

East Shore Planning Group

East Shore Planning Group
P. O. Box 827
Marshall, CA 94940
ESPG@eastshoreplanninggroup.org

Alex Westhoff
Planner, Marin Community Development Agency
By email to AWesthoff@marincounty.org

June 19, 2017

Dear Alex,

The East Shore Planning Group reviewed the C-SMART Public DRAFT Adaptation Report at our Board of Directors meeting on June 15, and I am submitting these comments on behalf of the Board.

We congratulate you and the CDA staff for producing the Report. It shows an exceptional level of local and regional research with a multitude of well-considered adaptation strategies identified and discussed. It should serve the affected communities, the County and planners for years to come.

We particularly appreciate the work done for the East Shore of Tomales Bay. It is clear that the many efforts of yourself, Jack Liebster and other staff in visiting the site and meeting with our community have resulted in a real understanding of the unique issues facing our community. The many creative solutions that you have presented will be extremely valuable as the community and others considers adaptation plans for the future.

While we have been grappling with the proposed Environmental Hazards provisions for the Local Coastal Program for the past year, your draft report is a breath of fresh air, presenting many positive approaches for dealing with the problems on a regional or community basis, rather than the proposed restrictive and seemingly punitive provisions to be imposed on a property-by-property basis. Seeing this contrast, we ask this question:

“With so much to learn about the ways in which sea-level rise may be addressed through adaptation techniques, and with the possibility of developing comprehensive programs to design, finance and implement creative solutions, why not delay revisions to the Environmental Hazards portions of the LCP for a few years?”

We propose that the amendments to the Environmental Hazards sections of the LUP and IP relating to Sea-Level Rise be deferred for up to 10 years, pending further research and consideration of the issues and appropriate responses consistent with the Coastal Act. In the meantime, the Environmental Hazards section of the current LCP give ample flexibility for permitting of properties in the affected areas.

As the County staff noted in its October 31, 2016 letter to the Commission, “... the County's proposed amendments are just part of the beginning of our Sea Level Rise work. Marin County is widely recognized as among the leading edge of jurisdictions doing climate change Adaptation Planning. Our deliberate, transparent, inclusive, science-based process we continue to develop better information and additional alternatives as we, and our collaborators throughout the state and nation, move forward. Much of that will come back to your Commission in the

update to the LCP we are committed to bring you in 2026, and likely before.” (Letter from Brian Crawford, Marin County CDA, to Coastal Commission re Marin County LCP Amendment No. LCP-2-MAR-15-0029-1 (Marin LCP Update), October 21, 2016, at p. 8, with underlining added.)

The Coastal Commission staff tacitly agreed with this approach in its final submission to the CCC for the November 2016 meeting: “These measures [proposals to amend the EH sections of the LCP], together with required additional adaptation planning and LCP amendments no later than 2026, should allow Marin County to appropriately address and respond to coastal hazards consistent with the Coastal Act.” Staff Recommendations for Marin County Local Coastal Program Amendment Number LCP-2-MAR-15-0029-1 (Marin LCP Update), at p. 46.

Bottom line: The Draft Adaptation Report makes it clear that it is premature to develop LCP Amendments addressing the prospect of sea-level rise in Marin County.

Regarding the Draft Adaptation Report’s discussion of the Community Alternative (Part 3) and its discussion of the East Shore of Tomales, we have some specific comments and suggestions in the attachment.

Thank you again for all your hard work and creative ideas.

Sincerely,

A handwritten signature in cursive script that reads "Mary Halley". The signature is written in black ink on a white background.

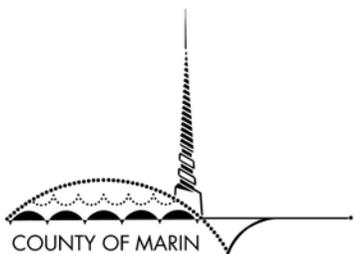
Mary Halley, President
East Shore Planning Group

CC: Jack Liebster
Brian Crawford
Dennis Rodoni

East Shore Planning Group

Specific Comments Regarding C-SMART Public DRAFT Adaptation Report

1. Cypress Grove Research Center The Report should mention the Audubon Canyon Ranch's buildings at Cypress Grove Research Center. These are particularly vulnerable to sea-level rise.
2. Inn on Tomales Bay Despite its name, this facility is not on the Bay and is at an elevation so that it is not threatened by sea-level rise. There is no need to mention it specifically.



July 5, 2017

Mary Halley, President
East Shore Planning Group
P.O. Box 827
Marshall, CA 94940

Sent Via Email

Dear Mary,

On behalf of the Marin County Community Development Agency (CDA) I would like to thank you for the June 19, 2017 comment letter on the C-SMART Public Draft Adaptation Report (Report) you provided on behalf of the East Shore Planning Group (ESPG) Board of Directors. We appreciate ESGP members Report review and comment development. We are integrating public comments into the final draft Report which will be presented to the Marin County Board of Supervisors on August 1. We invite you to attend this workshop as an opportunity for continued input on West Marin sea level rise adaptation.

Thank you for your positive comments on the Report itself, and efforts County Staff underwent to develop the Report. We cannot overemphasize our appreciation to ESGP members who attended C-SMART workshops, received C-SMART presentations at ESGP meetings, provided property/community tours, and numerous other activities which have helped deepen our understanding of sea level rise issues facing East Shore, thus strengthening C-SMART processes and products.

Comment letter responses are as follows:

Local Coastal Plan and IP Environmental Hazards Amendments Extension

CDA staff have continued to work with California Coastal Commission (CCC) staff on Local Coastal Plan policies and IP measures to help protect property and coastal resources from hazards including sea level rise, coastal erosion, and storms. Specific topics include timeframe and extent of hazard analysis, coastal redevelopment definitions, elevation requirements and more. We anticipate unveiling specific next steps with dates to finalize the section including stakeholder/community meetings, a presentation to the Board of Supervisors, and CCC resubmittal. While the final Environmental Hazards section will need to be approved by the CCC, we are working towards a proposal which reflects the realities faced by coastal property owners, while allowing for ongoing community planning through C-SMART in collaboration with local residents. We encourage ESGP to continue to participate in the aforementioned public process to share suggestions and concerns. We understand ESGP's recommendation to defer

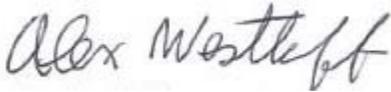
the Environmental Hazards section; these concerns however are more properly directed to the Board of Supervisors, which as we noted will review the Report on August 1, 2017.

Specific Comments Regarding C-SMART Public DRAFT Adaptation Report

Relevant Report tables and maps now mention the Audubon Canyon Ranch buildings at Cypress Grove Research Center and no longer mention the Inn on Tomales Bay.

Thank you again for the Report comment letter. Please contact me at any time with additional questions or comments. We look forward to a continued working relationship with the East Shore Planning Group to address West Marin sea level rise challenges.

Sincerely,

A handwritten signature in cursive script that reads "Alex Westhoff". The signature is written in dark ink on a white background.

Alex Westhoff
Planner

CC: Jack Liebster
Brian Crawford
Dennis Rodoni

Greater Farallones National Marine Sanctuary



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Greater Farallones National Marine Sanctuary
991 Marine Dr., The Presidio
San Francisco, CA 94129

June 23, 2017

Mr. Alex Westhoff
Community Planner
Marin County Community Development Agency
Email: awesthoff@marincounty.org

Sent Via Email

RE: Comments on Marin Ocean Coast Sea Level Rise Adaptation Report

Dear Mr. Westhoff:

Greater Farallones National Marine Sanctuary (GFNMS) has reviewed the draft Marin Ocean Coast Sea Level Rise Adaptation Report. We appreciate that Marin County provided an opportunity for public review. We recognize and are pleased to see GFNMS listed as a project partner and that the County was able to utilize the potential strategic management actions from the GFNMS Climate Adaption Working Group process, which served as the basis for natural resource strategies identified in your report. We understand that the Report presents options to address sea level rise (SLR) as a guide for subsequent actions that may be taken later.

GFNMS is a place of special significance, which was designated to protect its ecological and cultural integrity for current and future generations. GFNMS manages the waters and submerged lands off the coast of Marin including Muir Beach; Stinson Beach and Bolinas; Bolinas Lagoon; and Tomales Bay to the Mean High Water Line (excluding the West shore of Tomales Bay at Duck Cove north to Tomales Point out to a quarter mile from shore, which is part of the Point Reyes National Seashore wildness area). As such, all comments provided herein discuss GFNMS' jurisdiction, current regulations, policies and plans related to activities that would result from different adaptation strategies to address SLR.

It is understood that the purpose of the report is to present potential actions to accommodate (i.e. structure elevation), protect against (i.e. armoring), or retreat from the threats of SLR and that some community options may not be pursued. GFNMS has regulations that may prohibit some of the proposed community solutions that would result in a discharge into or alteration of the submerged lands of sanctuary waters.

With few exceptions, discharging or depositing any material or other matter is prohibited and thus is unlawful for any person to conduct or to cause to be conducted within the Sanctuary. Discharging or depositing, from beyond the boundary of the Sanctuary, any material or other matter that subsequently enters the Sanctuary and injures a Sanctuary resource or quality is also prohibited [15 CFR Part 922, § 922.82 (a)].

The National Marine Sanctuaries Act defines “injure” as “to change adversely, either in the short or long term, a chemical, biological or physical attribute of, or the viability of. This includes but is not limited to, to cause the loss of or destroy.” “Sanctuary quality” is defined as “any of those ambient conditions, physical-chemical characteristics and natural processes, the maintenance of which is essential to the ecological health of the Sanctuary, including, but not limited to, water quality, sediment quality and air quality” (15 CFR § 922.3).

These prohibitions in combination would apply to activities beyond the Sanctuary, in which matter could be discharged and ultimately enter the Sanctuary and cause injury, even in the short term. Such activities could include staging and construction that occur outside Sanctuary boundaries.

Constructing any structure other than a navigation aid on or in the submerged lands of the Sanctuary; placing or abandoning any structure on or in the submerged lands of the Sanctuary; or drilling into, dredging, or otherwise altering the submerged lands of the Sanctuary in any way is also prohibited [15 CFR Part 922, § 922.82 (a)].

As directed by the National Marine Sanctuaries Act, the primary mandate of the sanctuaries is protection of sanctuary natural and cultural resources and ecological values by protecting the estuarine and marine environment. We developed an Ocean Climate Initiative that focuses on partnerships to build ecosystem resilience and sustainability. One of the first things we did is facilitate the publication of Climate Impact Report for North-central Coast. Existing observations and science-based expectations were used to identify a suite of potential climate change impacts to habitats, plants, and animals. Then we collaborated with Point Blue and USGS to plan for both sea level rise and storm hazards by developing an online tool to help visualize and anticipate vulnerabilities of coast habitat to sea level rise and storms. Subsequent plans, documents and reports we facilitated the development of include the Climate Change Indicators and Monitoring Plan for North-central Coast; a Vulnerability Assessment for focal species, habitats, and ecosystem services; and the Adaptation Plan that is cited in the Report. We are applying the information we have obtained to prioritize natural resource protection and restoration.

Based on what has been learned, we are looking at ways to promote soft solutions, such as allowing for managed retreat of habitats and building green infrastructure; have identified locations where current hard structures may impact ecosystem resilience; and have identified strategies that are in direct conflict with sanctuary regulations and policies. Some community-wide solutions such as elevating/armoring roads or increasing coastal armoring may not be feasible or possible in areas where armoring or roads are abutting sanctuary boundaries. Below we identify some of the specific actions by location identified in the Community Alternatives section of the Report that we either strongly favor or need to be involved in due to potential regulatory constraints. For all the reasons stated above, it is therefore critical that we continue to be a project partner as final adaptation strategies are developed and specific options are chosen.

SPECIFIC COMMENTS ON THE PLAN

The text below provides: 1) comments on specific additions and deletions to the Report as proposed by GFNMS; and 2) comments related to specific priority actions. Strikethrough text is proposed for deletion. Text in [brackets] is proposed for addition.

Executive Summary

In order to provide succinct comments, we used the executive summary as a place to make some general comments that may apply to other sections.

On page 10, the Report states the following:

“Permitting remains a challenge as raising roadways typically requires expanding the roadway footprint and may impact existing natural areas.”

We agree with the statement and suggest considering adding the following statement before in order to be clear that permitting would not be possible where fully prohibited for archeological or natural resource protection reasons: [In some locations, expanding the roadway footprint will not be possible.]

We appreciate that the Report acknowledges GFNMS staff and the Climate-Smart Adaptation Working Group of the Greater Farallones National Marine Sanctuary Advisory Council starting as early as page 5 (Acknowledgements). On page 11 the Working Group report is specifically referenced as serving as the basis for natural resource strategies identified in the Report. The Sanctuary Advisory Council, not the sanctuary, formed the Working Group. It is an important distinction as federal law prohibits the sanctuary itself from forming Working Groups and for Working Groups to directly advise sanctuary staff. On Pages 55-56 (Methodology), the report does an excellent job of accurately describing the Sanctuary Advisory Council Working Group process. We have proposed the following changes to the language on the following pages in the executive summary to be consistent with the description in the methodology.

Page 11:

The ~~Greater Farallones National Marine Sanctuary (GFNMS)~~ Climate-Smart Adaptation Working Group [of the Greater Farallones National Marine Sanctuary (GFNMS) Advisory Council] developed a report (Appendix F) on potential strategic management actions which served as the basis for natural resource strategies identified in this report.

Page 18:

*Continue to work with the Sonoma/Marin County Sediment Management Working Group [of the Greater Farallones Sanctuary Advisory Council] to assist with the development of a Regional Sediment Management Plan for Marin and Sonoma’s outer coastline....
...The plan is being developed by the ~~Greater Farallones National Marine Sanctuary~~ [Working Group] in partnership with the Greater Farallones Association and funded by the California Natural Resources Agency.*

The community specific alternatives and highlights of the potential priority actions outlined on pages 12-15 are very useful and we agree that understanding the implications and tradeoffs of different approaches (protect, accommodate, or retreat) will require continued study and community dialogue around adaptation. We also agree that further analysis is necessary to fully assess specific costs considering implementation, environmental review, permitting, maintenance

and more. Additionally, some approaches may not be feasible for various reasons. It is important to message all these points to the West Marin community. GFNMS comments on specific actions are under the “*Asset Adaptations and Community Alternatives and Passport*” sections.

Page 14 is the first mention of a potential oyster reef as green infrastructure in Bolinas and on Page 18, Tomales Bay. It would be helpful to clarify that any oyster reef would be native species. We suggest adding the word [native] to all language related to oyster reefs. Please note that oyster reefs need to be carefully sited. Water flow, clarity and depth all play a role and there are likely only limited locations, especially in Bolinas Lagoon, where oyster reefs could work.

Under “Next Steps” on Page 16, the Report suggests developing an interagency SLR task force with representatives from various agencies who oversee West Marin assets to meet regularly to discuss options outlined in this report and prioritize recommendations. We highly recommend this action as a next step and request that we are part of the task force.

Thank you for acknowledging several management actions in Table 2 where GFNMS would be a potential partner. There are potential additional management actions that GFNMS would have a role related to parcels and transportation. In particular, GFNMS may have a regulatory or jurisdiction role in B-5—use Marin Map as a platform to show regulatory boundaries; and T-1—consider planning for Shoreline Highway and county maintained roads as part of the Regional Transportation Program.

Methodology

On page 53/54, please make the following change:

Meeting products were intended to mirror the deliverables produced by the Climate-Smart Adaptation Working Group convened by [the Greater Farallones Sanctuary Advisory Council] ~~NOAA staff~~ to inform the ~~Gulf of the~~ [Greater] Farallones National Marine Sanctuary.

Adaptation Framework

As mentioned in the first two pages of this letter, GFNMS has regulatory constraints related to strategies that would employ some sort of non-natural engineered structure(s) to defend development, be it a road or public or private property. GFNMS does not have a permitting mechanism to allow these activities for the sole purpose of public safety. The prohibitions are absolute and can only be authorized through a permit if the proposed action is for the purpose of research, education, salvage (i.e. vessels) or management of the sanctuary.

There are specific permit procedures and issuance criteria required by regulation that must be met in order to allow GFNMS¹ to permit actions under any of these categories. These regulatory requirements include, but are not limited to demonstrating that:

¹ Monterey Bay National Marine Sanctuary, which has jurisdiction of Muir Beach and is managed by GFNMS, has similar regulations related to permit issuance criteria.

- 1) The proposed activity will be conducted in a manner compatible with the primary objective of protection of sanctuary resources and qualities, considering the extent to which the conduct of the activity may diminish or enhance sanctuary resources and qualities, any potential indirect, secondary or cumulative effects of the activity, and the duration of such effects; and
- 2) The reasonably expected end value of the proposed activity to the furtherance of sanctuary goals and purposes outweighs any potential adverse effects on sanctuary resources and qualities from the conduct of the activity.

15 CFR Part 922, § 922.83

Due to these requirements, we recommend considering adding to the permitting discussion on pages 58-59 as follows:

Protect-Page 58

Implementing these strategies will likely follow a relatively traditional permitting process involving the local permitting agencies, CCC, California State Lands Commission, and for those located below Mean High Water (MHW) GFNMS and the U.S. Army Corps of Engineers (USACE)(ESA 2015). [Regulatory requirements may deem certain protection strategies unfeasible.]

Accommodate-Page 59

Structural adaptation can be applied to any parcel or infrastructure although the cost and technical feasibility of an effective modification would be required. Cost may be high depending on the density of development on the coast (ESA 2015). [Regulatory requirements may deem certain protection strategies unfeasible.]

Table 6- -Adaptation Strategies Characteristics

Page 61: Thank you for explaining how “legal acceptability” was determined for Table 6. We agree with the project’s staff interpretation of the California Coastal Act and the California Coastal Commission’s Sea Level Rise Policy Guidance. We recommend also considering GFNMS regulations when making the “legal acceptability” determination.

Pages 62-63: We noticed that political acceptability is blank for all categories pending a Board of Supervisors meeting in August. It may be helpful for the Board of Supervisors to understand what “low” legal acceptability means to help them determine political acceptability. For example, in some categories, it would actually take a regulatory change as opposed to a policy change.

Asset Adaptation

We support the two top priority actions for consideration listed on page 82. We agree that we should explore the feasibility of experimental and innovative coastal protection options, and where possible implement demonstration projects such as constructed wetlands/horizontal levees, offshore reefs/oyster beds, and dune restoration/beach nourishment. To the extent that these projects occur in sanctuary waters, we would support these coastal protection strategies to the extent that they also protect and or benefit sanctuary natural resources.

The other priority action is critical: participate and support existing local community programs, including but not limited to education, outreach, and emergency preparedness, that promote community resilience. To that end, we are currently working on a proposal to have a living shoreline workshop in the Bay Area, which would be great for community members to attend too, so that they can really understand their purpose, see the economic cost, and reduced maintenance benefits along with the obvious environmental benefits.

Community Alternatives and Passport

The West Marin Sea Level Rise Adaptation Poll provided in the community alternatives section and subsequent “Passport” and workshops are helpful to GFNMS staff in understanding the level of potential community support for each strategy as expressed as strong, moderate or little support. This, as indicator of public support, will help us with our education and outreach efforts, especially as it relates to priority actions in different West Marin communities. In our review of these strategies, we see that we are aligned with the represented community support in some locations, but not all locations, and we will keep that in mind as it relates to education and outreach efforts.

Below we highlight some of the key priority actions identified that are either strongly supported by GFNMS and we would like to be a partner, or specific actions that are a concern to GFNMS and need additional investigation due to current regulations aimed at protecting the natural resources of the sanctuary.

Stinson Beach and Bolinas

Thank you for pointing out that some of the community alternatives related to “protection strategies” for offshore structures are currently prohibited by GFNMS regulations. Other protection activities that might be prohibited depending on design include: 1) Extending revetment along Stinson Beach and 2) Elevating Shoreline Highway and Calle del Arroyo.

In order to be useful, revetment is traditionally placed within mean high water. GFNMS regulations prohibit the placement of revetment within its boundaries. Elevating roads is strongly supported by the community and is also preferred by GFNMS in Bolinas to allow for wetland migration. Causeways that extend the footprint in projected areas that will become mean high water due to SLR or road realignments where road elevation does not shirk the footprint of GFNMS would likely be allowed. When designing a new road (slope/shoulder in the sanctuary etc), GFNMS would need to be actively involved. We would also be involved in reviewing construction site set-up and risk of materials entering the sanctuary when a project goes from a design phase to an implementation phase.

Tomales Bay

Thank you for pointing out that some of the community alternatives related to “protection strategies” for wetland enhancement that may be prohibited by GFNMS regulations.

GFNMS agrees with the community as strongly opposed to permitting houseboats on Tomales Bay. The Report cites that it is not recommended due to strong wind and wave action during storms, and lack of houseboat marinas and services. The strong wind and wave action also

increases the chance for marine accidents (vessels going adrift, which is prohibited in GFNMS). Additionally, houseboats can increase the threat of discharges and the potential for increased marine debris because of increased, sustained human activity on the Bay.

The strategy to accommodate boat moorings once marinas become unusable is consistent with GFNMS regulations. The mooring program is fully implemented and all moorings (except for a few that have been referred to enforcement personnel) that are currently in Tomales Bay are either in application for a State Lands Commission Lease, have received a State Lands Commission lease, or are permitted for removal by GFNMS by the owners. However, removal by owners who chose to no longer moor due to costs and requirements were less than 5 individuals who contacted GFNMS. GFNMS ended up covering the cost of removing 30 abandoned mooring systems, about 10 “placeholder moorings” (small weights and Danforth anchors that could be removed by hand) and 2 abandoned vessels by November 2016. Although the abandoned moorings could have been due to costs/requirements, that abandonment occurred prior to the publication of the Report. Therefore, we suggest the following changes to the language related to this item:

Page 191: *In 2014, GFNMS and State Lands Commission commenced the Tomales Bay Mooring Program to permit and lease moorings in Tomales Bay. [By November 2016 all abandoned moorings were removed by GFNMS, which contributed to the decrease in the total number of moorings.] [Although this decrease could be] ~~Due to the program's costs and requirements, it is expected that a year from now there will be even fewer~~ [this action freed up space for more] moorings on the Bay.*

A native oyster reef demonstration project that also restores native oysters and does not impact or reduce the current extent of the eelgrass beds is a project that GFNMS could strongly support and could provide information to help inform the most ideal locations.

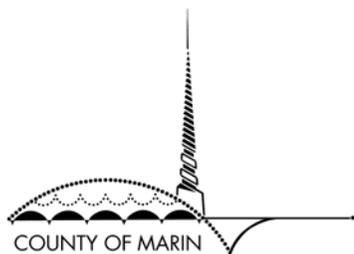
Finally, elevation of shoreline highway as outlined on Page 201 could be supported by GFNMS in Tomales Bay to allow for wetland migration with all the caveats given in the Bolinas section of this letter.

GFNMS commends efforts of the Sea-Level Marin Adaptation Response Team and the Marin County Community Development Agency in providing a draft report with a clear goal of addressing SLR through the public process. We look forward to working with you as an active partner and appreciate this opportunity to comment on the Adaptation Report, which my staff and I found very informative. Please contact me or Karen Reyna at 415-970-5247 if you have any questions. Thank you.

Sincerely,



Maria Brown
Sanctuary Superintendent



July 6, 2017

Maria Brown
Sanctuary Superintendent
Greater Farallones National Marine Sanctuary
Email: maria.brown@noaa.gov

Sent Via Email

Dear Maria,

On behalf of the Marin County Community Development Agency (CDA) I would like to thank you for the June 23, 2017 comment letter on the *C-SMART Public Draft Adaptation Report* (Report). We are integrating public comments into the final draft Report which will be presented to the Marin County Board of Supervisors on August 1, 2017. We invite you to attend this workshop as an opportunity for continued input on West Marin sea level rise adaptation.

We cannot overemphasize our deep appreciation for the partnership between CDA and the Greater Farrallones National Marine Sanctuary (GFNMS). Specific collaborative activities to date have included CDA staff participation on the Climate-Smart Adaptation Working Group of the GFNMS Advisory Council; and GFNMS staff participation at several C-SMART meetings and review of the Report. The *Climate Change Vulnerability Assessment for the North-central California Coast and Ocean* and the *Climate-Smart Adaptation for North-central California Coastal Habitats* served as the basis for the natural resource sections of the C-SMART Vulnerability Assessment and Adaptation Report respectively, thus helping to advance adaptation strategies developed by some of the region's leading scientists and resource managers.

As a general response we appreciate your explanation of the GFNMS jurisdiction, regulations, and programs as they relate to C-SMART's efforts. As CDA staff develops next steps for West Marin adaptation with direction from the Marin County Supervisors, we are committed to ensuring close communication with GFNMS staff as relevant plans and projects are initiated.

Specific comment letter responses are as follows. For ease of discussion, we have added a unique number to each comment on your letter (attached). Please note that page number references reflect the Public Draft Report, and may change as the Report is finalized.

Executive Summary

GFNMS Comment 1

CDA Response: Language added on page 10 and 112 to reflect this point.

GFNMS Comment 2

CDA Response: Language changed accordingly on page 11.

GFNMS Comment 3

CDA Response: Language changed accordingly on pages 18 and 224.

GFNMS Comment 4

CDA Response: “Native” placed behind “oyster” throughout the Report and sentence added on page 193 to elaborate on siting requirements.

GFNMS Comment 5

CDA Response: Upon preliminary review of the *West Marin Sea Level Rise Adaptation Plan Passport*, a stakeholder survey to gauge community input on C-SMART Next Steps, this concept received high support and thus CDA staff plan to recommend moving forward with it at the 8/1/17 Board of Supervisors C-SMART workshop. Assuming the Marin County Board of Supervisors concurs with this recommendation and the Task Force becomes established, CDA staff will recommend GFNMS participation.

GFNMS Comment 6

CDA Response: In B-5 (pages 21 and 87) GFNMS regulatory boundaries are now listed as an example of a regulatory boundary and GFNMS is now listed as a potential partner. In T-1 (pages 21 and 113), GFNMS is now listed as a potential partner.

Methodology

GFNMS Comment 7

CDA Response: Language changed accordingly on pages 53-54.

Adaptation Framework

GFNMS Comment 8

CDA Response: Sentence added accordingly on page 58.

GFNMS Comment 9

CDA Response: Sentence added accordingly on page 59.

GFNMS Comment 10

CDA Response: CDA staff request that if, based on GFNMS regulations, legal acceptability of any adaptation strategies differs from rankings on the current table, please contact us and specify which strategy, what the acceptability ranking would be, and a brief explanation of why.

GFNMS Comment 11

CDA Response: CDA staff will explain context of the legal acceptability section to inform the Board of Supervisors decision at the 8/1/17 workshop.

Asset Adaptation

GFNMS Comment 12

CDA Response: The Bay Area living shoreline workshop sounds like proposed workshops CDA has sent a letter of support for (attached). Please let us know if we can assist with this effort in any way.

Community Alternatives and Passport

GFNMS Comment 13

CDA Response:

- On page 161 a sentence was added to the revetment extension section: “To be consistent with GFNMS regulations, revetment could not extend into the mean high water.”
- At the end of the sentence on road elevation on page 168, a section was added: “GFNMS would need to be actively involved in new road design and implementation in cases where the footprint extends into GFNMS boundaries.”
- On page 180 language was added to the elevate roads section: “Road elevation is preferred in Bolinas by GFNMS to allow for wetland migration. GFNMS would need to be involved in new road design and construction review including avoiding risks of materials entering the sanctuary.”

GFNMS Comment 14

CDA Response: Language added to pages 190 and 205 in houseboat discussion: “increased threat of discharges and marine debris”

GFNMS Comment 15

CDA Response: Language changed accordingly on pages 191 and 202.

GFNMS Comment 16

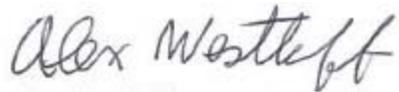
CDA Response: Sentence added to pages 189 and 200: “GFNMS could also strongly support native oyster reef demonstration projects and provide information to help identify the most ideal locations.”

GFNMS Comment 17

CDA Response: Language added to page 201 as follows: “Road elevation is preferred along Tomales Bay by GFNMS to allow for wetland migration. GFNMS would need to be involved in new road design and construction review including avoiding risks of materials entering the sanctuary.”

Thank you again for the Report comment letter. Please contact me at any time with any additional questions or comments. We look forward to a continued working relationship with the GFNMS to address West Marin sea level rise challenges.

Sincerely,

A handwritten signature in black ink that reads "Alex Westhoff". The signature is written in a cursive, slightly slanted style.

Alex Westhoff
Planner

Att. 1 Greater Farallones National Marine Sanctuary comments on Marin Ocean Coast Sea Level Rise Adaptation Report (with comment numbers added by Marin County Community Development Agency staff)

Att. 2 Letter of Support for Tijuana River NERR living Shorelines Training

CC: Jack Liebster
Brian Crawford
Dennis Rodoni



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Greater Farallones National Marine Sanctuary

991 Marine Dr., The Presidio
San Francisco, CA 94129

June 23, 2017

Mr. Alex Westhoff
Community Planner
Marin County Community Development Agency
Email: awesthoff@marincounty.org

Sent Via Email

RE: Comments on Marin Ocean Coast Sea Level Rise Adaptation Report

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GFNMS is a place of special significance, which was designated to protect its ecological and cultural integrity for current and future generations. GFNMS manages the waters and submerged lands off the coast of Marin including Muir Beach; Stinson Beach and Bolinas; Bolinas Lagoon; and Tomales Bay to the Mean High Water Line (excluding the West shore of Tomales Bay at Duck Cove north to Tomales Point out to a quarter mile from shore, which is part of the Point Reyes National Seashore wildness area). As such, all comments provided herein discuss GFNMS' jurisdiction, current regulations, policies and plans related to activities that would result from different adaptation strategies to address SLR.

It is understood that the purpose of the report is to present potential actions to accommodate (i.e. structure elevation), protect against (i.e. armoring), or retreat from the threats of SLR and that some community options may not be pursued. GFNMS has regulations that may prohibit some of the proposed community solutions that would result in a discharge into or alteration of the submerged lands of sanctuary waters.

With few exceptions, discharging or depositing any material or other matter is prohibited and thus is unlawful for any person to conduct or to cause to be conducted within the Sanctuary. Discharging or depositing, from beyond the boundary of the Sanctuary, any material or other matter that subsequently enters the Sanctuary and injures a Sanctuary resource or quality is also prohibited [15 CFR Part 922, § 922.82 (a)].

The National Marine Sanctuaries Act defines “injure” as “to change adversely, either in the short or long term, a chemical, biological or physical attribute of, or the viability of. This includes but is not limited to, to cause the loss of or destroy.” “Sanctuary quality” is defined as “any of those ambient conditions, physical-chemical characteristics and natural processes, the maintenance of which is essential to the ecological health of the Sanctuary, including, but not limited to, water quality, sediment quality and air quality” (15 CFR § 922.3).

These prohibitions in combination would apply to activities beyond the Sanctuary, in which matter could be discharged and ultimately enter the Sanctuary and cause injury, even in the short term. Such activities could include staging and construction that occur outside Sanctuary boundaries.

Constructing any structure other than a navigation aid on or in the submerged lands of the Sanctuary; placing or abandoning any structure on or in the submerged lands of the Sanctuary; or drilling into, dredging, or otherwise altering the submerged lands of the Sanctuary in any way is also prohibited [15 CFR Part 922, § 922.82 (a)].

As directed by the National Marine Sanctuaries Act, the primary mandate of the sanctuaries is protection of sanctuary natural and cultural resources and ecological values by protecting the estuarine and marine environment. We developed an Ocean Climate Initiative that focuses on partnerships to build ecosystem resilience and sustainability. One of the first things we did is facilitate the publication of Climate Impact Report for North-central Coast. Existing observations and science-based expectations were used to identify a suite of potential climate change impacts to habitats, plants, and animals. Then we collaborated with Point Blue and USGS to plan for both sea level rise and storm hazards by developing an online tool to help visualize and anticipate vulnerabilities of coast habitat to sea level rise and storms. Subsequent plans, documents and reports we facilitated the development of include the Climate Change Indicators and Monitoring Plan for North-central Coast; a Vulnerability Assessment for focal species, habitats, and ecosystem services; and the Adaptation Plan that is cited in the Report. We are applying the information we have obtained to prioritize natural resource protection and restoration.

Based on what has been learned, we are looking at ways to promote soft solutions, such as allowing for managed retreat of habitats and building green infrastructure; have identified locations where current hard structures may impact ecosystem resilience; and have identified strategies that are in direct conflict with sanctuary regulations and policies. Some community-wide solutions such as elevating/armoring roads or increasing coastal armoring may not be feasible or possible in areas where armoring or roads are abutting sanctuary boundaries. Below we identify some of the specific actions by location identified in the Community Alternatives section of the Report that we either strongly favor or need to be involved in due to potential regulatory constraints. For all the reasons stated above, it is therefore critical that we continue to be a project partner as final adaptation strategies are developed and specific options are chosen.

SPECIFIC COMMENTS ON THE PLAN

The text below provides: 1) comments on specific additions and deletions to the Report as proposed by GFNMS; and 2) comments related to specific priority actions. Strikethrough text is proposed for deletion. Text in [brackets] is proposed for addition.

Comment numbers added by Marin County staff for reference

Executive Summary

In order to provide succinct comments, we used the executive summary as a place to make some general comments that may apply to other sections.

1

On page 10, the Report states the following:

“Permitting remains a challenge as raising roadways typically requires expanding the roadway footprint and may impact existing natural areas.”

We agree with the statement and suggest considering adding the following statement before in order to be clear that permitting would not be possible where fully prohibited for archeological or natural resource protection reasons: *[In some locations, expanding the roadway footprint will not be possible.]*

We appreciate that the Report acknowledges GFNMS staff and the Climate-Smart Adaptation Working Group of the Greater Farallones National Marine Sanctuary Advisory Council starting as early as page 5 (Acknowledgements). On page 11 the Working Group report is specifically referenced as serving as the basis for natural resource strategies identified in the Report. The Sanctuary Advisory Council, not the sanctuary, formed the Working Group. It is an important distinction as federal law prohibits the sanctuary itself from forming Working Groups and for Working Groups to directly advise sanctuary staff. On Pages 55-56 (Methodology), the report does an excellent job of accurately describing the Sanctuary Advisory Council Working Group process. We have proposed the following changes to the language on the following pages in the executive summary to be consistent with the description in the methodology.

2

Page 11:

The ~~Greater Farallones National Marine Sanctuary (GFNMS)~~ Climate-Smart Adaptation Working Group [of the Greater Farallones National Marine Sanctuary (GFNMS) Advisory Council] developed a report (Appendix F) on potential strategic management actions which served as the basis for natural resource strategies identified in this report.

3

Page 18:

*Continue to work with the Sonoma/Marin County Sediment Management Working Group [of the Greater Farallones Sanctuary Advisory Council] to assist with the development of a Regional Sediment Management Plan for Marin and Sonoma’s outer coastline....
...The plan is being developed by the ~~Greater Farallones National Marine Sanctuary~~ [Working Group] in partnership with the Greater Farallones Association and funded by the California Natural Resources Agency.*

The community specific alternatives and highlights of the potential priority actions outlined on pages 12-15 are very useful and we agree that understanding the implications and tradeoffs of different approaches (protect, accommodate, or retreat) will require continued study and community dialogue around adaptation. We also agree that further analysis is necessary to fully assess specific costs considering implementation, environmental review, permitting, maintenance

and more. Additionally, some approaches may not be feasible for various reasons. It is important to message all these points to the West Marin community. GFNMS comments on specific actions are under the “*Asset Adaptations and Community Alternatives and Passport*” sections.

4

Page 14 is the first mention of a potential oyster reef as green infrastructure in Bolinas and on Page 18, Tomales Bay. It would be helpful to clarify that any oyster reef would be native species. We suggest adding the word [native] to all language related to oyster reefs. Please note that oyster reefs need to be carefully sited. Water flow, clarity and depth all play a role and there are likely only limited locations, especially in Bolinas Lagoon, where oyster reefs could work.

5

Under “Next Steps” on Page 16, the Report suggests developing an interagency SLR task force with representatives from various agencies who oversee West Marin assets to meet regularly to discuss options outlined in this report and prioritize recommendations. We highly recommend this action as a next step and request that we are part of the task force.

6

Thank you for acknowledging several management actions in Table 2 where GFNMS would be a potential partner. There are potential additional management actions that GFNMS would have a role related to parcels and transportation. In particular, GFNMS may have a regulatory or jurisdiction role in B-5—use Marin Map as a platform to show regulatory boundaries; and T-1—consider planning for Shoreline Highway and county maintained roads as part of the Regional Transportation Program.

Methodology

7

On page 53/54, please make the following change:

Meeting products were intended to mirror the deliverables produced by the Climate-Smart Adaptation Working Group convened by [the Greater Farallones Sanctuary Advisory Council] ~~NOAA staff~~ to inform the ~~Gulf of the~~ [Greater] Farallones National Marine Sanctuary.

Adaptation Framework

As mentioned in the first two pages of this letter, GFNMS has regulatory constraints related to strategies that would employ some sort of non-natural engineered structure(s) to defend development, be it a road or public or private property. GFNMS does not have a permitting mechanism to allow these activities for the sole purpose of public safety. The prohibitions are absolute and can only be authorized through a permit if the proposed action is for the purpose of research, education, salvage (i.e. vessels) or management of the sanctuary.

There are specific permit procedures and issuance criteria required by regulation that must be met in order to allow GFNMS¹ to permit actions under any of these categories. These regulatory requirements include, but are not limited to demonstrating that:

¹ Monterey Bay National Marine Sanctuary, which has jurisdiction of Muir Beach and is managed by GFNMS, has similar regulations related to permit issuance criteria.

- 1) The proposed activity will be conducted in a manner compatible with the primary objective of protection of sanctuary resources and qualities, considering the extent to which the conduct of the activity may diminish or enhance sanctuary resources and qualities, any potential indirect, secondary or cumulative effects of the activity, and the duration of such effects; and
- 2) The reasonably expected end value of the proposed activity to the furtherance of sanctuary goals and purposes outweighs any potential adverse effects on sanctuary resources and qualities from the conduct of the activity.

15 CFR Part 922, § 922.83

Due to these requirements, we recommend considering adding to the permitting discussion on pages 58-59 as follows:

Protect-Page 58

Implementing these strategies will likely follow a relatively traditional permitting process involving the local permitting agencies, CCC, California State Lands Commission, and for those located below Mean High Water (MHW) GFNMS and the U.S. Army Corps of Engineers (USACE)(ESA 2015). [Regulatory requirements may deem certain protection strategies unfeasible.]

8

Accommodate-Page 59

Structural adaptation can be applied to any parcel or infrastructure although the cost and technical feasibility of an effective modification would be required. Cost may be high depending on the density of development on the coast (ESA 2015). [Regulatory requirements may deem certain protection strategies unfeasible.]

9

Table 6- -Adaptation Strategies Characteristics

Page 61: Thank you for explaining how “legal acceptability” was determined for Table 6. We agree with the project’s staff interpretation of the California Coastal Act and the California Coastal Commission’s Sea Level Rise Policy Guidance. We recommend also considering GFNMS regulations when making the “legal acceptability” determination.

10

Pages 62-63: We noticed that political acceptability is blank for all categories pending a Board of Supervisors meeting in August. It may be helpful for the Board of Supervisors to understand what “low” legal acceptability means to help them determine political acceptability. For example, in some categories, it would actually take a regulatory change as opposed to a policy change.

11

Asset Adaptation

We support the two top priority actions for consideration listed on page 82. We agree that we should explore the feasibility of experimental and innovative coastal protection options, and where possible implement demonstration projects such as constructed wetlands/horizontal levees, offshore reefs/oyster beds, and dune restoration/beach nourishment. To the extent that these projects occur in sanctuary waters, we would support these coastal protection strategies to the extent that they also protect and or benefit sanctuary natural resources.

12

The other priority action is critical: participate and support existing local community programs, including but not limited to education, outreach, and emergency preparedness, that promote community resilience. To that end, we are currently working on a proposal to have a living shoreline workshop in the Bay Area, which would be great for community members to attend too, so that they can really understand their purpose, see the economic cost, and reduced maintenance benefits along with the obvious environmental benefits.

Community Alternatives and Passport

The West Marin Sea Level Rise Adaptation Poll provided in the community alternatives section and subsequent “Passport” and workshops are helpful to GFNMS staff in understanding the level of potential community support for each strategy as expressed as strong, moderate or little support. This, as indicator of public support, will help us with our education and outreach efforts, especially as it relates to priority actions in different West Marin communities. In our review of these strategies, we see that we are aligned with the represented community support in some locations, but not all locations, and we will keep that in mind as it relates to education and outreach efforts.

Below we highlight some of the key priority actions identified that are either strongly supported by GFNMS and we would like to be a partner, or specific actions that are a concern to GFNMS and need additional investigation due to current regulations aimed at protecting the natural resources of the sanctuary.

Stinson Beach and Bolinas

Thank you for pointing out that some of the community alternatives related to “protection strategies” for offshore structures are currently prohibited by GFNMS regulations. Other protection activities that might be prohibited depending on design include: 1) Extending revetment along Stinson Beach and 2) Elevating Shoreline Highway and Calle del Arroyo.

13

In order to be useful, revetment is traditionally placed within mean high water. GFNMS regulations prohibit the placement of revetment within its boundaries. Elevating roads is strongly supported by the community and is also preferred by GFNMS in Bolinas to allow for wetland migration. Causeways that extend the footprint in projected areas that will become mean high water due to SLR or road realignments where road elevation does not shirk the footprint of GFNMS would likely be allowed. When designing a new road (slope/shoulder in the sanctuary etc), GFNMS would need to be actively involved. We would also be involved in reviewing construction site set-up and risk of materials entering the sanctuary when a project goes from a design phase to an implementation phase.

Tomaes Bay

Thank you for pointing out that some of the community alternatives related to “protection strategies” for wetland enhancement that may be prohibited by GFNMS regulations.

14

GFNMS agrees with the community as strongly opposed to permitting houseboats on Tomaes Bay. The Report cites that it is not recommended due to strong wind and wave action during storms, and lack of houseboat marinas and services. The strong wind and wave action also

increases the chance for marine accidents (vessels going adrift, which is prohibited in GFNMS). Additionally, houseboats can increase the threat of discharges and the potential for increased marine debris because of increased, sustained human activity on the Bay.

15

The strategy to accommodate boat moorings once marinas become unusable is consistent with GFNMS regulations. The mooring program is fully implemented and all moorings (except for a few that have been referred to enforcement personnel) that are currently in Tomales Bay are either in application for a State Lands Commission Lease, have received a State Lands Commission lease, or are permitted for removal by GFNMS by the owners. However, removal by owners who chose to no longer moor due to costs and requirements were less than 5 individuals who contacted GFNMS. GFNMS ended up covering the cost of removing 30 abandoned mooring systems, about 10 “placeholder moorings” (small weights and Danforth anchors that could be removed by hand) and 2 abandoned vessels by November 2016. Although the abandoned moorings could have been due to costs/requirements, that abandonment occurred prior to the publication of the Report. Therefore, we suggest the following changes to the language related to this item:

Page 191: In 2014, GFNMS and State Lands Commission commenced the Tomales Bay Mooring Program to permit and lease moorings in Tomales Bay. [By November 2016 all abandoned moorings were removed by GFNMS, which contributed to the decrease in the total number of moorings.] [Although this decrease could be] ~~Due to the program's costs and requirements, it is expected that a year from now there will be even fewer~~ [this action freed up space for more] moorings on the Bay.

16

A native oyster reef demonstration project that also restores native oysters and does not impact or reduce the current extent of the eelgrass beds is a project that GFNMS could strongly support and could provide information to help inform the most ideal locations.

17

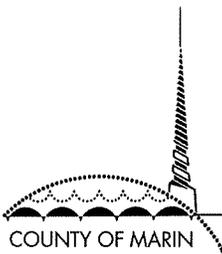
Finally, elevation of shoreline highway as outlined on Page 201 could be supported by GFNMS in Tomales Bay to allow for wetland migration with all the caveats given in the Bolinas section of this letter.

GFNMS commends efforts of the Sea-Level Marin Adaptation Response Team and the Marin County Community Development Agency in providing a draft report with a clear goal of addressing SLR through the public process. We look forward to working with you as an active partner and appreciate this opportunity to comment on the Adaptation Report, which my staff and I found very informative. Please contact me or Karen Reyna at 415-970-5247 if you have any questions. Thank you.

Sincerely,



Maria Brown
Sanctuary Superintendent



June 21, 2017

Danielle Boudreau
Coastal Resilience Specialist, Coastal Training Program
Tijuana River National Estuarine Research Reserve
301 Caspian Way
Imperial Beach, CA 91932

Re: Support for Tijuana River National Estuarine Research Reserve Science Transfer Grant Proposal

Dear Science Transfer Grant Proposal Review Team,

The County of Marin is at the leading edge of addressing sea level rise in coastal California, having completed both a Vulnerability Assessment and Adaptation Report that highlight millions of dollars of homes, businesses and infrastructure at risk, as well as hundreds of acres of sandy recreational beaches wetlands, and other critical habitat areas.

Protecting and conserving these resources is a challenge of the highest order, but the knowledge, and capability to do so at the local government level, while growing, is limited, and in great need of collaborating and sharing experience among all active in the field. The very title of the County's coastal adaptation program *Collaboration: Sea-level Marin Adaptation Response Team (C-SMART)* emphasizes that necessity. We have a highly productive history of working collaboratively with local, state, and federal agencies toward shared objectives. Thus Marin County offers a supportive, perfect laboratory for demonstrating the efficacy and importance of cooperating in National Estuarine Research Reserve Science Transfer projects. Marin has made nature-based solutions an overriding focus of our work, as evidenced by the examples cited below, to name just a few. We stand ready to continue to use science to push the envelope of what can be achieved through natural infrastructure.

- *Bolinas North End Wetlands Enhancement and Sea Level Rise Adaptation Project*
- *Bolinas Kent Island Restoration*
- *Aramburu Island Enhancement Project*
- *McInnis Marsh Restoration*
- *Bay Living Shorelines Project*
- *Marin/Sonoma Regional Sediment Management Plan*
- *Nature Conservancy Coastal Natural Infrastructure Project*

The work to be accomplished through the Tijuana River National Estuarine Research Reserve Science Transfer Proposal will complement these and other nature-based solutions being worked on in Marin, and has huge potential to advance the knowledge and practice of such vital alternatives in order to benefit all of coastal California. The proposed workshops would extend the understanding, expertise, innovation and collaboration required by the new challenges we face. We strongly support this project and hope you will partner with us to advance the critical science of natural infrastructure.

Sincerely,



Jack Liebster
Program Manager
C-SMART
County of Marin



Max Korten
Director, Marin County Parks

West Marin Environmental Action Committee



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Jessica Reynolds Taylor
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Catherine Caufield
Tomales Dunes Consultant

June 23, 2017

Marin County Community Development Agency
Attn: Alex Westhoff, AICP, Planner
Via electronic mail: awesthoff@marincounty.org

Re: EAC Comments on the Marin Ocean Coast Sea Level Rise Adaptation Report Public Review Draft, May 2017

Dear Mr. Westhoff:

The Environmental Action Committee of West Marin (EAC) offers the following comments on the *Marin Ocean Coast Sea Level Rise Adaptation Report Public Review Draft*, May 2017 (Adaptation Report). EAC is pleased to continue our involvement on this important issue. For background, our former Executive Director, Amy Trainer, served on the C-SMART Stakeholder Advisory Committee to represent environmental concerns. In addition, EAC's work on the Marin County Local Coastal Program Amendments (LCPA) has also informed our knowledge on this topic, especially our work on the Environmental Hazards sections. EAC is also part of the Greater Farallones National Marine Sanctuary's coastal sediment management plan working group.

As an overall comment, the Adaptation Report presents many good proposed solutions and strategies for adaptation to sea level rise. The following are a few examples of some of the stronger aspects of the Adaptation Report and areas of alignment with EAC's climate change principles. EAC supports Marin County (County)'s commitment to beginning "adaptation planning, and initial plan implementation...now..." and refining the planning process as "...more information becomes available."¹ A timeline might be helpful to help illustrate when updates to the Adaptation Report and process will take place. The inclusion of the public trust doctrine section, beginning on page 77 of the Adaptation

¹ Adaptation Report, page 36. EAC also supports the Governor's following statement included in the Adaptation Report: "California must begin now to adapt and build our resiliency to coming climate changes through a thoughtful and sensible approach with local, regional, state and federal government using the best available science." (Adaptation Report, page 9: California Governor's Executive Order #S-13-08, November 2008)

Report, is helpful for the public's understanding but could be expanded to better explain the potential implications.

EAC does recommend a few revisions to the Adaptation Report, which will be discussed in further detail below: 1) a stronger emphasis on the existing regulatory and statutory framework and what solutions are viable under this framework, 2) a focus on the natural infrastructure solutions rather than armoring the coast, 3) a stronger focus on transportation and infrastructure planning, 4) resolving any inconsistencies in the Adaptation Report and between other local sea level rise planning projects, 5) working to secure additional funding for this work, 6) continued public involvement and participation in this process, and 7) editorial revisions.

- 1) The Adaptation Report Needs to Place a Stronger Emphasis on the Existing Regulatory and Statutory Framework and What Solutions are Viable Under this Framework.

The Adaptation Report needs to emphasize that Coastal Act Section 30231 is a mandate and needs to be an integral part of the discussion of each suggested strategy and management action:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health *shall* be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams. (emphasis added).

In addition, Section 30235 of the Coastal Act limits or prohibits shoreline armoring. Building upon the Coastal Act's mandates, it would be helpful if the Adaptation Report separated strategies and management actions that are precluded by law or regulation versus actions are currently feasible.

Regarding the Adaptation Report's organization, the report currently mixes the precluded actions with the viable actions, which EAC is concerned will confuse the public, waste valuable effort, and divert attention away from the real choices. For example, the Adaptation Report includes repeated references to shoreline armoring; discussion of artificial reefs in the Greater Farallones National Marine Sanctuary², including Tomales Bay; expansion of the Seadrift revetment³; and levees. Another example of the inclusion of potentially precluded actions is the inclusion of the entire Environmental Hazards chapter from the LCPA submission.⁴ The previously submitted

² See Adaptation Report, page 184.

³ See Adaptation Report, page 56.

⁴ The Environmental Hazards chapter of the LCPA is referenced throughout the Adaptation Report, but the chapter is not actually included in Appendix B. This makes it difficult for the public to comment on the full Adaptation Report. Perhaps, the County's intention is to include

County version of the LCPA Environmental Hazards sections has already been rejected three times by the Coastal Commission, so it does not make sense to include the County version in the Adaptation Report.

As suggested in the Passport Survey, “*A Homeowner’s Guide to Preparing for Sea Level Rise*” could be an additional way to better inform the public of their present options and when permits are required. This could also be a good tool to help the public navigate the updated permitting process following the final certification of the LCPA.

Regarding potential management strategies, EAC agrees with the following recommendation presented by the Greater Farallones National Marine Sanctuary Advisory Council in Appendix F:

“The Working Group recommends that regional partners consider the following as they view and reference this effort: 1) All strategies should be implemented with metrics for monitoring and evaluation of efficacy.”⁵ Scientific consistency and accuracy is important as we embark on new territory in dealing with the challenges of sea level rise. Monitoring is also a critical aspect of sea level rise planning.

2) EAC Recommends Prioritization of Natural Infrastructure Solutions Rather than Armoring the Coast.

EAC recommends prioritization of natural infrastructure solutions rather than armoring the coast, which in many cases is not compliant with the Coastal Act.⁶ Regarding nature-based monitoring for eelgrass habitat⁷, EAC has recently become aware that the Nature Conservancy is partnering with Hog Island Oyster Company and UC Santa Cruz on a 2-year eelgrass and aquaculture study. Dr. Ben Becker at Point Reyes National Seashore is also doing eelgrass research. Perhaps, references to these research studies could be included in the Adaptation Report in case any applicable sea level rise adaptation solutions arise from the research. In addition, some of the research groups might be potential partners.

As an overall comment, coastal resource impacts must be mitigated as we plan for sea level rise.

3) The Adaptation Report Should Prioritize Transportation and Infrastructure Planning.

Transportation will be significantly affected by sea level rise, including routes on Calle Del Arroyo, Highway 1 along Bolinas Lagoon and Tomales Bay, and stretches of Sir Francis Drake Boulevard. The transportation discussion in the Adaptation Report should be brought to the forefront, as many of the other strategies (i.e. building elevation) will be meaningless without functional roads and infrastructure. In some cases, strategies for protecting private homes may vary depending on which strategies are chosen for transportation infrastructure.

the final Coastal Commission certified Environmental Hazards chapter at a future date, which would be logical. This could be clarified.

⁵ Adaptation Report, Appendix F: *Climate Smart Adaptation for North-Central California Coastal Habitats*, page 8

⁶ See Coastal Act Section 30235.

⁷ Adaptation Report, page 25 (N-3). The potential partners could be expanded.

Without viable transportation adaptation strategies, management actions might result in literal islands within and among West Marin communities. One example of this is the issue of Calle Del Arroyo. The appropriate, or even feasible, adaptation strategies for the Calles and Seadrift are highly dependent on the strategy chosen for keeping Calle Del Arroyo viable. A similar issue exists for parts of Highway 1 along Bolinas Lagoon and Tomales Bay.

EAC recommends that the County work collaboratively with the applicable transportation authorities, including TAM, MTC, and Caltrans to come up with viable transportation solutions and the required funding to address the transportation issues. The interagency sea level rise task force sounds like an excellent idea, as the planning will require collaboration by multiple agencies and between both the BayWAVE and the C-SMART planning teams.

EAC agrees that an important piece of transportation planning for sea level rise is the inclusion adequate warnings and signage (perhaps automated signage for quick changes).⁸ Even this past winter, signage was lacking around flooding issues.

4) The Adaptation Report Contains Internal Inconsistencies, and also is Inconsistent with Some Other Local and Regional Planning Projects.

It is important that the Adaptation Report is both internally consistent and that adaptation planning is consistent across the County and ideally statewide.

One inconsistent reference in the Adaptation Report is that footnote 10 on page 36 of the report references a study from San Diego, which assumes five feet of sea level rise versus the three feet of sea level rise that is assumed in the Adaptation Report.

Regarding other local projects like the Caltrans Green Bridge project, the Adaptation Report states that this replacement bridge project includes sea level rise planning.⁹ However, this does not appear to be the case based on information provided at the public meeting held on May 10, 2017 in Marshall.

In addition, the County's Bolinas Lagoon North End project uses higher sea level rise estimates than those presented in the Adaptation Report.

5) EAC Recommends that Marin County Focuses its Efforts on Securing Additional Funding, as the Lack of Funding is a big Impediment to Additional Work on this Important Issue.

The Adaptation Report should more clearly highlight any potential funding sources and plans to secure additional funding.

⁸ Adaptation Report, page 10 and page 22 (T-6).

⁹ See Adaptation Report page 15.

6) Public Participation Should Continue to be a Vital Part of this Process.

Public participation is a key part of this discussion and should continue. We appreciate your efforts to engage the public, and we provide a few recommendations to strengthen those efforts. Adequate and timely notice is necessary for all public meetings. There was some confusion around the dates and address locations for the recent June meetings for the Adaptation Report, as well as a lack of advance notice. As a result, the meeting in Stinson Beach was very poorly attended, with only two people from the Bolinas community. It is critical that the full community is able to participate in these discussions, as the community members will be affected by sea level rise planning. It is also important that the environmental community continues to play a role, alongside the agencies.

A longer comment period may have allowed for additional and more thoughtful public participation. All comments submitted should also be made publicly available. The Passport survey is a great way to get the public involved, but we recommend wider distribution and a longer time period.

7) Editorial Comments

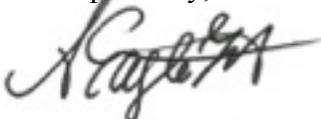
There is a typo on page 10 of the Adaptation Report. The following sentence is missing words: “In the medium- to long-term, communities will need to consider the tradeoffs, of various adaptation approaches, and decide *whether remain in current* location or consider relocating to safer areas.” (emphasis added)

In addition, figures 4 and 5 on page 66 of the Adaptation Report lack clarity. It is important that all figures and information is presented in a way that is easy for the public to understand.

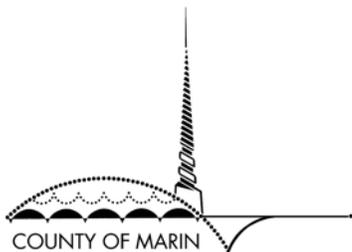
8) Conclusion

Thank you for your continued hard work on this important issue, and for the opportunity to comment. We plan to continue our participation in the County’s climate change work and look forward to further discussions on these topics. It is our hope that with continued work and discussions, the County can work collaboratively to develop a precedent setting, comprehensive, and forward thinking planning document that provides real adaptive solutions to the challenges raised by sea level rise.

Respectfully,



Ashley Eagle-Gibbs
Conservation Director



July 19, 2017

Ashley Eagle-Gibbs
Conservation Director
West Marin Environmental Action Committee
Email: ashley@eacmarin.org

Sent Via Email

Dear Ashley,

On behalf of the Marin County Community Development Agency (CDA) I would like to thank you for the June 23, 2017 comment letter on the Public Review Draft *Marin Ocean Coast Sea Level Rise Adaptation Report (Report)*. Public comments have been integrated into the draft *Report* which will be presented to the Marin County Board of Supervisors (BOS) on August 1, 2017. We invite you to attend this workshop as an opportunity for continued input on West Marin sea level rise adaptation.

We appreciate the West Marin Environmental Action Committee's (EAC) involvement in C-SMART to date through Stakeholder Advisory Committee representation, public workshop participation, and Report review. We hope to continue this working relationship as West Marin adaptation strategies are further advanced.

Comment letter responses are as follows:

EAC Comment: A timeline might be helpful to illustrate when updates to the Adaptation Report and process will take place.

CDA Response: While CDA is committed to continued West Marin adaptation planning, specific next steps are at the discretion of the Marin County BOS and have not yet been formalized. We encourage you to attend the aforementioned BOS workshop to provide input on next steps.

EAC Comment: The Adaptation Report Needs to Place a Stronger Emphasis on the Existing Regulatory and Statutory Framework and What Solutions are Viable Under this Framework.

CDA Response: Table 6 includes a legal acceptability column which reflects CDA staff interpretation of the California Coastal Act and the *California Coastal Commission's Sea Level Rise Policy Guidance*. Specific future projects outlined in the Report would be subject to the Local Coastal Plan and/or FEMA National Flood Insurance Program requirements. Staff of the Coastal Commission and the Greater Farallones National Marine Sanctuary (GFNMS) have been closely involved in Report development. Additionally, GFNMS staff provided detailed

comments on specific locations where strategy implementation may not be consistent with their regulations which have been integrated into the Draft *Report*.

EAC Comment: EAC Recommends Prioritization of Natural Infrastructure Solutions Rather than Armoring the Coast.

CDA Response: While specific adaptation strategy evaluation processes are yet to be determined, Table 6 identifies public benefits of each strategy to inform prioritization. As illustrated, nature-based solutions generally have more public benefits than hard protection measures such as armoring and therefore will likely receive higher prioritization.

EAC Comment: The Adaptation Report Should Prioritize Transportation and Infrastructure Planning

CDA Response: The *West Marin Sea Level Rise Adaptation Plan Passport*, a stakeholder survey to gauge community input on C-SMART Next Steps, included several possible options for transportation and/or infrastructure planning. Upon preliminary review of results, transportation/infrastructure related concepts which received high support include:

- Initiate Community Plans for Adapting to Coastal Hazards (Community PATCHs) in conjunction with community members and asset managers for smaller scale planning centered around vulnerable assets of community wide importance.
- Consider sea level rise in capital improvement projects (roads, utilities, armoring, etc.)
- Develop an interagency sea level rise task force with members including County Supervisors and agencies who oversee West Marin assets (transportation, utilities, public lands, natural resource, etc.).

Due to the high support received, CDA staff plan to recommend moving forward with these options. As specific next steps are at BOS discretion, we encourage you to attend the 8/1 workshop to further express your support for prioritizing transportation and infrastructure planning.

EAC Comment: The Adaptation Report Contains Internal Inconsistencies, and also is Inconsistent with Some Other Local and Regional Planning Projects.

CDA Response: Currently no statewide effort has been organized for consistent sea level rise scenario planning across jurisdictions, and decisions on what sea level rise scenarios to use are at the discretion of local governments.

CDA staff were not in attendance at the Caltrans May 10, 2017 public meeting but we have removed reference to Green Bridge project sea level rise planning. However, we have contacted Caltrans staff in an effort to initiate ongoing dialogue about continued planning for West Marin roadways within their purview.

CDA staff is working closely with County Parks staff on the Bolinas Lagoon North End project. North End project projections include 2 feet by mid-century and 5.5 feet by the end of the century, while the highest C-SMART scenario is 80 inches (≈6.6 feet) with the 100 year storm. A possible source of confusion is that North End projections are expressed in NAVD88, as sea level rise + MHHW, and thus the Late Century Value is 11.1 feet NAVD88. While C-SMART scenarios represent the amount of sea level rise above MHHW. The MHHW elevation was not defined in the C-SMART report and thus C-SMART scenarios are not represented in NAVD88.

EAC Comment: EAC Recommends the Marin County Focuses its Efforts on Securing Additional Funding, as the Lack of Funding is a big Impediment to Additional Work on this Important Issue.

CDA Response: CDA staff concur that lack of funding is a major obstacle and will bring up to the BOS at the 8/1/17 workshop.

EAC Comment: Public Participation Should Continue to be a Vital Part of this Process

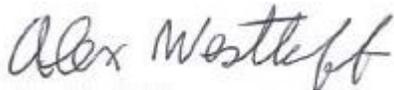
CDA Response: We anticipate the Board will direct CDA staff will continue to integrate public participation throughout all phases of C-SMART.

EAC Comment: Editorial Comments

CDA Response: The page 10 typo has been fixed. We are also working on improving all graphics in the document for a visually pleasing final product.

Thank you again for the comment letter. Please contact me at any time with any additional questions or comments.

Sincerely,

A handwritten signature in black ink that reads "Alex Westhoff". The signature is written in a cursive, slightly slanted style.

Alex Westhoff
Planner

CC: Jack Liebster
Brian Crawford
Dennis Rodoni