Coastal Conservancy Comments

p. 13
Recommendation CA-4: Identify significant and sustainable funding sources for investments that reduce climate risks, harm to people, and disaster spending.

Local Adaptation Funding Opportunities
In June 2016, voters in the nine counties ringing San Francisco Bay adopted Measure AA to provide $~~300~~ 500 million in local bonds to protect natural open space lands, build wetlands and other natural infrastructure, and provide increased public access to parks and open space.

Add paragraph:
Use Post-Disaster Hazard Mitigation Grants to Increase Resilience
Apply hazard mitigation grants to multi-benefit projects that enhance resilience to climate change impacts. The Coastal Conservancy has been working with the FEMA to identify projects that reduce existing and future coastal hazards through ecosystem restoration, green infrastructure and other multi-benefit strategies. The next step is to work with CalOES to apply post disaster hazard mitigation funds to implement these projects.

p. 33 (and p. 36, p.43 & p.48)
Recommendations to increasing resiliency in low-income and disadvantaged communities (also relevant to page 36's recommendation on 'developing innovative governance models and public engagement strategies; page 43 that recommends a strategy to address environmental justice issues; and page 48 which recommends engaging CA residents and communities.)
Suggestion: To make real progress here, state agencies that work with low-income and disadvantaged communities, through grant programs or otherwise, need to pay stipends and provide dinner, pay for child care and generally to make it easier to successfully engage members of low-income and disadvantaged communities.

p.38
Recommends providing technical support, etc. to reg/local governments and communities
Suggestion: In our experience, lack of case studies, information, resources is not the problem; the problem is lack of capacity at the local jurisdictional level, and technical guidance. Local jurisdictions need funding to build capacity and enable a staff person to engage with any of these resources. Continuing to increase tools and resources will not be effective. We must help build capacity at the local level through grants to local jurisdictions (and local community organizations) to increase this capacity and enable them to work on resilience and have time to access these resources.

p. 47
Recommends improving underlying conditions
Suggestion: For "P-1.3. 'healthy homes' model" – aside from weatherization programs, funding is also available via grants through HUD's Office of Lead Hazard Control and Healthy Homes: https://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes

p.76
Consider revising paragraph:

Candidates for this type of work include planning efforts such as Natural Community Conservation Plans (NCCPs), Habitat Conservation Plans~~.~~, Joint-Venture Implementation Plans, Endangered Species Recovery Plans, the Southern California Wetlands Recovery Project, regional advance mitigation planning, and other joint conservation plans and long-term planning frameworks developed through partnerships in which state agencies participate, such as the 2017 Delta Conservation Framework and the San Francisco Bay Ecosystem Habitat Goals Project. Many of these conservation planning exercises are aimed at preserving biodiversity, protecting federally or state listed species, aiding in species recovery, promoting habitat connectivity, and finding multi-benefit conservation solutions through integration with agriculture and working landscapes. Incorporating climate change will only strengthen each plan's ability to achieve these goals in the long-term.

Ongoing Actions (add)

- Complete and adopt the updated regional strategy for the multi-agency Southern California Wetland Recovery Project that integrates climate change considerations into quantified regional objectives
- The Coastal Conservancy is conducting a statewide coastal habitat climate vulnerability assessment with The Nature Conservancy to identify priorities for future conservation.
- Continue implementation of the recommendations in the San Francisco Bay Ecosystem Habitat Goals Report.

p.80

Add B-3.4 Provide funding to develop and implement restoration and enhancement activities to increase climate resiliency of the natural landscape.

Under ongoing activities:
The only two bullets describe the same program; there are many other state efforts to fund ecosystem restoration including grants by the WCB and the state conservancies using Habitat Conservation Fund and Prop 84.

p.94

Should there be some discussion of conservation of working redwood forests and their role in sequestering carbon? The focus seems to be entirely on watershed benefits.

p.101

California's ~~state agencies that~~ coastal and inland delta agencies are taking action now to assess the risks and reduce the anticipated impacts of climate change, and are striving to prepare all Californians for the inevitable long-term impacts expected over time.

p.103

Big Picture Comments:

Move discussion of Local Coastal Plans and General Plans (i.e. O-1.1) to the land use section of the report (recommendations L-1 or L-2).

Recommendations O-1 and O-2 are a little confusing as written; hard to understand the key point. Seems like O-4 (understand vulnerabilities) should come earlier. Would it make sense to reorganize?
New O-4: Assess community and ecosystem vulnerability to climate impacts

O-1: Support planning and adaptation strategies to increase the resilience of coastal communities (this would focus on built environment).
O-2: Design and implement projects to protect and enhance adaptive capacity of coastal and marine ecosystems, including beaches (this would focus on natural environ and recreational resources).

Combine O-1.2 with O-1.4 and O-1.4a? Include providing funding and technical assistance to local jurisdictions.

Consider deleting the last part of O-1.3. The decision-making criteria could include total economic valuation. Are these tools really advanced enough that we want to prioritize in all cases? Change to:

O-1.3 Integrate climate adaptation considerations into state agency planning, investment, and funding decisions more fully by increasing coordination with local and regional partners, developing useful guidance, standards, and evaluation criteria for decision-making~~, and prioritizing the use of total economic valuation that accounts for market and nonmarket values~~.

Could O-1.7a be combined into O-1.3?

Consider broadening O-1.5. to include natural and recreational resources.

Revise O-1.5b. Beaches are used by all Californian's, not just underserved populations:
O1.5b Assess, ~~and~~ plan and implement projects ~~for the protection~~to reduce climate change impacts to ~~of~~ beaches ~~and~~, public access to the shoreline and public recreational resources.~~so that the loss of beaches does not disproportionately burden underserved or other underrepresented populations~~

Should O-1.7b be listed under regulatory authority – would buy-out programs be regulatory or voluntary?

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Ongoing Actions: Move all LCP discussion to land use section
Add

- Coastal Conservancy's Climate Ready grant program provides funds and technical assistance to local communities to assess climate impacts and plan for adaptation. The 2017 grant round is focused on providing assistance to vulnerable communities.
- The Bay Area Resilient by Design initiative has launched a design challenge to attract architects and designers to develop new approaches and innovative solutions to specific sites in the nine county region that are at risk for climate change-related.
- Senate Bill 1066 (Lieu) gave the Coastal Conservancy explicit authority to prepare for and adapt to the effects of climate change and take action against its causes.
- The California Climate Resilience Account was created to accept and provide funds for climate adaptation work by the state's coastal management agencies.

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O-2.1. Support and encourage the implementation of management strategies aimed at beach preservation, including beach nourishment projects, dune restoration, and managed retreat efforts that maximize the beach's ecological and recreational values.

p.106

- ~~Across several agencies like~~The ~~State~~ Coastal Conservancy and Department of Parks and Recreation~~, c~~ are implementing coastal restoration ~~and rehabilitation~~ projects ~~are underway~~ to restore ~~and rehabilitate~~ important coastal habitats (i.e. dune restoration and coastal bluff rehabilitation) ~~.~~and ~~L~~living ~~S~~shorelines ~~P~~projects ~~are being planned and implemented in Arcata, San Francisco, Newport, and San Diego.~~ in many coastal areas.
- ~~When complete, the~~The South Bay Salt Pond Restoration Project ~~– led by the State Coastal Conservancy – will~~is restoring ~~c~~ 15,100 acres of industrial salt ponds to a rich mosaic ~~of tidal wetlands and other~~ habitats while increasing protection to the south San Francisco Bay from sea level rise through green infrastructure.~~s.~~
  ~~Estuarine habitat restoration projects are in progress through the California Coastal Estuarine Land Conservation Program.~~
- Across government decision-making and decisions around public funding, agencies are addressing existing and proposed coastal armoring activities and evaluating innovative solutions, such as natural infrastructure projects that reduce vulnerability to sea level rise and coastal flooding.
- Sediment-related projects at Department of Parks and Recreation will help support coastal restoration and protection and engage on coastal sediment management.
- ~~Living Shorelines Projects are being planned and implemented in Arcata, San Francisco, Newport, and San Diego.~~
- Development of the State's Sediment Master Plan through the Coastal Sediment Management Workgroup features twelve Coastal Regional Sediment Management Plans to mitigate the adverse impacts of coastal erosion and excess sedimentation on coastal habitats.
- In June 2016, voters in the nine counties ringing San Francisco Bay adopted Measure AA to provide $~~300~~500 million in local bonds to protect natural open space lands, build wetlands and other natural infrastructure, and provide increased public access to parks and open space.~~An updatethe Southern California Wetlands Recovery Project Regional Strategy is in progress.~~

Commented [SM1]: I would delete this, no $ this year and last several years only funded great lakes (not CA)

Commented [SM2]: Moved to p.76

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Ongoing Actions

- California participates in the Pacific Coast Collaborative Subcommittee on Ocean Acidification & the Federal Interagency Working Group on Ocean Acidification (IWG-OA) Monitoring Task Force which is collecting and compiling ocean acidification and hypoxia monitoring data across the West Coast to assess information gaps, track changes in ocean chemistry, and make smart future investments.
- The Ocean Protection Council is supporting a West-Coast-wide ocean acidification model developed by a team of scientists from NOAA, University of Washington, and the Southern California Coastal Water Research Project and led by UCLA to predict ocean chemistry changes throughout the California Current.
- ~~FEMA and local partners are collecting beach profile data and high water mark data~~
- The Coastal Conservancy and Ocean Protection Council ~~is~~ have supported ~~supporting the~~ USGS' Coastal Storm Modeling System, which makes detailed predictions of coastal inundation, storm-induced coastal flooding, erosion, and cliff failures over large geographic scales and can be used for to analyze future climate scenarios (sea-level rise and storms).
- ~~The Ocean Protection Council is supporting is supporting a West Coast wide ocean acidification model developed by a team of scientists from NOAA, University of Washington, and the~~

~~Southern California Coastal Water Research Project and led by UCLA to predict ocean chemistry changes throughout the California Current.~~

- FEMA and local partners ~~are collecting~~have collected data about beach profiles, winter erosion and ~~data and~~ high-water marks. ~~data~~
- The State is incorporating sea level rise and climate change modeling for the Sacramento San Joaquin River Delta through the Department of Water Resources' 2017 Central Valley Flood Protection Plan Update and the Delta Stewardship Council's Delta Levee Investment Strategy; stage-frequency curves were developed for the Delta providing a link between tides and Delta inflow as well as the impacts of climate change. ~~FEMA is incorporating sea level rise into their coastal storm surge mapping efforts.~~
- Coastal site surveys for cultural resources are being conducted by the Society for California Archaeology in partnership with the Department of Parks and Recreation.

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- The California Department of Fish and Wildlife and partners are working with Tribes and constituents to update the Marine Life Management Act Master Plan for fisheries, through considering tools and recommendations developed through information gathering projects.
- The Ocean Protection Council is supporting the following information gathering projects: Climate Change and Fisheries working group, peer review for Fishery Management Plans, Productivity and Susceptibility Analysis (PSA) and Ecological Risk Assessment (ERA), as well as supporting the development of socioeconomic guidance for fisheries management. The Southern California Coastal Ocean Observing System and Central and Northern California Ocean Observing System provide and disseminate scientific data and knowledge needed to inform decision-making and better understand the changing conditions of California's coastal ocean.
- California is completing historical hourly tide data to develop hourly sea level rise and storm surge datasets.
- UC San Diego's Coastal Data Information Program provides ongoing beach change measurements, wave research, and long-term manual temperature and salinity measurements.
- State and federal government agencies fund research on atmospheric rivers and coastal landslides.
- The State Coastal Conservancy ~~leads~~ has funded research on saltwater intrusion into groundwater.
- The Southern California Coastal Water Research Project (SCCWRP) plays a crucial role in research and tool development on topics like ocean acidification.
- The State is very involved Bay Area efforts to define, identify, and fund one or more regional data repositories to collect and share data in ways that best inform rising sea levels strategies and actions.
- The State is also developing indicators for tracking climate change in the Marine Protected Area statewide monitoring program.

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Per earlier comment, consider moving O-4 to be the first recommendation (assess vulnerability):

Recommendation O-4: Assess community and ecosystem vulnerability ~~through the use of decision-support tools and analyses~~

Effective adaptation requires understanding climate change vulnerabilities and impacts at appropriate scales. Because there is no one-size-fits-all solution to reduce threats, it is important to assess vulnerabilities and risks through a suite of tools and strategies. In doing so, we will be more equipped to investigate options and prioritize actions that are most suitable to a given community or environment. Through visualization and mapping tools, facilitation and trainings, and robust analyses, we can continue to build more resilient communities and ecosystems; and the state is committed to enhancing training and educational opportunities so we are equipped to assess vulnerability and prioritize appropriate action and response at a range of scales.

Next Steps

O-4.1. Provide ~~continual~~ grants ~~and,~~ funding and technical assistance for community-based vulnerability assessments.

~~O-4.1a. Seek input from residents, beach users, local businesses, and other stakeholders affected by climate impacts in the community through workshops and community events, and ensure that these workshops are accessible to the most vulnerable stakeholde~~O-4.1b. Continue to identify ~~and map~~ coastal infrastructure and ~~vulnerable~~ other assets vulnerable to sea level rise, such as water supply, energy infrastructure, ports, ~~tourism~~public recreation assets, natural resources, marinas and ~~and~~ fishing sites.

O-4.2. Assess the vulnerability of archaeological sites and ~~natural and~~ cultural resources to sea level rise.

O-4.2a. Work with tribes on participatory mapping of coastal tribal resources and development of vulnerability assessments.

O-4.2b. Initiate vulnerability study of the Department of Parks and Recreation's natural and cultural resources' exposure to sea-level rise.

O-4.3. Study the vulnerability of ecosystems to impacts of climate change such as northward species shifts, lower productivity and food, exotic species, reduced coastal water quality, toxic algae blooms, health hazards, inundation of beaches and wetlands.

O-4.3a. Identify critical areas of habitat at risk along the coast and areas needed to allow them to migrate as seas rise; prioritize funding to acquire and preserve them.

O-4.3b. Identify vulnerability of coastal beaches and wetlands and priority upland transition sites.

Ongoing Actions

- The State provides support for vulnerability assessments through resources like:
  - Decision support tools for coastal storm surge in a changing climate.
  - Cal-Adapt sea level rise maps.
  - ~~FEMA Flood Risk Reduction Project identification.~~Climate Ready Grants
  - The Adapting to Rising Tides Program.
- The Department of Parks and Recreation and Coastal Conservancy are ~~is~~ conducting an assessment of ~~its~~ State Park infrastructure's ~~and natural and cultural resources'~~ exposure to sea-level rise.
- The State is conducting a statewide coastal habitat vulnerability assessment.
- The State Coastal Conservancy ~~provides Climate Ready program~~is supporting vulnerability assessment ~~grants.~~through its Climate Ready Grants.
- The Ocean Protection Council's Local Coastal Program Grant Program also supports the development detailed local sea level rise vulnerability assessments and adaptation plans