The Santa Cruz County Operational Area (OA) Emergency Operations Plan (EOP) defines its geographic scope as encompassing the entire county (16), including incorporated cities and unincorporated areas, and considers the diverse topography including coastal, mountainous (San Lorenzo Valley, Bonny Doon), and agricultural (Pajaro Valley) regions (19). A key strategy is that the EOP provides a foundational framework for a coordinated, scalable, and organized response to emergencies across this entire Operational Area (13), supplementing the EOPs of individual local jurisdictions. As the OA Coordinator, the County is responsible for coordinating information, resources, and emergency management activities among all local jurisdictions within the county (16) and serving as the primary communication link between the local government level and the Cal OES Region (44). The Readiness Working Group (RWG) is also established with the goal of building resilience across the entire Santa Cruz County Operational Area (48).

**- 2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP focuses on unincorporated Santa Cruz County, excluding the four incorporated cities of Capitola, Santa Cruz, Scotts Valley, and Watsonville (17). The plan acknowledges the county's diverse geography, encompassing coastline, mountains, and farmland (10-12).

**- 2014 Santa Cruz County Integrated Regional Water Management Plan:** The Santa Cruz IRWM Plan primarily covers Santa Cruz County, encompassing about 95% of its

residents and 85% of its area. The eastern boundary follows the Santa Cruz Mountains ridgeline, the western boundary is the Pacific Ocean coastline, and the northern boundary runs along the county line near Point Año Nuevo. The southern boundary, however, shares territory with the Pajaro River Watershed IRWM Region in the Watsonville Sloughs. In this overlap, the Santa Cruz IRWM manages water quality and watershed resources while the Pajaro IRWM manages water supply and flood control. This shared responsibility recognizes the unique characteristics of the Watsonville Sloughs. (C3-6).

**- 2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management Plan covers the entirety of the Pajaro River Watershed, encompassing portions of four counties: Santa Cruz, Santa Clara, San Benito, and Monterey (29).

**- 2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** Santa Cruz County. The CWPP divides Santa Cruz County into five planning areas: Santa Cruz North - Interior, Santa Cruz North - Coastal, Santa Cruz South - Interior, Santa Cruz Central, and Santa Cruz South - Coastal (1).

**- 2022 Santa Cruz County Regional Conservation Investment Strategy:** The geographic scope of the Santa Cruz County Regional Conservation Investment Strategy is Santa Cruz County, California (xiii).

**- 2018 Santa Cruz County Parks Strategic Plan:** The plan notes that the County Parks Department is responsible for providing parks, open spaces, cultural services, and recreation facilities and programs throughout the unincorporated portions of the county (19). The plan also acknowledges that there are specific needs and unique gaps in the park network in each part of the county (41).

**- 2023 Santa Cruz County Parks Strategic Plan Update:** The geographic scope encompasses the entire Santa Cruz County, including North County (including the City of Scotts Valley), Mid-County (including the Cities of Santa Cruz and Capitola), South County (including the City of Watsonville), and unincorporated areas within each region (12). The document emphasizes the need for increased attention and resources in South County, particularly in terms of programming and facilities (24).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** The Santa Cruz County Local Hazard Mitigation Plan (LHMP) focuses on hazard mitigation efforts within the geographic boundaries of Santa Cruz County, California. The plan explicitly references the county's commitment to reducing risks from natural and other hazards within its jurisdiction (5).

**- 2020 California Adaptation Planning Guide<sup>^</sup>:** The source is geographically focused on California, aiming to provide tailored guidance for adaptation planning within the state (10). It emphasizes the use of California-specific climate science data and tools, referencing research relevant to the state's unique conditions (4). The guide also features examples and case studies primarily drawn from California, showcasing local adaptation efforts and best practices within the state (2). While the primary audience is local and tribal government

agencies in California, the processes and resources discussed may also hold value for non-governmental and private-sector planning endeavors (10).

**- 2023 California Water Plan Update^:** The sources primarily focus on California's watersheds as the geographic scope for implementing water resilience strategies. Watersheds are identified as the vital, holistic scale for water resilience planning (ES-14). The sources note that water management in California occurs at many different scales, from individual residences to interregional infrastructure. They recommend that watershed resilience planning efforts complement efforts at these other scales (5-1, 5-3).

**- 2021 California Wildfire and Forest Resilience Action Plan^:** The source discusses statewide strategies and projects, but it also highlights the importance of regional action (7, 21). The document further analyzes California's varying ecosystems by region, focusing on the Coastal Inland (74), Sierra-Cascade-Inyo (76), Northern (78), and Southern regions (80). Each regional profile describes the area's unique characteristics, challenges, and strategies for improving forest health and wildfire resilience.

**- 2023 California Outdoors for All Strategy^:** The geographic scope of the Outdoors for All initiative encompasses the entire state of California (5). The strategy identifies opportunities to improve access to outdoor spaces in both urban and rural areas (10).

**- 2022 Pathways to 30x30 California^:** The 30x30 initiative applies to all of California's land area and coastal waters (10). It aims to conserve an additional six million acres of land and half a million acres of coastal waters to reach the 30% target (7).

**- 2021 Natural and Working Lands Climate Smart Strategy^:** The sources acknowledge the diversity of California's regions and stress the importance of tailoring climate-smart land management strategies to their specific needs and priorities. The regional profiles outlined in Section Four cover nine distinct regions across California, each with its own set of projected climate change impacts, land ownership patterns, and key nature-based solutions. The regional profiles demonstrate the importance of locally and regionally specific circumstances and priorities in achieving successful climate action across the state (69).

## Community Engagement

**- Capitola Climate Action Plan\*:** The source emphasizes significant community involvement in the development process of Capitola's sustainability plans, particularly the General Plan and the Climate Action Plan (CAP) (1-1, 1-6, 5-6). Strategies for community involvement included:

Community workshops were held to gather input and discuss sustainability goals and policies related to land use and transportation, which directly relate to climate change and GHG emissions. (1-6)

The City established a General Plan Advisory Committee (GPAC), comprising residents and local leaders, which played a crucial role in providing input on various aspects of the



General Plan and specifically on climate change and GHG emissions. The GPAC reviewed and offered feedback on preliminary lists of GHG reduction measures, ensuring community values were considered. (1-6)

The development process built upon the values expressed by residents and local leaders during the General Plan process to create a preliminary list of GHG reduction measures. (1-6)

The City aimed to solicit additional feedback on the CAP from the broader community, although specific strategies for this are not detailed in this section. (1-6)

The involvement extended to the Commission on the Environment, which also participated in meetings related to GHG measures. (1-6, 5-6)

The resulting Climate Action Plan (CAP) reflects the community's desire to preserve its intimate feeling and unique identity while advancing sustainability. (1-1)

**- City of Santa Cruz Climate Action Plan\*:** The source emphasizes a robust and community-driven process named "Resilient Together" that spanned two years and placed the Santa Cruz community at the center of the Climate Action Plan 2030 development (31, 2). Key strategies for community involvement included hosting visioning workshops and community events, resulting in 29 events and 2,884 points of contact with the community (2). The City actively solicited input through various channels such as meetings, comments, emails, letters, surveys, focus groups, listening sessions, pop-up events, and online forums (2). Specific efforts were made to uplift equity by intentionally gathering input from frontline groups through regular in-person listening sessions, events, and with the guidance of equity advisors (2). This included targeted visioning workshops with unsheltered groups, youth groups, and the Beach Flats community (2). The Mayor's Appointed Climate Action Task Force (CATF), community equity advisors, and other community groups played essential roles in shaping the plan's measures and actions (iii). The process involved three main phases: envisioning values, establishing targets based on community opinion gathered through surveys and in-person feedback, and identifying CAP actions where community members rated their support and provided comments (33, 35, 36). The CATF also helped design engagement, and the process iteratively attempted to mitigate adverse costs and impacts to frontline groups. All outreach materials were provided in both English and Spanish to enhance accessibility. (32)

**- Watsonville Climate Action Plan:** The CAAP emphasizes that community involvement was an essential part of its development process (ES-7). A key strategy was the development and implementation of a Public Engagement Plan to document how residents were engaged. This included the creation of a Community Advisory Committee (CAC) composed of 16 community representatives who advised the City on how best to engage and solicit input from the public and were involved in strategy prioritization (5-5). The City also prepared and distributed two community surveys to educate the community about climate change and gather feedback on potential strategies (5-5). Outreach efforts for the surveys included social media, online ads, the City website, newsletters, emails, online presentations, and in-person surveys at various community locations (5-1). The City also committed to a transparent public process following environmental review of the CAAP.

Furthermore, the development of a web application is intended to encourage engagement and participation in the implementation process by allowing residents to interact with the CAAP information online (1-6). The rationale behind these strategies was to raise awareness, provide education, solicit input for decision-making, and ensure a public process (5-1).

**- Regional Project Prioritization\*:** The development of the Community Wildfire Protection Plan (CWPP) strongly emphasized community involvement through various strategies. The process began with meetings involving community and agency stakeholders in both San Mateo and Santa Cruz Counties to address their wildfire concerns and identify hazards, assets at risk, and priority areas for fuel reduction (1). To solicit broader input, public meetings were convened in each county to introduce the CWPP process, form a Stakeholder Advisory Committee, and gather preliminary feedback through geographically representative breakout sessions that addressed specific prompts (4-5). Additionally, meetings were held targeting agencies and large landowners. Online engagement was also facilitated through a CWPP blog for updates and feedback. Once a draft was created, it was made public, and comments were received for thirty days, during which additional public meetings were held to gather further feedback before finalization. The CWPP highlights that it is the community's opportunity to participate in partnerships and suggest priority projects (3), emphasizing that stakeholders' unique local knowledge is crucial for creating a strong, living, collaborative plan. Furthermore, priority areas and assets at risk were identified through these stakeholder meetings (14, 50), and stakeholders consistently voiced their priorities, such as roadside fuel reduction (29) and specific areas for fuel reduction projects (62). This collaborative development is a fundamental aspect of CWPPs (2).

**- Santa Cruz Emergency Operation Plan\*:** The Santa Cruz County EOP heavily emphasizes community involvement in the development process through its "whole community" approach (6). This strategy is intended to enhance community resilience and security by prompting engagement with vital community partners (46). The plan was developed with input from essential stakeholders across the Operational Area (11), and it will continue to undergo updates based on feedback received from stakeholders and partners (6). The EOP aims to describe how the community is engaged, involved, and participates in all phases of emergency management (17). To facilitate this, the County will establish a Readiness Working Group (RWG) as a forum for diverse stakeholders to work together on planning and response, and to build and sustain relationships (48). This group will include representatives from public, private, non-profit, academic, and community-based organizations (187). The RWG will also support initiatives like the DAFN and Cultural Competency Working Group, which will meet with key County departments and community-based organizations to provide a whole community perspective on emergency management initiatives. The County calls upon all community stakeholders to engage, participate, and take ownership of the collective preparedness and resilience effort (47).

- **2021 Santa Cruz County Climate Action and Adaptation Plan:** The CAAP emphasizes community engagement and collaboration throughout the planning process. It highlights the involvement of County staff from various departments in developing strategies and objectives (15). The CAAP also establishes a Climate Policy Internship Program to support youth involvement in climate action (16).

- **2014 Santa Cruz County Integrated Regional Water Management Plan:** The plan outlines a multi-faceted strategy for involving stakeholders, which encompasses local and regional water and resource agencies, state and federal agencies, NGOs, and the general public (C13-3, C13-4). Key mechanisms for engagement include public meetings and workshops held at various times and locations to accommodate diverse participation (C13-8). The plan also leverages online resources, maintaining an active website to disseminate information, meeting materials, and updates, and utilizes email listservs to communicate with stakeholders (C13-7, C13-8). Further, the plan details efforts to reach out to specific groups, such as disadvantaged communities (DACs) and Native American tribes, ensuring they have a voice in the planning process (C13-13, C13-14).

- **2019 Pajaro River Watershed Integrated Regional Water Management Plan:** The Pajaro River Watershed Integrated Regional Water Management (IRWM) Plan stresses the importance of involving the community in the development process, recognizing that successful implementation relies on stakeholders' active participation (197). The plan emphasizes a three-tiered outreach approach (24). Tier One targets planning-level outreach, where the Stakeholder Steering Committee (SSC) and its subcommittees play a crucial role in identifying watershed needs and providing recommendations on project priorities (25). The SSC, comprising representatives from organizations such as the Land Trust of Santa Cruz County, Santa Clara County Open Space Authority, and the Amah Mutsun Tribal Band, acts as an advisory body to the Regional Water Management Group (RWMG) (14). Tier Two centers around project-specific outreach, with Implementation Project Sponsors responsible for addressing community concerns regarding individual projects. Finally, Tier Three consists of general outreach by the RWMG, focused on providing progress updates, soliciting feedback, and maintaining transparency about IRWM Plan decisions (26). This comprehensive approach ensures consistent community engagement throughout all stages of the IRWM Plan development and implementation (179).

- **2021 Santa Cruz County San Mateo County Community Wildfire Protection Plan:** Community and agency stakeholders were consulted in the development of the CWPP. Public meetings were held to gather community input. Public comments were received for 30 days before a draft CWPP was finalized for adoption by the counties. Two additional public meetings were held to solicit feedback from the community before finalizing the draft CWPP (4-5).

- **2022 Santa Cruz County Regional Conservation Investment Strategy:** The RCIS aims to engage local expertise and promote coordinated implementation through various strategies (1, 10). These strategies include the establishment of a Steering Committee composed of key stakeholders like the RTC, RCD, consultant team, Caltrans, CDFW, Land

Trust of Santa Cruz County, and State Parks. Additionally, a Technical Advisory Committee provides expert advice and identifies conservation priorities (11). The RCIS also recognizes the importance of public input, utilizing public workshops, meetings, and online platforms to gather feedback on critical components such as the regional setting, conservation elements, and proposed actions (12). The process included direct engagement with staff from regulatory agencies such as the CCRWQCB, Coastal Commission, California State Parks, NMFS, NOAA's Southwest Fisheries Science Center, and the USFWS Outreach also included tribal representatives to encourage participation and incorporate indigenous knowledge and conservation concerns (11).

**- 2018 Santa Cruz County Parks Strategic Plan:** Community involvement was a vital aspect of the Santa Cruz County Parks Department Strategic Plan development process. Input was gathered from staff, community members, and a Strategic Plan Working Group (33). The source emphasizes the importance of community engagement in the planning and development process. Strategies included soliciting community input through meetings, surveys, and stakeholder outreach. Hosting community meetings throughout the county to gather diverse perspectives on the vision, values, and goals for the department (34-36). Collaborating with community organizations, agencies, and volunteers to implement the plan's goals and strategies (18). Using community feedback to inform the development of the Strategic Plan's goals, objectives, and strategies (34).

**- 2023 Santa Cruz County Parks Strategic Plan Update:** Strategies to involve the community in the Santa Cruz County Parks' 5-Year Strategic Plan update included a multi-pronged approach: The process began with gathering public input through community surveys administered at various events and meetings. Recognizing the importance of diverse perspectives, public meetings were strategically held in both South and Mid/North County to ensure broad geographic representation. To further enhance inclusivity and capture the voices of often-marginalized groups, staff actively attended community events, particularly those within disadvantaged communities, to solicit feedback directly. A diverse Working Group, representing various stakeholders, was formed to guide the update process. This group played a vital role in shaping the update by providing insights, identifying key themes, developing the community survey, and recommending the inclusion of a fifth goal centered on equity. Engaging with recreational clubs and non-profit organizations ensured that the needs and perspectives of these important stakeholders were considered (9).

**- 2021 Santa Cruz County Local Hazard Mitigation Plan:** The plan outlines a multi-pronged approach to involving the community, including public meetings, collaboration with stakeholder groups, and feedback mechanisms. The initial development of the LHMP involved gathering input through public meetings, project team meetings, consultations with scientific experts, and suggestions submitted by community members (42). The 2021 LHMP update included similar outreach efforts, leveraging electronic communication tools and social media platforms to expand community engagement and gather feedback (30-33). Additionally, the plan outlines future public involvement strategies, such as presentations at

meetings of various county councils and committees and utilization of online platforms, to ensure ongoing community participation in the hazard mitigation planning process (207).

- **2020 California Adaptation Planning Guide**<sup>^</sup>: While the sources don't explicitly detail the community involvement in developing the California Adaptation Planning Guide itself, they consistently emphasize that community engagement is crucial for successful adaptation planning in any context (102-104).

- **2023 California Water Plan Update**<sup>^</sup>: The plan emphasizes the establishment of watershed networks to facilitate collaboration among diverse stakeholders, including local agencies, Tribal governments, community leaders, and non-profit organizations. These networks aim to ensure that local voices and perspectives are represented in the development of integrated water plans and projects (ES-14). Acknowledging past exclusions of certain communities, the plan prioritizes the participation of underserved and underrepresented communities and Tribes (5-9). The plan encourages integrating Traditional Ecological Knowledge (TEK) into water management practices to enhance watershed resilience planning (7-1). It also highlights the need to address systemic challenges, such as environmental justice, community engagement, and representation, to ensure equitable outcomes in water management (6-14). The plan further recommends specific actions to improve community involvement, including hosting public environmental justice summits, expanding avenues for diverse voices, and harnessing community science initiatives (8-10, 8-11).

- **2021 California Wildfire and Forest Resilience Action Plan**<sup>^</sup>: The sources highlight the importance of a regional approach to forest health and wildfire resilience planning, emphasizing community involvement in developing plans and projects. The California Forest Carbon Plan and the National Forest Planning Rule recommend this approach, noting the benefits of collaboration among local, regional, and tribal governments and stakeholders. Key advantages of this approach include workforce development, project pipeline creation, alignment of goals across jurisdictions and agencies, and facilitating multi-benefit projects. The sources underscore the importance of empowering local governments and communities to set priorities and integrate forest resilience and sustainable development programs (21). The Regional Fire and Forestry Capacity (RFFC) Program, launched in 2019, aims to build the capacity of regional collaboratives through a shared framework of regional forest and community resilience plans (22). This framework, incorporating local input, will guide the development of a regional pipeline of projects and investment strategies (23).

- **2023 California Outdoors for All Strategy**<sup>^</sup>: The Outdoors for All strategy emphasizes the importance of community involvement in the development process. The document outlines the extensive community engagement efforts undertaken in developing the strategy, including regional workshops, a statewide virtual workshop, a public community meeting, tribal listening sessions, and consultations with California Native American tribes (45). The strategy also advocates for co-creating and co-managing parks and outdoor spaces with tribal governments and community-based organizations (35).

- **2022 Pathways to 30x30 California^:** The 30x30 initiative was developed with substantial input from the public, including regional workshops, topical advisory panels, and consultations with over 70 California Native American Tribes (8). Public participation and input have been critical in helping the state identify strategies for conserving lands and coastal waters that reflect local and regional priorities. Continued community engagement and collaboration are crucial for the successful implementation of 30x30 (4).

- **2021 Natural and Working Lands Climate Smart Strategy^:** The sources emphasize the significance of meaningful community engagement throughout the development process, from planning to implementation (9). This involves ensuring equitable access to information and resources and supporting community-led nature-based solutions (96). Facilitating community participation requires scheduling meetings at convenient times and locations, providing language interpretation and accessibility accommodations, and using clear and straightforward language (10).