

**REF120051 (Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection
Structure, and Interim Sandbar Management Plan Project)
CEQA Comments regarding Draft EIR**

Review period of December 2, 2016 through January 31, 2017

1. January 2, 2017 – Barbara Livingston, on behalf of the Carmel Residents Association
2. January 4, 2017 – Anita Crawley
3. January 7, 2017 – Robert Faussner
4. January 9, 2017 – Steve Polkow
5. January 9, 2017 – Dan Cooperman
6. January 14, 2017 – Paul Deering
7. January 15, 2017 – Sally Baumgartner
8. January 17, 2017 – Pavel Zakusilo, State of California Dept of Water Resources, Division of Flood Management
9. January 18, 2017 – Barbara Buikema, Carmel Area Wastewater District
10. January 19, 2017 – Annalisa Deering
11. January 19, 2017 – Charles & Ameer Kittrell and Dr Dancy Kittrell
12. January 19, 2017 – Robert Siegfried
13. January 20, 2017 – Phil & Teresa Quigley
14. January 22, 2017 – Kurt Jagers
15. January 25, 2017 – Marc Wiener, Community Planning & Building Director, City of Carmel-by-the-Sea
16. January 27, 2017 – Morgan Gilman, CSA-1 Advisory Committee
17. January 28, 2017 – Lorin Letendre, Carmel River Shed Conservancy
18. January 28, 2017 – Paul Ingemanson
19. January 29, 2017 – Brian LeNeve, President Carmel River Steelhead Association
20. January 30, 2017 – Bonnie Gillooly
21. January 30, 2017 – Afifa Awan,, California State Lands Commission
22. January 30, 2017 – Mike Niccum, Pebble Beach Community Services District
23. January 30, 2017 – Alice & Donald Brown
24. January 31, 2017 – Morgan Gilman
25. January 31, 2017 – Fred Brown
26. January 31, 2017 – Sandra Schachter, Carmel Valley Association
27. January 31, 2017 – Lance Monosoff
28. January 31, 2017 – Samara Moliter, California Department of Fish & Wildlife, Marine Region
29. January 31, 2017 – Trish Chapman, State Coastal Conservancy
30. January 31, 2017 – Larry Hampson, Monterey Peninsula Water Management District
31. January 31, 2017 – Rachael McFarren, Stamp Erickson Attorneys at Law
32. January 31, 2017 – Julie Weakland, Carmel Unified School District
33. January 31, 2017 – Tony Rossmann, The Friends of Carmel River Lagoon
34. January 31, 2017 – Kim Sanders, Central Coast Regional Water Quality Control Board
35. January 31, 2017 – Tina O'Brien, Fenton & Keller
36. January 31, 2017 – Jacqueline Zischke
37. January 31, 2017 – Deborah Dillon-Adams

38. January 31, 2017 – Barbara Buikema, Carmel Area Wastewater District
 39. January 31, 2017 – Nicholas Whipps, Wittwer Parkin LLP
 40. January 31, 2017 – Mike Watson, California Coastal Commission
 41. January 31, 2017 – Michael Mcomber
 42. January 31, 2017 – Carmel Point & Lagoon Preservation Association, Attn Annette Thorn
 43. January 31, 2017 – Brent Marshall, California Department of Parks & Recreation
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44. February 1, 2017 – Sophie De Beukelaer, United States Department of Commerce, National Oceanic & Atmospheric Administration, Monterey Bay National Marine Sanctuary (**Outside of review period**)
45. February 1, 2017 – Amy Palkovic, California State Parks, on behalf of Freya White-Henry (**Outside of review period**)



Carmel Residents Association

P.O. Box 13 Carmel California 93921
❖ (831) 626-1610

January 2, 2017



Attn: Ms. Melanie Beretti, Special Programs Manager
Monterey County – Resource Management Agency
168 W. Alisal, 2nd Floor
Salinas, CA 93901

Subject: Draft EIR – Carmel Lagoon Ecosystem Protective Barrier &
Scenic Road Protective Barrier Projects

Ms. Beretti:

The Carmel Residents Association would like to comment on the Carmel Lagoon Draft Environmental Impact Report (EIR) posted on the County website. The all-volunteer Carmel Residents Association is a civic and social organization which strives to protect the residential character of the village. We are a non-profit 501(c)(4) Public Benefit Corporation, organized under the laws of the State of California. Our mission statement is this: The Carmel Residents Association is committed to the protection and enrichment of the traditional quality of life in Carmel-by-the-Sea and the preservation of its heritage and natural beauty through education, community activities and advocacy.

The proposed project in the Carmel Lagoon certainly has the potential to impact all of the residents of the City of Carmel-by-the-Sea.

Our comments on the EIR include the following:

- The EIR fails to address the potential economic and financial impact to ratepayers of the Carmel Area Wastewater District and to the taxpayers that support the Carmel River Elementary School. Both of these facilities would be subject to potential flooding issues and the loss of property caused by the operation of the proposed project. Flooding could affect the ability of the wastewater district to manage incoming wastewater, which is an essential service for Carmel residents. Harm to the district facilities and operations would be very undesirable and should be avoided at all costs. Both the wastewater district and the elementary school would likely pass along the costs of flood damage and flood defense to the residents of Carmel-by-the-Sea. That would not be fair. The project



sponsors should pay for the costs of flood defense and flood damage. If the project is going to cause harm, the project sponsors should be solely liable. The residents of Carmel are dependent upon the health and continued viability of both of these public entities. The economic impact to the community from the loss or impairment of either of these facilities surely would be significant.

Further, the impacts to public health and our environment of the cessation of the operation of the wastewater facilities -- even a temporary cessation -- would be potentially very significant. None of those impacts have been explained or addressed in the Draft EIR even though it admits that the Lagoon project would cause flooding at the wastewater plant.

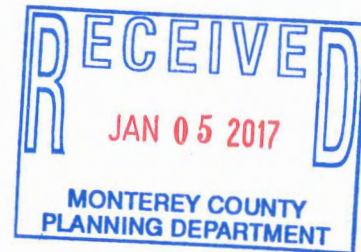
- The EIR does not address any alternatives that would maintain river flow year round. A river that had constant flow would result in a more natural environment and less need for management. It would also not require the construction of a wall for lagoon management purposes.
- The EIR does not address flooding impacts to public facilities. A designation that it is "Significant and unavoidable" reflects a lack of serious study into the issues in the Carmel River and Lagoon area. Neither the elementary school nor the wastewater facilities are protected by flood diversion walls or levees. The playing fields at the elementary school risk inundation. The wastewater treatment facility certainly cannot operate under flood conditions. Both of these public agencies are critical to the health and safety of our community. More than 16,000 residents of the Carmel area would be impacted with the loss of these facilities, not including the visitors upon whom our area depends as our economic driver.
- Elevated lagoon levels could potentially cause the migration of threatened or endangered species that currently live in the lagoon towards areas where there are homes, schools, churches, resorts, and public facilities like the wastewater district. The EIR does not address the impact on local properties from the invited migration of these species.
- The EIR does not address what the lagoon water surface elevations would lead to without active management which would create an unacceptable level of risk to the community health, safety and welfare of our residents.
- The Carmel Area Wastewater District benefits the entire community by reducing the draw on the Carmel River. It supplies 100% of the Reclaimed water that is utilized by the golf courses in Pebble Beach. If that Reclamation service is affected, that likely would mean the golf courses would need to replace the Reclaimed water with fresh water to irrigate the golf courses. That could mean increased pumping by California American Water from the Carmel River Aquifer or the Seaside Basin, which could violate the Cease & Desist Order and the Seaside Basin adjudication.

This project has the potential to disrupt the quality of life that we currently enjoy in Carmel. A loss of the services that we enjoy from the school district, Carmel Mission Ranch, and the Wastewater treatment facility would have significant and lasting impacts on the community. Each of these facilities has many more years of service to offer the community and provide both direct and indirect benefits to the residents who live here and those who visit.

CRA supports the preservation of habitat for the fish and other wildlife in the lagoon. However, CRA is concerned that the County has not addressed the unintended consequences of this particular Lagoon project on the community. CRA urges the County to slow down and address these issues carefully, before proceeding.

Sincerely

Barbara Livingston, President
Carmel Residents Association

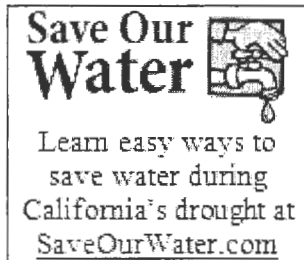


From: Robinson, Delinda x5198
Sent: Thursday, January 05, 2017 1:40 PM
To: acrawley@comcast.net
Cc: Beretti, Melanie x5285; Friedrich, Michele x5189
Subject: FW: Feedback for Monterey County, CA RE: REF120051 - Carmel Lagoon Draft EIR

Ms. Crawley,

Thank you for your comment on the Carmel Lagoon Draft EIR. We appreciate your participation in this environmental review process.

Delinda Robinson
Senior Planner
Monterey County RMA-Planning Department
168 West Alisal Street, Second Floor
Salinas, CA 93901
(831) 755-5198



Website: www.co.monterey.ca.us/planning
To access our permit database, please go to: <https://aca.accela.com/monterey/Default.aspx>

From: Anita Crawley [mailto:acrawley@comcast.net]
Sent: Wednesday, January 4, 2017 6:51 PM
To: Monterey County Webmaster <webmaster@co.monterey.ca.us>
Subject: Feedback for Monterey County, CA

You have received this feedback from Anita Crawley <acrawley@comcast.net> for the following page:

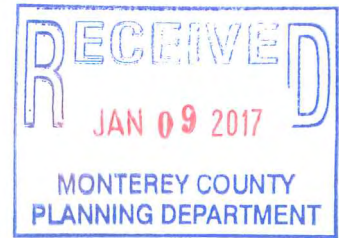
<http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road--4025>

I am totally opposed to placing any structure and/or pump in the wetlands. I live a few feet from the proposed pump location.....the visual and noise pollution would seriously compromise the value of my property and the incredible joy I experience living at this location.

Anita Crawley

Gonzales, Eva x5657

From: rfaussner@aol.com
Sent: Saturday, January 07, 2017 3:01 PM
To: ceqacomments
Subject: Draft EIR - Carmel River Lagoon comments



Melanie Beretti
Monterey County Resource Management Agency

I own a home in Carmel and daily go by the Carmel River Lagoon and often use the Beach.

I have reviewed the Draft EIR.

I support the Construction of the Scenic Road Protective Structure and the Sandbar Management Plan with no so-called Ecosystem Protective Barrier (EPB), which would be a environmental, cultural, traffic, land use and aesthetic disaster.

I see no benefit in postponing the conclusion that the EPB is a environmental and aesthetic disaster for 8 years.

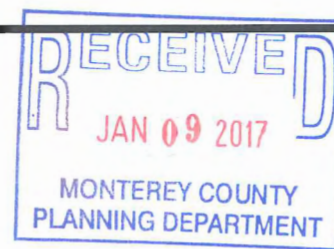
Thank you for your consideration.



Robert Faussner

Gonzales, Eva x5657

From: Steve Polkow [polkowsteve@riainc.net]
Sent: Monday, January 09, 2017 1:15 PM
To: ceqacomments
Subject: Draft EIR



Dear Ms. Beretti

As a resident of Monterey County and a concerned citizen, I am writing to you to support the conclusions of the Draft EIR related to the Sandbar Management of the Carmel River and Lagoon. The Draft EIR provides useful support for the position that construction of the EPB is environmentally counterproductive and would create an unnecessary and irreversible blight on the lagoon. Further, the advantages of eliminating the EPB will likely be even greater than the Draft EIR recognizes in areas where the report relies on unproven mitigations. Needless to say, there are reasonable concerns that the EPB would even be effective!

I strongly believe that a new sandbar management plan presented in conjunction with the elimination of the EPB as an option represents the best solution in this complex and sensitive matter. Thus, I support the Draft EIR's conclusion that the no-EPB alternative (B) is environmentally superior and would fully achieve project objectives and eliminate any option, at any time for an EPB.

Respectfully,
Steven Polkow
26478 Carmelo St
Carmel, CA.

Gonzales, Eva x5657

From: Dan Cooperman [dcooperm@me.com]
Sent: Monday, January 09, 2017 6:14 PM
To: ceqacomments
Subject: Draft EIR- Carmel River Lagoon
Attachments: Comment Letter -Carmel Lagoon.pdf



Dear Ms. Beretti,

I am pleased to submit the attached comment letter on the Draft EIR for the Carmel River Lagoon. I have also mailed you the original signed comment letter.

Thank you for your assistance in this process.

Dan Cooperman

Daniel Cooperman
26359 Carmelo Street
Carmel, CA 93923
T: 831.624.7962
M: 650.619.1400

Dan and Linda Cooperman

26359 Culebra Road
Carmel, California 93923
Phone: (831) 624-7962
E-Mail: lscphd@att.net

January 9, 2017



BY EMAIL AND U.S. MAIL

Monterey County Resource Management Agency
Attn: Melanie Beretti, Special Programs Manager
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

File Number: REF120051
Comments on Draft Environmental Impact Report

Ladies and Gentlemen:

Thank you for this opportunity to comment on the Draft Environmental Impact Report (Draft EIR) for the Carmel River Lagoon Ecosystem Protective Barrier (EPB). While the Draft EIR and proposed project includes two additional components, the Scenic Road Protection Structure and the Interim Sandbar Management Plan, our comments pertain to the EPB.

For the reasons enumerated in the Draft EIR, we support the County's selection of "no EPB" as the environmentally superior alternative among the alternatives considered to achieve the objectives of the project. As noted in the Draft EIR, the "no EPB" alternative would result in "reduced construction impacts associated with aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services/utilities/recreation and traffic. *Most importantly, eliminating the proposed EPB project component would avoid significant and unavoidable impacts to aesthetics, hydrology and noise.*" We wish to comment on these significant and unavoidable impacts.


The Significant and Unavoidable Impacts Identified in the Draft EIR

- Aesthetics. The Draft EIR finds that "the proposed EPB project component would permanently degrade the visual character of the site and the surrounding area." Indeed, there can be little doubt that the construction of a sheet pile wall at a height of 17.5 feet in elevation and a length of 2000 linear feet would dramatically and permanently detract from the natural beauty of the current unspoiled setting of the Carmel River Lagoon, inserting a highly visible and unsightly man-made structure into an environmentally sensitive location cherished by residents and visitors alike.

- Hydrology. The report concludes that the operation of the proposed EPB would result in significant and unavoidable impacts to flooding on- and off-site. In particular, we are concerned about the impact of the EPB on neighborhood drainage patterns, particularly since the report observes that “[t]here are no feasible mitigation measures for impacts to drainage pattern alterations associated with the operation of the proposed EPB.” Our house, and many other houses on Carmelo Street and the streets above it, discharge runoff into the lagoon. Due to the lagoon’s lower elevation compared to the surrounding area, runoff from throughout the neighborhood enters the lagoon. We are concerned that after construction of the EPB this runoff will pool outside the barrier, potentially causing new flooding and erosion problems and irreversibly changing drainage patterns in unanticipated ways.
- Noise. The Draft EIR acknowledges that operation of the EPB, specifically the pump station and the control building/emergency generator, would “result in a substantial permanent (i.e., long-term) increase in ambient noise levels, and would exceed noise level standards and/or result in nuisance impacts at sensitive receptors.” As homeowners who would be in close proximity to the proposed location of pump station, we are highly alarmed at the prospect of introducing this potentially injurious and invasive condition into our living environment day and night, particularly since we understand that it would be a permanent condition, and not one not susceptible to improvement.

In sum, as residents of property adjoining the lagoon we are most troubled by the unavoidable adverse impacts of the EPB cited in the Draft EIR as noted above. In addition, the Draft EIR recognizes that the EPB could also produce significant impacts in a number of other areas, including biological, cultural, traffic, and land use, as well as alteration of drainage patterns. The report claims these impacts from the EPB can be mitigated to a “less than significant” level. However, some proposed mitigation measures appear to be either vaguely defined or not supported by data. As a result, the real advantages of eliminating the EPB may be even greater than those recognized in the Draft EIR. We wholeheartedly endorse the County’s “environmentally superior alternative” of no EPB. While we also acknowledge that the “Delayed EPB Alternative” described in the Draft EIR would be preferable to proceeding with the EPB now, the County’s preferred approach of eliminating the EPB altogether is the superior alternative.

Very truly yours,


Daniel Cooperman



PAUL DEERING

26395 Carmelo Street
Carmel, CA 93923

paul@deeringdesign.com



January 14, 2017

Melanie Beretti
Monterey County Resource Management Agency- Planning
168 W. Alisal St., 2nd Floor
Salinas, CA 93901

CEQAcomments@co.monterey.ca.us

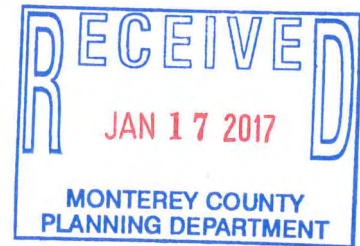
RE: Carmel Lagoon Draft Ecosystem Protective Barrier, Scenic Road Protection Structure and Interim Sandbar Management Plan Projects - Draft EIR and Improvement Plans

1. SRPS and SMP (No EPB) Alternative - the Environmentally Superior Alternative - **I support this alternative** - with the exception of the public access negatives of the SRPS.
2. Management of the Bio-Filtration / Retention Zone - This zone will fill from the surrounding urban watershed with rain and nuisance water, so vector control will be an issue (and Mosquito Fish are detrimental to the Red Legged Frog). The EPB will prevent this zone from sharing the natural cycles of the Lagoon, so an alternative landscape to the current coastal marsh will need to be designed. Will this landscape be managed as a riparian zone with control of Willow and Cottonwood trees for shore birds? Will this be a public greenbelt with bike and hiking trails? **This issue should have been studied in the EIR.**
3. Operation and Maintenance of the EPB and Associated Equipment - since the Alternative of locating the EPB at the property line was rejected because of a lack of access for Operation and Maintenance, it is likely that the Sheet Pile Wall section will be modified to show a maintenance road - most likely on the outside (north) of the EPB. Maintenance roads are typically 10' wide, and in this case the road would likely be against the EPB wall to allow for maintenance. **The EIR should have shown such a maintenance road as part of the Proposed Project.**
4. Public Access - Flood control has been designed in the Proposed Project by connecting the EPB to a raised Carmelo Street to the SRPS. Because of this, the SRPS stands between the Carmel River State Beach parking lot and the beach itself. The short stretch of dune on the East side of the parking lot is sensitive Coastal Dune Scrub, currently cabled off. The open Lagoon along Carmelo Street consists of a deep channel against a native Blackberry and native Rose bramble, with no opportunity for public access.

And since **the SRPS Rip-Rap will be between 4' and 7' high and 50' wide against the parking lot**, the current public access to the beach and Lagoon will be cut off. Even heavy equipment access for beach management has not been provided for in the Proposed Project.

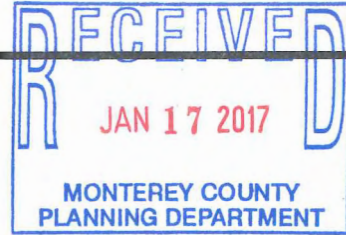
The EIR has provided no insight into how public access might be facilitated from the Carmel River State Beach parking lot to the beach itself or to the waterways of the Lagoon. Rip-Rap of the size envisioned for this project is not passable on foot or vehicle. This is a very popular destination for locals and tourists from all over the World, and often the scene of family outings, weddings, fishing, boating and photography. **Beach and Lagoon public access should have been studied in the EIR.**

5. SRPS location at the Carmel River State Beach Parking Lot - The proposed SRPS location against the existing parking lot pavement is arbitrary. **The SRPS should have been shown where the parking lot existed prior to being washed away by recent agency breaches in a northward direction.** No attempt has been made to replace the parking surface lost in these failed breaches. Now would be an appropriate time to replace the lost parking at this very popular State Beach.



Friedrich, Michele x5189

From: Sally Baumgartner [pvsally@aol.com]
Sent: Sunday, January 15, 2017 4:49 PM
To: ceqacomments
Subject: the EPB



I hesitate to admit that I'm not an advocate of the costly steelhead preservation cause and continue to question why so much time and money are being devoted to it, when north of our area these fish are overabundant.

I live on Camino Real, overlooking the lagoon. We recently purchased a home in the Bay Area, but missed the beauty and serenity of Carmel so never completed our move. The river is now freely flowing into the ocean, and our street remains "bone-dry" despite all our recent rain. Should the sandbar start to close up it can easily be widened, or drainage methods enacted to prevent flooding. The steelhead have survived the elements for many years and will surely continue to do so.

A 17 foot EPB is so unacceptable I just cannot believe it is a serious alternative. How about a 6 lane freeway down Ocean Avenue to replace our crowded narrow streets? Or a multi-story parking facility to ease the scarcity of parking places? A fee for visiting our beautiful beach and a ban of all dogs on it? The EPB is just as unthinkable to me.

Carmel is a unique and beautiful "small town"....let's keep it that way.

Sally Baumgartner

<http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road->

If you have any problems opening up the documents, please contact me.

If you have questions about the project, please contact Melanie Beretti, Special Programs Manager at (831) 755-5285 or berettim@co.monterey.ca.us .

Thank you,

Dawn Vest

Resource Management Agency

759-6716

Beretti, Melanie x5285

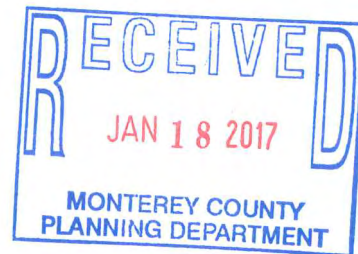
From: Barbara Buikema [Buikema@cawd.org]
Sent: Wednesday, January 18, 2017 12:52 PM
To: Beretti, Melanie x5285
Subject: DEIR Comments
Attachments: DEIR Comments 01-18-17.pdf

Melanie

Attached is our initial comment on the draft EIR for the Carmel Lagoon.

I will follow up with a hard copy in the mail

Thank you
Barbara Buikema
Carmel Area Wastewater District
831-624-1248





Carmel Area Wastewater District

P.O. Box 221428 Carmel California 93922 ❖ (831) 624-1248 ❖ FAX (831) 624-0811

Barbara Buikema
General Manager
Ed Waggoner
Operations Superintendent
Robert R. Wellington
Legal Counsel



Board of Directors
Gregory D'Ambrosio
Michael K. Rachel
Robert Siegfried
Charlotte F. Townsend
Ken White

January 18, 2017

Attn: Ms. Melanie Beretti, Special Programs Manager
Monterey County – Resource Management Agency
168 W. Alisal, 2nd Floor
Salinas, CA 93901

Dear Ms. Beretti:

The Carmel Area Wastewater District (CAWD or District) provides these comments on the County's Draft Environmental Impact Report (DEIR) for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan.

EXECUTIVE SUMMARY

The DEIR predicts that the proposed Ecosystem Protection Barrier (EPB) Project would inundate more frequently and for longer duration the CAWD property, would likely result in higher ground water levels at the CAWD facilities, and may result in flooding of the CAWD facility and property. (DEIR pp. 4.8-43 to 4.8-45). The DEIR claims there are no feasible mitigation measures to reduce these impacts to a less than significant level. The DEIR dismisses feasible mitigations without giving the mitigations adequate consideration.

The proposed EPB project would have significant impacts to the CAWD property and to the health, safety, and welfare of the public. The EPB project impacts would foreseeably include the shutdown of sewage plant operations for an unknown period of time. That is an unacceptable risk that has not been adequately evaluated or mitigated.

The County in mid-2016 proposed to CAWD that as mitigation for the County's EPB project CAWD should consider agreeing to pay for and operate in perpetuity a high capacity pump at the CAWD facilities, at CAWD's sole risk and expense. The County proposal was that CAWD shoulder all risk, liability and expense for mitigating the flooding impacts of the County's EPB project on the CAWD facilities. That was not acceptable to CAWD. The entity responsible for mitigating the impacts of a County proposed project is the County, not CAWD.

Without CAWD's services the daily functioning of our community and further development of the local economy would be significantly impacted. Any failure to adequately mitigate the reasonably foreseeable impacts of the proposed County's project will fall directly upon the ratepayers of this District, which is not acceptable.

HISTORICAL BACKGROUND AND INFORMATION ABOUT CAWD

CAWD was created in 1908. CAWD represents the public interest pertaining to sewer service, wastewater reclamation and the health, safety and welfare of more than 16,000 residents of Monterey County and hundreds of businesses. CAWD serves the City of Carmel-by-the-Sea, Pebble Beach, and surrounding areas including unincorporated Carmel, the lower Carmel Valley up to Quail Lodge, and parts of the Carmel Highlands. CAWD provides sewer service to numerous schools, including Carmel High School, Carmel Middle School, River School, Junipero Serra School, and Robert Louis Stevenson School. CAWD provides sewer service to many senior residents, both in single family homes and in developments including Pacific Meadows, Hacienda Carmel, and Del Mesa Carmel.

The District has served the community continuously at its present location since 1936. The District provides both wastewater collections and treatment services to the area. Additionally, the District's reclaimed water facility benefits not only the golf courses for irrigation purposes, but the entire community by reducing the draw on the Carmel River.

The District is responsible to the public for ensuring the continuous operation and financial stability of the wastewater facility. The CAWD facility is located adjacent to the Carmel River, west of Highway 1. CAWD has successfully worked to visually screen the CAWD facility behind stands of trees. Many local residents do not know that CAWD facilities are located there, because CAWD has done an effective job of screening.

The 16 acres owned and controlled by the District are situated between the elevations of 10 and 18 feet (NAVD88). Construction of the District facility has occurred over a span of more than 80 years. CAWD was designed and located very deliberately. The location of the

treatment plant was chosen prior to the majority of the development that has occurred in the Carmel watershed. District officials and staff have acquired extensive knowledge of the Lagoon environment as a result of District operations and property ownership at the site for more than eight decades. The comments in this letter are based on that knowledge and observations.

Construction of the CAWD facility began when the Carmel River functioned as an estuary and full river closure was intermittent and temporary. Over time, the Carmel River has grown increasingly more ephemeral, due to community water demands on the Carmel River aquifer.

The former Odello property west of Highway 1 is now California State Park property. As a result of the reduction of the natural function of the river, California State Parks starting around 1998 undertook significant efforts to improve habitat for fish and wildlife, thereby expanding the lagoon area. State Parks actions included the excavation of the south finger of the lagoon to reclaim farm lands and the deepening of areas that were previously shallow marshlands. These actions have also led to increased river scour since that time, exposing the District's influent pipeline and causing accelerated deterioration of the outfall pipeline and other impacts. CAWD identifies these actions as examples of projects that have had unintended consequences.

When the CAWD facility was originally constructed the conditions of the lagoon and the surrounding lands were very different. Many projects have occurred over the years to create the riparian landscape existing today. These projects include the State Parks actions, County levee removal and others.

Historical photographs show that CAWD did not require the property to be dewatered during construction and excavation. This is consistent with CAWD's observations throughout construction which occurred during the 1990's.

The decrease in year round river flow has allowed more time each year for the natural deposition of sand (due to ocean wave action) at the mouth of the Carmel River. The CAWD treatment plant facility is located slightly higher in elevation than the neighboring northern residential properties; approximately eight acres of District property is located at the same elevation as the northern bank.

Wastewater treatment is a costly undertaking. The CAWD property is estimated to be valued in excess of \$200,000,000. The property is entirely paid for and has no outstanding debt.

The District is regulated by an approved National Pollution Discharge Elimination System (NPDES) permit and Waste Discharge Requirements (WDR) order. The District is highly sensitive to and responsible for protecting not only the public health but also the environment.

From a public health perspective, from a financial perspective, and from an environmental perspective, CAWD is critical to the preservation of the community it serves and to the protection of the Carmel River. CAWD helps to ensure that Carmel Bay remains in pristine condition and CAWD processes protect the local environment.

To bring home the impact of what the loss of the CAWD treatment facility would mean to the community, consider this: Within one hour of the plant's shutdown raw sewage would start to back up in the collection system. Manholes would start to overflow with raw sewage, starting in Carmel's Rio Park and along Rio Road, then Mission Fields and the entire Fourth Addition neighborhood. After that, raw sewage would begin to back up and daylight at residential connections and overflow devices at residential properties. Other low lying areas including the restaurant of Mission Ranch would be similarly impacted. Ultimately raw sewage would run down the streets into the Carmel Lagoon. Sewage would continue to back up higher and higher in the system because it would have nowhere else to go. That has not happened to date because CAWD does an excellent job of operating its system and protecting the community.

To deliberately impose an unmanaged flood risk on the CAWD facility is beyond comprehension, but that is what the County is proposing, according to the DEIR.

SPECIFIC COMMENTS ON THE DRAFT EIR

The District has reviewed the Carmel Lagoon Draft Environmental Impact Report (DEIR) documents posted on the County web page¹. The District has carefully evaluated the information presented and understands that the Environmentally Superior Alternative (ESA) identified by the County in Section 5.4 (DD&A 2016, p. 5.0-41) includes the construction of the Scenic Road Protection Structure (SRPS) and the implementation of a Sandbar Management Plan (SMP). This Environmentally Superior Alternative would not include the Ecosystem Protection Barrier (EPB) to be constructed at this time, but reserves this component for potential

¹ <http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-/planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road--4025>

installation after further study and public review.

The County's proposed/preferred project (DD&A 2016, p. 1.0-2) differs from the Environmentally Superior Alternative presented in the DEIR. The County's preferred project was developed based on the Memorandum of Understanding (MOU) between the U.S. Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS) and the County.² The County's preferred project involves implementing the EPB and SRPS together with sandbar management described as an interim action until the EPB and SRPS structures are completed.

The District sees no assurances in the DEIR that adequately address future direct and indirect project-related impacts on the CAWD facilities and property. CAWD steadfastly contends that as proposed the lagoon elevation intentionally increased above 12ft NAVD88 would cause significant avoidable impacts on CAWD's facility and CAWD's property, would unfairly place an extraordinary economic burden on CAWD and its customers, the public, and also would place at risk the health, safety and welfare of the public.

CAWD information shows that the true baseline lagoon elevation is approximately 10 ft (NAVD88). The County recently has taken deliberate action to increase that level. CAWD has asked the County to responsibly manage the lagoon at a water surface elevation not to exceed 12 ft (NAVD88) as part of a thoughtful management program. However, the County now proposes 16.5 ft (NAVD88). That elevation poses an extraordinary risk to CAWD that has not been adequately evaluated or mitigated in the DEIR.

The impacts of the proposed project have not been adequately investigated, evaluated, and mitigated in the DEIR. The cumulative impacts of the project are required to be evaluated. Indirect or secondary effects that are reasonably foreseeable and caused by a project, but which may occur at a different time, also require evaluation in the EIR.

Although the primary objective of the proposed project is to "improve the functions and values of the ecosystem in and around the Lagoon" (DD&A 1.01-1), that objective can and should be achieved without causing unmitigated impacts to the CAWD facilities and property.

The DEIR concludes that the project "would result in a higher water surface elevation for longer periods within the lagoon. This may also increase the amount of emergent marsh, riparian, and other sensitive vegetation types influenced by hydrology that provide habitat for many common and special-status species. Special-status species that may occur within areas

² The MOU is contained in Appendix B of the Draft EIR

affected by an increase in water surface elevation include Monterey-dusky-footed woodrat, tricolored blackbird, California horned lark, white-tailed kite, sharp-shinned hawk, nesting raptors and migratory bird species, California legless lizard, western pond turtle, CRLF, S-CCC steelhead, and SBB.” (DEIR, p. 4.3-67; see other similar DEIR conclusions.) The creation of this habitat may be a benefit; however, there are foreseeable indirect impacts which have not been adequately addressed, investigated, or mitigated. “An indirect physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change. (Section 15064 (d)(2))”.

The exact benefit the County intends to create (“increased depth and duration of inundation [to] increase the amount of emergent marsh, riparian, habitat for special-status species, and other sensitive habitat types influenced by hydrology”, per the DEIR) for the lagoon will cause potentially significant regulatory impacts to the operation of the CAWD treatment plant. The emergence of special-status species within CAWD property and operation areas over time as a result of elevated water levels would create operational changes with the potential to require the relocation or decommissioning of the CAWD treatment plant and the reclamation facility. For example, the emergence of special status species or protected habitats on CAWD property (APN 009-511-010 & 009-521-004) may require CAWD to cease operation of the reclamation facility during times of elevated water, or not to be able to expand its operations to lands the District owns, or may cause decommissioning of all or part of CAWD facilities. These are not currently significant or potentially significant issues to CAWD, but would be elevated to that level by the proposed County project.

The relocation or decommissioning of part or all of the CAWD facilities would be very expensive and cause significant unanalyzed impacts. The DEIR does not evaluate the environmental and economic impacts of this foreseeable impact of the project. The DEIR should do this to disclose the true effect and costs to the community.

Purely from an environmental standpoint, the need to relocate CAWD facilities would have very significant impacts. Relocation would mean having to find a new suitable location, which is highly unlikely due to the limited availability of the approximately fifteen acres of land that the facilities would require, the prohibitively high cost of land, and the need for all influent which currently flows by gravity to the plant to be pumped to the new location. CAWD officials are not aware of any other suitable location for replacement facilities within the current authorized District boundaries. Assuming that an alternative location could be found, CAWD would then need to go through a lengthy permitting process to construct the facilities, which likely would have environmental impacts on the new site and neighborhood opposition. The relocation of CAWD could take more than a decade to get up and running.

Purely from a cost standpoint, the need to relocate or decommission CAWD facilities potentially could be economically devastating to a small community that has already paid for a reliable asset that is a keystone to protecting the lagoon. The public has paid more than \$200M in capital costs to build the current CAWD facilities, including \$43M in the last ten years for assorted improvements and expansion of both secondary treatment and reclamation. An additional \$60M of private investment has occurred through a Private-Public Partnership for advanced water treatment and the infrastructure offsite relating to distribution water recycling and reuse. The District is currently in the midst of a scheduled capital rehabilitation for which CAWD anticipates spending an additional \$8M by June 2017. The value of the CAWD treatment facility is illustrated by the direct physical change that has come about since the 1930's when this facility began operation. Through continuous operation, the CAWD facility has indirectly created the superior environmental surroundings of Carmel Bay valued so highly by the community, and has contributed to the increased property values of the area.

The Army Corps of Engineers (ACE) is responsible for the issuance of permits to perform any construction action in the Lagoon. The decision to issue or deny a permit is based on the public interest review and, where applicable, a Section 404(b)(1) guidelines analysis. CAWD contends that sufficient analysis does not exist in the EIR for the ACE to approve the proposed project in light of the identified impacts and the reasonably foreseeable impacts to the public interest of health, safety, and welfare.

The following discussion dissects the DEIR with respect to the numerous concerns that CAWD has repeatedly identified in prior letters to the County.

1. Section 3.1 recognizes the significant property owners adjacent to the Lagoon and the description of the MOU agreed to by the County. CAWD contends that the MOU parties prematurely agreed on a "solution" of an elevated lagoon level, before all of the facts were gathered, before consultation with State Parks, Carmel Unified School District, Mission Ranch and Carmel Area Wastewater District, and before the necessary environmental analysis was prepared. The real property owned by these entities would be materially and significantly impacted by the proposed project, as the DEIR admits. The premature MOU was too specific, and preemptively chose a course of action prior to consultation with the affected land owners and prior to establishing informed factual assumptions about how each of the land owners values their land or what uses the land may currently serve for each land owner.

The proposed EPB project would be built on State Parks land and Carmel Unified School

District (CUSD) land. The project would inundate acres of land owned by CUSD, State Parks, and CAWD. The County has presumptuously made the assumption that CAWD does not value or intend to utilize the CAWD land located to the west of CAWD facility, that State Parks will accept infrastructure on State owned lands, and that the School District is willing to relinquish its property without discussion. The development of the “preferred project” had the effect of tailoring information and studies to align with that “preferred project” and was not an unbiased effort. The MOU was not signed by those land owners whose property would be taken without compensation for the proposed project.

2. The DEIR should have included additional history regarding changes in the Carmel River watershed further inland from the Lagoon. The following facts and issues were not adequately disclosed and discussed.
 - The “large variations in seasonal and yearly discharge rates is a product of commercial, residential, and agricultural development (DEIR Appendix B, Carmel Lagoon MOU, p.1)” inland in the Carmel and Carmel Valley areas that has occurred over a span of more than 100 years and which the County has approved.
 - A primary concern is the transition of the natural river flow regime from the natural continuous river flow to the current exaggerated, intermittent and ephemeral flow pattern in which the river ceases to run shortly after the end of a rain event. The ephemeral nature of the river has more impact on the failure of the lagoon to breach naturally than any other cause recognized in the DEIR. The EIR preparer should investigate and disclose this information, and disclose how the information affects the EIR analysis including the evaluation of the project, its mitigations, and its alternatives.
 - Several projects inland to the Lagoon have been completed with the intent of restoring a perennial flow to the Carmel River. The removal of the San Clemente Dam, along with plans for CalAm to reduce pumping of groundwater and the imminent approval of the Carmel River Floodplain Restoration and Environmental Enhancement project (CRFREE) will all have impacts on the river hydrology. These impacts should have been disclosed in the DEIR for the Lagoon projects, and adequately considered in the cumulative impacts analysis, but they were not. It is not clear in the DEIR what impacts each of those known projects will have on the lagoon and the project site. The DEIR is inadequate on

those topics, and on the evaluation of the direct and indirect impacts of those inland projects on the project site, both on an individual basis and on a cumulative basis. CAWD believes that it is likely that these projects could change the behavior of the river and/or the lagoon in ways that could potentially significantly affect the project, its impacts, and the need for the project.

- If more emphasis was placed on accomplishing the projects designed to benefit the Carmel River watershed that are already underway, the District believes that the results, along with further analysis of the impacts (and the possibility of the restoration of the river flow), would result in better information for all participants, and may result in a greater understanding of the benefits of the “no project” alternative to the County’s proposed Lagoon projects.
- The EIR does not examine the alternative of restricting pumping or the alternative of water storage reservoirs as a means of maintaining river flow. These alternatives should have been studied because they would result in more constant flows in the river. A river with more constant flow would result in less sand bar management, an open estuary, more natural movement of steelhead in and out of the river, and lagoon levels that would not require construction of structures for lagoon management purposes.

3. Section 3.4.1.1 states that:

“This variation of the EPB concept was recommended as a component of the Preferred Alternative identified in the Feasibility study because it:

- Maintains at least the current level of protection of facilities”
However, the aerial topographic map produced by Whitson Engineers, dated March 27, 2013 demonstrates that more than 90% of the CAWD property is located below elevation 17.5ft NAVD88 and over eight acres of CAWD property is inundated when the lagoon level is elevated to just 15ft NAVD88. Thus, the conclusion that the proposed project “maintains at least the current level of protection of facilities” is incorrect as explained in this letter.
- CAWD staff invited County representatives out to the treatment plant grounds (County staff site visit occurred on August 26, 2013) to demonstrate that CAWD property is not protected by flood diversion devices or levees; and County representatives dismissed this flooding concern without providing any technical evidence of their conclusions. No mitigations for the impacts to CAWD property

have been recommended in the DEIR. Please explain why not.

4. Section 3.4.1.3 includes the description of the ISMP component noting that historically the lagoon was breached by the County at 11.83ft, however more recently the lagoon was elevated to 13.57ft before breaching. This change in County practice, resulting in the increase in the lagoon level, was never communicated to the Wastewater District before implementation. The District has observed the recent elevated lagoon surface water levels and did not correlate the more recent water level impacts at the treatment plant with the elevated lagoon water levels. Now that CAWD is aware that the County had begun testing of the preferred alternative prior to completion of the CEQA process, the District has begun to document issues arising from the water level increase.
 - District staff reported inundation internal to the plant grounds due to Lagoon water backflowing up the storm drain system inside the treatment plant. The District staff did not know this inundation was caused by an unannounced change in County operations with regard to the sandbar.
 - Due to the recent increase in inundation, the District has undertaken a drainage isolation project costing more than \$350,000 to prevent lagoon water from entering the treatment plant storm drain system. This new, expensive system prevents the waters of the United States from back flowing into the internal drainage system of the treatment plant. Without the new District system in place the practice by the County of raising the lagoon level would have exposed the District to increased liability and the inability to prevent direct discharges to waters of the US. Discharging anything not comprised wholly of storm water runoff directly to waters of the US would be a violation of the provisions of the Clean Water Act (1987) and could jeopardize the District operating permits.
 - Prior to the District constructing this system, these occurrences of water backing into the treatment plant would require additional permitting from the California Regional Water Quality Control Board (SRWQCB). This was a regulatory impact to CAWD created by the change in County practice without the benefit of prior environmental review.
5. Sections 4.1.1.3, 4.1.3.3 and 4.2.1.6 address impacts of the ISMP component, specifically the impacts from the ISMP component being accomplished using D6 Caterpillar tractors. No discussion of breaching using hand tools was found in the DEIR. The EIR should investigate that reasonable alternative and whether mechanically breaching the sandbar

using hand tools (and not tractors) would cause fewer environmental impacts.

6. Section 4.3 outlines the likely biological resources and special-status species which have been formally listed or are proposed for listing on the endangered or threatened species list. An example of a reasonably foreseeable impact of the elevated lagoon levels would be the migration of animals such as the Monterey Dusky-Footed Woodrat, the Western Burrowing Owl or the California Red-Legged Frog to the higher elevations of the CAWD treatment plant site/property when the land in and around the lagoon is inundated. Because these protected species currently exist in the areas around the 10ft to 14ft elevations, it is reasonably foreseeable that when inundated the species may seek higher ground. If the species began to take up residency on the treatment plant grounds there would be impacts on plant operations and mitigations would be necessary. For example:

- District staff would need to be trained in dealing with endangered wildlife.
- CAWD would foreseeably need to retain professional biologist services on an ongoing basis and implement their recommended protections.
- Portions of the facility grounds could become un-useable for CAWD purposes in the event protected species migrated to them. Currently there are no protected species on CAWD's property.
- CAWD could foreseeably be faced with building or constructing habitat/protection within the plant grounds or taking other steps.

7. Figure 4.3-3 shows that all property around the CAWD treatment plant will be submerged and/or converted to wetland or marsh as a result of the project under the proposed water surface elevation (WSE) of 15.4ft. Further, this figure indicates that the entire CAWD treatment plant grounds are subjected to a Steelhead occurrence due to higher water levels. If any of the described impacts are accurate, then the treatment plant would be subject to additional regulatory impacts, and the CAWD facilities likely would not be able to operate as they do and as they are planned. These reasonably foreseeable impacts have not been adequately investigated, adequately disclosed, and adequately mitigated in the DEIR.

8. Section 4.3.1.8 addresses only trees associated with the project construction. However the elevated lagoon levels also can cause damage to trees. During the period of elevated lagoon levels in 2015, the District lost 5 trees of >12in diameter at breast height (DBH) on the District property due to saturated soils and wind. These trees were large healthy trees which fell over in the wind because the soil and roots were inundated during the

period of high lagoon levels. When the trees fell they damaged CAWD perimeter fence. The construction of the proposed project is reasonably foreseeable to inundate CAWD and other public and private property that has trees, and thus to cause trees to fall, causing impacts including property damage to structures. These reasonably foreseeable impacts have not been adequately investigated, adequately disclosed, and adequately mitigated in the DEIR.

9. Section 4.3.3.2 claims that the EPB would allow for an increased depth and duration of inundation of the lagoon, as well as a longer outflow to the ocean. The studies provided do not support this assumption. The analysis shows that the increased lagoon level is immediately followed by a massive evacuation of the Lagoon waters after the sand bar has breached manually or naturally at the higher levels. This is due to the highly erodible nature of the sandbar. This additional increase in hydraulic energy of the higher lagoon level serves to blow the lagoon waters out to the ocean faster and with more force carrying the sand much further into the ocean. This results in the ocean not having sand available to close the river off again as river flows decrease. Ultimately the lagoon will be left empty and primarily filled with salt water from high tide ocean water. It is the District's understanding that this is not what the Carmel Steelhead Association intended when asking the County not to breach the sandbar. The resulting emptied lagoon will require the County to return nearly every year to manually close the sandbar prior to the river flow ceasing. These reasonably foreseeable impacts have not been adequately investigated, adequately disclosed, and adequately mitigated in the DEIR.
10. The County attempt to open the lagoon to the north caused major erosion along the base of Scenic Road. After these occurrences of major beach erosion (due in part to the higher water surface elevations) it seems more likely that the County would be required to close the lagoon (create a sandbar) mechanically even after the sand bar breached naturally. Without closure, the lagoon could remain very low for the remainder of the season until the river begins to run again. Once again, this is due to the ephemeral nature of the river which is not a natural flow regime. These reasonably foreseeable impacts have not been adequately investigated, adequately disclosed, and adequately mitigated in the DEIR.
11. Section 4.4.1.5 should also include the history of CAWD as it relates to both the development of Carmel-by-the-Sea, and the improvements to the water quality of Carmel Bay and the Lagoon. The District was established in 1908, pre-dating the incorporation of the City of Carmel-by-the-Sea. The management of a city sewer

collection system was one of the primary developments contributing to the orderly establishment of Carmel-by-the-Sea. Water and sewer services are essential to maintain the community's quality of life. The expansion of sewer facilities in the Carmel-by-the-Sea city limits and outside those limits established a healthy, orderly and coordinated system of development. One can look back at ordinances passed by CAWD in 1910 and see how the District was instrumental in shaping the City of Carmel-by-the-Sea even before the City had incorporated. The City of Carmel-by-the-Sea has relatively small lot sizes with no space for septic. Without a public sewer, the town would not have been able to grow into what it is today. Without extension of public sewer services into the Carmel Highlands and Carmel Valley areas, health and public safety would be hampered and/or placed at risk. Many of the existing sewage leach fields in the Carmel Highlands and Carmel Valley area are now at the end of their service life. The natural progression is to connect to CAWD. That is what has happened and continues to happen. CAWD has provided for the public health and safety and has protected the environment for nearly 110 years. The District was the first to provide both primary and secondary sewer treatment on the Peninsula. This level of treatment was developed and was successfully protecting the Carmel Bay many decades prior to any advanced sewer treatment at the cities of Pacific Grove, Monterey, Seaside or Marina. Additionally, CAWD has provided tertiary treatment and water recycling since the 1990's, proving the District to be forward thinking and consistently ahead of regulatory oversight.

12. Section 4.8.1.3 should include additional information regarding all hydrology related projects currently proposed as environmentally beneficial to the Carmel River watershed. These projects are shown in a County map titled "County Project Overview at Lower Carmel River Area" (9/26/16), attached to this letter as Exhibit A. The DEIR has failed to include an adequate analysis of cumulative impacts of these projects and how the Lagoon, river, watershed and drainage may be affected. If the cumulative impacts are not discernible there may be significant benefit in completing each project and evaluating the effects prior to approving and constructing the next project. The other foreseeable potential scenarios not adequately considered by the DEIR are if one or more of the projects is implemented, but not all projects, and the resulting impacts to the lagoon.

Contrary to the DEIR claim, there is little evidence suggesting that the lagoon will achieve and maintain a "perched lagoon morphology" now that the lagoon has been dredged down to an invert elevation near sea level. This deep lagoon at the mouth of the river also facilitates saltwater intrusion and stratification. The deep lagoon was

further expanded when State Parks completed the Lagoon Enhancement project in 2005. An unintended consequence of the deepening of the Lagoon has been the elimination of the “perched lagoon” configuration.

When the lagoon begins to open to the ocean there is no evident underlying geological formation to prevent the water from scouring the sand until it reaches low tide elevations. Many decades ago the river invert was above the high tide elevation creating a natural perched lagoon and estuary, with little storage of water at the mouth of the river. Today’s deep lagoon is man-made, in part because of the diminished continuous river flow during the year, and coincidentally requires ongoing artificial intervention to maintain it.

13. On pages 4.8-42 to 4.8-45 several assumptions are made that are not consistent with existing conditions.

The project proposes to artificially protect some property owners from inundation by causing other property owners to be subject to artificially increased inundation. For example, the project would reduce flooding potential for houses in the Fourth Addition neighborhood which were built after CAWD operations began, while the project at the same time would materially and significantly inundate CAWD property and flood CAWD facilities.

The increased depth and duration of inundation of some surrounding property is not a beneficial impact to those property owners, including CAWD, who could lose their ability to use the property. Those impacts have not been adequately investigated, adequately disclosed, or adequately mitigated in the DEIR.

CAWD facilities are not surrounded by a levee, and any conclusion that a levee (uncertified or certified) exists is unfounded. The repeated references in the DEIR to an “uncertified levee” are inaccurate and misleading. They should be deleted, and the DEIR text that discusses the “uncertified levee” should be materially revised. As CAWD wrote on August 17, 2016 in the letter to the County, “The County’s documentation continues to refer to a levee surrounding the CAWD facility. We have repeatedly rebutted that claim. There is no levee surrounding our facility.”

Along CAWD’s fence line, the naturally occurring topography has elevations varying from 14ft to 18ft NAVD88. The property owned by the District outside of the fence line (eight acres) is between elevations 10ft to 14ft NAVD88.

The District has encouraged the County staff to visit the treatment plant and examine all of the concerns presented by the District. The County continues to request that the District pay for surveys and studies with regard to the District's disagreement with County assumptions regarding elevations and impacts. However, this is the County's responsibility, not the District. The District has offered the County access to allow surveyors or other professionals to obtain the information the County needs, but to date the County has not done any further investigation of the CAWD treatment plant and property.

Other than visiting the CAWD facility one time in 2013 the County has not notified the District of any onsite investigation to confirm the existing conditions at the CAWD property and the likelihood of flooding due to high lagoon levels.

The DEIR claims that there is a 16ft elevation surrounding the CAWD treatment plant. That claim is misleading and should be corrected. The claim apparently is due to vegetative duff and grass clippings placed along the southern boundary of the plant grounds. The vegetative material easily saturates and then washes away. CAWD staff has requested that County staff visit the treatment plant to further observe this vegetation and get confirmation that this elevated area is pervious and would not serve as a deterrent for water.

The DEIR claim that "therefore such an increase in breaching elevation of 16 feet would not cause surface flooding at the CAWD Facility..." (page 4.8-43) is not correct and results in materially and significantly inaccurate conclusions. Contrary to the County claim, there is no doubt that an increase in water levels to 16 feet would cause surface flooding at the CAWD facility.

During the most recent storm of December 2016 the County allowed the water level to reach 15ft. The CUSD school district playing fields at River School were under water. The Mission Ranch had to move its sheep from its inundated field and there was water in their parking lot area and along the tennis courts. The CAWD property to the west of the CAWD plant was inundated. This inundation represents a loss of 8 acres of District property. The DEIR statement that the 8-acre area would be inundated during winter conditions (page 4.8-44) is correct if lagoon levels are increased above the 10ft to 12ft elevations previously maintained by the County since the 1970's.

The DEIR statement that the inundation "would not result in a significant loss of usable

area during winter conditions” is not supported.

- The District uses its property west of the plant to provide a buffer between its operations and the ocean. The District is prohibited from discharging any storm water directly into the waters of the United States³. As a result of the County’s more recent attempts to raise the lagoon levels the District has taken measures to prevent storm water discharges to the Lagoon. CAWD now pumps all storm water back to the head of the plant to avoid discharging drainage directly into the lagoon. If there is standing water directly adjacent to the plant there is no room for error.
- CAWD also has its laboratory facility and chlorine contact channel situated on the western acreage that CAWD owns. There are safety issues involved with allowing the lagoon water to creep up to the level of these critical facilities.
- The District uses its western property to maintain a buffer between CAWD operations and the sensitive riparian habitat. The potential uses of the property would be limited or eliminated by the impacts of the County’s proposed project. This would represent a loss of a publicly funded asset – the ratepayers of CAWD financed the acquisition of this land. It would represent a loss of CAWD’s buffer from the edge of the lagoon – this property was specifically purchased to ensure the District has sufficient set-back.

The District facility was originally constructed hundreds of feet away from the water’s edge. This project would put the water’s edge on the CAWD grounds and close to the CAWD operations. This project would put the District’s daily operations into a position whereby every day the District would be forced to operate with greater risks.

The DEIR statement that the increase would “occur along the edge of the berm” (page 4.8-44) is false as there is no berm.

The statement that the lagoon and adjacent properties would have the potential to be inundated more frequently and for longer duration and “would reduce the availability of the 8-acre area for CAWD operations” is correct and represents a significant,

³ NPDES Permit No. CA0047996, Waste Discharge Requirements Order No.R3-2014-0012, (pg 17): State Water Resources Control Board’s Water Quality Order 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

avoidable and unmitigated impact of the project. It would be an unacceptable taking of property from the District. These are significant impacts on the District and its ratepayers.

At a lagoon elevation of 15 ft., the District begins to experience water inundation at the fence line of its plant facility. The elevated lagoon levels represent a risk of increased flooding to the District. The District does not have any sort of barrier or levee surrounding its property. The District facilities were designed to handle riverine flooding when necessary. Riverine flooding is temporary and generally accompanied by a disaster declaration which allows more regulatory flexibility to CAWD.

However, the CAWD facilities are not designed to handle an increase in the lagoon level or "back-water" from the west. Unlike riverine flooding, flooding from the back-water in the lagoon is static and results in standing water for an indeterminate length of time. The CAWD property historically has not been subject to flooding of the kind predicted to be caused by the County EPB Project. This predicted back-water would be of unknown duration and would not be accompanied by an emergency declaration. This would significantly increase the risk to public health, safety, and regulatory compliance in ways not adequately investigated, disclosed, or mitigated in the DEIR. CAWD takes its permits and regulatory compliance very seriously.

The DEIR suggestion that the lagoon could "...theoretically reach 17.5 ft.... overtopping the lowest elevation of the existing uncertified levee at approximately 17 feet" (p. 4.8-43) represents a significant error as no levee exists, and water inside the plant would occur at a much lower elevation. The DEIR's characterization of this potential impact as less-than-significant is incorrect. Standing water inside the plant perimeter would result in significant damages to equipment and infrastructure and potential impacts including:

- Longer employee shifts (CAWD would have to staff 24/7) compared to current 8 hour shifts.
- Employee access to the facility would be impacted.
- Increased lab monitoring.
- Grease receiving station would be inoperable.
- VacCon pit would be flooded and unusable.
- MFRO pad would likely lose the pumps situated there, and CAWD would have to stop production of reclaimed water.
- Sumps throughout the facility would be inundated and unusable.
- Chlorine contact tanks would be underwater.
- Health and safety risks for employees working in standing water with

live electrical circuits.

- Electrical wiring throughout the plant would be underwater, while it is in conduit, not all wiring is waterproof and some electrical systems would be shut down to protect equipment and employees.
- Maintenance Shop, Collections Office, and Vehicle Storage Building would all take on water and be out of service.
- Equipment and storage at the west end of the plant would flood.
- The Chemical Storage Building would be flooded and potentially spoil inventory necessary for operations.
- During a flood stage CAWD could not accept deliveries of chemicals, fuels, or parts.
- The doors to Operations and other sub-basement areas are not watertight and these facilities would be flooded.
- Dewatering buildings may result in too much water into the plant process and could mean that the bacteria necessary for treatment processes would be washed out, resulting in untreated sewage discharges.
- If the treatment plant had to be shut down, the results of that shutdown are described earlier in this letter.

The DEIR does not address any of these issues. Each of these would lead to significant impacts including increased costs.

CAWD characterizes any increase in the Lagoon water levels as causing potentially significant impacts on CAWD property.

The DEIR assumes that a floodwall around the CAWD facility would not be a feasible mitigation measure because an agreement between CAWD and the County does not exist (p.4.8-44). The County has not engaged the District in a conversation on this topic. CAWD believes this is a potential mitigation – but the County has prematurely dismissed the mitigation without adequate consideration or exploration.

CAWD regrets that the County has not engaged the District in a meaningful discussion regarding protection of CAWD plant grounds. The District has attempted to discuss this critical issue with the County. The County's sole response has been to suggest CAWD dewater CAWD's facilities with pumps purchased by the County. That solution is not acceptable for many reasons. For example, the County's proposal assumes that CAWD would pay for all future operating, maintenance, and capital expenses in perpetuity and assume all risk. That is not an acceptable mitigation. In addition such an activity is not

covered under CAWD operating permits. The County is the EPB project proponent and the County is responsible for the mitigations for that EPB project. CAWD ratepayers are not responsible for implementing or paying for County project mitigations.

The assumption in the DEIR that “there is no feasible mitigation measure to reduce the impact (p. 4.8-45)” of flooding on CAWD property is not accurate. CAWD has proposed reasonable mitigation measures to the County, including a floodwall similar to the proposed EPB. The County has unreasonably rejected them. The DEIR’s rejection of feasible mitigation is not supported and is inconsistent with the law.

Cost is not a reason to reject mitigation. Nor is the need to prepare additional environmental documentation or technical studies, especially where, as here, the County has known for years of the project’s foreseeable flooding impacts to the CAWD property. The County DEIR could have included the environmental analysis of mitigation for those impacts. The costs of mitigations should be considered part of the project cost. The proposed EPB project will be very expensive and is designed to protect some very expensive private residences. CAWD’s plant was built at public expense and deserves to be protected from the impacts of the EPB project with a similar level of protection.

The DEIR claims that the building elevations at CAWD were not available to the project team (p. 4.8-44). The plant grounds are open to any professionals the County would like to send to gather this information. Exterior survey information is available and was provided to the County. Interior elevations can be obtained by the County through site investigation. CAWD staff has stated it would willingly provide access to the County to confirm the assumptions and information CAWD has provided to the County regarding the CAWD buildings on site.

The DEIR states “The proposed EPB project component could result in higher sustained surface water elevation within the Lagoon which would raise the groundwater elevations at the CAWD facility (p. 4.8-44).” It further states that “the impact to the CAWD facility is significant and unavoidable”. CAWD agrees this impact is significant; however CAWD does not believe that this impact is unavoidable. Management of the lagoon at lower water levels would help to mitigate ground water levels.

The District does not currently remove any ground water through pumping as a mitigation to keep subgrade buildings dry. The District has records and historical photographs that show higher water levels were never a concern until recently due to

changes in lagoon management.

During construction in the 1970's and 1980's, the District did not need to dewater during construction of these subgrade structures because the conditions were such that the groundwater was low and did not have an impact. Today, largely because of the cumulative man-made conditions at the mouth of the river, the facilities are experiencing higher groundwater levels and the District has had to dewater during recent construction activities.

CLOSING COMMENTS

In summation, the project would have significant impacts to the CAWD property and to the health, safety and welfare of the public served by CAWD. The environmental and economic functions of the District have great public importance and must be factored into the decision making process. These impacts are not adequately addressed by Monterey County in the Draft EIR provided for review.

The CAWD provides financial and economic benefit to the local economy both directly and indirectly through the collection and treatment of wastewater and with the reclamation of over 1,000 acre feet of water annually. Any disruption to the services provided by the District would have significant lasting effects on the community and the environment. The treatment plant facility and reclaimed water operations were built to improve water quality and are able to continue to fulfill that purpose for many decades to come, unless adversely impacted. The District requests that the DEIR be revised to address all the environmental, economic and public impacts of the EPB project on the CAWD property and the community. The revised DEIR should be recirculated for public comment.

CAWD once again invites and strongly encourages the County to visit the CAWD property so the County is better informed.

Thank you for the opportunity to comment. CAWD expects to make further and additional comments before the end of the DEIR comment period on January 31st.

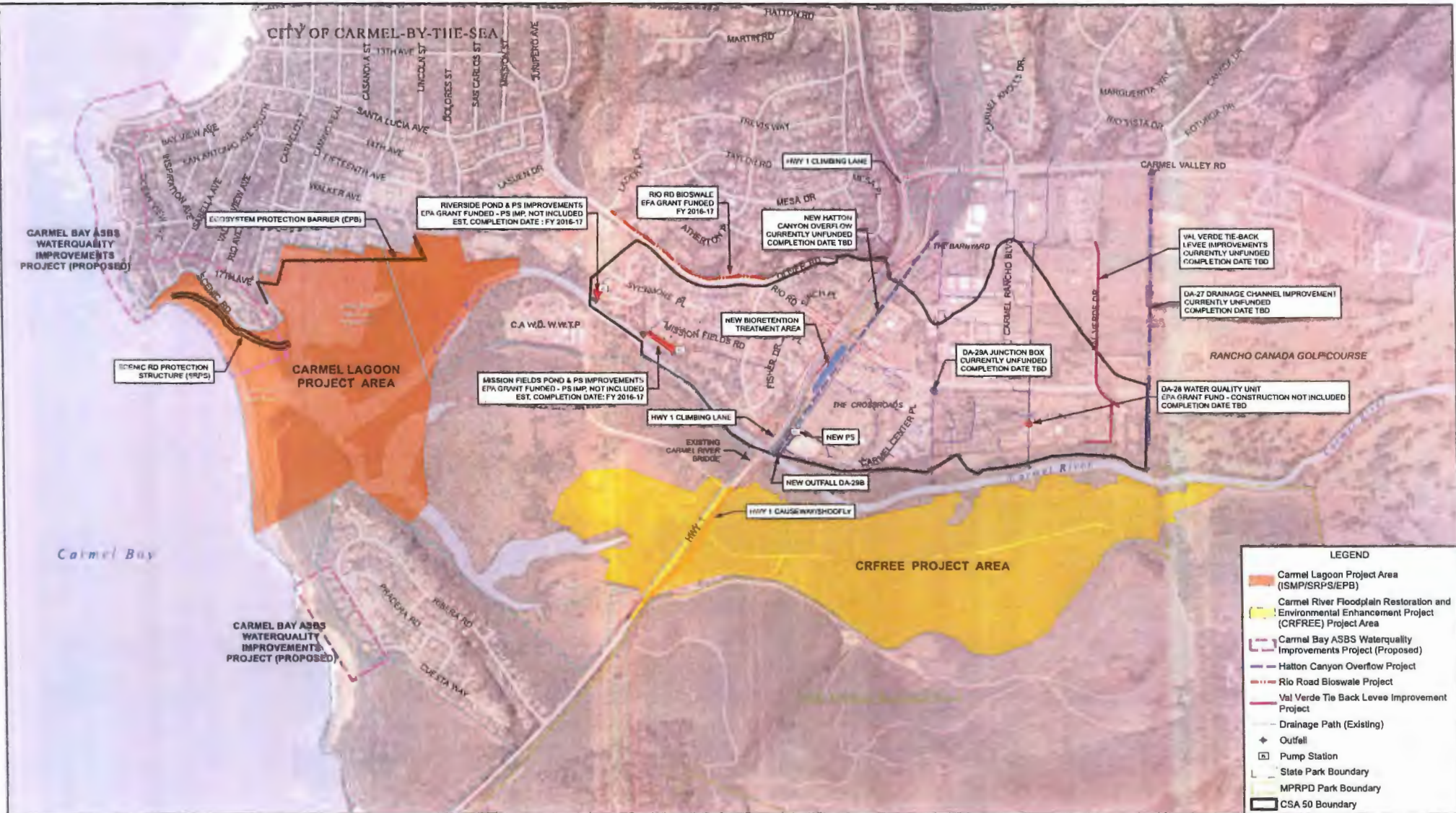
Sincerely,



Barbara Buikema
General Manager

Attachment A

cc: Supervisor Mary Adams
City of Carmel-by-the-Sea
Carmel Unified School District
California State Parks
Pebble Beach Community Services District
Independent Reclaimed Water Users Group
Pebble Beach Company
Carmel Valley Association
CSA 1
CSA 50
Carmel Residents Association
Army Corps of Engineers
National Marine Fisheries
California Coastal Commission
Carmel River Steelhead Association



COUNTY PROJECT OVERVIEW AT LOWER CARMEL RIVER AREA

UNINCORPORATED MONTEREY COUNTY NEAR CARMEL, CA



**COUNTY OF MONTEREY
RESOURCE MANAGEMENT AGENCY**
 MAP PREPARED: 9/26/18
 IMAGERY DATE: 4/13/15

THIS MAP SUPERSEDES AND REPLACES ANY PREVIOUS VERSION. NOTE: THE DATA USED IN THIS MAP IS REPRESENTATIONAL ONLY AND IS NOT INTENDED FOR SURVEY OR PROJECT PLANNING WORK. THE COUNTY ACCEPTS NO LIABILITY FOR THE USE OF THIS MAP.

Exhibit A



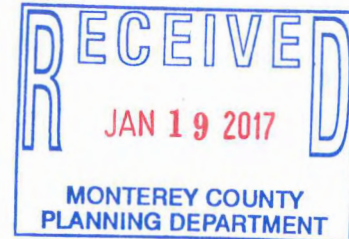
ANNALISA DEERING

26395 Carmelo Street
Carmel, CA 93923

annalisa@deeringdesign.com

January 19, 2017

Melanie Beretti
Monterey County Resource Management Agency- Planning
168 W. Alisal St., 2nd Floor
Salinas, CA 93901



CEQAcomments@co.monterey.ca.us

RE: Carmel Lagoon Draft Ecosystem Protective Barrier, Scenic Road Protection Structure and Interim Sandbar Management Plan Projects - Draft EIR and Improvement Plans

1. SRPS and SMP (No EPB) Alternative - the Environmentally Superior Alternative - I support **this alternative** - with the exception of the aesthetic negatives of the SRPS (see #5 below).
2. Aesthetics of FRP Sheet Pile - For a natural and scenic State of California resource, **Fiber-glass Reinforced Polymer is certainly not a natural or scenic material** to use if such a wall is built. The aesthetics of other public projects on the Monterey Peninsula such as recent highway support structures and bridges, tend toward local mortared Granite - and these are for the visual impact of and from a lowly highway, not a nature preserve. The EIR correctly points out the "significant cumulative aesthetic impacts" of the EPB, and that **"no mitigation measures are available to reduce the impacts to a less-than-significant level."**
3. Aesthetics of the EPB Location and Elevation - During this EIR process, surveyors staked the location with elevation flags. Observations of these flags throughout the season of Tule growth in the Lagoon showed that the visible wall height would be perhaps 10' when and where growth is lowest, and perhaps 4' when and where tallest. This would create a very high visual impact for tourists, the local public and residents from without, and State Park visitors from within the Lagoon on foot, paddle board, and kayak. Mitigation Measure AES-2 calls for "surface treatments with earth-tone colors and natural appearing materials", but **actual natural materials would be more appropriate for this scenic natural resource.**

Repeated public requests (over years of meetings) for "story poles" or other on-site representations of the location and height of the EPB have not been fulfilled. A short section was provided at the end of River Park Place, but this was a poor substitute for the kind of impact portrayal that new buildings in the Carmel area are required to provide prior to approval. "Story poles" should consist of wood or steel poles connected with a band of construction mesh. **The EIR process should have included "story poles" installed the full length, at the proposed height and location within the Lagoon.**

4. Aesthetics of the Bio-Filtration / Retention Zone - I appreciate the attempt at visual simulations, but they do not include any attempt to portray the bio-filtration / detention zone behind the EPB and there is no Landscape Design provided. **This zone will quickly become a dense Willow and Cottonwood forest** (like the Willows and Cottonwoods along the Carmel River). The EPB will largely keep saltwater intrusion out, allowing this growth - **the result being no visibility of the Lagoon itself from any location behind the EPB**. The Project design should have dealt with this issue and the EIR should address the visual impacts of this zone.
5. Aesthetics of SRPS surrounding Carmel River State Beach parking lot - Given that the parking lot pavement is currently between 13' - 16' elevation along it's beach edge, and that the SRPS rip-rap is shown to be at 20' along this edge, **the rip-rap will be between 4' and 7' high and 50' wide against the parking lot** which now serves as public access to the State Beach. Contrary to statements in the EIR, sand will never cover this. Beside the public beach access challenge, the visual impact of 4'-7' by 50' wide rip-rap will be significant. The SRPS design makes no attempt to deal with these visual and access issues, apparently leaving this to California State Parks. **The Project design should have dealt with this, and the EIR should address this significant visual impact.**
6. **"Story Poles" should also have been erected for the SRPS which surrounds the State Beach parking.**



Rip-Rap at Carmel Beach - Is the material proposed for the SRPS?

Ms. Melanie Beretti

90 Monterey County Resource Management Agency
168 West Alisal Street - 2nd Floor
Salinas, CA 93901

received
Jan. 19, 2017

Dear Mrs. Beretti -

I am writing to (strongly) support the positions taken in the draft EIR regarding the Carmel River Lagoon. This draft recognizes that there would be significant and unavoidable adverse impacts if the proposed barrier were built (e.g. it would permanently degrade the visual character of the site of the proposed barrier and the surrounding area. In addition, the pump station and generator/control which would be built at Carmel's 17th street are expected to exceed applicable thresholds at the nearest property line. ①

② My husband and I live at Carmel and between 16th & 17th streets)

Other potential negative impacts are suggested in the EIR - for instance traffic, land use issues and drainage, flooding patterns

The draft (EIR) does offer alternatives -

1) the the Scenic Road Protective Structure be built (SRPS) to protect the road & beach from erosion and 2) that an Interim

Sandbar Management Plan (ISMP) would permit mechanical breaching of the sandbar when the water level in the lagoon reaches 13, 27 feet.

A delay of 8 years to in building the (EPB) Protective Barrier around

the lagoon during which time the SRRPS would be built and more data would be available by which to study the efficacy of the EPD.
2) Further, No EPD would be constructed during these 8 years and a Sandbar Management Plan (SMP) which would lower the Sandbar + cut a "pilot" channel (leaving a "Sand Plug" in place) would be completed.

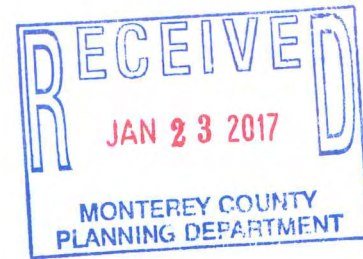
My husband and I strongly support this alternative and are very concerned that the (EPD) not be built, both for its negative environmental effects and the potential harm to our home personally.
Thank-you -

Charles and Ceme Kittrell
26340 Carmelo Street
Carmel, CA 93923

Dr. Dancy Kittrell @ SBCglobal.net
625-3114

January 19, 2017

Ms. Melanie Beretti
Special Programs Manager
Monterey County Resource Management Agency
168 W. Alisal Street
Salinas CA 93901



Dear Ms. Beretti:

Page 4.1-14 of the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project DEIR contains the assertion "The proposed project site is not visible from Highway 1, which is a State Scenic Highway." This statement is incorrect. The EPB component's preferred location is proposed to occupy a site that currently is visible from the vicinity of 36° 31' 45.84"N, -121° 55' 7.92"W (WGS84) and northward. This coordinate is on Highway 1 near the bus stop by the intersection of Ribera Road and Highway 1.

The DEIR does not consider changes that will occur over time in vegetation along Highway 1 and in the Lagoon from altered Lagoon hydrology resulting from the project, from sea level rise, and from forecast increased variability of precipitation due to global climate change. These changes in vegetative cover are predictable. They have a high probability of increasing the visibility of the project from Highway 1. The time course of visibility over the lifespan of the project requires analysis.

The DEIR correctly notes that Highway 1 is a California State Scenic Highway and the northerly terminus of a National Scenic Byway. Mitigation of the project's near and long term visibility is required.

The Project in its preferred location also will be visible from Palo Corona Regional Park. The DEIR is neglectful in not considering this. Impairment of the views currently available and available in the future from Palo Corona Regional Park should be considered and mitigated.

These comments are submitted in my capacity as a private citizen.

Sincerely,

Robert Siegfried
PO Box 1932
Carmel CA 93921

cc. Supervisor Mary Adams

PHIL QUIGLEY
One Montgomery Street, Suite 3200
San Francisco, California 94104

REF 20051

January 20, 2017

received
Jan. 25, 2017

Melanie Beretti
Monterey County Resource Management Agency
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

Dear Melanie,

As a resident of Carmel, here are our comments regarding the proposed EPB and the Draft EIR for the Carmel River Lagoon:

We believe that the proposed EPB would have a significant, unavoidable and adverse impact on aesthetics, surface hydrology and noise. The Draft EIR also recognizes that the EPB could impact, biological balances, cultural, traffic, and land use, as well as alteration of drainage pattern. We agree with the report findings that the proposed EPB project component would permanently degrade the visual character of the site and surrounding area. Finally, the operation of the EPB is likely to result in significant and unavoidable impacts from flooding on and off site.

The Draft EIR presents two alternatives to the report which were analyzed in detail:

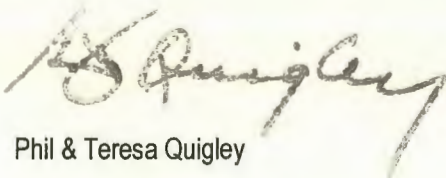
Plan A - construction of the SRPS, ISMP, with construction of the EPB delayed for a period of 8 years to allow for further study. This delay was recommended so that after the construction of the SRPS, data could be collected to better inform the efficacy and design of the EPB – and need for it – once a northern management strategy has been implemented.

Plan B - construction of the SRPS and a Sandbar Management Plan (SMP) with no EPB. The pilot channel would be cut to the south end of the beach until the SRPS is constructed, after which it would be cut to the north as NMFS recommended. This sand plug approach is expected to reduce the need for mechanical breaching. This is presented as the "Environmentally Superior Alternative" eliminating significant and unavoidable negative aesthetic, operations hydrology and construction and operations noise impacts associated with the EPG project component.

The Draft EIR concludes that Alternative B meets all the project objectives while reducing its adverse effects. This alternative would also overcome other objections raised earlier by neighbors and the State Parks and the Carmel Area Wastewater District. We agree It also provides useful support for the position that the Friends of the Carmel River Lagoon has taken from the beginning, namely, that construction of the EPB is environmentally counterproductive and would create an unnecessary and irreversible blight on the lagoon

We firmly believe that the new sand bar management plan presented in conjunction with the elimination of the EPB represents a significant advance in the County's negotiation with National Marine Fisheries and urge its adoption.

Sincerely,



Phil & Teresa Quigley

Friedrich, Michele x5189

From: Kurt Jagers [kurt@thejagers.com]
Sent: Sunday, January 22, 2017 4:56 PM
To: ceqacomments
Cc: Kurt Jagers
Subject: Carmel Lagoon Draft EIR



TO: Melanie Beretti,
Monterey County Resource Management Agency
168 West Alisal Street, 2nd floor, Salinas, CA 93901

FROM: Kurt Jagers

DATE: January 22, 2017

RE: Comments on Draft EIR

Our residence is located at 2741 Calle La Cruz in the Carmel Meadows neighborhood. I am writing to support the no EPB alternative described as Alternative B in the draft EIR. I have reviewed the EIR and believe that the construction of an EPB would have significant negative environmental and aesthetic impacts on the Carmel Lagoon. The project objectives as presented can be achieved through sandbar management and construction of the SRPS.

Further, I am opposed to alternative A that would spend additional resources studying concepts for mitigating the adverse impacts of the EPB. I believe that the proposed, but unproven, mitigation approaches will have adverse consequences and are not deserving of spending public funds that could be better applied to other more worthwhile projects.

Sincerely,

Kurt Jagers

Beretti, Melanie x5285

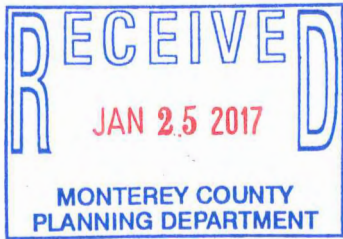
From: Marc Wiener [mwiener@ci.carmel.ca.us]
Sent: Wednesday, January 25, 2017 4:20 PM
To: Beretti, Melanie x5285
Subject: RE: City of Carmel-by-the-Sea - DEIR Comment Letter - Carmel Lagoon Project
Attachments: DEIR Comment Letter_Lagoon Project_012517.pdf

Hello Ms. Beretti,

Attached is a comment letter regarding the DEIR for the Carmel Lagoon project. We are going to mail you a hard copy. Please confirm that you received this.

Thank you,

Marc Wiener, AICP
Community Planning and Building Director
Carmel-by-the-Sea, CA 93921
PO Drawer G
(831) 620-2024



received
Jan. 25, 2017



City of Carmel-by-the-Sea
COMMUNITY PLANNING AND BUILDING DEPARTMENT

POST OFFICE DRAWER G
CARMEL-BY-THE-SEA, CA 93921
(831) 620-2010 OFFICE

January 25, 2017

Attn: Ms. Melanie Beretti, Special Programs Manager
Monterey County – Resource Management Agency
168 W. Alisal, 2nd Floor
Salinas, CA 93901

Dear Ms. Beretti:

The City of Carmel-by-the-Sea (City) is providing this comment letter on Monterey County's Draft Environmental Impact Report (DEIR) for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project.

As you are aware, the Carmel Area Wastewater District (CAWD) provides sewer service to the City of Carmel-by-the-Sea and surrounding areas, and any project that adversely impacts the CAWD facility will directly impact the public health, safety, and welfare of the City. The public has made an investment of more than \$200 million in the current the CAWD facility, which includes \$43 million over the past 10 years. While we support the County's project objectives of enhancing the Carmel Lagoon ecosystem and maintaining flood protection to existing developed areas, we are opposed to any action that would adversely impact CAWD given its necessity and value to the community.

It appears that the County's information on the CAWD property is both incomplete and incorrect, which has compromised the evaluation of potential flood risk to the CAWD property. This assertion is supported by a statement in the DEIR that the "specific information pertaining to the CAWD facility, such as finished floor elevations and current seepage management program, was not available to the project team." Of significant concern, is that the DEIR identifies that there is an uncertified levee around the CAWD property that will provide protection from water inundation at a surface elevation of up to 18 feet. On January 18, 2017, CAWD submitted a comment letter to Monterey County clarifying that the reported levee does not exist, and that it consists of vegetative material and will not provide protection to the facility. Furthermore, CAWD has asserted that its property will be flooded at a lower surface water elevation than what is estimated by the County, and cited that during a recent storm in December 2016, the water level reached 15 feet and as a result 8 acres of CAWD property was inundated with water. The City requests that the DEIR be revised to more accurately evaluate and disclose the flood risk to the CAWD property in light of this information.

The DEIR states that “the impact to the CAWD facility is significant and unavoidable” due to a higher sustained surface water elevation as a result of this project. The impacts of the proposed project have not been adequately evaluated or disclosed for two reasons. First, the DEIR underestimates the potential impact to the CAWD property based on its erroneous assumption of an uncertified levee. Secondly, the DEIR does not adequately address the potential impact to Carmel-by-the-Sea and surrounding areas should the CAWD treatment service be disrupted as a result of flooding. As stated in CAWD’s comment letter, “within one hour of the plant’s shutdown raw sewage would start to back up in the collection system...after that, raw sewage would begin to back up and daylight at residential connections and overflow devices at residential properties.” The DEIR is required to evaluate the cumulative impacts of a project, including indirect or secondary effects that are reasonably foreseeable and caused by the project. The DEIR must be revised to address the likely significant impacts to the City of Carmel-by-the-Sea and surrounding areas that rely on the CAWD treatment facility.

The DEIR predicts that the proposed Ecosystem Protection Barrier (EPB) Project would likely result in higher groundwater levels and will likely flood the CAWD property. The DEIR claims that there are no feasible mitigation measures to reduce these impacts to a less than significant level. In the City’s opinion, there are potential mitigations that should be considered, including the construction of a floodwall to protect the CAWD property or a commitment from the Monterey County Resource Management Agency to continue managing the lagoon in order to maintain lower surface water elevations. The County should be responsible for mitigations necessary as a result of this project and the responsibility should not be shifted onto CAWD and its rate payers.

In summary, the DEIR does not adequately evaluate or recognize the potential impact that the project will have on the CAWD property and associated communities that rely on its service, nor does it propose any mitigation measures. The City requests that the DEIR be revised to address these issues.

We appreciate your consideration and encourage the County to work with CAWD on the revisions to the DEIR.

Sincerely,



Marc Wiener, AICP
Community Planning and Building Director

cc: Steve Dallas, Mayor
Chip Rerig, City Administrator
Barbara Buikema, CAWD General Manager

Beretti, Melanie x5285

From: morgan gilman [mggilman@yahoo.com]
Sent: Friday, January 27, 2017 9:46 AM
To: Beretti, Melanie x5285
Subject: Fw: CSA -1 Comments on the Draft EIR
Attachments: Csa final final draft Comments 1-27-17.docx



Sign of age Melanie . Its like going to the airport without the tickets.

Morgan G.Gilman

On Friday, January 27, 2017 9:43 AM, morgan gilman <mggilman@yahoo.com> wrote:

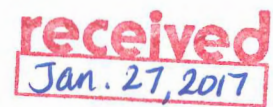
Hi Melanie :

Attached are the Comments from CSA-1 on the Draft EIR. There is a reference to the Haro Kasunich Report which I believe you already have in hand and is referenced as an attachment to these comments.

Will there be public hearings or will the County make a decision based on the comments ?

Morgan G.Gilman

January 24, 2017



Melanie Beretti
Special Programs Manager
Resource Management Agency
168 W. Alisal St. 2nd Floor
Salinas, CA 93901

Re: CSA-1 Comments in response to the Draft EIR prepared by Denise Duffy and Associates, Inc.

Re: Scenic Road Protection Structure :

A. The CSA -1 Citizens Advisory Committee, after reviewing the Preferred Alternative namely the rip rap revetment, and the two wall alternatives, felt that it would be helpful to have the Alternatives reviewed by Haro ,Kasunich and Associates, Inc., Coastal Engineers, because of their extensive experience in solving Pebble Beach's erosion problems along their coastal property caused by the intrusion of the ocean. Their report, a copy of which is attached hereto and supplements the Committee's comments, was submitted to the County and CSA-1 on January 19th and their conclusions are as follows :

1. The Beach Protection Structure Alternatives: The best Alternative is a vertical retaining wall that functions as a seawall that extends down to the granite bedrock or down below the worst case scour elevation expected for the design life of the wall. This is preferable to the Preferred Rip rap revetment Alternative for the reasons amplified in the report. The wall could be located at the toe of the slope or a Mid slope and depending on the geology could be a Soldier Pile Wall or Secant Wall which would less permeable and less subject to damage.
2. The Parking Lot/Rest Rooms Protective Structure Alternative: The best protection would not be the rip rap revetment, which the Kasunich Report characterizes as "very risky." The better alternative which was not considered , would be a tied back retaining wall/seawall using king pile sheet pile technology that might require tiebacks ,especially where deep granular sediments exist down to 65 feet below sea level.

3. The Report also recommended the following studies would be necessary to finalize any design and which should become part of the EIR:
 - a. Geological investigation mapping the subsurface for the backshore and foreshore of the beach along the bluffs.
 - b. A conceptual cross section of the rip rap revetment and the wall alternative with the elevation of the scour from the combination of the river and ocean forces depicted at the proposed structure location.
 - c. A study defining the elevation of the anticipated beach scour and river scour during a northward flow of the beach along the alignment of any structure along the beach and parking lot.
 - d. A study showing the calculations of sand supply loss that results from each Alternative and a calculation of the Sand Loss Mitigation Fees that would be charged by the Coastal Commission.

4. Beach Access : Continued access to the Carmel River beach has not been given the required level of priority in the DEIR .

B. Unique Resource : The Carmel River Beach , Lagoon, and River is a rare and unique resource and therefore special emphasis is required by CEQA in the Draft EIR on environmental impacts . In this context, the DEIR needs to assess any changes that could occur to this resource including access, physical changes in the beach, changes that limit human use and those that could affect the scenic quality of the resource and not limit the impacts described to those that affect threatened species and neglect the impacts on the resource itself.

Other omissions in the EIR are as follows :

1. The impact of a northerly breach on beach access and use, and the long term sustainability of the northern beach including an analysis of sand supply loss .

2. The Draft EIR does not adequately address the impacts of the ocean and the river on the bluff from the end of the proposed alternatives northward to the end of the beach. In prior northward breaches , the river damaged the stairs below Scenic and Ocean View and there is no assessment of the need or lack of need to extend the protective

structure north to the end of the beach. These impacts judging from past river and wave activity need to be identified and assessed and mitigation measures evaluated.

C. Interim Sandbar Management Plan and Future Impacts on the Beach that are not mitigated by the SRPS :

The goals of the totality of the projects are as follows :

1. Protect the properties on the lagoon from flooding by an EPB. This would include the school, homes, streets and businesses including the Sewer Facility located upstream on the Carmel River.
2. Scenic Road Protection Structure : Install a protective structure to prevent the bluff supporting Scenic Road which includes other utilities from the effects of a northerly breach of the river and the effects of the wave action on the bluffs .
3. Allow the river to breach naturally once the EPB and the SRPS are built, including in a northerly direction which is favored by the NMFS and the Steelhead Fishing Association based on the supposition presented by them that a natural northerly breach is the more beneficial to the Steelhead population .

Based on the DEIR, it is unlikely that the EPB will be built. The effect of no EPB is that it will be necessary to manage the river to protect the properties on the lagoon and the sewer plant from flooding. That means mechanically breaching the river at least until the SRPS is built to prevent further erosion of the bluff if the river breached north. Once the SRPS is built, there is an understanding among the County and the other Agencies involved, that the river will be breached in a northerly direction to protect the Steelhead fish . There is no discussion in the EIR that addresses the impacts from a northerly breach on the beach and CEQA requires that all impacts on a unique resource need to be addressed , not only the impact on one threatened species. The Committee identified the following impacts from a northerly breach that need to be addressed and mitigation measures identified .

1. Access to the Beach
2. Loss of use of the beach as a result of the northerly breach.
3. Loss of Sand on north end of the beach

4. Potential damage to structures depending on the severity of the storms.

5. Potential impact of bird predation on the Steelhead population while they are in a longer channel for a greater amount of time.

6. Cumulative impacts caused by a repetitive northern breach.

E. Further Studies and Options :

The Committee thinks that in addition to the identification of impacts on the beach from the northerly breach, the following should be considered at the same time :

1. Review the basis for the NMFS contention that the northerly breach is in the best interests of the steelhead fishing population and the steelhead are better off with this breach versus a southerly breach. The evidence presented does not seem to stand the test of overwhelming evidence or even compelling evidence and for actions which have potential adverse impacts to a unique resource , the evidence should stand up to a reasonably convincing test . From the documents provided there does not appear to be a cause –and –effect study that demonstrates that breaching to the north is better for steelhead than breaching in any other direction. The monitoring and reporting program that will be part of the ISMP should address this question with the goal of quantifying and substantiating that the northerly breach is better for the Steelhead. So much money and time and effort have been spent because of this assumption , and a primary goal of the Monitoring and Reporting program should be to finally thoroughly substantiate this critical but to date, unsubstantiated assumption.
2. Revisit the southerly breach to determine if a permanent channel could be constructed on the south end of the beach . Benefits would accrue to the northern beach, and the water levels in the lagoon could be actively managed so the water levels in the lagoon could be better maintained , and assess other impacts.
3. The EPB in the lagoon is not supported by the property owners that are affected by potential flooding, , the management of the sewer plant district or the Parks department. However, during the time while the SRPS is being designed and constructed, further studies could address the following :

- a. Can a barrier be built on the property lines of the affected properties that would not unreasonably block views of the lagoon
- b. Can a solution be found to reduce the noise to acceptable levels from the pumping of storm water runoff .
- c. Can the storm water runoff be redirected to reduce the size of the pumps needed ..
- d. Is there a reasonable solution to protect the sewer plant ? Have outside experts assessed the wastewater management problems to determine if there are any solutions that have not been considered to date
- e. Include in the consideration of the merits of the northern breach , the damage to the northern beach, . The other damage to public facilities, the bluffs etc, which occurred as a result of the prior northern breaches should be mitigated by the SRPS, but that structure will not protect the northern beach from the following potential damage.
 - 1.Destroy the access to the beach by stairs at Ocean View and Scenic and other new access points that are developed.
 - 2..Reduced the use of the beach for the public
 - 4..Reduced the sand on the beach significantly
 - 5.Damage the bluffs north of the end of the proposed SRPS which does not extend to the end of the northern beach.

We realize that a lot of work has already been done on the analysis of the EPB but given that there will be time until the SRPS is built , the time could be spent to reexamine the conclusions in the EIR. .

Thus CSA-1 supports the Alternative that delays the EPB decision while the additional time is spent to analyze the above in more detail to again ascertain if all of the goals of the EIR are attainable. While this is being done the beach can be breached mechanically but should only be breached in the southerly direction until the studies are done and the results analyzed.

Respectfully submitted by CSA-1 Advisory Committee

19 January 2017
Project No. M11179

MEMORANDUM

To: Schaaf & Wheeler, Consulting Civil Engineers
Attn: Emily Straley
1171 Homestead Road, Suite 255
Santa Clara, CA 95050-5485

Email: estraley@swsv.com

Subject: Geologic, Geotechnical and Coastal Engineering Review and Comments on the Alternative Scenic Road Protection Structures (SRPS)

Reference: Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project; Draft Environmental Impact Report (DEIR) dated December 2016 prepared for County of Monterey by Denise Duffy & Associates, Inc.

Introduction

Thank you for contacting our firm. Our firm includes Engineering Geologists, Geotechnical Engineers and Coastal Engineers. We have done a significant amount of consulting work regarding coastal protection structure evaluation in Monterey County including working for the Pebble Beach Company for 30+ years. This Memorandum presents our review of the Scenic Road Protection Structure proposed at the mouth of the Carmel River.

We have worked with Denise Duffy & Associates on a number of projects and appreciate the work they have done on the Draft EIR for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project. This is a complex project in a very dynamic and geologically, geotechnically and hydrologically complex environment. The junction of the Carmel River mouth and the Pacific Ocean shoreline is subject to significant geologic hazards and risks that have the potential to damage and cause failure of shoreline protection structures. The area where the Scenic Road Protection Structures are proposed is subject to episodic events that have the potential to result in extreme erosion and beach scour from combined riverine and oceanographic conditions. Below is a photograph from the Shoreline History study by Edward Thornton, prepared in 2005.



Figure 1: April 9, 2004 Photograph showing Scenic Road, the Eroding Coastal Bluffs Below, and Beach Inundation from the Pacific Ocean (Thornton, 2005)

The referenced DEIR indicates that under certain conditions, such as during high Carmel River flow events, the beach bluff adjacent to Scenic Road is subject to erosion. To prevent this from occurring while the river seeks a northern breach, some form of slope protection along the bluff toe is necessary. The primary objective of the slope protection is to limit landward migration of the bluff toe so it must be a non-erodible feature capable of resisting anticipated wave impact, and littoral and river currents.

The proposed SRPS project component concept was developed to help preserve existing bank support for Scenic Road, protecting public infrastructure against the erosive effects of the Carmel River when the laterally migrating channel mouth swings northward toward Stewart's Cove. Damage to Scenic Road could result in the loss of access to eight private residences, in adverse environmental impacts (such as discharge of raw sewage into the ocean), and impairment to public access to important coastal resources.

The **Proposed SRPS Project** component consists of rock slope protection, also known as a rock rip-rap revetment, placed at the toe of the road embankment. This revetment is about

1000 feet long. The existing toe of the bluff slope where it meets the landward edge of the beach is typically at an elevation of approximately +20 feet NAVD 88 however the beach surface elevation is subject to fluctuation due to littoral drift and coastal erosion resulting from river flows and ocean wave impact. The proposed SRPS project discussed in the EIR, shown on EIR Figures 3-13, 3-14, 3-15 and 3-16 as the preferred alternative would extend from the southern (downcoast) tip of the Carmel River State Beach public parking lot toward the northwest. The proposed rock revetment is intended to provide protection from anticipated erosion to the parking lot, the adjacent restroom buildings and Scenic Road upcoast to the northern terminus of the revetment located between Valley View Avenue and Isabella Avenue. The EIR indicates that the outer rock layer of the revetment would be sized to withstand extreme ocean wave and river current forces (e.g., 1 to 2-ton sized rock) with a layer of smaller rock and/or geotextile fabric underneath to prevent underlying soils from being eroded through the revetment; and that conservative estimates of rock size and thickness have been utilized in the preliminary revetment design.

The **SRPS – Seawall Located at the Toe of Slope Alternative** consists of two sections of wall: the northern (upcoast) half would be a vertical retaining wall (seawall) constructed at the toe of slope, along an alignment similar to the revetment proposed as the SRPS project; and the southern (downcoast) half would consist of a revetment identical to the proposed SRPS project component. The retaining wall structural system would consist of a tangent or secant pile wall. *Although this Alternative is verbally described, no drawings of this Alternative are included in the EIR.* Plan and section view drawings of this Alternative are shown in Figures 16 through 18 of the February 25, 2013 “Carmel River Lagoon Restoration Scenic Road Protection Options” report prepared by Moffatt and Nichol. These drawings show the top of the seawall at an elevation of +12 feet NAVD88 at the downcoast end near 26489 Scenic Road, and at +7 feet NAVD88 at the upcoast end near Valley View Avenue. This Alternative includes a vertical seawall approximately 480 feet long that is overlapped by a rip-rap revetment that is about 520 feet long.

The **SRPS Full Height Wall – Secant Pile Wall Alternative** would consist of construction of a buried tied back retaining wall about 750 feet long within the footprint of the existing Scenic Road roadway at the top of the bluff, and a section of rip-rap revetment about 300 feet long that extends around the beach parking lot. The full-height of the wall is expected to be approximately 40 feet, with the upper 25 feet designed as a retaining wall. As shown in EIR Figures 5.1 and 5.2, the retained portion is at Elevation +12 to +37 feet NAVD88. A cantilever wall of this height is infeasible, and, therefore, tieback anchors would have to be incorporated into the retaining wall design concept. The type of retaining wall discussed in the EIR is a secant pile wall embedded sufficiently for structural stability and tied back with earth anchors at the top of the wall extending under Scenic Road. After construction is completed, the roadway would be reconstructed and repaved. The completed pile wall would be constructed completely below grade. The wall would be completely buried until large riverine flow events or large wave events scour away the bluff toe. As the bluff toe scours, more of the pile wall becomes visible; eventually the entire retained height of 25 feet or more will be exposed. The tiebacks would likely extend beyond the Scenic Road ROW and an easement would be needed for the tiebacks to extend onto private property inland of Scenic Road. This Alternative includes an apron of rip rap placed in the future to protect the toe of the wall from undermining by beach scour. A gap is envisioned between the downcoast end of the proposed retaining wall along the outside edge of

Scenic Road and the upcoast end of the proposed revetment around the State Beach parking lot.

The **SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative** would be constructed near the toe of the existing bluff slope at the landward edge of the beach. This location would be at mid-slope once the beach sand is transported offshore by wave and river flow. The full-height of the wall is expected to be approximately 30 feet, with the upper 12 feet designed as a retaining wall. As shown in EIR Figures 5.3 and 5.4, the retained portion is at Elevation +8 to +20 feet NAVD88. A cantilever wall of this height is feasible and, therefore, tieback anchors would not be required as part of the design concept. The type of retaining wall recommended is a soldier pile wall consisting of drilled soldier piles and lagging panels. The soldier piles are steel structural wide flange beams and the lagging panels are precast concrete planks or panels. The design of this alternative does not include an aesthetic treatment of the exposed face, if it ever does get exposed. This Alternative includes an apron of rip rap placed in the future to protect the toe of the wall from undermining by beach scour. The downcoast end of the proposed 800 foot long retaining wall along the back edge of the beach below Scenic Road overlaps the inland edge of the upcoast end of a 300 foot long proposed revetment around the State Beach parking lot that is part of this Alternative.

Our work is limited to reviewing the proposed Scenic Road Protection Structures (SRPS) project components. We understand that the objectives of the SRPS project are: 1. To protect public infrastructure (Scenic Road embankment, State Parks restroom, and parking facilities) from scour resulting from a northerly-aligned lagoon outflow channel. 2. To protect the Scenic Road embankment from erosion resulting from ocean storm surge. To do so, we have reviewed portions of the following documents:

1. 2005 Report entitled Littoral Processes and River Breachings at Carmel River Beach, prepared by Edward B. Thornton, Naval Postgraduate School, Monterey, CA 93943.
2. April 9, 2005 Powerpoint entitled Carmel River Beach Shoreline History prepared by Edward B. Thornton, Naval Postgraduate School.
3. February 25, 2013 “Carmel River Lagoon Restoration Scenic Road Protection Options” report prepared by Moffatt and Nichol
4. Portions of the Pacific Geotechnical Engineering (2013) “Feasibility Geotechnical Investigation Proposed Ecosystem Protection Barrier and Scenic Road Protection Structure”.
5. May 29, 2013 report entitled “Carmel River Lagoon Ecosystem Protective Barrier (EPB) and Scenic Road Protection Structure (SRPS) Projects Feasibility Report” prepared by Whitson Engineers (without attached Exhibits)
6. August 2, 2013 Progress Draft Report entitled “Carmel River Lagoon Biological Assessment Coastal Engineering Analysis” prepared by Moffatt and Nichol

7. July 30, 2014 Moffatt and Nichol Rip Rap 30% plans entitled Carmel River Lagoon Scenic Road Protection Project which we understand is currently the preferred alternative in the EIR Sheets T1, G1, and C1 thru C5)
8. August 2015 Moffatt and Nichol 30% drawings of Full Height Wall (2 Sheets) and Low Toe Wall (1 sheet)
9. November 20, 2015 Memo from Erin Harwayne of Denise Duffy and Associates regarding "Scenic Drive Bluff Protection-Additional Alternatives"
10. May 19, 2016 Final Draft Memorandum entitled "Review of Carmel River Lagoon Scenic Road Protection Preliminary 30% Design Draft Report and Improvement Plans" by Emily Straley of Schaaf and Wheeler.
11. Portions of the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Environmental Impact Report (DEIR) dated December 2016 prepared for County of Monterey by Denise Duffy & Associates, Inc.
12. Photographs provided by Morgan Gilman, www.californiacoastline.org and other online sources.

The 2013 Feasibility Geotechnical Investigation by Pacific Geotechnical Engineering (PGE) included two geologic cross sections, one located 100 feet downcoast from the corner of Valley View Avenue and Scenic Road, and the other located 300 feet further downcoast at 26453 Scenic Road. No geologic cross section was prepared at the Restrooms or at the Carmel State Beach Parking Lot. The geology shown on the two geologic cross sections PGE prepared largely relied on subsurface information from two Cone Penetrometer Tests done along the blufftop at the seaward edge of Scenic Road. Cone Penetrometer Testing involves pushing a small diameter steel probe into the ground while almost continuous measurements of tip resistance, side friction resistance, and pore pressure are made. No soil or rock samples are taken. Both PGE geologic cross sections show beach and dune sand underlain by terrace deposits at an elevation of approximately +16 overlying a wave cut platform formed in undescribed bedrock. PGE interprets that the geologic conditions they found under Scenic Road extend seaward under Carmel River State Beach with the top of the bedrock at an elevation of approximately +8. In our opinion it is unlikely the geology is this simple.

Photographs of past Carmel River erosion and scour when the river has breached northward show native granite bedrock outcropping at the base of the coastal bluff (embankment) along Scenic Road including near 26453 Scenic Road. No terrace deposit material is visible in the eroded bluff face. Two photos showing this are below:

Camel River - Northridge District

8/5/05



Figure 2: Scenic Road Coastal Bluff Showing Granite Bedrock at Base of Bluff 8/5/2005



**Figure 3: Scenic Road Coastal Bluff Showing Granite Bedrock
Extending Seaward From Base of Bluff**



Figure 4: Scenic Road Coastal Bluff Face
Note the height of the adult standing at beach level in the photo

These three photographs indicate the Scenic Road coastal bluff is composed of dune sand and beach sand exposed in the photographs. While the two Cone Penetrometer Tests done along the blufftop at the seaward edge of Scenic Road are useful for evaluation and design of the SRPS Full Height Wall – Secant Pile Wall Alternative they do not represent the conditions found along the alignment being considered for either the SRPS – Seawall Located at the Toe of Slope Alternative, the SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative, or the Proposed SRPS Project consisting of rock slope protection, also known as a rock rip-rap revetment, placed at the toe of the road embankment. No exploratory borings have been made along any of the alignments of either the Proposed Project or any of the 3 Alternatives. The photographs of past northerly river scour events along the beach reveal that: 1) no terrace deposit materials are exposed, and 2) the surface of the top of the granitic bedrock below the beach and dune sand is highly irregular in elevation. The geology depicted on the conceptual cross sections shown as Figures 13 through 15 (rip-rap structure similar to proposed project) and 16 through 18 (seawall at toe of slope) of the February 25, 2013 “Carmel River Lagoon Restoration Scenic Road Protection Options” is queried on those drawings suggesting it is speculative. Those drawings show that terrace deposits exist under the beach sands and those terrace deposits extend horizontally almost to the shoreline of the ocean. Based on our

experience and on the available photographs, this geology is unlikely to be accurate. We are concerned that if the upcoast portion of the proposed project is built across the beach, well seaward of the toe of the bluff, it will be founded on beach sand that is subject to damage from erosion and beach scour during extreme winter storms and periods of heavy ocean wave impact.

Below is a photograph of the Carmel River State Beach Parking Lot located near the downcoast end of the SRPS project. The State Park Restrooms are visible in the left edge of the photo.



Figure 5: Carmel River State Beach Parking Lot

We understand this photograph is from 2005. It shows that the Carmel River undermined the parking lot, which is founded on beach sand. The 2013 Feasibility Geotechnical Investigation by Pacific Geotechnical Engineering (PGE) indicates that a boring (# MW-1) was drilled by Staal, Gardner and Dunne in 1989 in or very near the parking lot and did not encounter bedrock until a depth of 79 feet; which is at an elevation of approximately minus 65 feet NAVD88 (about 68 feet below sea level). This is consistent with Pacific Geotechnical Engineering (PGE) Cone Penetrometer Test 1 which found soils they interpreted to be sand, silty sand and sandy silt to a depth of 70 feet. CPT-1 found liquefiable sands from a depth of 10 to 30 feet which includes the foundation zone of the Proposed SRPS revetment at this location. This boring and CPT were located within the buried channel of the Carmel River. The morphology of the buried Carmel River channel has not been defined where it crosses the alignment being considered for either the SRPS – Seawall Located at the Toe of Slope Alternative, the SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative, or the Proposed SRPS Project. All three of these Alternatives include a rock rip-rap revetment. The revetment is 300 feet in length at the Carmel River State Beach Parking Lot for the SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative, and the Proposed SRPS Project. The revetment is 520 feet in length for the Seawall Located at the Toe

of Slope Alternative). Founding rip-rap on beach sand, rather than bedrock makes rip-rap settlement, displacement and damage much more likely. A Monterey County Public Works Carmel River Mouth Sand Bar Elevation survey map dated 05/18/2011 shows beach sand elevations of -1.0 feet NGVD 29 which is an elevation of +1.77 feet NAVD88 immediately seaward of the Parking Lot and Restroom Building shown in Figure 5. It is very probable that the survey does not represent maximum scour elevations.

Thornton (2005) has reported that because the Carmel River Beach is sheltered from the predominant wave direction, very little wave energy in the form of large, storm waves reaches the northern portions of the beach; instead, swell impacts the beach for most of the year, transporting sediment shoreward and building up the beach berm. On average this is true, however we believe extreme conditions are possible that have the potential to damage any SRPS structure. Where the Carmel River meets the ocean is an extremely dynamic geologic environment. Because the proposed revetment around the parking lot is founded not on bedrock, but on deep sand, our concern is undermining and/or settlement of the rip rap when the river breaches to the north. A second concern is whether the revetment extends far enough around the lot to protect it from the river getting in back of the revetment and causing damage to the unprotected east side of the parking lot. Given that the Carmel River naturally breaches this berm, the Scenic Road coastal bluff and the Carmel State Beach parking lot area are subject to erosion.

The online photograph (source unknown), Figure 6, shown below illustrates the erosion hazard.



Figure 6: Northerly River Flow Eroding Scenic Road Coastal Bluff

The photographs below show that the entire beach was eroded away from a combination of northerly river flow and ocean wave action in 2005.



Figure 7: Northerly River Flow and Ocean Wave Action Have Completely Eroded Beach

We believe that the Proposed SRPS Project has been selected based on the assumption that the foreshore beach berm seaward of the proposed rip-rap revetment will in the future always maintain an elevation greater than the protective rock comprising the revetment. If the foreshore beach berm is eroded to elevations lower than the protective revetment's trunk (and certainly its base), then damage to this structure is likely during combined high tide, wave runup and river flow conditions. Severe damage or destruction of the revetment structure is possible during a severe coastal erosion event like those that have historically impacted the Central Coast of California. It is fundamentally important to define the elevation of anticipated beach scour and river scour during northward flow along the alignment of any SRPS structure being considered. In our opinion, there has been insufficient geologic study to conclude that the Proposed SRPS is the best Alternative.

It is our opinion that the documented historic scour of the foreshore and backshore at the Carmel State Beach Parking Lot and the probable greater scour that has occurred but is not documented at the Parking Lot and below Scenic Road further upcoast will reoccur in the future. This scour will impact the Proposed SRPS structures at base elevations of 0 to +5 feet NAVD88

with deep water depths of 10 feet or greater at the toe of the Proposed SRPS structure and waves approximately 8 feet high breaking directly on the revetment.

The EIR indicates that the outer rock layer of the revetment would be sized to withstand extreme ocean wave and river current forces (e.g., 1 to 2-ton sized rock) with a layer of smaller rock and/or geotextile fabric underneath to prevent underlying soils from being eroded through the revetment; and that conservative estimates of rock size and thickness have been utilized in the preliminary revetment design. We have done a preliminary evaluation of rip-rap boulder weight based on exposure of the toe of the revetment to expected breaking wave heights using methods outlined in the Coastal Construction Manual and Shore Protection Manual which results in a minimum required boulder weight of 2.7 to 4.5 tons with 50% being greater than 3.6 tons. The boulder weight necessary for stability varies with elevation. Insufficient boulder weight will result in rip-rap boulder plucking and displacement, which will result in boulders scattered seaward of the structure. If rip-rap is inadequately sized, plucking and displacement will result in damage to the revetment which will lead to revetment failure from perforation or slumping; thereby compromising the stability of Scenic Road and the State Beach Parking Lot. We recommend the rip-rap be designed based on a worst case analysis.

Coastal Act Section 30235 requires that shoreline protection development be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Development of any SRPS structure will result in the retention of sand and material for the foreseeable life of the project. The EIR does not quantify impacts of the proposed SRPS shoreline protection on the sand supply. The California Coastal Commission requires that such impacts be analyzed to quantify the amount of sand size material in the bluff that will be retained by the seawall or revetment structures that would otherwise have contributed to the beach sand supply, the area of public beach that is covered by the structures, and beach loss that will occur due to future sea level rise and fixing the back of the beach at the location of the shoreline armoring. We recommend that the geotechnical experts for the project contact the Coastal Commission staff engineer, Lesley Ewing (Lesley.Ewing@coastal.ca.gov) at her San Francisco office if they have any questions regarding these calculations. We note that the size of the footprint of the SRPS shoreline protection will have a large effect upon the calculations, which result in the calculation of in-lieu fees associated with the cost of sand replenishment.

The proposed rip-rap SRPS structure that the EIR concludes is the preferred alternative will have a broad footprint covering beach area compared to any of the vertical wall alternatives. While the rip-rap will be periodically or occasionally covered by beach sand, it will create a hazard for beach users when exposed or located just below the beach surface. When exposed, the rip-rap will remove beach area that is presently available for public recreational use. Vertical wall solutions, while they have greater construction costs, do not impact recreational use of the beach to this degree. The impacts on recreational beach access and use must be considered for all alternatives. We understand that the beach access stairs at the end of Ocean View Avenue have been previously damaged. The proposed SRPS structures do not include details of how beach access will be preserved or provided along the 1000 foot alignment of each Alternative Scenic Road Protection Structure.

Conclusions:

Based on our evaluation and review of the geologic, geotechnical and oceanographic site conditions performed to date, it is our opinion there has been insufficient geologic study to conclude that the Proposed SRPS is the best Alternative. Until the subsurface geology is properly mapped locations and elevations along the backshore and foreshore of the beach, it is impossible to determine what protection structures are feasible to protect the Scenic Road coastal bluff. This is true for the SRPS – Seawall Located at the Toe of Slope Alternative, the SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative, and the Proposed SRPS Project consisting of rock slope protection,

It is also our opinion that a vertical retaining wall that functions as a seawall that extends down to the granite bedrock or down below the worst case scour elevation expected for the design life of the SRPS is preferable to the Proposed SRPS revetment structure. This could be a structure similar to the SRPS – Seawall Located at the Toe of Slope Alternative or the SRPS Mid-Slope Toe Wall – Soldier Pile Wall Alternative; as modified to be stable based upon actual geologic and geotechnical subsurface conditions when they are delineated by subsurface exploration along the selected alignment.

A tied back retaining wall/seawall using king pile sheet pile technology may be the best engineering alternative to protect the Carmel River State Beach Parking Lot and Restrooms where deep granular sediments exist down to 65 feet below sea level. No alternative SRPS structure other than rip-rap was evaluated for 300 lineal feet of the SRPS project area there by the EIR. A conceptual cross section for each Alternative structure at the Parking Lot should be included in the EIR, with the elevation of scour from combined river and ocean forces depicted at the proposed structure location. The rip-rap revetment that is proposed at the Parking Lot and Restrooms in every Alternative the EIR considered is, in our opinion, very risky and subject to damage during future anticipated geologic, hydrologic and oceanographic conditions.

The required rip-rap boulder size, and the potential for rip-rap undermining and settlement should be evaluated in more detail wherever rip-rap is considered for the SRPS project including at the Parking Lot, at Valley View Avenue where rip-rap is proposed far seaward of the coastal bluff, and at the base of the bluff immediately adjacent to Scenic Road. Wherever a revetment is founded not on bedrock, but on deep sand, our concern is undermining and/or settlement of the rip rap when the river breaches to the north or if the foundation zone liquefies during a seismic event. The base of any vertical wall would need to be designed to prevent ocean wave action from undermining the base of the wall. It is fundamentally important to define the elevation of anticipated beach scour and river scour during northward flow along the alignment of any SRPS structure being considered. In our opinion, there has been insufficient geologic study to conclude that the Proposed SRPS is the best Alternative.

We recommend beach access be evaluated along the 1000 foot alignment of each Alternative Scenic Road Protection Structure. We recommend that calculations of sand supply loss and beach loss that result from the SRPS project be completed for each Alternative prior to concluding which alternative is the preferred Alternative.

Sincerely,

HARO, KASUNICH & ASSOCIATES, INC.



Mark Foxx
Engineering Geologist
C. E. G. 1493



John E. Kasunich
Geotechnical Engineer
G.E. 455

MF/JEK/dk

Attachment:

Copies: 1 to Addressee (by email)
1 to Lynette Redman, County of Monterey (by email)
1 to File

Beretti, Melanie x5285

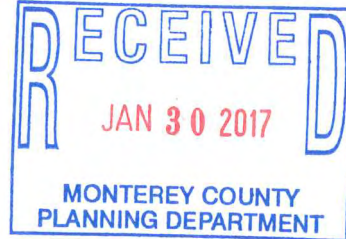
From: Lorin Letendre [letendre@sbcglobal.net]
Sent: Saturday, January 28, 2017 10:20 AM
To: Beretti, Melanie x5285; Vest, Dawn A. x6716
Cc: A.I.A. Michael L. Waxer; Gabriela Alberola; Andy Magnasco; Vincent Voegeli; payan@mprpd.org; Catherine Stedman; Lorin Letendre; Paul Bruno; Abbie Beane; galberola@csumb.edu; catherine.stedman@amwater.com
Subject: CRWC's Response to Draft EIR on Carmel River Lagoon and Scenic Road Bluffs
Attachments: CRWC Response to County RMA Draft EIR 1-28-17.doc

Melanie and Dawn--

Please find attached our CRWC response.

Thank you very much, Lorin

Lorin Letendre
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Carmel River Watershed Conservancy
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received
Jan. 30, 2017

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Paul Bruno, Vice President
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January 28, 2017

Melanie Beretti
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RE: CRWC's Response to the Draft EIR for the Carmel River Lagoon EPB/SRPS/ISMP Project

Dear Melanie—

Thank you for all the time and care the County and your contractor Denise Duffy & Associates has devoted to this Draft EIR. It certainly is exhaustive in considering all reasonable alternatives for solving the problems caused by the barrier beach at the Carmel River Lagoon.

The Conservancy has carefully reviewed and considered the contents of this Draft EIR, and has the following input into the EIR as part of the public review period.

SUMMARY: The Conservancy conditionally supports (1) the SRPS Mid-Slope Toe Wall-Soldier Pile Wall or similar Seawall Wall Alternative, and (2) the “Environmentally Superior Alternative” of the SRPS and SMP (No EPB) Alternative.

Condition 1: The SRPS Project must balance the interests of residents and visitors to the Scenic Road area above the bluffs, with the interests of the threatened species steelhead, by reconsidering the recommendation that the breach alignment be placed in a northerly direction that would destroy the Stewarts Cove Beach for weeks if not months each wet season. Access to and use of the beach deserves much higher priority in the EIR. A constructed channel along the Carmel Meadows bluffs should be evaluated to determine if it would provide the gradual entrance and exit that are desired. Additionally, subsurface geologic studies under the Scenic Road bluffs are essential before finalizing the chosen seawall alternative.

Condition 2: If the federal and state agencies, including NMFS, SCC, and USACE, continue to reject any long-term solution that involves bulldozers on the beach for lowering or opening the barrier beach, then we support as the only long-term viable solution the Alignment #1 in the EPB Feasibility Report along with a storm drainage system that reduces “dry side” runoff issues.

(cont.)

Carmel River Watershed Conservancy
PO Box 223833, Carmel, CA 93922



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Vince Voegeli
Rafael Payan

Now for some background and specifics:

1. Any viable alternative must include a Scenic Road Protection structure of some sort to protect the Scenic Road bluffs and State Parks parking lot and restrooms from further erosion from river and wave action. We have already lost approximately 45 feet of parking lot and almost lost the restrooms had some of us not alerted the NMFS late that night to instruct the County to open a “relief channel” in the south end of the barrier beach. Especially if a northerly breach is contemplated in the future, we absolutely must have the SRPS project completed in advance of such a breaching protocol.
2. With regard to our preferred alternative, we strongly recommend the SRPS Mid-Slope Toe Wall-Soldier Pile Wall (or similar Seawall Wall) Alternative, for the following reasons:
 - a. It is a moderate cost alternative yet satisfies all of the project objectives.
 - b. It can be constructed from the beach side rather than the road side, which lessens impact on the residents of Scenic Road there as well as all the people who walk along Scenic Road on a regular or periodic basis. We recognize as the EIR states that the road may have to be closed at times during the construction, and that the parking lot would be used as a staging area so it would be closed for this construction period.
 - c. A cantilever design is feasible so the tieback anchors would not be required as in the other wall alternative.
 - d. We are skeptical that a rip-rap solution would stand up against a combination of high river action and high waves action particularly in a 100-year storm. We believe that the analyses that CSA-1 funded by Schaaf and Wheeler and Haro Kasunich confirm this skepticism.
 - e. It could resist the erosive effects of northerly breaches better than the rip-rap alternative. However, we believe that northerly directed breaches will have negative unmitigated consequences on access to the Stewarts Cove Beach that must take more prominence in this solution. These effects were given short shrift in the Draft EIR and must be give more priority in considering future direction of sandbar management. We want to review the scientific evidence that purportedly demonstrates the advantage of a northerly breach over a southerly breach (especially if a southerly exit is constructed along the bedrock there so that a gradual exit is feasible).
 - f. F. As the Haro Kasunich report states, there is need for additional geologic studies to determine the subsurface conditions along the Scenic Road bluffs as well as a sand supply loss study; replacing the rip-rap revetment with “a vertical retaining wall that functions as a seawall that extends down to the granite bedrock or down below the worst case scour elevation expected for the design life of the SRPS is preferable to the Proposed SRPS revetment structure; and that the Proposed rip-rap revetment for the parking lot be reconsidered as this report deems it “very risky.”
3. With regard to the Carmel River Lagoon and barrier beach solution alternatives, we must repeat what has been stated clearly in previous communications and as the Draft EIR states: “NMFS has affirmed that annual mechanically breaching as proposed in the permit application would likely jeopardize the Carmel River population of S-CCC steelhead and destroy and adversely modify its critical habitat.”



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Rafael Payan

(page 3.0-16). In addition, the Carmel River Steelhead Association has clearly stated that they prefer a natural breaching of the barrier beach and have even threatened litigation should the NMFS and other agencies cause a “take” of the steelhead in the lagoon by mechanical breaches of the barrier beach in a southerly or straight-out direction. In other words, any alternative that is considered MUST take these stated positions into account, and MUST provide for a regime in which “the primary objective of the proposed project is to implement a solution to improve the functions and values of the ecosystem in and around the Lagoon by restoring the Lagoon’s historic hydrologic, pre-management conditions to the extent feasible to protect and improve habitat for fish and wildlife while maintaining flood protection.” (page 3.0-19) Recommending an alternative that relies on continued sandbar management using bulldozers seems contrary to this clearly stated objective. If the federal and state agencies can be convinced to allow sandbar management, then the SMP and No EPB alternative appears best to us.

4. The Conservancy has earned the right to have its views and recommendations taken very seriously, as we, State Parks, and NMFS were mostly responsible for the establishment of the Carmel River Lagoon Technical Advisory Committee (Draft EIR page 3.0-15). This Technical Committee developed most of the alternatives that are addressed in this EIR, and one of the alternatives was to construct a levee, berm or wall along the north side of the lagoon to protect the homes as well as to provide for natural breaching of the barrier beach.

However, none of the projects that the Committee recommended were funded, so frustration set in. That then led to the Conservancy’s applying for a grant from the Wildlife Conservation Board, which made a grant to the Conservancy of \$145,000 to evaluate the feasibility of constructing an Ecosystem Protective Barrier (EPB) both to protect property and to improve the natural functioning of the Lagoon and barrier beach. The grant was transferred to the County RMA to manage and complete the analysis. The resulting EPB and SRPS Feasibility Report (May 2013) recommended placing the EPB 40 feet into the Lagoon to allow for dry-side runoff drainage into the Lagoon wetlands. The County then entered into the MOU in September 2011 that recommended the EPB Alternative 2A with 40-foot drainage area plus the Scenic Road Protection Project Alternative 1 (rip rap).

However, resistance to this plan arose from adjacent property owners concerned about their view shed, from the State Parks concerned about having an artificial structure on its wetlands preserve, and from the Carmel Area Wastewater District (CAWD) concerned about possible flooding from a deeper lagoon caused by the EPB. These objections essentially stalled the projects, and all these objections must be addressed in any solution alternative to be recommended to the Board of Supervisors and permitted by the state and federal agencies. Having reviewed the CAWD response to the Draft EIR, their concerns about upstream flooding of their facility deserve serious consideration and possible mitigation should an EPB-like floodwall structure be required by governmental agencies with authority over the beach and lagoon. Likewise, the expressed concerns of the adjacent property owners that were reviewed seem



Carmel River Watershed Conservancy
PO Box 223833, Carmel, CA 93922

Board of Directors:

Michael Waxer, President
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Catherine Stedman
Andy Magnasco
Vince Voegeli
Rafael Payan

legitimate, but may have to be overridden by government agencies in pursuit of long-term flood protection along the north side of the lagoon.

The Conservancy's position is that only an EPB-like floodwall solution will allow for the natural breaching that the NMFS, USACE, and other agencies strongly insist is a primary project objective. The Draft EIR recommends as its "environmentally superior" alternative the SRPS and Sandbar Management Plan with no EPB, but that plan will still require annual bulldozing of the barrier beach to lower the berm enough to cause a breach prior to the homes on the north side flooding. Certainly, that will be less damaging to the environment, **but it fails to achieve all the project objectives. This is the crux of the matter; no alternative thus far evaluated except the EPB or Delayed EPB will provide for "natural" breaching.**

The Conservancy has always strived to balance the interests of people and their businesses with the interests of the environment and its threatened species. So how can we avoid the environmental impacts of the EPB Project? Constructing the EPB 40 feet out into the Lagoon is desirable to avoid flooding from the backside or dry side, but the State Parks is highly unlikely to permit this and the damage to the wetlands could be considerable. So let's go back to the EPB Feasibility Study and see what choices we have. Why could not the County install the EPB on or near the property lines rather than 40 feet out into the Lagoon? That could remove the State Parks objection (they actually recommended this earlier), and if property owners can be persuaded that this will protect their homes and their neighbors' homes from flooding, and they realize that the effect on their view shed is minimal, that might reduce their objections. CAWD's objections may be eliminated by their initial efforts to build a dirt berm along their western edge or to install a low floodwall.

However, this leaves the problem of how to deal with all the runoff from the "dry side" or the hills above the floodplain. The Feasibility Study stated that we would need several more pumps to handle the runoff if the EPB is placed along property lines, but it seems feasible to construct storm drains near where 16th Avenue intersects with Camino Real, River Park Place, and Monte Verde to divert this runoff into the Lagoon closer to the River School playground. One safety valve pump likely would still be needed near the last house on the south side of Carmelo. This alternative was not evaluated in the Draft EIR but it could solve all of the problems that the Draft EIR hopes to resolve.

Thus in order to satisfy all of the Project Objectives (Draft EIR page 5.0-2) including natural rather than mechanical breaching the Conservancy recommends "Alignment # 1: EPB at the minimum setback off property line" alternative as stated in the EPB Feasibility Report, preferably installing the EPB along the property lines (or very near them if more drainage into the wetlands from the dry side is deemed essential). This alternative will require either a new storm drainage system near 16th Street at the intersection of the other north-south streets ending at the Lagoon, or installing pumps at the end of each

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of those streets (this will create noise for the property owners nearby so is our second choice). Especially this satisfies the objectives that state “reduce the necessity for mechanical breaching of the sandbar to the greatest extent possible,” and “Maintain the current level of flood protection for existing public facilities and private structures in the low-lying developed areas located immediately to the north of and within the Lagoon.”

Finally, there is a public safety issue that must be considered. In 2008 the “perfect storm” of high river action, high tides, and high waves made it impossible for the County’s bulldozing crews to breach the sandbar and this resulted in the flooding of many homes in the north side of the Lagoon. If we rely on annual (not “real” emergency) sandbar management this potential always remains, and to our Conservancy this is unacceptable. We have worked with the homeowners on the north side of the lagoon since 2005 to find a feasible solution, and leaving them vulnerable to possible flooding is unconscionable. Only a levee, berm, or floodwall such as the EPB (the least environmentally damaging alternative of these) will ensure that the barrier beach breaches naturally and the homes are not threatened. The NMFS has stated that they would allow mechanical breaching in rare “real” emergency situations, but they do not want annual mechanical breaching. They strongly prefer natural breaching. To ignore their position as well as the threat of legal action from the Carmel River Steelhead Association, is at our own peril.

Submitted on behalf of the Carmel River Watershed Conservancy,

Lorin Letendre
Executive Director

received
Jan. 28, 2017

Beretti, Melanie x5285

From: Paul Ingemanson [pingemanson@gmail.com]
Sent: Saturday, January 28, 2017 3:00 PM
To: Beretti, Melanie x5285
Cc: Lorin Letendre; morgan gilman; Annette Gatterdam; David Sabih; Fred Medero; Fred Brown; Ann Ingemanson; Linda Cooperman; Pam Goode; Patricia Conklin
Subject: Carmel River Lagoon EIR Comments

Melanie,

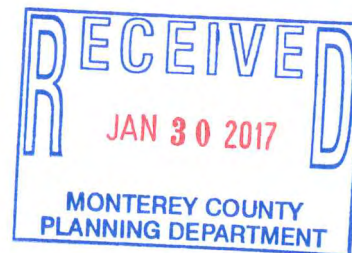
I am a property owner on Scenic Road in Carmel Point and would like to submit comments regarding the Carmel River Lagoon EIR. I have been unable to find a link to submit comments on the EIR web page and would appreciate your help in submitting my comments before the 1/31/17 deadline. Documented below are two of my major disagreements with the EIR followed by a suggested alternative plan of action:

1. The plan to breach the River in a northerly direction would damage and possibly destroy the beach and there is no documented proof that such a diversion would help the steelhead. Building a stable wall next to Scenic Road seems to have merit, but diverting the River in a northerly direction for seven years seems to have no benefit other than to appease the Steelhead Association.
2. The barrier in the northerly portion of the lagoon would cause major problems with the Carmel Wastewater sewage system as was documented in the 1/27/17 issue of the Pine Cone. In addition, I have seen no documentation to prove that the barrier would work and, to make it worse, the visual impact would be extremely negative.

I fail to understand why the County cannot continue the current breaching process in a southerly direction when floods are threatening the area. This would save the investment of tens of millions of dollars in a plan that is highly questionable and seems likely to have a very negative impact on a beautiful area. It seems the Steelhead Association and other environmentalists are trying to force their interests in implementing a plan that would definitely have negative impacts on the environment with questionable benefits.

Respectfully submitted,

Paul Ingemanson
26321 Scenic Road
Carmel, CA 93923



Friedrich, Michele x5189

From: Brian LeNeve [bjleneve@att.net]
Sent: Sunday, January 29, 2017 7:49 PM
To: ceqacomments
Subject: comments on the DEIR for the Carmel River Lagoon
Attachments: 2017 CRSA final letter DEIR lagoon.doc

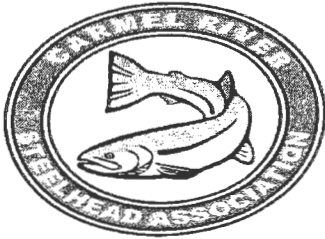
Hello

Attached is a comment letter on the DEIR for the Carmel River Lagoon projects.

CRSA has already mailed these comments and is using this email as a backup

Brian LeNeve
President Carmel River Steelhead Association

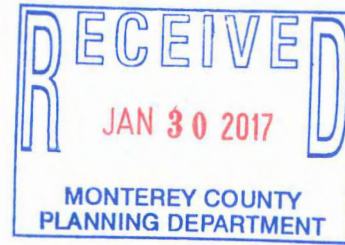




Carmel River Steelhead Association
501 (c)(3) TIN 77-0093979
P.O. Box 1183
Monterey, CA 93942

Monterey County Resource Management Agency
168 West Alisal Street, 2nd floor
Salinas, CA 93901

January 28, 2017



Attention: Melanie Beretti, Special Programs Coordinator

RE: Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project, Draft EIR

Dear Ms. Beretti:

The Carmel River Steelhead Association (CRSA) wishes to provide the following comments on the Monterey County Draft Environmental Impact Report (DEIR) for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project (Project).

As the primary stakeholder advocating for steelhead and steelhead habitat in the Carmel River our comments will generally be regarding how the Project affects steelhead and steelhead habitat. Having said this, a great number of CRSA members live in Monterey County and we are aware of our neighbors and other members of the community and how this Project affects them.

The Project consists of three parts: the Ecosystem Protective Barrier (EPB), the Scenic Road Protective Structure (SRPS) and the Interim Sandbar Management Plan (ISMP). We discuss each component separately, below. While CRSA will comment on all three project components, it is the ISMP that is the most problematic.

ECOSYSTEM PROTECTIVE BARRIER

While CRSA supports the theory that more and deeper water is beneficial to steelhead and in general supports this portion of the project, there is no analysis of how an increase in lagoon depth and size affects any species. The DEIR should present scientific data showing how different depths affect multiple species.

In a separate document prepared for the county in March 2014 by D.W. ALLEY & Associates labeled **Fisheries Analysis for the Carmel River Lagoon Biological Assessment Report** there is discussion and tables of how much longer the lagoon would have been in the sandbar-closed position if the county had not mechanically breached the sandbar. Such a discussion and tables should be analyzed and provided in the DEIR to determine the benefits of building the EPB.

The DEIR does note that legislative action would be required to place the EPB on State Parks Land, but there is no analysis of whether this would be a reasonable legislative outcome. Without such analysis, it is difficult for the public to decide if this is a viable project or project

alternative component. There must be an analysis of the possibility of such legislative action even taking place.

In talking to the Carmel Area Wastewater District (CAWD) CRSA agrees with CAWD that the EPB portion of the DEIR does not adequately assess the potential damage to the CAWD plant and property, potential public health or habitat consequences and this must be properly analyzed. Further, discussion must also be held on who must pay for mitigation of the CAWD facility if the EPB is built.

While it is not possible to assess the opposition of local property owners, CRSA believes that nearby landowners would likely strongly oppose the adoption of the EPB which on page 5.0.41 of the DEIR states, “The EIR found that the proposed project component would permanently degrade the visual character of the site and the surrounding area, which is a significant and unavoidable impact. In addition, the operation of the proposed EPB project component would result in significant and unavoidable impacts to flooding on- and off-site.”

As the Resource Management Agency is well aware, Carmel River flooding is almost a yearly occurrence. Ideally, the Agency should design the Project so that it decreases the risk of flooding when compared to baseline levels and does not severely degrade the scenic value of the lagoon, while also protecting and providing adequate habitat for steelhead and other river species.

For the reasons stated above CRSA believes the EPB portion of this project may never be built and the Environmentally Superior Alternative of SRPS and ISMP (No EPB) Alternative should be considered as the County’s Preferred Alternative.

SCENIC ROAD PROTECTION STRUCTURE

CRSA fully supports the SRPS project component and believes this component of the project should proceed as soon as possible. Without this portion of the project there will be no long-term solution to the overall problem and the unacceptable status-quo will remain.

INTERIM SANDBAR MANAGEMENT PLAN

As stated before, CRSA has major problems with the ISMP component of the Project as it is described, or rather not described, in the DEIR. The ISMP is not an actual plan but a path set out in an original Memorandum of Understanding (MOU) between the County, the United States Army Corps of Engineers (Corps) and the National Marine Fisheries Service (NMFS). That MOU had no public input or analysis of consequences and even as such was violated by the County in at least January of 2016 when the County mechanically breached the lagoon then allowed the lagoon to drop below the 6-foot level as prohibited in the MOU.

This DEIR has imbedded in Appendix B, the Carmel Lagoon MOU, what is labeled as **EXHIBIT A INTERIM PLAN AND CRITERIA FOR FLOOD CONTROL AND SUMMER MANAGEMENT OF THE CARMEL RIVER LAGOON**. “Exhibit A” is essentially the original MOU the local and federal agencies entered into in September 2013. Because the Exhibit A provides the bulk of the description of the ISMP, the contents of Exhibit A must be added to the “Project Description” section in the DEIR. By including this Exhibit A in an Appendix and not even listing it in the table of contents prevents all but the most thorough examiner from finding it, commenting on it or understanding what the actual ISMP is.

Exhibit A of Appendix B, like the Carmel River MOU is not a plan where the public can understand what is going to happen, let alone comment on, but a free pass for public agencies to decide where the lagoon is breached and what happens afterward. Again, the MOU the County

relies on provided no opportunity for public input and no analysis of how the actions taken affect steelhead. As the name states, Exhibit A is a flood control plan and not an environmental document or a procedure to save steelhead. It must be changed to also prevent loss of steelhead and steelhead habitat.

Even though the DEIR states that northerly breaches are best for steelhead, in the last few years the breaches have either been to the south or straight out on the southern end of the sandbar. Even with the diagonally south breaches, starting at the southern end of the sandbar has resulted in straight out breaches and have been catastrophic for steelhead, flushing juveniles out to sea and reducing lagoon levels to below two feet. That type of breach is unacceptable to CRSA, detrimental to steelhead, and probably causes further loss of beach sand further exasperating a sand starved condition.

It is the desire of CRSA to have the lagoon function in as natural a state as possible, but if mechanical breaching is required, it must be done in a way that also protects steelhead. To do this the DEIR must analyze, in a manner that adequately describes the County's proposed ISMP Project component, all aspects of mechanically breaching the sandbar and include that analysis in the body of the DEIR and not buried in an Appendix. That analysis must include but not be limited to:

- 1: How mechanically breaching at different times of the year will affect all species, and in particular steelhead.
- 2: How different water levels in the lagoon will affect all species and in particular steelhead.
- 3: How mechanically breaching in different locations on the sandbar will affect all species and in particular steelhead and the water level in the lagoon.
- 4: How mechanically breaching will affect food sources of all species and in particular steelhead.
- 5: How mechanically breaching will affect the amount of sand on the beach.
- 6: How breaching at different lagoon levels will affect all species and affect the amount of sand on the beach.
- 7: There must be consequences spelled out if the county violates the ISMP as they have the MOU in the past.
- 8: The County must set a binding timeline, at which point it must phase out of the "ISMP-only" phase of the Project.

CRSA is also concerned that both the EPB and the SRPS could be delayed or not funded and what started out as a MOU could become a long-term management plan, lacking any real definition that does not benefit steelhead. As the County noted in the DEIR, on page 5.0-12, "NMFS informed the County that implementing the [Sandbar Management Plan Only Alternative] would result in significant impacts to steelhead and [NMFS] would not be able to issue the necessary permits." As described in the DEIR, all Project alternatives that contain the ISMP have no binding or stated timelines, and thus have the potential to allow the County to manage the lagoon indefinitely under the ISMP. This result would be indistinguishable from the "Sandbar Management Plan Only Alternative" the County very appropriately rejected. Because the ISMP does not contain any binding, or even defined, management standards or a built-in phase-out timeline, all Project alternatives would allow the County to manage the lagoon in any way the County sees fit. This would likely lead the County to indefinitely continue to breach the lagoon the same way it has in years past. As NMFS and the County have recognized, this approach, although the most likely outcome of the DEIR, is also the most unacceptable. This "business as usual" approach would certainly "result in significant impacts to steelhead." Unless the County provides (1) binding management standards in the ISMP that guarantee this Project component will reduce impacts to steelhead, and (2) a mandatory, binding phase-out timeline for its ISMP-only phase of the Project, NMFS and USFWS, through the Corps, should not permit the Project. As stated before, CRSA believes that the EPB part of this project will be very difficult to complete if it is possible at all.

Without the EPB portion of the project, breaching will continue to be required indefinitely, making proper analysis and steelhead safeguards in the ISMP even more important. The DEIR even states that there will be years where the lagoon will have to be mechanically breached even with the EPB installed.

Therefore, the DEIR needs to have proper analysis of the ultimate project both with and without the EPB, with and without the SRPS and with and without either the EPB or SRPS.

On January 27, 2017, CRSA for the first time saw a December 2016 Biological Assessment (BA) prepared by the County for NMFS so NMFS could prepare a Biological Opinion. The County must fully evaluate information contained in the BA and incorporate all relevant information from this and future NMFS and USFWS documents into its baseline, impacts, mitigation, and alternatives analysis. Additionally, the County must ensure the EIR, and, by proxy, the BA and upcoming Biological Opinion provide an accurate, finite, Project description. Failure to do so may prevent NMFS and USFWS from adequately understanding the Project impacts and the nature of the U.S. Army Corps of Engineers' permitting action. NMFS may have a Biological Opinion prepared by May, 2017. The County should attach and evaluate the Biological Opinion and any supporting federal agency documents to any future draft of its EIR.

CRSA believes that proper CEQA analysis of the ISMP is so lacking that a new or supplemental DEIR must be released.

Sincerely,

Brian LeNeve
President CRSA

cc: Jacqueline Pearson-Meyer, Fishery Biologist, National Marine Fisheries Service, Jacqueline.pearson-meyer@noaa.gov

U.S. Army Corps of Engineers, 135 Market Street, 6th Floor San Francisco, California 94105

Friedrich, Michele x5189

From: Bonnie Gillooly [gillooly@sonic.net]
Sent: Monday, January 30, 2017 11:23 AM
To: ceqacomments
Subject: Response to the Draft EIR on the Carmel River Lagoon

Hi Melanie,

I am writing in support of the Environmentally Superior Alternative - the SRPS and SMP (No EPB) Alternative for the Carmel River Lagoon project.

I have lived in the Carmel area since 1965 and walk the beach and lagoon areas frequently for the natural beauty and vistas. Maintaining these vistas and asthetic qualities of this special area are as important as managing the overflow from the Carmel River.

The project needs to have a final determination now instead of having an eight year delay.

Thank you,

Bonnie Gillooly



Friedrich, Michele x5189

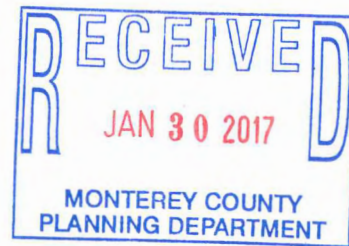
From: Awan, Afifa@SLC [Afifa.Awan@slc.ca.gov]
Sent: Monday, January 30, 2017 12:43 PM
To: ceqacomments; 'state.clearinghouse@opr.ca.gov'
Cc: Pino, Lucien@SLC; Calvo, Lucinda@SLC; Griggs, Pamela@SLC; Ramos, Jason@SLC; Gillies, Eric@SLC; Oggins, Cy@SLC
Subject: CA State Lands Commission's comment letter for the Draft EIR SCH# 2014071050 Carmel Lagoon Ecosystem Protective Barrier Project
Attachments: 2014071050 Carmel River Ecosystem Protective Barrier (DEIR).pdf

Hi,

Please accept the attached copy of the California State Lands Commission's comment letter for the Draft EIR SCH# 2014071050 Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project. The original signed copy was mailed to the address in the letter.

Thank you,
Afifa

Afifa Awan, Environmental Scientist
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825-8202
(916) 574-1891



CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

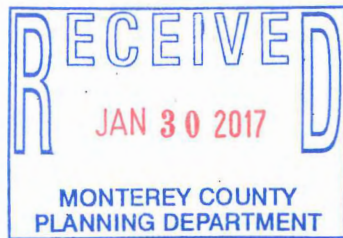


Established in 1938

January 31, 2017

JENNIFER LUCCHESI, Executive Officer
(916) 574-1800 Fax (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1890
Contact FAX: (916) 574-1885



File Ref: SCH # 2014071050

Melanie Beretti
Monterey County Resource Management Agency
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

Subject: Draft Environmental Impact Report (EIR) for Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project

Dear Ms. Beretti:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIR for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project (Project), which is being prepared by the County of Monterey (County). The County, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign land and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign land, the CSLC will act as a responsible agency.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6009, 6009.1, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat

preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The proposed Project would be located within the Carmel Lagoon (Lagoon) between State Route 1 and the Pacific Ocean in the unincorporated Carmel area of Monterey County. It would be located on all or a portion of eight parcels (Assessor's Parcel Numbers: 009-472-001-000; 009-481-004-000; 243-011-001-000; 009-491-001-000; 009-511-009-000; 009-511-011-000; 009-511-007-000; and 009-511-006-000).

The Pacific Ocean at this location is ungranted sovereign land currently under lease to the California Department of Fish and Wildlife (CDFW) under Lease No. PRC 5309.9. This lease is scheduled to expire on June 30, 2026. The Project component to place an Ecosystem Protective Barrier may require a lease from the CSLC. CSLC boundary staff is currently working on determining whether a lease is required for the Project. CSLC staff will provide a follow-up letter once CSLC jurisdiction is determined. Please contact Lucien Pino, Public Land Management Specialist (see contact information below), for any specific jurisdiction-related questions.

Project Description

The County proposes to enhance ecological function of the Lagoon to meet the County's following objectives and needs:

- Restore the Lagoon's historic hydrologic and pre-management conditions to the extent feasible to protect and improve habitat for fish and wildlife
- Be consistent with Memorandum of Understanding (MOU) between the County, the U.S. Army Corps of Engineers, and the National Marine Fisheries Service to reduce the need for mechanical breaching sandbar to the greatest extent practicable
- Maintain the current level of flood protection for existing public facilities and private structures in the low-lying developed areas located immediately to the north of and within the Lagoon
- Protect Scenic Road embankment and the California Department of Parks and Recreation's (State Parks) restroom, interpretive facilities, and parking facilities from scour resulting from a northerly aligned Lagoon outflow channel that may result because mechanical breaching would be reduced.
- Protect the Scenic Road embankment from the increasing risk of erosion resulting from ocean storm surge and high tides, which could increase in severity due to climate change

- Allow for interim management of the sandbar while the design and construction of the other Project components proceed
- Design and construct Project elements within the timeframe required as outlined in the MOU
- Minimize infrastructure that could detract from the function and value of the natural environment.

From the Project Description, CSLC staff understands that the Project would include the following components as explained on Draft EIR page 3.0-1:

- Ecosystem Protective Barrier (Possibly under CSLC's jurisdiction) – Carmel Street between the State Parks parking lot and 17th Avenue continuing east along the southern boundary of the Fourth Addition neighborhood (between 16th and 17th Avenues) terminating at the eastern boundary of the Carmel River Elementary School property.
- Scenic Road Protection Structure – from the toe of the slope of the embankment to Scenic Road, from approximately Valley View Avenue to the southern end of the Carmel River State Beach parking lot.
- Interim Sandbar Management Plan – various management activities within the Carmel River State Beach and Lagoon.

The Draft EIR on page 5.0-41 identifies the Scenic Road Protective Structure and Sandbar Management Plan (No Ecosystem Protective Barrier) as the Environmentally Superior Alternative.

Environmental Review

CSLC staff requests that the County consider the following comments on the Project's EIR.

General Comments

1. Outstanding Comments from Previous Comment Letter: The CSLC staff requests that the following comments from August 15, 2014, comment letter for the Notice of Preparation for Draft EIR starting on page 28 at the following link <http://www.co.monterey.ca.us/home/showdocument?id=15439> be addressed:
 - a. Vibratory or Impact Hammer: CSLC staff requests that the Final EIR (see page 4.3-53 of the Draft EIR) analyze potential noise and vibration environmental impacts to birds and fish from using vibratory or impact hammers or related equipment.
 - b. Sea-Level Rise: One of the Project objectives is to protect the Scenic Road embankment from increased climate-change risk from ocean storms and high tides; however, the Draft EIR does not contain any sea-level rise analysis. Additionally, the Draft EIR (page 4.8-13) discusses some already flooding

areas that would be vulnerable to sea-level rise. The CSLC staff requests that a sea-level rise analysis be included in the Final EIR.

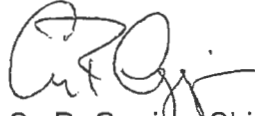
- c. Submerged Cultural Resources: The Draft EIR (page 4.4-10) does not discuss if shipwrecks data from the CSLC database and records for the Project site were reviewed as requested in the CSLC staff's comments on the NOP. This database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant. Please contact CSLC Assistant Chief Counsel Pam Griggs (see contact information below), to obtain shipwrecks data from the CSLC database and records for the Project site.
 - d. Title to Cultural Resources: Because of already known cultural resources near the proposed Project discussed on Draft EIR page 4.4-12, the CSLC staff requests that the Final EIR should also state that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC (Pub. Resources Code, § 6313). CSLC staff requests that the County consult with Assistant Chief Counsel Pam Griggs (see contact information below) should any cultural resources on State lands be discovered during construction of the proposed Project. In addition, CSLC staff requests that the following statement be included in Final EIR's Mitigation and Monitoring Plan and in Mitigation Measure CR-1 on Draft EIR page 4.4-22: "The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the Commission."
2. Detailed Descriptions: The CSLC staff recommends that the County thoroughly describe "how" the various Project components (Draft EIR page 3.0-1) such as the Ecosystem Protective Barrier under CSLC's jurisdiction would be implemented. For example the Draft EIR (page 3.0-20) states that 2,000 linear feet of sheet pile wall would be constructed. However, it is not clear how that sheet pile material would get to the Project site, where it would be stored, what equipment would be used, and what would happen on the ground to construct the sheet pile wall for a reader to be able to independently analyze possible environmental impacts from carrying out any proposed Project-related activity.
 3. Recreation: The Draft EIR on page 4.11-2 discusses how the public uses the Project site for recreation. CSLC staff requests that the discussion on Draft EIR page 4.11-2 also explain if the current public uses of the proposed Project site might be impacted by carrying out Project-related activities. If recreation impacts are expected, CSLC staff requests that appropriate mitigation measures be proposed in the Final EIR to reduce those impacts to less than significant levels.

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the CSLC will need to rely on the Final EIR for the

issuance of any new lease as specified above and, therefore, we request that you consider our comments prior to certification of the EIR.

Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program, Notice of Determination, CEQA Findings, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via e-mail at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Lucien Pino, Public Land Management Specialist, at (916)-574-1858 or via e-mail at Lucien.Pino@slc.ca.gov.

Sincerely,



Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Awan, CSLC
L. Calvo, CSLC
L. Pino, CSLC
P. Griggs, CSLC

Beretti, Melanie x5285

From: Mike Niccum [Mniccum@pbcasd.org]
Sent: Monday, January 30, 2017 3:31 PM
To: Beretti, Melanie x5285
Subject: PBCSD Response letter DEIR Carmel Lagoon EPB Projects
Attachments: 17.01 Carmel Lagoon EPB EIR Letter.docx.pdf

Pebble Beach Community Services District comments on the Draft EIR for the Carmel Lagoon EPB Projects are attached.

Please let me know if you have any questions.

Mike Niccum, P.E.
Pebble Beach Community Services District
(831) 647-5604



received
Jan. 30, 2017

Mike Niccum, General Manager/Secretary



PEBBLE BEACH

COMMUNITY SERVICES DISTRICT

3101 FOREST LAKE ROAD • PEBBLE BEACH, CALIFORNIA 93953 • (831) 373-1274 • FAX (831) 373-2357

January 27, 2017

Ms. Melanie Beretti, Special Programs Manager
Monterey County – Resource Management Agency
168 West Alisal, 2nd Floor
Salinas, CA 93901

Re: Draft EIR – Carmel Lagoon EPB Projects

Dear Ms. Beretti,

Pebble Beach Community Services District (PBCSD) would like to comment on the draft Environmental Impact Report (EIR) for the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS) and Interim Sandbar Management Plan (ISNP) Projects posted on the Monterey County Website.

The proposed project objectives (2.0.1) indicates one of the primary objectives is to be consistent with a Memorandum of Understanding (MOU) between Monterey County, US Army Corps of Engineering (USACE) and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) and reduce the necessity for mechanical breaching of the sandbar to the greatest extent possible. It is our understanding this MOU was developed without consideration of the location of the Carmel Area Wastewater District (CAWD) treatment plant facility.

A second primary project objective is to maintain the current level of flood protection for existing public facilities. Construction of the proposed EPB will reduce the level of flood protection for the CAWD treatment plant without continued management of the sandbar.

It is our understanding the environmentally superior alternative identified by the EIR includes the construction of the SRPS and postponement of the EPB project for eight years to allow time to collect environmental information to better assess sandbar management. This would also allow time to consider the environmental effect of the SRPS and other County lagoon projects that will likely be constructed within that time period. This technical information may significantly change the design considerations for the EPB and might also identify sandbar management practices that provide a better environment for the threatened steelhead than the MOU goal of only allowing natural breaches to the sandbar.

BOARD OF DIRECTORS

Jeffrey B. Froke, Ph.D. • Richard B. Gebhart • Leo M. Laska • Peter B. McKee • Richard D. Verbanec

Carmel Lagoon Draft EIR

January 27, 2017

Page 2 of 2

PBCSD provides wastewater collection, treatment and recycled water distribution services to the unincorporated area of Pebble Beach. PBCSD has a long-term agreement with Carmel Area Wastewater District that requires PBCSD to pay for one-third of the capital expenses of the CAWD treatment plant for a right to use one-third of the plant capacity. PBCSD has invested a total of \$25 million in the treatment plant over the past 30 years. Wastewater from PBCSD cannot be properly treated if the CAWD treatment plant is underwater for any sustained periods of time.

The CAWD/PBCSD Wastewater Reclamation project is a public private partnership with Monterey Peninsula Water Management District and the Pebble Beach Company that has invested a total of \$60 million to provide recycled water to seven golf courses and four recreation field areas in Pebble Beach thereby reducing the quantity of potable water used by the Monterey Peninsula community by up to 1,000 acre-feet per year. This project cannot operate if the CAWD treatment plant is underwater for sustained periods of time.

In summary, the proposed projects would have significant negative impacts to the CAWD treatment plant and to the health, safety and welfare of the public. These impacts are not adequately addressed by the county proposed project in the EIR.

Thank you for the opportunity to comment on the EIR.

Sincerely,



Mike Niccum, P.E.
General Manager

- C PBCSD Board of Directors
- Carmel Area Wastewater District
- Pebble Beach Company
- Monterey Peninsula Water Management District
- Independent Reclaimed Water Users Group

Alice M. and Donald S. Brown
26373 Monte Verde St.
Carmel, Ca. 93923

Melanie Beretti
Monterey County Resource Management Agency
168 West Alisal Street , 2nd floor
Salinas, Ca. 93901



To the Board of Supervisors, Monterey County,

We would like to respond to your request for comments on the Carmel River Lagoon Draft EIR. As the owners of a home directly fronting the lagoon, we are strongly supportive of Alternative B. We are emphatically opposed to any barrier.

Carl Holm and the county staff have done a lot of excellent work and have delineated the significant and unavoidable adverse impacts of the EPB. In alternative B, they have identified a better alternative.

Living on the lagoon, we appreciate the serenity, the views, and the wildlife that thrives in that setting and we enjoy sharing the lagoon with the residents of Monterey County and tourists from around the world who have an opportunity to spend time here. The state park is one of the most diverse bird sanctuaries in the world. It is frightening to imagine the damage that the installation process and subsequent access required to service the barrier will wreak. The plans to manage the extremely substantial urban runoff behind the barrier with "pumping stations", if they actually function as conceived, would clearly threaten an invaluable State and County asset.

In the interest of all those residents of Monterey county and beyond who everyday join us in appreciating the unspoiled natural beauty of the lagoon, I encourage you to finally put to rest the idea of an artificial barrier.

Thank you for your consideration.

Sincerely,

Alice M. Brown *Donald S. Brown*

Alice M Brown Donald S Brown

Beretti, Melanie x5285

From: morgan gilman [mggilman@yahoo.com]
Sent: Monday, January 30, 2017 7:45 PM
To: Beretti, Melanie x5285
Subject: Personal Comments
Attachments: Gilman comments on the deir 1 Addendum .docx

Hi Melanie :

Attached are personal comments on the DEIR. My concern is that the only goal achieved is the protection of the bluffs and Scenic Road, and that the other goals get bogged down and the overall goals are not achieved. There needs to be some balancing of objectives but keeping in mind the preservation of this unique resource named the Carmel River Beach is the overriding objective.

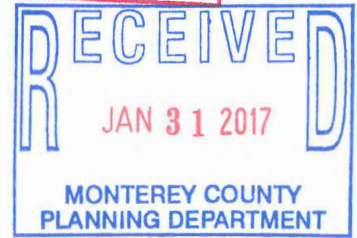
Thanks,

Morgan G.Gilman



Melanie Beretti ,Special Projects Manager
Monterey County Resource Management Agency

~~received~~
Jan. 30, 2017



Dear Melanie :

The following are some personal comments on the EIR .

1.SRPS : I agree with the Haro Kusznic report that favors a wall to protect the bluffs and Scenic Road over the rip rap .The final design of the wall to be determined after necessary geological investigation is completed and a more complete scour analysis is done. The Haro Kusanich report points out the benefits of the wall and the drawbacks to the rip rap solution but in essence the rip rap will reduce the size of the beach, will be set in sand, and will be prone to failure with the confluence of high wave action and the force of the river combined over time.

2.EPB : I support the Alternative that delays the EPB for further study of the EPB . As it pertains to the CAWD property, agree with CAWD comments that the DEIR does not give adequate consideration to a floodwall similar to the EPB in the lagoon . As it pertains to the Lagoon, I think that a more in depth analysis needs to be done on the placement of the EPB on the property lines of the properties on the lagoon, and further analysis of the storm water flows with the goal of redirecting the water to have less impact on the residences, and to reduce the noise level of the pumps and the location again to reduce the impacts on the homes. The goal is to determine if this option is feasible based on further studies and if so, the goal of flood protection could be achieved with buy in from the affected parties.

3.Sandbar Management Plan : Assuming the SRPS is approved, and there is no EPB constructed at the same time as the SRPS , Management of the Sandbar will be necessary and the breaching will be to the South during construction of the SRPS. Once the structure is done, the NMFS et al intent is to breach northerly in order to protect the steelhead fish. The DEIR does not assess the impacts of a northerly breach on the northern beach including loss of access, reduction in the use and size of the beach, and cumulative impacts on the beach. During the time it takes to design and build the SRPS, the northerly breach should be analyzed

further to substantiate the case that the northern breach is necessary. If it is substantiated, and if EPB after further study is found to be feasible, then in order to prevent flooding, and allow for the natural breach of the river to prevent the damage to the Carmel River northern beach, the EBP would have to be approved and constructed.

4. Alternatives to northerly and southerly breaches have been proposed and I would like further studies done on developing a structure on the south end of the beach that could control the level of water in the lagoon, provide a level of flood control, and allow the steelhead to enter the river.

If the only objective achieved is to protect Scenic road and the bluffs, meaning there is no flood control other than mechanical breaching, and there is a good chance that breaching to the north will negatively impact the northern part of the Carmel Beach, the water levels in the lagoon will not be managed, and the only accomplishment will be to protect Scenic Road and the Bluffs from a repeat of the negative effects of the northern breach.

It is not a pleasant prospect that only one of the stated goals will be achieved, and in order to avoid this from happening, I would think that it is time for all of the parties with a stake in finding a total solution to begin to work together to achieve the goals stated in the EIR and to assess how this can be achieved with the greater good as the goal. That will probably mean finding some compromises and a willingness to reconsider positions so to the extent possible, as many of the goals can be achieved.

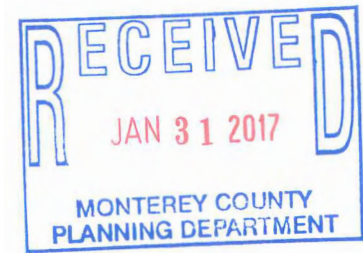
The stakes are high so it becomes an obligation of all the interested parties to examine their positions and not to lose sight that the primary goal is protect this treasure we call the Carmel River Beach and Lagoon the environment it supports not the least of which are the Steelhead Fish.

Very truly yours,

Morgan G. Gilman

Friedrich, Michele x5189

From: FREDERICK BROWN [fbcarmel@comcast.net]
Sent: Tuesday, January 31, 2017 8:19 AM
To: ceqacomments
Cc: Beretti, Melanie x5285
Subject: Draft EIR comment
Attachments: CSA1 DEIR comment FB final.pdf



Melanie,

My comments regarding the Draft EIR are attached. Please confirm the receipt of same.

Fred Brown

To: Melanie Beretti
Monterey County, Resource Management Agency - Planning
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
CEQAcomments@co.monterey.ca.us

From: Fred R Brown
26385 Rio Avenue
Carmel, CA 93923
fbcarmel@comcast.net
831-620-1008



COMMENT PUBLIC REVIEW

DRAFT ENVIRONMENTAL IMPACT REPORT
CARMEL LAGOON ECOSYSTEM PROTECTIVE BARRIER, SCENIC ROAD
PROTECTION STRUCTURE, AND INTERIM SANDBAR MANAGEMENT PLAN
PROJECTS (REF 120051, SCH2014071050)

My personal comments regarding the Draft Environmental Impact Report are mostly directed not at the specifics of the proposed Scenic Road Protection Structure, which is adequately covered in the CAC County Service Area 1's submission, and which I endorse, but rather to the underlying nexus of the premise of the project and reason for the necessity of an alternative breaching solution.

That issue is the requirement for a natural northerly breach of the Carmel River. This is the driving force behind the efforts to change the management of the sandbar from mechanical human intervention to a natural occurrence that would have no interference by humans to influence the timing or direction of the initial breach or any subsequent breaches.

During last year's winter cycle, 2015-16 and again this year 2016-17, the Carmel River was not mechanically breached. A sand plug was left in place for the 2015-2016 cycle, with a small channel below that allowed the river to naturally breach. There was no intervention at all this year, and the Carmel River naturally breached. This is exactly what NOAA and National Marine Fisheries have supported.

During the 2015-16 period, the river continued to open and close the sand bar naturally four times during the rest of the season, and generally flowed in a direct westerly direction into the ocean. In December 2016, and as of this date, the river has not closed, due to higher than normal rain fall from December through January 2017. The river is at its highest flow rate and widest exit width in many years. It did not migrate in a northerly direction in either year. As of today, January 30, 2017, the river is flowing at a markedly southern exit point.

The high "king tides" and wave action have leveled the sand along the mouth of the Carmel River from the most southern to the most northern apexes. The wave action has filled the lagoon with sand in the middle to northern area that extends approximately one hundred yards east of the normally occurring lagoon's most westerly perimeter. The sand in this area of the lagoon is approximately the same height as the sand berm at the furthest egress point along the berm, forcing the river to flow in a westerly and southerly direction as it enters the ocean.

It seems like this is a wonderfully natural occurrence and the steelhead would find it ideal for migrating upstream at this time. And yet, the Steelhead Association is objecting to the situation and is driving the agencies involved to take measures unsupported by the federal government or by data.

I firmly believe that the Carmel River will not breach in a northerly direction without mechanical intervention. The bluffs along Scenic Road have been in place for hundreds if not thousands of years. They are not man-made sand bluffs and have withstood the waves and river flows without the need of armoring. The reasons are technical and involves the supralittoral zone which affects the natural sandbar and river flow. All of which require additional study before any solution can be implemented and are not my area of expertise.

The Biological Assessment (BA) makes unsupported statements and then draws conclusions that support their pre-determined conclusions. Their reasoning proceeds from theoretical deduction rather than from observation or experience. This *a priori* approach is continued with the Draft Environmental Impact Report (DEIR).

The observed empirical evidence has been made clear this winter cycle. The Carmel River breached naturally by the interaction and combined effects of river flow, lagoon depth and wave action. An initial breach occurs when the late fall and winter rains have been sufficient to bring the river above ground, and water from the river then flows into the *Carmel River Wetlands and Lagoon Nature Preserve*. Winter wave and tide conditions are generally at their most extreme and build a high sand berm along the potential mouth of the Carmel River. Common sense would dictate that the combination of these two forces would create a natural breach only at such time that the water in the lagoon would be at its highest level, having been deterred by the wall of the naturally occurring sandbar.

The only possible outcome of this standoff is that the force of the water in the lagoon, when given the chance to exit, does so with such force that the sandbar dissolves quickly, where the water flow finds the most weakest point in the sandbar, and the dynamics of the built-up water pressure creates an immediate and forceful breach that drains and flushes the water from the lagoon into the ocean. This predictable and observed phenomenon eliminates about 75 percent of the water in the lagoon within thirty minutes. This is exactly the "flush" that those in favor of a natural breach want to avoid, yet they are angling for this very outcome.

The obvious alternative to this natural deleterious flush is to manage the breach so that the sand bar does not break at once and without control over the amount of the flow or the direction.

Despite the fact that the BA and the DEIR continually cite that the most favorable habitat conditions, and egress and ingress, for the steelhead is a natural breach that would flow in a northerly direction into the ocean, they have failed to provide any data that supports that assumption, or that this would naturally occur.

The statement below, contained in the DEIR, is without supported evidence and is the primary obstacle in developing a solution to the objectives of the federal agencies and other stakeholders. Apparently, neither NOAA or NMF have supported this statement in any official written manner, contrary to its inclusion in the DEIR:

In addition, a natural beach (sic) in the northerly direction is preferred by the resource agencies to facilitate a longer and more natural flow channel, improving conditions for fish and wildlife within the Lagoon.

The un-named “resource agencies” apparently do not include any federal agencies, Monterey County agencies or California State agencies. It is incumbent upon those agencies cited in the report, if any, to come forward with the evidence to provide the data that would show that a natural breach in the northerly direction is superior in every way to any other solution, including managed breaching in any other direction. And just as importantly, how a “unmanaged” natural northerly breach would, or could occur, and what would be the outcome if it never did occur.

In addition, the following excerpts from the Biological Assessment, which are implicated in the DEIR, are not supported by any data or factual references:

ESSENTIAL FISH HABITAT

The beneficial effects to EFH from the implementation of the proposed long-term solution to mechanical breaching of the barrier beach will be significant, as a more natural lagoon habitat and associated hydrologic regime will improve fish habitat. [no citation]

Project Effects

. Historical, artificial breaching actions have had deleterious effects on the lagoon habitat conditions, which differ significantly from what would have occurred with a natural opening and closing regime. [no citation]

It appears as though the thread of this continued undocumented viewpoint originated with the Moffat and Nichols report of 2013 as referenced by D.W. Alley and Associates [Fishery Analysis for The Carmel River-Lagoon Biological Assessment Report – January 2014: Benefits of a Natural Breaching Regime], where they state: “ According to Moffat and Nichols (2013), local fisheries groups and agencies have preferred a northern meandering outlet channel alignment because, in the past, when the river

channel migrated northwards, it reduced the rate and amount of drawdown (drop in lagoon water levels before and after a breach to the ocean) and subsequent loss of threatened juvenile steelhead that get flushed out to sea, as compared to when the channel flows along the southerly and westerly outlet channel (James, 2005). “

However, there is no data that has been presented, that supports the fact that a natural breach is the most beneficial for the steelhead. Furthermore, no studies have been made that have shown that the steelhead population has benefited from entering or exiting along a long northern channel, as has been promoted and insisted upon by the Steelhead Association. During the two years when an artificially created man-made northern channel and breach was created by county bulldozers, and the lagoon was forced to flow into the longer shallower channel, the expected outcome was not achieved. The predation by brown pelicans, western gulls and terns was prodigious.

Conclusions Regarding the DEIR Proposed Project

- 1) The concept of a natural northerly breach being the most beneficial for steelhead habitat and spawning is faulty. The steelhead do not influence the timing of the breach, it is a result of the amount of river flow, wave action and the amount of sand at the mouth of the river. The breach would be dependent upon the vulgarities of nature and may or may not be at the right time. A more scientific approach, by monitoring the steelhead in the lagoon and in the ocean would provide the optimum breaching protocol. Published studies that suggest that occurrence of these two events (steelhead maturity and natural breach) are better than a managed approach are clearly based on speculation.
- 2) If a northerly breach occurs through the efforts of mechanical intervention or otherwise, and the river flows along the Scenic Road bluffs, a dangerous condition for beachgoers would develop. A narrow sandbar would be present between the ocean and the river that would trap anyone walking between the two. Large waves could, and have, knocked people down and dragged them into the ocean to their death. The option of diving into the fast moving river would be no less dangerous, and the wall would prevent an escape up the bluff. If the wall/barrier is curved out near the termination, beach walkers would be forced to walk dangerously close or even into the surf at their peril. It would be an attractive nuisance subject to lawsuits.
- 3) Photos and data that indicate a northerly breach are in fact a westerly breach that does not flow along the bluffs. Prior to the unfortunate forced breaches to the north, the parking area was twice the size it is now and there were large sand dunes between the parking area and the lagoon area. Photos show the lagoon filling up south of these features and were taken during other than stormy winter conditions.
- 4) A barrier may be needed along part of the parking area that would prevent the river from migrating in a northerly direction.

The steelhead are a federally listed threatened species, and I am in favor of all that can and should be done to promote their recovery in the rivers along the California coast. I am concerned that those who are arguing for less management of their habitat are relying on false premisses and faulty assumptions concerning their insistence on favoring a northerly natural breach.

On a more positive note, what should be done is contained in the DEIR "5.3.3.2 Scenic Road Protective Structure and Sandbar Management Plan (No EPB)", which contains these excellent alternatives which would include preparing and implementing a Management and Monitoring Plan (MMP) to collect data to inform the procedures of the sandbar management plan and provide adaptive management criteria. Potential monitoring actions are detailed which should provide much needed data before we implement any plan.

Finally, the access to the beach and the aesthetic quality of any solution should be of the first magnitude. I have not addressed this issue at any length in this comment to the DEIR, however, it will be an issue that I shall hold most dearly.

I am hopeful that the agencies involved in this protracted, complicated and important project can, and will, develop a solution that will benefit the federally protected steelhead and the general public, which includes us all.

Respectfully,

Fred R Brown

Friedrich, Michele x5189

From: schachtersj@comcast.net
Sent: Tuesday, January 31, 2017 8:53 AM
To: Adams, Mary; ceqacomments; Beretti, Melanie x5285; 100-District 5 (831) 647-7755
Cc: Walton, Priscilla; Siegfried, Bob; Stott, Dick
Subject: Fwd: Water Plan flood info
Attachments: Carmel Lagoon Protective Barrier DEIR Comments.docx

Attached is a letter from the Carmel Valley Association regarding the Carmel Lagoon. Please let us know when you receive it.

Sandra Schachter, Secretary, CVA





Carmel Valley Association

preserving the beauty, resources, and rural character of the Valley since 1949

Board of Directors

January 30, 2017

Pris Walton
President

Ms. Melanie Beretti
Special Programs Manager
Monterey County Resource Management Agency
168 W. Alisal Street
Salinas CA 93901

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Vice President

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Secretary

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Strasser Kauffman

Donna Kneeland

Rick Manning

Marlene Martin

Margaret Robbins

Tim Sanders

Dick Stott

Jeff Wood

Dear Ms. Beretti:

The Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project DEIR proposes as its part of its preferred alternative to appropriate 2.4 acres of land belonging to the Carmel River State Beach.

The lands of the California State Parks system are for the enjoyment of all citizens. The Carmel Valley Association considers stewardship of local public spaces to be an important obligation its members incur when they take up residence in this area. We wish to share our strong recommendation with respect to the DEIR with you.

In view of the several projects proposed and under way that are oriented toward improving the Carmel River, and in view of fact that the beneficial effects of the recent removal of San Clemente dam have not yet been realized, the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project is premature. CVA believes that environmentally preferable alternative is the no project alternative with continued sand bar management. The absence of San Clemente dam will eventually return the Lagoon to an earlier estuarine state in which sand bar management will rarely be required; especially if pumping in Carmel Valley is reduced sufficiently to allow the river to flow continuously to the ocean.

It is probable that the future course of development, both locally and throughout the state, will enhance the importance of Carmel River State Beach as a refuge for California's citizens. Over the long term, areas rich in natural resources and the ecological services they provide will be an increasingly significant component of our local tourism.

Sincerely,

Priscilla H Walton, President, Carmel Valley Association
cc: Assembly Member Mark Stone
Supervisor Mary Adams



MAIL P.O. Box 157, Carmel Valley, CA 93924

WEB www.carmelvalleyassociation.org | EMAIL president@carmelvalleyassociation.org

received
Jan. 31, 2017

Beretti, Melanie x5285

From: Lance Monosoff [monosoff@redshift.com]
Sent: Tuesday, January 31, 2017 10:22 AM
To: Beretti, Melanie x5285
Subject: Carmel Lagoon (REF120051)



Ms. Beretti:

I live at 26452 Riverside Way, Carmel, CA 93923. I am across the river from the Carmel Area Wastewater Plant. My Assessor's Parcel Number is: 009-541-034

My property has been flooded, twice in 1995 where I had five feet six inches of water and again in 1998 where I had about four and a half feet of water.

I am concerned that the Carmel Lagoon Ecosystem Protection Barrier may raise the water level high enough to flood my property. This would result in a loss in value and taking of my property.

Thank you
Lance Monosoff
26452 Riverside Way
Carmel, CA 93923

Lance Monosoff
Central Coast Properties
O 831.649.3700
monosoff@redshift.com
CalBRE 00467033

Residential Brokerage
Property Management

Friedrich, Michele x5189

From: Molitor, Samara@Wildlife [Samara.Molitor@wildlife.ca.gov]
Sent: Tuesday, January 31, 2017 10:23 AM
To: ceqacomments
Cc: Rienecke, Steven@Wildlife; Ota, Becky@Wildlife; Paznokas, William@Wildlife
Subject: CDFW-Carmel Lagoon DEIR
Attachments: Carmel Lagoon DEIR letter_01.31.17.pdf

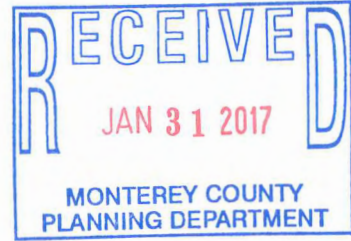
Good Morning Melanie,

Attached is the Carmel Lagoon DEIR letter. A hard copy is in the mail. Please contact Steve Rienecke know if you have any questions.

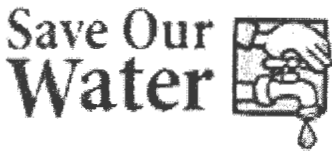
Thank you,

Samara Molitor

Regional Manager Assistant, Marine Region
Department of Fish and Wildlife
1933 Cliff Dr., Suite 9
Santa Barbara, CA 93109
Phone: (805) 568-0216



Every Californian should conserve water. Find out how at:



SaveOurWater.com · Drought.CA.gov

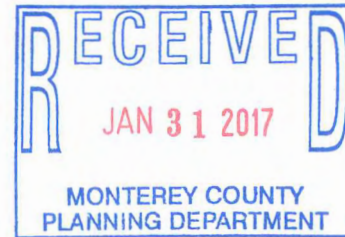


State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
1933 Cliff Drive, Suite 9
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EDMUND G. BROWN JR., Governor
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January 31, 2017



Melanie Beretti, Special Programs Manager
Monterey County Resource Management Agency
168 West Alisal Street, 2nd Floor
Salinas, CA 93901
CEQAcomments@co.monterey.ca.us

Subject: Draft Environmental Impact Report – Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project SCH#2014071050

Dear Ms. Beretti:

The California Department of Fish and Wildlife (Department) has reviewed the Draft Environmental Impact Report (DEIR) for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project (Project). The County of Monterey (County), serving as the Lead Agency for this Project, prepared the DEIR to provide the public and responsible trust agencies with information on the potential environmental effects of implementation of the proposed Project on the local and regional environment. The Project as proposed will consist of the following three components:

- **Ecosystem Protective Barrier (EPB)**: The proposed EPB structure will consist of the construction of an approximately 2,000 linear feet sheet pile wall along an area ranging from 38 to 120 feet from the property lines to the North of State Parks property. The height of the wall will be 17.5 feet. The intent of the EPB is to provide protection to nearby facilities and homes from flood damage. The EPB is also intended to minimize ecological impacts by eliminating drainage infrastructure, and increase space between urban areas and the EPB to serve as a bio-treatment area for urban runoff.
- **Scenic Road Protection Structure (SRPS)**: The SRPS is proposed as a means of beach management to minimize and prevent erosion along the beach bluff near Scenic Road. The SRPS component consists of developing a rock slope protection, also known as rock rip-rap or revetment, along the road embankment.
- **Interim Sandbar Management Plan (ISMP)**: The ISMP involves seasonal opening of the Carmel Lagoon during the winter and closure during summer. This activity acts as a short-term and adaptive management strategy to protect

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facilities and property until the proposed EPB and SRPS components are completed. An approved Memorandum of Understanding (MOU) between the County, U.S. Army Corps of Engineers (USACE), and National Marine Fisheries Service (NMFS) will be required to ensure implementation of the proposed ISMP.

As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, and habitat necessary for biologically sustainable populations of those species. In this capacity, the Department administers the California Endangered Species Act, the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife trust resources. The Department is the State's fish and wildlife "Trustee Agency" under the California Environmental Quality Act (CEQA guidelines §15386). The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act (MLPA) in coastal marine waters of California. Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Program.

Biological Significance

The Carmel Lagoon is located at the mouth of the Carmel River and forms a very productive estuary that serves as critical habitat for several federally listed species including: South-Central Coastal Steelhead (S-CCC Steelhead; *Oncorhynchus mykiss irideus*), California red-legged frog (CRLF, *Rana draytonii*), and several other special-status species. The Lagoon is located within the Carmel River State Beach Park between Highway 1 and the Pacific Ocean.

The diverse ecosystems within and adjacent to the Carmel Lagoon include estuarine, open coast intertidal and subtidal areas that provide habitat for many species of marine plants, fish, invertebrates, seabirds, mammals, and other wildlife. Sensitive marine habitats include: 1) mud flats; 2) eelgrass; 3) Intertidal and subtidal soft, cobble and rocky reef bottom with attached algal mats; 4) giant kelp or understory kelp spp.; and 5) surf grass beds. These areas are important fish and invertebrate habitats required for forage, growth, reproduction and shelter.

Marine Projected Area

A portion of the Project footprint is within the Carmel Bay State Marine Conservation Area (SMCA) which is a designated Marine Protected Area (MPA). In a SMCA, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial or recreational purposes except for species expressly allowed for recreational or commercial take (Title 14, Section 632) (a) (1) (C). Additional information for the Carmel Bay SMCA can be found on the Department's website (<https://www.wildlife.ca.gov/Conservation/Marine/MPAs>).

The DEIR indicates that some of the Project work for the SRPS component is anticipated to occur within the Carmel Bay SMCA below the Mean High Water (MHW) line. Excavation of beach sand to make room for construction of the rock rip-rap wall may be placed over the revetment and into the adjacent Carmel Bay SMCA below the MHW line. It is important that the Project does not impact or disrupt the ecosystem function and/or marine resources within the MPA pursuant to the Marine Life Protection Act and the Marine Managed Areas Improvement Act. Placement of any sand or other material in the Carmel Bay SMCA should be avoided to the extent practicable. The Department recommends that the Final EIR include a discussion on how the Project will avoid or minimize impacts within the SMCA.

Fully Protected Species

The Department has jurisdiction over fully protected species pursuant to Fish and Game Code Sections 3511, 505, 4700, and 5515. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and certain relocation situations. Therefore take of any fully protected animal species is prohibited and must be avoided by the Project. Take means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill as defined in Fish and Game Code Section 86. Fully protected marine species in the Project Area include: the Southern Sea Otter (*Enhydra lutris nereis*), and Brown Pelican (*Pelecanus occidentalis*).

The Department recommends that the Final EIR include a discussion on how the Project will avoid or minimize impacts to fully protected species. The Department maintains a list of fully protected species that can be found on the Department's web site: http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html

Conclusion

The Department appreciates the opportunity to provide comments on the DEIR for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project. If you require additional information, please contact Mr. Steve Rienecke, Environmental Scientist, at (805) 594-6174 or via e-mail at Steven.Rienecke@Wildlife.ca.gov.

Sincerely,



Craig Shuman, D Env.
Regional Manager
Marine Region

Ms. Melanie Beretti
Monterey County RMA
Page 4 of 6
January 31, 2017

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Ms. Melanie Beretti
Monterey County RMA
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January 31, 2017

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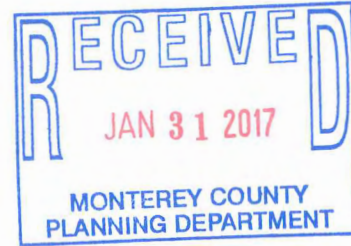
Friedrich, Michele x5189

From: Chapman, Trish@SCC [Trish.Chapman@scc.ca.gov]
Sent: Tuesday, January 31, 2017 1:18 PM
To: ceqacomments
Subject: Carmel Lagoon Projects DEIR
Attachments: 20170131 SCC cmts on DEIR for EPB etc.pdf

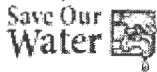
Please find comments attached.

Trish Chapman
Central Coast Program Manager
State Coastal Conservancy | www.scc.ca.gov

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Every Californian should conserve water. Find out how at:

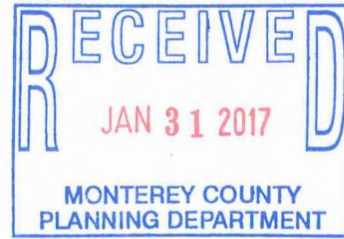


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January 31, 2017

Melanie Beretti
County of Monterey
Resource Management Agency, Planning
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901



RE: Comments on Draft Environmental Impact Report for *Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Projects (Ref 120051, SCH2014071050)*

Dear Ms. Beretti:

The State Coastal Conservancy respectfully submits the attached comments in regards to the Draft EIR cited above. We appreciate the opportunity to comment on the County's consideration of the potential environmental impacts of these three related projects.

Feel free to contact me at Trish.Chapman@ccc.ca.gov with any follow up questions.

Sincerely,

Trish Chapman
Central Coast Regional Manager

Attachment

1515 Clay Street, 10th Floor
Oakland, California 94612-1401
510-236-1015 Fax: 510-236-0470

1. Aesthetics, Impact AES-2: Operation Impacts on Scenic Vistas and Visual Quality of the Surrounding.
 - a. The document states, “The placement of armor rock would be determined through analyses to extend above existing grade as needed to protect Scenic Road from river scour and would extend below the anticipated outlet channel scour elevation.” It is unclear from the text that follows this as to whether or not rock placed above existing grade would be covered with sand. If not, that would be a significant unavoidable impact. It should be classified as this even though it is not known at this time if it will be necessary to place rock above existing grade because the possibility is there.
 - b. The analysis of this impact is flawed. The discussion makes clear that it is expected that there will be times when storm and/or river erosion will erode the sand covering the rip rap, thereby exposing the rock. It also states, the expectation that the rock will then get covered up again based on natural sand deposition. Based on this, the DEIR concludes the impact is insignificant. However, there is no discussion of how long the period between exposure and reburial could be. If early storms expose the rock and it is not reburied until later in the summer, that could be many months with rip rap exposed. Carmel Beach has extremely high visual quality and any period of rip rap exposure longer than a few days should be considered a significant, unavoidable impact.
2. Geology & Soils, Impact GS-6 – This section should also address the impact of the hardened SRPS on sand erosion/retention based on the stronger rebound of waves hitting the structure and retreating from the beach. While experts disagree, there is some evidence that hardening the back of the beach leads to sand loss in front of the hardened structure.
3. Biological Resources Impact Bio-1. The impact discussion in this section is insufficient in the following ways:
 - a. Impacts to Western Pond Turtles and California Red Legged Frogs (CRLF) – The impact discussion describes both potential short (i.e., construction period) impacts and long-term impacts to Western Pond Turtles and CRLF, and concludes in both instances that these impacts would be less than significant with the proposed mitigation. However, the proposed mitigation only addresses the short-term impacts. The long-term impacts are not addressed and should be considered potentially significant, unavoidable impacts.
 - b. Impacts to Steelhead – The impact discussion describes how use of an impact hammer could result in SELs high enough to adversely impact steelhead in the lagoon. This is a potentially significant impact. The mitigation measures say that a vibratory hammer will be used to the extent possible and that if an impact hammer is needed, an impact assessment would be conducted. The EIR than incorrectly

concludes that this mitigation would result in a less than significant impact. In truth, an impact assessment provides no clear protection to steelhead from the potential impacts of an impact hammer which may be needed to complete the project. This impact should be considered a potentially significant, unavoidable impact unless mitigation that will actually lower the SEL is identified.

4. Biological Resources Impact Bio 2. The impact discussion in this section is insufficient in the following ways:
 - a. Mitigation Measure BIO-2 – The mitigation measures identified will not reduce the identified impacts in any substantial way. Therefore the impact conclusion should be potentially significant and unavoidable.
 - i. Bullet 1 says that a 404 permit shall be obtained. This is not a form of mitigation. CEQA requires that mitigation be identified in the document, not postponed to the project permits. A document can say that if the 404 permit requires different, conflicting mitigation that the permit will take precedence, but the CEQA document must identify specific actions that will reduce impact.
 - ii. Bullet 2 reads, “Impacts shall be avoided to the greatest extent possible,” but does not identify any specific ways that impacts will be avoided. This mitigation measure is meaningless and should either be deleted or expanded to have meaningful, measurable actions.
 - iii. Bullet 3 – Preparation of a Habitat Mitigation and Monitoring Plan is not mitigation itself; rather, it is a summary of identified mitigation measures. The actual mitigation measures should be identified in the EIR not put off until a future phase of the project.
5. Impact BIO-3 – Text for this section would need to be revised based on the comments above.
6. We agree with the conclusion that impacts from greenhouse gases would be less than significant and that no mitigation is required. However, there are multiple measures that could be taken to reduce the project’s GHG emissions and these should be identified in the document to increase the likelihood that some of them would be implemented. Below is sample language and we urge the County to include this or something similar in the document:
 - a. “The construction contractor will work to implement various GHG reduction and efficiency programs (best management practices [BMPs]) that would further reduce emissions from the levels presented above. Potential BMPs include:
 - i. Maximize fuel efficiency by using engines on off-road construction equipment that are no more than 10 years old or have equivalent carbon dioxide emissions of an engine 10 years old or newer.

- ii. Reduce unnecessary idling through the use of auxiliary power units, electric equipment, and strict enforcement of idling and speed limits.
 - iii. Through contract language or other means, encourage good engine maintenance to meet manufacturer standards, and properly train operators to run equipment efficiently.
 - b. Construction contractors would need to assess the feasibility and reasonableness of these BMPs, taking into consideration cost, environmental or economic co-benefits, schedule, and other Project-specific requirements.”
- 7. Hydrology-6: Operational Drainage Pattern Alterations – The analysis of impacts to the CAWD plant is insufficient and the conclusion that the impact is significant and unavoidable with no available mitigation is incorrect. CEQA requires significant impacts to be mitigated to the extent possible even if they cannot be reduced to a level of insignificance. Based on the DEIR analysis, the County’s proposed project would increase flooding at the CAWD plant and yet the document implies that the County has no responsibility to address this despite the fact that CAWD presented a feasible mitigation option – i.e., a floodwall around the CAWD plant. The fact that this would require additional planning and cost does not make it infeasible, nor does it relieve the County from responsibility to address the issue. The document also identifies installation of a higher capacity pump as a possible mitigation measure, but then eliminates it since CAWD has not agreed. Lack of agreement from State Parks did not stop the County from presenting the EPB as a viable alternative; given that logic, the document should not rule out a larger pump as viable mitigation.

Increased flooding of a wastewater treatment plant along with the long-term potential impacts of this flooding on the facility infrastructure is of major concern to the Coastal Conservancy given the high value biological resources within Carmel Lagoon and Carmel Bay that could be placed at risk by any damage to the CAWD facility. If these impacts are not addressed, the EPB project should be considered infeasible and removed from consideration as an alternative.

- 8. The Land Use & Planning analysis in Section 4.9 and Appendix C in regards to the policies of California State Parks is insufficient in the following ways:
 - a. Under the Ecosystem Management policies for Carmel River State Beach in the *Point Lobos State Reserve and Carmel River State Beach General Plan 1979* (page 64), the Plan includes the following language: “Areas of very high ecological sensitivity shall not contain any type of development. Wetlands and riparian woodland ecosystems shall not be intruded upon by developments or unauthorized visitation.” This policy is not included in the Land Use Policy assessment in Appendix C or addressed in the Land Use impact section. The EPB

project is in direct violation of this policy and would be a significant, unavoidable impact.

- b. The Draft EIR does not include any policies related to the fact that Carmel River Lagoon and Wetlands have been designated by State Parks as a Natural Preserve. The document should list those policies and assess the project's consistency with them. These policies include the definition of a Natural Preserve codified in Public Resources Code Section 5019.71. The County should consult with State Parks for a complete list of policies relevant to the Natural Preserve status.
9. The document does not adequately address the feasibility constraint of the EPB project given that the needed land is owned by California State Parks and State Parks is not a willing participant in the project. If the EPB project is to be a credible alternative, the County must explain how the property rights needed to carry out the project would be secured.
10. SRPS – Seawall Located at the Toe of Slope Alternative – Application of a “treatment” to a revetment wall would not reduce the aesthetic impacts of the SRPS to less than significant. Any manmade retaining structure visible on the beach for more than a few days per year would be a significant, unavoidable impact.
11. SRPS Full Height Wall – Secant Pile Wall Alternative. Same comment as above. An “architectural facing” on the pile wall would not reduce the aesthetic impact.
12. Based on review of the DEIR, we do not believe the County has shown that the EPB project is feasible. This is based primarily on the lack of agreement with the involved landowners to implement the project and the lack of adequate protection for the CAWD plant as part of the project design. If the EPB is not implemented, operational impacts of the ISMP would extend for more than five years. This possibility needs to be addressed in the document.

Friedrich, Michele x5189

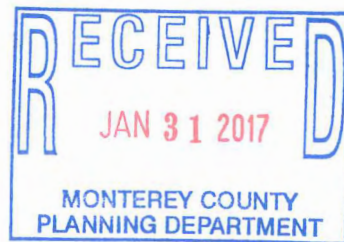
From: Larry Hampson [Larry@mpwmd.net]
Sent: Tuesday, January 31, 2017 1:56 PM
To: ceqacomments
Cc: Dave Stoldt; Arlene Tavani
Subject: MPWMD COMMENTS ON DRAFT EIR FOR CARMEL LAGOON
Attachments: Scenic-Road-EPB-CommentsonDEIR_20160131-signed.pdf

To Whom it may concern –

Attached are comments written in response to the Draft Environmental Impact Report circulated by Monterey County for the proposed Carmel River Lagoon improvements (REF 120051, SCH2014071050).

Larry Hampson, District Engineer
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January 31, 2017

Melanie Beretti
Monterey County
Resource Management Agency – Planning Department
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

SUBJECT: MPWMD COMMENTS ON DRAFT EIR FOR CARMEL LAGOON PROTECTIVE BARRIER, SCENINC ROAD PROTECTION STRUCTURE, AND INTERIM SANDBAR MANAGEMENT PLAN PROJECTS (REF 120051, SCH2014071050)

Dear Ms. Beretti:

This letter from the Monterey Peninsula Water Management District (MPWMD or District) is written in response to the Draft Environmental Impact Report (DEIR) circulated by Monterey County for the proposed Carmel River Lagoon improvements. The project proposes improvements to prevent erosion along Scenic Road and allow natural breaching of the barrier beach. The District is generally in favor of this project, as it should improve Carmel River lagoon habitat for threatened steelhead; however, potential impacts to low-lying infrastructure from a higher groundwater table should be addressed.

Comments on Hydrology/Water Quality and Related Aquatic Biology Issues

p. 4.8-37

The Carmel Area Wastewater District (CAWD) currently has excess capacity to treat water. It may be possible to divert a portion of the stormwater that would pond on the landward side to the CAWD treatment plant.

p. 4.8-42, bottom of the page

“Secession” should be replaced with “cessation.”

p. 4.8-44

The DEIR states that:

“The increased groundwater elevations could result in an increase of water seeping into underground facilities and low lying areas within the CAWD facility. This impact to the CAWD facility is a [*sic*] significant and unavoidable.”

MPWMD disagrees that this impact is unavoidable. There are several dewatering methods that could address this impact ranging from shallow wells to exclusion methods such as installing barriers to groundwater inflows. The DEIR suggests that a high capacity pump could mitigate for this impact; however, CAWD is not currently prepared to fund such an installation. It would

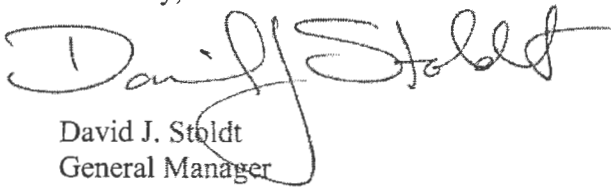
be possible to divert groundwater flow that seeps into the plant property to the wastewater treatment facilities and recycle this water. This would not only provide another tool to manage lagoon elevations, it would provide additional source water for recycling.

Because sea level will continue to rise in the coming decades, the CAWD plant will be exposed to increased flood risk due to this rise, regardless of whether the EPB is built. The February 2006 Carmel River Flood Insurance Study Coastal Analysis showed that a 10% chance flood from the ocean at the lagoon was 14 feet (NAVD 1988). Since the completion of the Coastal Analysis, the lagoon level rose to more than 15 feet in January 2008, which is approximately the level at which CAWD property is inundated. It should be noted that at the time that flood occurred, Monterey Bay buoy 46042, which is maintained by NOAA, recorded waves of 32.5 feet. On January 21, 2017, waves of 35 feet were recorded at the same buoy. The only reason the lagoon did not flood during this recent swell event was that the Carmel River was flowing at about 800 cubic feet per second, which kept the mouth of the river open during the high swell event. It is clear that in order for the CAWD plant to remain in its current location, it will need protection from rising sea level.

MPWMD recommends that Monterey County work together with CAWD and the Pebble Beach Community Services District and other agencies to explore solutions that would reduce the potential for increased flood risk at the CAWD plant, provide flexibility in managing the lagoon level, and improve habitat at the lagoon for steelhead.

If you have questions about this letter, I can be reached at dstoldt@mpwmd.net or 831/658-5650. The staff contact is District Engineer Larry Hampson at larry@mpwmd.net or 831/658-5620.

Sincerely,



David J. Stoldt
General Manager

Cc: Larry Hampson

Friedrich, Michele x5189

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Cc: 112-Clerk of the Board Everyone; 112-Clerk of the Board Everyone; McKee, Charles J; Holm, Carl P. x5103; Schubert, Bob J. x5183; ceqacomment; Molly Erickson
Subject: Carmel Lagoon Ecosystem Protective Barrier – Comments on Draft Environmental Impact Report prepared by the County of Monterey
Attachments: 17.01.31.County.BOS.DEIR.comment.ltr.to.pdf

Dear Chair Adams and Members of the Board of Supervisors:

Attached please find comments on the Carmel Lagoon Ecosystem Protective Barrier Draft Environmental Impact Report.

Thank you.

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January 31, 2017

Mary Adams, Chair
Board of Supervisors
County of Monterey
168 W. Alisal St., 2nd Floor
Salinas, CA 93901



Subject: Carmel Lagoon Ecosystem Protective Barrier – Comments on Draft Environmental Impact Report prepared by the County of Monterey

Dear Chair Adams and Members of the Board of Supervisors:

This Office represents Carmel Area Wastewater District (CAWD) with regard to the Carmel Lagoon Ecosystem Protective Barrier. We provide these comments on the County's Draft Environmental Impact Report. CAWD's treatment facilities are located adjacent to the Carmel Lagoon. The whole project is within County jurisdiction, as are the immediate impacts. All impacts can and should be mitigated.

The project would have significant and avoidable impacts on the CAWD property, as the Draft EIR admits. The impacts on the CAWD property would have significant and avoidable impacts on the community as a whole, as described in the CAWD January 18, 2017 comment letter. The impacts include the flooding of the CAWD treatment facilities, which could cause the cessation of the treatment plant operations, which would cause incoming sewage to back up in the sewer pipelines and come out of manholes and residential sewage connections in the low-lying areas of Carmel near the lagoon, including near schools and in parks. These impacts were not adequately investigated, described, analyzed and mitigated in the Draft EIR as required under CEQA.

In this letter, first we address the County's proposed project and the impacts to the CAWD property that are described in the Draft EIR. In the second section, we address the requirements of CEQA and discuss some of the legal inadequacies of the Draft EIR. Finally, we address the foreseeable illegal taking of CAWD's property by the County, if the County decides to approve the Lagoon Protective Barrier project.

The County's proposed Lagoon Project.

The County of Monterey, as Lead Agency and project proponent, has prepared a Draft Environmental Impact Report for a project in the Carmel Lagoon. The proposed project has three components: Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure, and Interim Sandbar Management Plan. The Draft EIR states the project's "primary objective" is "to protect and improve habitat for fish and wildlife while maintaining flood protection." (Draft EIR, p. 1.0-1.) Thus, the Draft EIR claims that the Ecosystem Protective Barrier is a public project for public purposes.

The Carmel Area Wastewater District is concerned because its treatment facilities would be directly impacted by the proposed Protective Barrier, called the EPB project component.

[T]wo aspects of the proposed EPB project component have the potential to increase Carmel River and Lagoon surface water elevations and effect low-lying buildings and other facilities adjacent to the Lagoon (i.e., those not protected by the proposed EPB project component). First, the secession of non-emergency management of the barrier beach would allow higher sustained water elevations within the lagoon, which would increase the area subject to flooding, potentially affecting low-lying buildings and other facilities adjacent to the lagoon. Second, the proposed EPB project component would constrict flood inundation areas on the north side of the Carmel River and would result in slightly increased flood water surface elevations. (Draft EIR, pp. 4.8-42 to 4.8-43.)

The Draft EIR describes three separate potential impacts of the project on CAWD property:

The CAWD facility could be affected in three separate ways The first is an increased potential of riverine flooding by overtopping of the existing uncertified levees. The second is an increase in the potential of overtopping of the uncertified levees by the Lagoon, if the Lagoon surface water elevation is allowed to rise above the current uncertified levee height. The third is an increase in the surface water elevation of the Lagoon, which would raise the groundwater levels at the CAWD facility and could potentially result in an increase in seepage of water into subsurface facilities and low lying areas at the CAWD facility. (Draft EIR, p. 4.8-43.)

The Draft EIR's reference to "levees" is misleading. CAWD has repeatedly pointed out that there are no levees protecting the CAWD property. (See DEIR, Exh. H; and CAWD comment letter dated Jan. 18, 2017.)

The Draft EIR admits as follows:

[T]here is the potential for the 8-acre land area [owned by CAWD], predominantly between 10 to 12 feet in elevation, to be inundated more frequently (greater number of years) and for longer duration when inundation occurs (on the order of several weeks) if Lagoon inflow continues to exceed Lagoon outflow after the barrier beach closes. This would reduce

the availability of the 8-acre area for CAWD operations. This is a potentially significant impact. (Draft EIR, p. 4.8-44.)

The Draft EIR acknowledges that there is a possible effective mitigation that would prevent the flooding of the CAWD property. The Draft EIR dismisses that mitigation and states four factors for that premature dismissal.

One mitigation option that CAWD has proposed is the installation of a floodwall similar to the proposed EPB project component at the CAWD facility. A floodwall at the CAWD facility would require: 1) additional funding; 2) additional environmental analysis; 3) State Parks and/or CAWD permission, depending on the location; and 4) additional technical studies. A floodwall at the CAWD facility is not a component of the County's proposed project, nor is it a project proposed to be carried out by CAWD. Further, an agreement between the County, CAWD, and State Parks to construct a floodwall does not exist at this time. Given these factors, it is speculative to assume this is a feasible mitigation measure. In the absence of an agreement between the County, CAWD, and State Parks for a floodwall at the CAWD facility, this impact of the proposed EPB project component is significant and unavoidable. (Draft EIR, p. 4.8-44.)

The Draft EIR also identifies impacts of "seepage" into the CAWD property, which means potential flooding of the CAWD treatment facilities:

The proposed EPB project component could result in higher sustained surface water elevation within the Lagoon which would raise the groundwater elevations at the CAWD facility. The increased groundwater elevations could result in an increase of water seeping into underground facilities and low lying areas within the CAWD facility. This impact to the CAWD facility is . . . significant and unavoidable. (Draft EIR, p. 4.8-44.)

The Draft EIR bases its conclusion that the impact is "unavoidable" on the same reasons it had cited earlier:

There are no feasible mitigation measures to reduce this impact to a less-than-significant level. One option would be for a higher capacity pump to be installed and operated at the CAWD facility. However, CAWD has not thus far agreed to install pumps (Buikema, 2016). Another mitigation option

that CAWD has proposed is the installation of a floodwall similar to the proposed EPB at the CAWD facility. A floodwall at the CAWD facility would require: 1) additional funding; 2) additional environmental analysis; 3) State Parks and/or CAWD permission, depending on the location; and 4) additional technical studies, including an analysis to determine whether potential groundwater seepage impacts would be mitigated by the floodwall. A floodwall at the CAWD facility is not a component of the County's proposed project, nor is it a project proposed to be carried out by CAWD. Further, an agreement between the County, CAWD, and State Parks to construct a floodwall does not exist at this time. Given these factors, it is speculative to assume this is a feasible mitigation measure. In the absence of an agreement between the County and CAWD to install the pump infrastructure or an agreement between the County, CAWD, and State Parks for a floodwall at the CAWD facility, this impact of the proposed EPB project component is significant and unavoidable. (Draft EIR, p. 4.8-45, footnote omitted.)

The County's Draft EIR has determined that it would be acceptable to flood the CAWD facilities, which is a preventable harm. The County's Draft EIR has based its determination on issues of cost, environmental analysis, permission from CAWD and/or State Parks, and technical studies to determine the effectiveness of a floodwall around CAWD. However, the County has not disclosed the costs or apparently even investigated the costs, has not performed the environmental analysis but could do so, has not requested permission from CAWD and/or State Parks, and has not performed the technical studies to determine the effectiveness. The County could and should have taken each of these steps prior to the release of the Draft EIR. The proposed project does not meet its "primary objective" of "maintaining flood protection."

California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.)

"The foremost principle under CEQA is that the Legislature intended the act 'to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.' [Citation.]" (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 390 (*Laurel Heights*)). As the California Supreme Court stated in *Laurel Heights*,

The EIR is the primary means of achieving the Legislature's considered declaration that it is the policy of this state to 'take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.' [Citation.] The EIR is therefore 'the heart of CEQA.' [Citations.] An

EIR is an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.' [Citations.] The EIR is also intended 'to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' [Citations.] Because the EIR must be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government.

(Laurel Heights, supra, 47 Cal.3d 376 at p. 392.)

In enacting the California Environmental Quality Act, the Legislature specifically emphasized several issues of statewide concern (Pub. Resources Code, § 21000), including the importance of a quality environment that is healthful and pleasing, and a specific issue that is pertinent to the Carmel Lagoon Barrier project. Specifically, the Legislature found and declared as follows:

The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

(Pub. Resources Code, § 21000, subd. (f).)

As project proponent and lead agency, the County would be responsible for the impacts to the CAWD property. To mitigate impacts of the project the County has broad discretionary powers at its disposal. The County may use the powers that may be appropriately and legally exercised to avoid and mitigate environmental impacts, including its police powers. (Stats. 1982, ch. 1438, § 4.) It is within the County's powers and legally feasible to mitigate the impacts on the CAWD property. Therefore, the County is required mitigate the impacts to a less than significant impacts. The Draft EIR fails to mitigate the impacts and fails to adequately analyze the impacts.

The California Environmental Quality Act contains a substantive mandate requiring public agencies to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. (Pub. Resources Code, § 21081, subd. (a).) Under CEQA "feasible" is defined as capable of being accomplished in a successful

manner within a reasonable period of time, taking into account economic, environmental, social and technological factors (Pub. Resources Code, § 21061.1; Cal. Code Regs., tit. 14 [CEQA Guidelines], § 15364). The County may use its other powers, including the power to tax and levy assessments, to pay for the project and its mitigations.

The County is required to "consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment." (Pub. Resources Code, § 21001, subd. (g).) The Legislature has also declared it to be the policy of the state "that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects" (Pub. Resources Code, § 21002). The alternatives and mitigation sections are central to an EIR. In furtherance of this policy, Public Resources Code section 21081, subdivision (a), "contains a 'substantive mandate' requiring public agencies to refrain from approving projects with significant environmental effects if 'there are *feasible* alternatives or *mitigation measures*' that can substantially lessen or avoid those effects." (*County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 98, emphasis in the original; see *Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 134.)

A fundamental purpose of a Draft EIR is to identify ways in which the significant environmental impacts of a proposed project can be mitigated or avoided. (Pub. Resources Code, §§ 21002.1(a), 21061) A Draft EIR is required to describe feasible mitigation measures. (CEQA Guidelines, §§ 15121(a), 15126.4(a).) The County's Draft EIR did not comply. Instead, the Draft EIR identified serious and significant environmental degradation – flooding of the CAWD property – and claimed that no mitigation was feasible. The EIR preparer did not consult with CAWD as to whether the mitigations were feasible. They are feasible, and the Draft EIR is inadequate. Alternatives also were not properly identified and analyzed.

Through CEQA, the Legislature has commanded that "[e]ach public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." (*City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 360.) "Feasible" is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1; see CEQA Guidelines, § 15364.) The Draft EIR has not adequately described the factors relevant here. When it comes time to decide on project approval, the Monterey County Board of Supervisors will evaluate whether the mitigations and alternatives are actually feasible. (CEQA Guidelines, § 15091, subd. (a)(3).) The Monterey County Board of Supervisors will be responsible for the ultimate determination of feasibility; that determination cannot be delegated. (CEQA Guidelines, § 15025, subd. (b)(2); see § 15091, subd. (a)(3).) The willingness or unwillingness of

the County, as project proponent, to accept an otherwise feasible alternative is not a relevant consideration. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 602.)

The Draft EIR's four claims as to why the mitigations for the impacts to the CAWD property are infeasible are too vague and conclusory to enable "meaningful participation and criticism by the public." (*Laurel Heights, supra*, 47 Cal.3d at p. 405.) The Draft EIR includes no meaningful information regarding the costs of a mitigating floodwall around CAWD, the additional environmental review that the floodwall would require, any efforts to ask CAWD and State Parks for the use of their land for a floodwall, or the nature and costs of the technical feasibility studies, especially in light of the Draft EIR's technical feasibility studies for a floodwall, the proposed Lagoon Barrier. Instead of providing this information, the public and decision makers are told virtually nothing meaningful about the CAWD property and the floodwall mitigation. (See, e.g., *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1460.)

A claim that a mitigation or alternative may be expensive is not sufficient to show that the mitigation or alternative is financially infeasible. If the additional costs are sufficiently severe as to render it impractical to proceed with the project, then the project should be reconsidered. The County's Draft EIR did not show good faith and a reasoned analysis in its consideration and rejection of feasible mitigation measures. (See CEQA Guidelines, § 15088, subd. (c)). The EIR did not adequately investigate and present the cost of a floodwall around the CAWD property, and the cost of the proposed EPB floodwall in comparison. The same source of funds for the EPB floodwall may be available for a floodwall to protect CAWD.

As the California Supreme Court has stated,

CEQA does not authorize an agency to proceed with a project that will have significant, unmitigated effects on the environment, based simply on a weighing of those effects against the project's benefits, unless the measures necessary to mitigate those effects are truly infeasible. Such a rule, even were it not wholly inconsistent with the relevant statute [citation], would tend to displace the fundamental obligation of '[e]ach public agency [to] mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.'

(*City of Marina v. Board of Trustees of California State University, supra*, 39 Cal.4th 341, 368-369.)

Requiring CAWD to be responsible in perpetuity for pumping lagoon water that the County has directed at CAWD's property without permission is not a realistic

mitigation. The County is responsible for mitigating the impacts of its project, not CAWD.

For each and every one of the reasons stated in this letter and in the CAWD comment letters dated January 18, 2017, and January 31, 2017, the County should revise the Draft EIR and recirculate the revised draft for public comment.

Takings Jurisprudence

The California Constitution (Art. 1, sec. 19) has placed a Constitutional limitation that prohibits government from taking or damaging "private" property without first paying full and fair just compensation for what is to be taken or damaged. The Court of Appeal has held that this Constitutional prohibition applies to property owned by public agencies as well as to that owned by private parties. (*Marin Municipal Water District v. City of Mill Valley* (1988) 202 Cal.App.3d 1161, 1164-1165.)

The Sixth District Court of Appeal in San Jose is the appellate court for cases filed in Monterey County Superior Court. The Sixth District has held that "in order to prove the type of governmental conduct that will support liability in inverse condemnation it is enough to show that the entity was aware of the risk posed by its public improvement and deliberately chose a course of action--or inaction--in the face of that known risk." (*Arreola v. County of Monterey* (2002) 99 Cal.App.4th 722, 744.) The *Arreola* case arose from the flooding of the Pajaro River. The Court of Appeal's holding in that case applied directly to the County of Monterey. The same holding would apply if the County proceeds with its Carmel Lagoon project. The County is aware of the risks posed by its proposed Lagoon Barrier to the CAWD property and to other property owned by other entities. If the County deliberately chooses to proceed with construction of the Lagoon Barrier in the face of those known risk, that County conduct would create County liability in inverse condemnation. The County should be well aware of the issues and risks. In addition to the *Arreola* case, the County of Monterey lost another major flooding case based on inverse condemnation, *Odello v. County of Monterey* (1998) 63 Cal.App.4th 778, which arose from the County's actions with regard to flooding in the lower Carmel River.

If the County decides to approve the Lagoon Barrier as proposed in the Draft EIR, and the CAWD property floods as the Draft EIR predicts, strict liability would apply because the County has designed the breaching to flood CAWD's property by reducing the flood protection CAWD had historically enjoyed, and the County's primary purpose for doing so was not to provide flood protection, but to protect environmental resources. (See *Pacific Shores Property Owners Association v. Department of Fish and Wildlife* (2016) 244 Cal.App.4th 12, 21.) A public agency's intentional diversion of water from one location to flood another location may trigger strict liability. (*Id.* at p. 45) Strict liability may also apply where the government's actions permanently damage property or subject it to frequent and inevitable damage. If the government, by works it constructs on its own property or elsewhere, diverts or dams natural waters, thereby

permanently submerging previously dry private land in order to provide benefits to the public at large, a compensable direct 'taking' of the submerged land may occur no matter how 'reasonable' the government's conduct.” (*Id.* at p. 46) Strict liability applies because the Lagoon Barrier (EPB) project is not a flood control project. The project would operate not primarily to protect against flooding, but to protect environmental resources at the expense of CAWD’s property rights. The EPB certainly would not operate to protect CAWD’s lands from flooding. (*Id.* at p. 47.)

The 2016 *Pacific Shores Property Owners* case is particularly apt. There, the County of Del Norte had for decades breached a sandbar of a coastal lagoon when the elevation reached four feet mean sea level (msl). When the older permits expired, the County tried to obtain permits to continue breaching at four feet msl, and could not. The California Department of Fish and Wildlife believed the breaching adversely impacted the lagoon's environment. For 16 years, the County breached pursuant to emergency and interim permits. (*Pacific Shores Property Owners Association, supra*, 244 Cal.App.4th 12, at p. 20.) The County and the Department then cooperated in changing the approach to sandbar management, and by allowing the coastal lagoon water elevation to increase and be breached at eight to ten feet msl, a higher level than the County had historically breached. The increase in lagoon elevation above eight feet msl caused flooding of nearby residential property. (*Id.* at p. 20.) The EIR showed the new sandbar management plan was designed to decrease the level of flood protection from what had been provided historically, and that doing so would intentionally damage private property. (*Id.* at p. 47.) The property owners of the nearby flooded property sued. The Court of Appeal held as follows: “Strict liability applies because the Department intentionally designed the breaching to flood plaintiffs' properties by reducing the flood protection plaintiffs had historically enjoyed, and its primary purpose for doing so was not to provide flood protection, but to protect environmental resources.” (*Id.* at p. 21.) The *Pacific Shores Property Owners* decision is controlling case law, along with the *Arreola* and *Odello* cases.

The Carmel Area Wastewater District benefits and provides a service to the much larger Carmel/Pebble Beach/Carmel Valley public. The County’s Lagoon Barrier project is intended to directly benefit owners of some of the land in the floodplain.

The County through its EPB project would be intentionally diverting water and flooding property owned by others – CAWD, State Parks, Carmel Unified School District – not historically subject to flooding in order to protect other property from flooding. (*Id.* at p. 33.) In so doing, the County would be creating a risk which would not otherwise exist. That is not reasonable. (E.g., *Pacific Shores Property Owners Association v. Department of Fish and Wildlife, supra*, 244 Cal.App.4th 12, 21-22.)

The County’s Draft EIR presumes that CAWD would deal with the flooding impacts of the County’s Lagoon Barrier Project. That approach is not reasonable. An agency’s assumption that “someone or something else would take care of flooding”


agency's assumption that "someone or something else would take care of flooding" (*Arreola v. County of Monterey, supra*, 99 Cal.App.4th 722, 759) is not sufficient to avoid liability.

There is ample evidence that the CAWD property would flood, causing significant and unmitigated impacts. That evidence includes the Draft EIR and the testimony of CAWD based on its on-the-ground experience, its historic records, and its engineering expertise. The County should not approve a project intended to help resources and control floods on a small amount of private land, where that project would have the foreseeable impacts of flooding the CAWD property and facilities.

Thank you.

Very truly yours,

STAMP | ERICKSON


Molly Erickson

cc: Charles McKee, County Counsel
Carl Holm, County RMA Director
Bob Schubert, County RMA Planning Department
County's CEQA comments address: ceqacomment@co.monterey.ca.us

Friedrich, Michele x5189

From: Julie Weaklend [jweaklend@carmelunified.org]
Sent: Tuesday, January 31, 2017 2:45 PM
To: Beretti, Melanie x5285; ceqacomments
Subject: Fwd: Environmental Impact Draft Report for Carmel Lagoon
Attachments: Carmel Lagoon Project.pdf.pdf

Hi Ms. Beretti,

I can't seem to get this email to go through. Can you please let me know if you have received this?

Thanks so much,

Julie Weaklend
Business Office
Carmel Unified School District
831-624-1546-phone
831-622-9958-fax



----- Forwarded message -----

From: Julie Weaklend <jweaklend@carmelunified.org>
Date: Tue, Jan 31, 2017 at 1:53 PM
Subject: Fwd: Environmental Impact Draft Report for Carmel Lagoon
To: CEQAcomments@co.monterey.ca.us, berattim@co.monterey.ca.us
Cc: Rick Blanckmeister <rblanckmeister@carmelunified.org>, Dan Paul <dpaul@carmelunified.org>

Dear Ms. Beretti,

It certainly helps when you attach the attachment. My apologies. The Carmel Lagoon Draft is really attached this time.

Thank you,

Julie Weaklend
Business Office
Carmel Unified School District
831-624-1546-phone
831-622-9958-fax

----- Forwarded message -----

From: Julie Weaklend <jweaklend@carmelunified.org>
Date: Tue, Jan 31, 2017 at 1:47 PM
Subject: Environmental Impact Draft Report for Carmel Lagoon
To: berattim@co.monterey.ca.us

Cc: CEQAcomments@co.monterey.ca.us

Good afternoon Ms. Beretti,

Per Rick Blanckmeister, CBO and Dan Paul, Director of Facilities and Transportation, I am forwarding the fully executed "Comments to the Draft Environmental Impact Report for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan." Please confirm receipt.

Thank you and have a wonderful day.

Julie Weakland
Business Office
Carmel Unified School District
[831-624-1546](tel:831-624-1546)-phone
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Carmel Unified School District

January 31, 2017

Ms. Melanie Beretti, Special Programs Manager
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Salinas, CA 93901-2487
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berattim@co.monterey.ca.us

Re: Comments to the Draft Environmental Impact Report for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan

Dear Ms. Beretti:

Please accept this letter as the Carmel Unified School District's ("District") comments to the Draft Environmental Impact Report ("DEIR") for Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan ("Project").

The District has reviewed the DEIR and has a number of concerns. The District's major areas of concern are the DEIR's failure to address numerous potential impacts specific to the Carmel River Elementary School, including the significant issues created by the construction of the Project directly across the District's property and in close proximity to the school. The District is also concerned by the County's failure to consult with or even contact the District regarding the Project, especially in light of the significant impacts and issues raised by the Project.

Discussion of District's Concerns

The District's main concerns are with respect to the Ecosystem Protective Barrier ("EPB") component of the Project. As described in the DEIR, the EPB is an approximately 2,000 linear foot sheet pile wall designed to act as a flood barrier to lagoon waters crossing into developed areas. (DEIR, 3.4.1.1) Part of the EPB would be constructed directly on and across District property, specifically the Carmel River

Elementary School site, APN 009-491-001. (DEIR, 3.4.1.1) Despite the potential impacts to the District and the Carmel River Elementary School site, these potential impacts have not been adequately investigated, evaluated, mitigated, or addressed by the DEIR. This includes the DEIR's failure to adequately investigate, evaluate, and mitigate: the necessary easements and approvals for the EPB; use of the Carmel River Elementary School's playfields as a staging area; long-term maintenance of the EPB; potential failure of the EPB; ground-borne vibration and noise impacts; and the significant loss of use of and access to District property.

1. The DEIR Does Not Address All Necessary Easements and Approvals

The proposed EPB would be constructed adjacent to the Carmel River and Carmel Lagoon between Highway 1 and the Pacific Ocean. (DEIR, 3.1) This proposed path directly crosses over and then runs along the border of District-owned parcel, APN 009-491-001. (DEIR, 3.4.1.1; Figs. 3-2, 3-4, & 3-6) The portion of the DEIR discussing potential easements provides:

“The proposed EPB project component would be constructed on State Parks-owned parcel (APN 009-491-001) and on [District]-owned parcel (APN 009-511-007, Carmel River Elementary School). The proposed EPB project component would also run along the property line between Carmel River Elementary School and Mission Ranch (APN 009-511-006), and as a result, both temporary and/or permanent easements are anticipated to be required from Mission Ranch (Table 3-1). Temporary construction easements are anticipated to be required for up to 14 residential parcels (i.e., the Fourth Addition parcels which abut the Lagoon) for the proposed EPB project component.”

Table 3-1 appears to suggest that the District will grant a 30 foot “Right-of-Way” easement along the EPB. This brief discussion regarding potential easements and approvals is insufficient to address those that will be necessary for the Project.

Notably, the DEIR fails to consider and discuss the numerous easements and/or approvals that will be necessary to construct the EPB across District property. Based on the District's review of the DEIR and understanding of the EPB component of the Project, the County, at a minimum, will need a temporary access/temporary construction easement for construction of the EPB, a permanent easement for the EPB to exist on District property, and some type of permanent easement for the County to access the EPB for maintenance and related issues. While Table 3-1 appears to suggest that a 30 foot “Right-of-Way” easement will be necessary, and Figure 3-10 suggests that a 40 foot “TCE” (temporary construction easement) will be needed, these nondescript references are not sufficient to address the full scope of easements and approvals that will be necessary from the District for construction of the EPB. It is also unclear if the easements referenced in Table 3-1 and Figure 3-10 with respect to the District are actually separate easements, or are intended to refer to the same easement (i.e., one refers to a 30' right of way easement, the other refers to a 40' temporary construction easement, and neither is actually addressed in detail in the DEIR). It should be pointed out that the County has not consulted with or contacted the District regarding construction of the EPB across District property. Lastly, the DEIR fails to investigate and evaluate whether the Project may be subject to review and approval by the Division of the State Architect (“DSA”). Because the EPB is

being constructed on the Carmel River Elementary School site, DSA review and approval may be necessary. These issues should all be thoroughly discussed and evaluated in the DEIR.

2. The DEIR Fails to Adequately Investigate, Evaluate, and Address Use of the District's Property for Staging

With respect to staging for construction of the proposed EPB, the DEIR provides that “[t]he proposed staging area and access areas are shown in Figure 3-10.” Figure 3-10 shows that the only staging area to be used for construction of the proposed EPB is entirely on District property, and specifically, is comprised of a large portion of the playfields for the Carmel River Elementary School and the area just south of the playfields. The DEIR provides no further discussion or evaluation regarding staging for Project construction.

The impacts of the proposed EPB and use of Carmel River Elementary School's playfields as the staging area have not been adequately investigated, evaluated, or addressed in the DEIR. According to the DEIR, construction of the proposed EPB will occur from July through September. (DEIR, 3.4.2) School commences at Carmel River Elementary School in early August. Once school has commenced, the playfields are used for a variety of activities, including but not limited to: the physical education

This is the only playfield available to the Carmel River Elementary School, and these activities will be completely displaced by use of the playfields as a staging area for the Project—a significant impact that the DEIR fails to address. Another significant issue is the fact that the proposed staging area is within close proximity to classrooms and other school buildings. The DEIR fails to address how noise, dust, and other impacts from use of the playfields as a staging area will impact students and faculty at the school. These are potential impacts that must be addressed and mitigated by the DEIR.

Also concerning, is the fact that the County has not consulted with or contacted the District regarding use of the playfields as a staging area for the Project. The DEIR appears to assume that the playfields will not be in use at the time of construction and/or that the District has no issue allowing use of the playfields for staging. Such assumptions are incorrect. The District is not obligated to permit such use of its property, and as presently described herein, is not inclined to so agree. Lastly, the DEIR fails to address restoration of the playfield areas after construction of the EPB is complete. It is the District's experience that land used as a “staging” area for construction is often altered or damaged during the project. This is often due to the high volume of traffic going through the staging area (employee vehicles, equipment and material deliveries), use of heavy duty equipment, material and equipment storage, and use of on-site project trailers and other project facilities in the staging area. The DEIR must address the potential impacts associated with use of the playfields as a staging area, including the possibility that the District and the County will not reach satisfactory terms regarding its use.

3. The DEIR Fails to Address Long-Term Maintenance of the EPB

The DEIR fails to address several issues regarding long-term maintenance of the proposed EPB. While the DEIR states that maintenance will include painting of exposed metal components,

replacement of broken electrical and mechanical components, and cleaning of storm drain pipes, inlets, and outfalls, it does not address *who* will be responsible for providing all maintenance activities. (DEIR, 3.4.1.1) This issue is further complicated by the fact that the DEIR provides that no access road for the purpose of long-term operation and maintenance is proposed as part of the Project, and the brief discussion regarding easements and approvals similarly does not address access for maintenance. (DEIR, 3.4.1.1) The DEIR's failure to address how long-term maintenance will be provided (and specifically, how the EPB will be accessed for maintenance) appears to suggest that the District will be responsible for identifying maintenance needs and performing maintenance on the EPB. The lack of clarity regarding these issues must be further addressed in the DEIR. The District cannot and should not be expected to provide or pay for maintenance of the EPB.

4. The DEIR Fails to Investigate, Evaluate and Address a Potential Failure of the EPB

Of significant concern to the District is also the potential impact to the safety of District students and faculty in the event the EPB fails. Section 4.8 of the DEIR concludes that operational risks due to flooding, seiche, tsunami, or mudflow are *less than significant* with respect to the EPB, and that such events are unlikely to result in significant risk of loss, injury, or death. The DEIR, however, fails to investigate and evaluate the potential impacts caused by a failure of the EPB (e.g., a breach of the flood wall).

The purpose of the EPB is to increase the potential level of the lagoon water on the southern side of the EPB. This is especially concerning to the District because of the close proximity of the Carmel River Elementary School to the EPB (particularly, the playfields, which are just north of the EPB). A potential breach of the EPB, and release of the lagoon waters from the southern to northern side of the wall creates significant issues regarding safety of students and faculty at the school. It also raises serious concerns regarding potential damage or destruction to school buildings, which could require displacement of students and staff. These issues should be fully investigated and evaluated by the DEIR.

5. The DEIR Fails to Investigate, Evaluate, and Mitigate Vibration and Noise Impacts

The DEIR states that ground-borne vibration from pile driving will result in potentially significant impacts to the surrounding areas. (DEIR, 4.10.3.3; NV-1). While the DEIR discusses potential mitigation measures relating to nearby residences, it fails to address the potential impact from ground-borne vibration to the District, and specifically, the potential impact on the Carmel River Elementary School. Because pile driving will result in potentially significant impacts, and because the school is in close proximity to the proposed EPB site, the DEIR should investigate and evaluate the impact to the school. If the DEIR is going to conclude that this impact is *less than significant after mitigation*, additional analysis and supporting data with respect to potential impacts to the Carmel River Elementary School is required and should be provided.

The DEIR also provides that construction activities associated with the proposed EPB will result in significant temporary or periodic increases in ambient noise levels that would exceed noise level standards. The DEIR further provides that even with mitigation, noise associated with pile driving

during construction is *significant and unavoidable*. (DEIR, 4.10.3.3; NV-2) Again, the DEIR only discusses the potential impacts caused by noise with respect to nearby residences, and there is no discussion regarding potential noise impacts on the Carmel River Elementary School. The impact of significant construction noise on children and on the educational operations of the school must be separately investigated, evaluated, and mitigated. In fact, the DEIR's attempt to mitigate noise impacts with respect to nearby residences directly conflicts with potential impacts to the school. The DEIR provides that noise impacts will be mitigated by limiting construction activities to day-time hours from Monday through Saturday. (DEIR, 4.10.3.3; NV-2) While this may mitigate some noise impacts to nearby residences, it increases noise impacts to students and faculty at Carmel River Elementary School—who will be in attendance during daytime hours from Monday through Friday. The DEIR also fails to address other potential noise impacts created by the Project. For example, the playfields that may be used as a staging area are adjacent to the school. If students will be permitted to use the area of the playfields not used for staging, the DEIR should also consider and evaluate potential noise impacts to these students.

6. The DEIR Fails to Evaluate and Address the District's Loss of Use of its Property

As discussed above, the path of the proposed EPB directly crosses over the parcel of land that makes up the southern portion of the Carmel River Elementary School Site. (DEIR, 3.4.1.1; Figs. 3-2, 3-4, & 3-6) This creates a number of issues that are unaddressed in the DEIR. First, the purpose of the EPB is to allow the lagoon waters on the southern side of the EPB to rise to 17.5 (NAVD88), which will completely inundate the several acres of District property on the south side of the EPB and eliminate and potential use of the property. Second, the proposed EPB runs the entire length of the District's property, thereby eliminating access between the northern and southern portions of the property. Neither of these significant impacts are investigated, evaluated, mitigated, or even addressed in the DEIR.

Additionally, the County has not consulted with or contacted the District in any manner regarding construction of the proposed EPB, and the DEIR incorrectly assumes that the District is willing to relinquish all future use of its property without any discussion or compensation. In fact, the EPB as currently described by the DEIR constitutes an improper taking of District property. The California Constitution prohibits property from being taken or damaged for public use without just compensation to the owner. (Cal. Const. art. I, § 19.) Under the DEIR, the proposed EPB will not only be built across District property, but the EPB will eliminate access to and/or use of the portion of the property that is south of the EPB. The DEIR does not address these significant issues, let alone provide for just compensation to the District for the taking of its property. These issues should be investigated and evaluated in the DEIR.

Conclusion

The District is greatly concerned with the DEIR's failure to address numerous potential impacts created by the construction of the Project directly across the District's property and in close proximity to the Carmel River Elementary School. As discussed herein, there are significant questions regarding necessary easements and approvals, the proposed staging area, long-term maintenance, potential EPB failures, ground-borne vibration and noise impacts, and the District's loss of use of its own property.

Equally concerning is the fact that the County has not consulted with or even contacted the District with respect to the Project. The true impacts of the Project must be investigated and evaluated, as this Project alone will result in significant potential impacts to the Carmel River Elementary School. In light of the above, the District requests that the DEIR not be approved until after these issues have been adequately investigated, evaluated, addressed, and mitigated in the Project's Environmental Impact Report.

Sincerely,

A handwritten signature in cursive script that reads "Rick Blanckmeister". The signature is written in black ink and is positioned above the printed name.

Rick Blanckmeister

Chief Business Official

Carmel Unified School District

Friedrich, Michele x5189

From: Antonio Rossmann [ar@landwater.com]
Sent: Tuesday, January 31, 2017 3:03 PM
To: ceqacomments
Cc: Daniel Cooperman; Linda Cooperman; Roger Moore
Subject: Friends of Carmel Valley Lagoon DEIR Comments
Attachments: Carmel.Lagoon.DEIR.Comments.pdf

Melanie Beretti, attached please find the comments of the Friends of the Carmel Valley Lagoon. Kindly acknowledge receipt.

A hard copy original is now in the mail to you as well.

Thanks you for your cooperation and assistance.



Respectfully,

Tony Rossmann
Counsel to the Friends

Antonio Rossmann
Rossmann and Moore, LLP

John and Elizabeth Boalt Lecturer in Land Use and Water Resources Law
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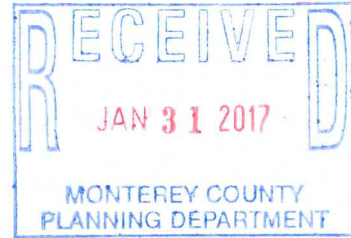
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31 January 2017

via mail and email to: CEQAcomments@co.monterey.ca.us

Melanie Beretti, Special Programs Manager
Monterey County, Resources Management Agency
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

Re: Carmel Lagoon Draft EIR; comments of Friends of Carmel River Lagoon

Dear Ms. Beretti:

The Friends of the Carmel River Lagoon (Friends), on whose behalf this letter is written, submit the following comments on the above-referenced draft environmental impact report (EIR). Friends, comprised of homeowners who live adjacent to or near the Carmel River Lagoon as well as others in the Carmel community, seek to preserve the lagoon in its natural state. The Friends include those Carmel residents bordering the lagoon who would, as the EIR accurately documents, bear the brunt of the significant and unavoidable adverse scenic, acoustic, hydrologic and water quality impacts imposed by the proposed environmental protection barrier (EPB). The Friends endorse the EIR as justifying and requiring rejection of the EBP component at this time.

The Friends express their appreciation to lead agency County of Monterey (County) for accomplishing the following tasks in production of the draft EIR:

Formulating a functionally-accurate and non-conclusory project purpose: "restoring the Lagoon's historic hydrologic, premanagement condition *to the extent feasible* to protect and improve habitat for fish and wildlife while maintaining flood protection" (*Op. cit.*, p. 2.0-1) (emphasis added);

Supporting that project purpose by recognizing that the USACOE/NMFS/County Carmel Lagoon memorandum of understanding (MOU) calls for a long-term solution that would *avoid* [not eliminate entirely] performing sandbar management for flood-control purposes (*Op. cit.*, p. 4) (emphasis added);

Assessing the project components of Scenic Road Improvement, Sand Bar Management, and the no EPB Alternative in sufficient detail to enable the County Board of Supervisors to reject EPB approval, while approving a plan of Sand Bar Management coupled with the Scenic Road Improvement. As the Balance Hydrologic Riverine Processes Report (EIR appx. H) described the County's sand bar experiment with a non-traditional north-northwesterly alignment outlet channel, "The project was a success, as lagoon WSEs maintained an extra foot or so in elevation throughout the entire lagoon open period, improving habitat quality and volume" (*Op. cit.*, p. 23);

Concluding that the No EPB Alternative "would eliminate the significant and unavoidable operational aesthetic, operational hydrology, and construction and operational noise impacts associated with the proposed EPB project component This alternative would also achieve all the project objectives" (DEIR, p. 5.0-41);

Building a consensus among the resource agencies, affected public agencies such as California State Parks and the Carmel Area Wastewater District, and the most affected and threatened private property owners.

The Friends therefore endorse the EIR's conclusion that the No EPB Alternative forms the environmentally-favorable one, providing substantial -- indeed compelling -- evidence in support of its adoption.

The Friends recognize that adoption of the alternative "with delayed EPB" can be seen as a "compromise" deferral of decision keeping the EPB in play for a potential future approval. But as the EIR makes clear, "this alternative assumes that the proposed EPB component would be constructed in the future." (*Op. cit.*, p. 5.0-38.) The "delayed EPB" alternative maintains the adverse impact on aesthetics, noise, hydrology, and water quality, which relegates this alternative to one that even with substantial (and unsubstantiated) mitigation, would presently impose significant and unavoidable impacts.. (See e., g., EIR pp. 2.0-12,5.0-38, 5.03-3, 5.03-41.)

For example, the impact to the integrity of the Carmel Valley Waste Water Plant would remain, threatening members of the Friends as both landowners and consumers of that facility. (EIR, pp. 4.8-43, 5.0-23.) Recent proceedings and statements by the Carmel Area Wastewater District (CAWD) confirm that attempted

mitigation of impacts to CVWWD would involve the County and State Parks in years of costly projects (e.g., pumps and floodwalls). The EIR correctly records that neither the County nor State Parks are prepared to participate in such efforts, but even if accomplished, "the impact of the proposed EPB project component is significant and unavoidable." (*Op. cit.*, p. 4.8-45.) To protect the community's wastewater treatment facility, therefor, action on the EPB component must not be delayed, but the EPB removed at this time.

By adopting the deferred-EPB alternative, and thereby committing to and authorizing EPB construction at the end of the experimental period, the County would compel the public and citizen opponents of the EPB promptly to challenge the approval and its EIR now. Otherwise, any subsequent litigation would be subject to the defense that the time to challenge had passed, since the 2017 approval expressly included approval to construct the EPB at some indefinite future time.

Moreover, even in the absence of litigation, an EPB approval now, banked not for present construction but for future, would impose a burden of persuasion on the Friends and other community members to set aside that approval in the future and preserve the environmental status quo.

Finally, including a delayed EPB component in the approved project would still require intermittent emergency breaching of the sand bar; it creates no categorical environmental advantage over the preferred No EPB Alternative. Given that the current winter season, with rainfall and river flows of record or near-record proportions, has given the County's ever-improving management protocol the ability to prove its efficacy in avoiding harm, the case favoring rejection of an EPB component becomes stronger than ever.

The Friends appreciate this opportunity to comment on the EIR that describes the alternatives presented to protect and improve wildlife habitat while providing effective flood control without producing adverse environmental effects. The Friends endorse the EIR's conclusion that rejection of the EPB, as either either a present or delayed component, enables the remaining project components to meet all project objective and avoid significant adverse impacts.

Respectfully submitted,



Antonio Rossmann
Counsel to the Friends of the Carmel River Lagoon

Beretti, Melanie x5285

From: Sanders, Kim@Waterboards [Kim.Sanders@waterboards.ca.gov]
Sent: Tuesday, January 31, 2017 3:48 PM
To: Beretti, Melanie x5285
Cc: Katerina Galacatos (katerina.galacatos@usace.army.mil); McCann, Lisa@Waterboards; Hammer, Phillip@Waterboards; Connolly, Linda@Wildlife; WB-DWQ-Stateboard401; siu.jennifer@epa.gov; Sanders, Kim@Waterboards
Subject: Comments on the Draft Environmental Impact Report for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project
Attachments: R3__Carmel Lagoon DEIR Comments_170131_final.pdf

Comments on the Draft Environmental Impact Report for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project

The Central Coast Regional Water Quality Control Board is increasing its efforts to transmit correspondence and other information electronically, reducing the amount of paper used, and increasing the speed of which information is distributed. Therefore, you are receiving the attached correspondence for the subject site from the Central Coast Water Board in a Portable Data Format (PDF). You will not receive a hard copy unless documents are also required to be sent by Certified Mail. If you need help opening this document please refer to the link below:
<http://www.adobe.com/products/acrobat/readstep2.html>

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received
Jan. 31, 2017



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Coast Regional Water Quality Control Board

January 31, 2017

Melanie Beretti
Monterey County Resource Management Agency
168 W. Alisal St., 2nd Floor
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Email: BerettiM@co.monterey.ca.us

VIA ELECTRONIC MAIL

Subject: Comments on the Draft Environmental Impact Report for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project

Dear Ms. Beretti:

The Central Coast Regional Water Quality Control Board (Water Board) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan (ISMP) Project (Project). The three elements of this Project are briefly summarized below.

Ecosystem Protective Barrier. The goals of the EPB are to maintain or improve existing flood protection for low-lying homes and public infrastructure around the north end of the lagoon, particularly the Fourth Addition neighborhood, while reducing the frequency of mechanical sandbar management to comply with regulatory requirements. The proposed EPB includes two primary components: a 2,000-foot-long fiber reinforced polymer sheet pile wall and the reconstruction of 400 linear feet of Carmelo Street, both with a top elevation of +17.5 ft NAVD. The proposed alignment of the EPB is set back from private property, and is largely located within the property boundaries of the California Department of Parks and Recreation's (CDPR) Carmel River Lagoon and Wetlands Natural Preserve (Preserve). The EPB therefore also includes infrastructure (pumps, etc.) to transport stormwater from the residential neighborhood and setback area north of the EPB to the lagoon south of the EPB.

Scenic Road Protection Structure. The goal of the SRPS is to protect portions of Scenic Road from coastal erosion due to large swells and/or the northerly migration of the lagoon inlet. A northerly inlet location is preferred by resource managers because it results in improved lagoon conditions for special status species, particularly Central Coast steelhead. The proposed SRPS consists of an approximately 1,000-foot-long, 40 to 50-foot-wide, 15 to 20-foot-high rock revetment aligned parallel to the toe of the Scenic Road embankment. At its southern limits, the revetment is adjacent to the toe of the road embankment; moving north the alignment of the revetment trends farther seaward from the toe. The revetment is proposed to be constructed of 1- to 2-ton rock, buried in the beach profile at its toe but exposed in the backbeach at higher elevations.

Interim Sandbar Management Plan. The goal of the ISMP is to accommodate natural lagoon functions while protecting properties and infrastructure until the EPB and SRPS can be built.

DR. JEAN-PIERRE WOLFF, CHAIR | JOHN M. ROBERTSON, EXECUTIVE OFFICER

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The ISMP includes mechanical sandbar breaching when lagoon water levels reach +13.27 ft. NAVD, managing the breach in the winter to maintain a minimum lagoon elevation of +6 ft. NAVD, and managing the breach in the summer to achieve a lagoon elevation of +12.77 ft. NAVD.

As a responsible agency under the California Environmental Quality Act (CEQA), the Water Board is obligated to comment on shortcomings in the DEIR, including additional alternatives, impacts, and mitigations that should be included in the DEIR (CEQA §15096(b)(d)). We have serious concerns about the short-term, long-term, and cumulative impacts of the proposed Project, the analysis of potential Project alternatives, and the potential lack of consistency between the proposed Project and Water Board policies, including the Water Quality Control Plan for the Central Coastal Basin and the California Wetlands Conservation Policy.

I. Ecosystem Protective Barrier

In general, the Water Board supports management actions that facilitate natural lagoon hydrology, particularly the fill-breach-drain cycles that make lagoons such temporally and spatially dynamic ecosystems. As documented in the Memorandum of Understanding (MOU) between the U.S. Army Corps of Engineers (Corps), National Marine Fisheries Service (NMFS), and Monterey County (County) (MOU) and supporting scientific literature, artificial lagoon breaching can result in severely deleterious short-term consequences for lagoon biota, as well as long-term morphological changes to the barrier beach that impede natural coastal processes. By hydraulically isolating the Fourth Addition neighborhood from the lagoon, the EPB concept should reduce or eliminate the need for mechanical breaching of the lagoon inlet.

However, the proposed alignment for the EPB is offset from the 14 private properties within the Fourth Addition that would be protected from flooding by the EPB. Though the DEIR does not appear to describe the estimated distance of this offset, the alignment isolates approximately 3.1 acres of lagoon habitats (primarily wetlands and associated estuarine-terrestrial transitional habitats), including 2.4 acres of CDPR lands, from the rest of the lagoon. The DEIR does not adequately assess this potentially significant impact, stating the “exact results of this isolation on wetland resources cannot be characterized.” Without a more detailed analysis of impacts to wetlands due to isolation, appropriate mitigation measures cannot be identified. As a result, the DEIR vaguely states that a mitigation plan will be developed during the regulatory agencies’ permitting processes. This lack of clarity regarding impacts and mitigation measures does not ensure these impacts will be reduced to less than significant levels. The DEIR should be revised to characterize wetland isolation impacts and mitigation measures in greater detail.

The DEIR appears to justify the wetland isolation by describing the post-project condition of the isolated 3.1 acres as a stormwater detention wetland that would “*serve as a bio-treatment area for urban runoff*” (pg. 3.0-20). Urban runoff from approximately 100 acres of the Fourth Addition would flow into the detention area between the neighborhood and EPB before being pumped into the lagoon/wetlands Preserve. The proposed conversion of 3.1 acres of natural lagoon habitats (including 2.1 acres of federally jurisdictional wetlands) into a *de facto* treatment wetland is problematic for the following reasons:

- **Wetland Conversion and the Water Board’s “No Net Loss” Wetland Policy.** California Executive Order W-59-93, the California Wetlands Conservation Policy, is most commonly known as the “No Net Loss” Wetland Policy due to the provision that ensures “no overall net loss and the long-term net gain in the quantity, quality, and

permanence of wetlands acreage and values in California” (emphasis added). The proposed EPB’s design as a sheet-pile wall appears meant to minimize the conversion of state and federal jurisdictional wetland acreage into non-wetland habitats, as might be the case with a levee or similar structure with a relatively wider footprint. However, the resulting hydraulic isolation of at least 2.1 acres of existing wetlands¹ from the rest of the lagoon constitutes a significant conversion of wetland quality and values, by turning a dynamic estuarine wetland into a managed stormwater detention wetland, and eliminating approximately 2,000 linear feet of estuarine-terrestrial transition zone habitats. These actions will permanently alter the hydrology and ecology (vegetation, wildlife) of the wetlands landward of the EPB, and significantly reduce terrestrial refugia for special-status lagoon wildlife such as California red-legged frog and western pond turtle, generating significant cumulative impacts to biological resources and the beneficial uses of the lagoon described in the Basin Plan. The permanent conversion of at least 2.1 acres of estuarine wetlands into managed treatment wetlands would therefore likely trigger compensatory mitigation requirements to comply with the No Net Loss Policy. As mentioned above, the DEIR should be augmented to better assess these impacts and provide detailed mitigation measures that ensure impacts will be mitigated to less than significant levels.

A note regarding compensatory mitigation: It is the Water Board’s preference to avoid impacts to wetlands due to the challenge of successfully creating in-kind wetlands. We find that protection of water quality and beneficial uses of waters is best achieved when impacts are avoided. For example, the created wetland habitat may be of lesser value or provide functions that differ from the impacted wetland. If impacts cannot be avoided by using alternative designs, the Water Board requires as much minimization as possible of the impacts. The Water Board requires compensation for unavoidable wetland impacts through onsite creation or restoration of the same type of wetlands as the impacted wetlands. Each site is reviewed on a case-by-case basis and there is no predetermined set of ratios used to determine mitigation. Factors that the Water Board considers in determining whether a mitigation proposal is acceptable and adequately compensates for lost acres, linear feet, and functions include: temporal losses; whether mitigation is in-kind or out-of-kind; whether mitigation is onsite or offsite; indirect impacts to wetlands; loss of or impacts to special status species and their associated habitats; the period of time required for full development of created/restored wetlands; delays in the construction/restoration of mitigation wetlands; and the likelihood of success of the created/restored wetlands.

- **Justification for Stormwater Treatment.** The DEIR does not provide adequate information to describe the impacts of existing stormwater inflows on lagoon water quality, nor how the proposed detention/bio-treatment would reduce the impacts of stormwater runoff on lagoon water quality. In Chapter 4.8, Hydrology and Water Quality, surface water quality in the lagoon is described as “influenced by freshwater inflow from the Carmel River, tidal levels, and ocean waters overtopping the sandbar from the Pacific Ocean” (pg. 4.8-12); urban runoff is not listed as a primary driver of water quality.

¹ Under the Porter-Cologne Water Quality Control Act, the State may take a relatively broader view of jurisdiction than the federal government may under Section 404 of the Clean Water Act. Therefore, the acreage of Waters of the State between the proposed EPB and the Fourth Addition neighborhood may be larger than the 2.1 acres of federally jurisdictional wetlands described in the DEIR.

In most Californian coastal lagoons, urbanized runoff is most problematic in the summer, when nutrient-laden urban nuisance flows drain into closed, warm lagoons with extensive hydraulic residence times (HRTs). The DEIR does not cite urban nuisance flows as a contributing factor to water quality, and in fact cites a 2015 report by Balance Hydrologics that identifies groundwater (not urban nuisance flows) as the primary summer hydrologic input to the landward side of the EPB (pg. 4.8-38).

The DEIR focuses instead on winter stormwater flows, stating that “treatment of [winter] stormwater runoff from the developed area north of the Lagoon before the water is carried to the Lagoon would improve stormwater quality entering the Lagoon and Carmel Bay ASBS” (pg. 4.8-38). The DEIR does not describe the impact of winter stormwater runoff from the Fourth Addition on water quality in the lagoon, nor how treatment of this runoff would be split between the detention area and the water quality treatment BMPs described in Mitigation Measure HYD-4 (pg. 4.8-39/40).

The Water Board supports measures to minimize and/or eliminate urban runoff pollution to Waters of the State, including sensitive aquatic sites such as Carmel Lagoon and the Carmel Bay ASBS. However, the DEIR should be revised to provide additional detail describing (1) the impacts of urban stormwater on water quality in the lagoon and (2) how the proposed detention basin and BMPs would improve water quality relative to existing conditions. In addition, before waters of the State are proposed to be used for treatment purposes, all other options for runoff treatment and infiltration should be investigated for feasibility. The wide range of available runoff treatment approaches provides suitable options for most locations, making use of waters for treatment purposes generally unnecessary. As a general practice, the Water Board seeks to avoid use of waters of the State that support beneficial uses for treatment purposes.

EPB Alternatives Analysis

We disagree with the DEIR’s conclusion that the EPB Near Property Line and EPB At Property Line alternatives are not reasonable or feasible. These alternatives achieve the proposed Project’s flood protection objectives while avoiding or substantially lessening its significant effects on biological resources and beneficial uses. Specifically, we disagree with the conclusion on page 5.0-20 that the EPB Near Property Line alternative “may increase impacts to water quality due to the lack of available space to implement water quality treatment areas.” If urban stormwater is negatively impacting water quality in Carmel Lagoon, then Project proponents should identify stormwater treatment goals, and measures to achieve these goals, that are not dependent on the conversion of habitats within the Preserve. We also disagree with the conclusion that the EPB Near Property Line alternative “may also increase impacts associated with alteration of drainage patterns” (ibid). Flooding/drainage patterns in the lagoon would be less impacted with an EPB closer to private property boundaries, as a smaller wetland footprint would be isolated from the lagoon and converted to non-estuarine wetlands. The DEIR should be revised to re-consider the reasonableness of the EPB Near Property Line and EPB At Property Line alternatives, and include a robust and detailed discussion of the significant individual and cumulative physical and ecological impacts of wetland isolation and conversion on hydrology, water quality (including beneficial uses), and biological resources (e.g. vegetation communities, dependent wildlife, and habitat support for special-status species) in both the lagoon and the setback area.

II. Scenic Road Protection Structure

Consistent with the MOU, the Water Board supports allowing Carmel River Lagoon to breach to the north, as it likely would frequently in the absence of human intervention. Carmel River Lagoon is one of many lagoons throughout the California coast where the presence of a headland encourages the development of a lagoon inlet in a relatively wave-sheltered location, often at the seaward terminus of a backbeach runnel pinned between coastal bluffs and the beach's swash zone. The below photo of Carmel River Lagoon from 1921 shows the inlet in such a formation, entering Carmel Bay at the beach's northern limit where it converts from a sandy beach to a rocky headland (Stuart's Cove). The DEIR includes similar photos from 1993 and 2005.



Photo: The inlet of Carmel River Lagoon in 1921. For a sense of scale, note the person lying on the beach in the bottom of the photo. Photo courtesy of John McKeon, NMFS.

Due to the lagoon's history of artificial breaching, it is challenging to relate inlet morphodynamics to natural fluvial and coastal processes in isolation from antecedent post-breach conditions. Nonetheless, the analyses done in support of the DEIR by Moffatt & Nichol (2013) and Dr. Edward Thornton (2005) indicate that it is not unusual for the inlet to be in a configuration that scours sand from the backbeach, and occasionally drives erosion of the bluffs below Scenic Drive.

Though the intent of the proposed SRPS is to limit coastal erosion – specifically of the coastal bluffs below Scenic Drive – the DEIR fails to describe the impact the armoring could have on critical coastal processes at Carmel River Beach. Approximately ten percent of the California coastline has been armored with seawalls, rock revetments, and similar structures,² and in many locations, this armoring has been linked to the disruption of coastal processes such as

² Griggs, G. 2005. The Impacts of Coastal Armoring. *Shore and Beach* 73(1):13-22.

wave dissipation, littoral transport of sediment, and berm accretion.³ “Passive” erosion, where shorelines migrate landward on either side of an armoring structure, is a significant long-term impact of coastal armoring, and can lead to the long-term narrowing and/or eventual loss of beach seaward of the armoring. The DEIR downplays the potential for passive erosion due to the SRPS (pg. 4.5-50/51), but does not make clear how repeated breach events to the north might influence the “normal” conditions that are thought to favor burying of the revetment. The DEIR should include assessment of this impact, as well as identification of mitigation to reduce it to less than significant levels.

Natural coastal processes at Carmel River Beach are necessary not just for the long-term resilience of the beach (particularly with regards to sea level rise), but are crucial to the ecohydrology of the lagoon. In all California coastal lagoons, maximum water surface elevations are established by the height of the beach berm; when the berm overtops, the lagoon breaches and drains. The wave-driven transport of sand back into the inlet closes it, and starts the fill-breach-drain cycle anew. By exercising a primary control on lagoon hydraulics, impacts to coastal processes can therefore result in significant impacts to habitats, water quality, and beneficial uses in the lagoon. Furthermore, beach armoring has been directly linked to the loss of beach ecosystem functions, including biodiversity and organism abundance,⁴ that support beneficial uses of Carmel River Lagoon and Carmel Bay. The DEIR should include analyses of the following coastal process impacts that could result from the proposed SRPS:

- **Wave-driven Erosion of the Foreshore.** By replacing considerable portions of a sandy, wave-dissipating backbeach with 1- to 2-ton rock that would reflect wave energy back into the foreshore when exposed, the SRPS will likely accelerate erosion of the beach profile. Such erosion could drive a feedback loop that narrows the beach seaward of the revetment, exposing the revetment to increased wave action that could further destabilize the bluffs and narrow the beach.⁵ This effect has been observed at multiple armored California beaches, such as Ocean Beach in San Francisco, Surfer’s and Miramar Beaches in Half Moon Bay, and Manor, Sharp Park, and Rockaway Beaches in Pacifica. The effects of armoring on beach widths and erosion are an area of active scientific research, and the DEIR should be revised to include an assessment of these potentially significant impacts.
- **Littoral Sediment Transport.** As discussed in the coastal reports cited in the DEIR, the sheltering and orientation of Carmel River Beach are such that northward littoral transport is dominant in the northern half of the beach, and southward transport is dominant in its southern half. Nonetheless, the sheltering influence of the northern headland from dominant NW swell may be driving wave setup and a net current (and therefore littoral transport) to the northern half of the beach, in front of the proposed rock

³ Ibid; see also Defeo, O., A. McLachlan, D.S. Schoeman, T.A. Schlachler, J. Dugan, A. Jones, M. Lastra, and F. Scapini. 2009. Threats to sandy beach ecosystems: A review. *Estuarine, Coastal, and Shelf Science* 81:1-12.

⁴ Gittman, R.K., S. B. Scyphers, C.S. Smith, I.P. Neyland, and J.H. Grabowski. 2016. Ecological Consequences of Shoreline Hardening: A Meta-Analysis. *BioScience* 66:763-773.

⁵ Battalio, R. T., P. D. Bromirski, D. R. Cayan, L. A. White. 2016. Relating Future Coastal Conditions to Existing FEMA Flood Hazard Maps: Technical Methods Manual. Prepared for the California Department of Water Resources and California Ocean Science Trust by Environmental Science Associates (ESA).

revetment. The DEIR should be revised to include an assessment of the potentially significant impacts of the SRPS on littoral currents and sediment transport.

- **Inlet Morphodynamics.** In California coastal lagoons that are located between erosion-resistant headlands or armored with rock revetments, inlets frequently become “pinned” against the relatively more erosion-resistant feature, and migrate less frequently than inlets set within beach/dune landscapes. The coastal analyses cited in the DEIR indicate that even with active management, the Carmel River Lagoon inlet location and configuration are very dynamic, and frequently shift along the length of the beach. Though breaching to the north is desired for the ecological reasons described in the MOU, the SRPS may permanently “pin” the inlet in this location, eliminating much of the spatial variability that makes the lagoon-beach interface such a dynamic, unique component of lagoon habitats. The DEIR should be revised to include an assessment of the potentially significant impacts of the SRPS on inlet morphodynamics.
- **Sea Level Rise.** The DEIR is careful to explain that the anticipated lifespan of the SRPS is only 30 years; after that time, it states that the SRPS will be “*re-evaluated, and either retrofitted or removed*” (pg. 4.5-38). With an anticipated sea level rise of 0.5 to 2 ft. during this time, the beach in front of the revetment may narrow considerably, limiting options for retrofitting of the structure. The DEIR should be revised to include a more thorough description of *how* the SRPS will be re-evaluated in 30 years (when rates of sea level rise are expected to accelerate), and the criteria that will be used to identify a long-term (post-30 years) solution for erosion at Scenic Road.

Notably, the DEIR does not include any “soft” alternatives to armoring that might protect the Scenic Road bluffs, including geotechnically reinforced/vegetated foredunes, beach nourishment, and related strategies that could potentially achieve the goals of minimizing coastal erosion while decreasing impacts on coastal processes (and perhaps even improving them).⁶ The DEIR already describes alternatives with less encroachment onto the beach, particularly the secant pile wall (pg. 5.0-25), which will achieve similar if not improved levels of erosion protection for Scenic Road with likely less significant impacts on coastal processes. The DEIR should assess the impacts to coastal processes described above, and identify mitigation measures that will reduce any impacts to less than significant levels. The DEIR should also include an assessment of “soft” armoring alternatives, and re-evaluate the reasonableness and selection of the preferred SRPS alternative.

III. Sea Level Rise, Lagoon Hydrodynamics, and EPB/SRPB Elevations

Page 4.5-39 of the DEIR states that “an increase in ocean levels of 0.5 to 2 feet anticipated over the life of the project...is assumed to translate to an approximately parallel increase in statistical lagoon levels of 0.5 to 2 feet.” Recent research in California coastal lagoons has indicated that this assumption may not hold true, as sea level rise forces beaches to transgress landward, changing (among other attributes) lagoons’ stage-storage relationships, beach berm configurations, breach frequencies, and flood elevations. Quantitative conceptual models⁷ that

⁶ California Coastal Commission. 2015. Sea Level Rise Policy Guidance: Interpretive Guidelines For Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits. Adopted August 12.

⁷ For example: Behrens, D., M. Brennan, and B. Battalio. 2015. A quantified conceptual model of inlet morphology and associated lagoon hydrology. *Shore and Beach* 83(3):33-42.

link lagoon water balances with fluvial and coastal processes have been demonstrated to be valuable tools in predicting lagoon hydrology and inlet morphodynamics, particularly for well-studied systems such as Carmel River Lagoon that have extensive data sets describing physical processes. The DEIR should be revised to include more robust analysis of how sea level rise might influence lagoon inlet morphology and hydrodynamics, and how the EPB, SRPS, and ISMP would perform under these circumstances.

We appreciate the opportunity to comment on the DEIR, and look forward to working with the City during future Project phases. Please contact **Kim Sanders** at Kim.Sanders@waterboards.ca.gov or 805-542-4771, or Phil Hammer at 805-549-3882, with any questions or comments.

Sincerely,



Digitally signed by Phillip Hammer
Date: 2017.01.31 15:37:16 -08'00'

for
John M. Robertson
Executive Officer

cc:

Katerina Galacatos
U.S. Army Corps of Engineers
Email: Katerina.galacatos@usace.army.mil

Linda Connolly
California Department of Fish and Wildlife
Email: Linda.Connolly@wildlife.ca.gov

401 Program Manager
State Water Resources Control Board
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Jennifer Siu
U.S. Environmental Protection Agency
Region 9
Email: siu.jennifer@epa.gov

Kim Sanders
Central Coast Water Board
Email: Kim.Sanders@waterboards.ca.gov

Friedrich, Michele x5189

From: Tina O'Brien [TO'Brien@FentonKeller.com]
Sent: Tuesday, January 31, 2017 3:55 PM
To: ceqacomments
Cc: Thomas H. Jamison; Thomas Jamison
Subject: Carmel Lagoon EPB, SRPS, and ISMB Draft Environmental Impact Report
Attachments: LTT County re Carmel Lagoon EPB, SRPS, and ISMB DEIR (00633702).pdf

Dear Ms. Beretti,

Attached please find Thomas H. Jamison's letter regarding the Carmel Lagoon EPB, SRPS, and ISMB Draft Environmental Impact Report. If you encounter any problems opening the attachment, please let me know. Thank you.

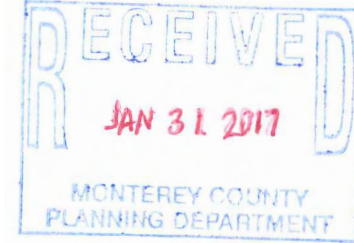
Best regards,
~ Tina

Tina O'Brien
Administrative Assistant
to Troy A. Kingshaven, John E. Kesecker, Kenneth S. Kleinkopf, Evan J. Allen & Thomas H. Jamison

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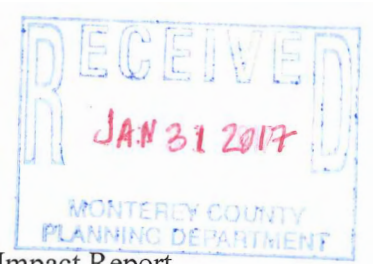
January 31, 2017

THOMAS H. JAMISON

TJamison@FentonKeller.com
ext. 230

VIA E-MAIL (CEQACOMMENTS@CO.MONTEREY.CA.US)

Monterey County - Resource Management Agency
Attn: Ms. Melanie Beretti, Special Programs Manager
168 W. Alisal, 2nd Floor
Salinas, CA 93901



Re: Carmel Lagoon EPB, SRPS, and ISMB Draft Environmental Impact Report
Our File: 2037.29635

Dear Ms. Beretti:

Our firm represents Pebble Beach Company (“PBC”). PBC provides these comments on the County’s Draft Environmental Impact Report (“DEIR”) for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan, as both the Fiscal Sponsor of the Carmel Area Wastewater District (“CAWD”) – Pebble Beach Community Services District (“PBCSD”) Wastewater Reclamation Project (the “Reclamation Project”), and as a user of recycled water from the CAWD plant for golf course and open space irrigation. At the request of PBC, these comments are also submitted on behalf of the other users of recycled water for golf courses and open space irrigation.¹

The DEIR concludes that the proposed Ecosystem Protection Barrier (“EPB”) Project would inundate more frequently and for longer duration the CAWD property, would likely result in higher groundwater levels at the CAWD facilities, and may result in flooding of the CAWD facility and property, including the Reclamation Project facilities. (DEIR pp. 4.8-43 to 4.8-45). The DEIR classifies these impacts as significant and unavoidable, claiming that there are no feasible mitigation measures to reduce these impacts to a less than significant level.

We have reviewed the comments on the DEIR submitted by CAWD in its letter of January 18, 2017, and by PBCSD in its letter of January 27, 2017. We incorporate in our comments each of those letters and the comments contained therein. Our principal concern in

¹ The golf courses owned by PBC are Pebble Beach Golf Links, Spyglass Hill Golf Course, The Links at Spanish Bay, and Peter Hay. The other golf course users are Monterey Peninsula Country Club (two 18-hole courses, Shore Course and Dunes Course), Cypress Point Club, and Poppy Hills Golf Course. Robert Louis Stevenson School also uses recycled water for irrigation of certain of its athletic fields.

these comments is the failure to discuss in any way the significant adverse impacts resulting to the recycled water users from the proposed project. The DEIR is legally inadequate for this reason alone, but for a number of other reasons as well.

Initially, the DEIR is inadequate as a document to inform the public of the impacts and consequences of the proposed project. As ably pointed out in the comments of CAWD, the DEIR is woefully deficient in its analysis of the adverse impacts on the CAWD facilities and those arising from those impacts. The DEIR contains incorrect facts and essentially no analysis of the impacts of inundation of the CAWD treatment plant site and the predicted shut-down of those facilities. As a publicly owned and operated sewage treatment facility performing an essential public service to 16,000 customers, protection of the CAWD plant against a shut-down has a higher priority than protecting a few dozen private residences in a flood-prone area along the edge of the lagoon. The prospect of 16,000 homes and businesses being without sewage treatment services, or of raw sewage running flowing into the Carmel Bay Area of Special Biological Significance, is enough of a vision to prove that point. The threat to the CAWD plant from the proposed project is inconsistent with and indeed directly contrary to the stated project objectives, and is intolerable from a public policy standpoint.

While the effects on the community of a CAWD plant shut-down are severe, the unacknowledged effects on the users of recycled water produced by the CAWD plant are equally severe. PBC and the other recycled water users have guaranteed the costs of operating and financing the approximately \$60 million Reclamation Project (including improvements at the CAWD plant) necessary to produce and distribute recycled water to irrigate the golf courses in Del Monte Forest. The CAWD plant is capable of producing approximately 1,000 acre feet per year of recycled water to irrigate the golf courses; the golf courses depend on this recycled water for their life blood. Any shut-down of the CAWD treatment facilities that produce recycled water (especially the recently completed microfiltration/reverse osmosis component to reduce salinity) would have damaging effects on the golf courses by turning courses brown and potentially jeopardizing tees and greens. This impact, in turn, could result in a reduction in reputation and play, which would result not only in financial loss to the golf courses but to the Monterey Peninsula at large. Given that the world-renowned Del Monte Forest golf courses are major attractions for the Monterey Peninsula's primary economic activity, which is tourism, the negative impact to the local economy from flooding of the CAWD plant and shutting down the Reclamation Project would be devastating.

CEQA policy requires that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects" (Public Resources Code Section 21002)

In the present case, the DEIR identifies an alternative that "would fully achieve the project objectives" and at the same time "would avoid significant and unavoidable impacts to ... hydrology," and thus "would resolve ... CAWD's objections to the proposed EPB project component." (DEIR, p. 5.0-40). With so much at risk to CAWD, to the community served by CAWD, to the Del Monte Forest golf courses, and to the economy of the Monterey Peninsula, adoption of this alternative in lieu of the proposed project is compelled. This alternative is the "Scenic Road Protective Structure and Sandbar Management Plan (No EPB)" which is discussed

in Section 5.3.3.2 of the DEIR (p. 50.39-40). It is clearly feasible, since all it involves is the elimination of the EPB component of the proposed project. Even with the elimination of the EPB component, all of the project objectives are “fully achieved,” and it is identified as the “Environmentally Superior Alternative.” CEQA law demands that it be adopted.

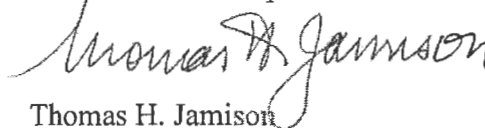
To the extent that the County refuses to adopt this alternative, the finding that potential mitigation measures are “infeasible” is supported neither by the reasons given nor by the evidence. CAWD has suggested that an “environmental protection barrier” be installed by the County to protect its plant site, similar to the one proposed for the north side of the lagoon, to prevent inundation and flooding of its facilities. The same kinds of studies and considerations go into achieving this mitigation measure as go into the proposed project itself; one cannot say that the proposed project is feasible while the mitigation measure is not. The County is responsible for mitigating this unavoidable significant impact, not CAWD. Thus, the finding that this mitigation measure is “infeasible” appears only to be a way of allowing the County to escape its responsibility in this regard.

In conclusion, the project as proposed by the County will likely have a devastating impact on our local community. By installing an EPB to protect a few dozen homes from periodic flooding, the County would be putting 16,000 homes and businesses at risk of losing an essential public service (sewage treatment), placing the Carmel Bay marine sanctuary at risk of pollution by flooding the CAWD plant, and threatening the tourism-dependent economy of the Monterey Peninsula by subjecting the world-famous golf courses of the Del Monte Forest to the loss of irrigation water. Given these potentially disastrous impacts on so many people and businesses, no rational decision-maker would ever decide to pursue the project as proposed. Aside from these grave consequences for our community, as a matter of law CEQA requires the County to modify the project to either delete the proposed EPB or add a new EPB that would protect the CAWD wastewater treatment plant and Reclamation Project from future flooding and inundation.

Thank you for your consideration of our comments.

Very truly yours,

FENTON & KELLER
A Professional Corporation



Thomas H. Jamison

THJ:tob

cc via Email Only:

Mark Stilwell, PBC
Barbara Buikema, CAWD
Molly Erickson, Esq.
Mike Niccum, PBCSD
Michael Bowhay, MPCC
Ed Diyanni, Stevenson School

Friedrich, Michele x5189

From: Jacqueline Zischke [jzischkelaw@charter.net]
Sent: Tuesday, January 31, 2017 3:59 PM
To: ceqacommments
Cc: Beretti, Melanie x5285; 'Jacqueline Zischke'
Subject: Mission Ranch Comment to Draft EIR for Carmel River Lagoon EPB, SRPS and ISMP Project

Melanie Beretti
Special Programs Manager
Resource Management Agency
168 W. Alisal St. 2nd Floor
Salinas, CA 93901



**RE: Comments by Mission Ranch to Draft EIR
Carmel River Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection
Structure (SRPS) and Interim Sandbar Management Plan (ISMP) Project (REF 120051)**

Dear Ms. Beretti:

On behalf of Mission Ranch, this letter serves to provide comment to the Draft EIR circulated for the above referenced Carmel River Lagoon EPB/SRPS/ISMP Project.

The EIR analysis identifies that the proposed EPB project component will have significant impacts to Mission Ranch related to inundation and flooding of the Mission Ranch property, and impairing access to Mission Ranch's existing facilities. (See Draft EIR at pages 4.8-45-4.8-46). The Draft EIR identifies an extension of the proposed EPB as a possible solution to mitigate these impacts to less than significant, yet asserts that this mitigation measure is infeasible because it would require; (1) additional funding; (2) additional environmental analysis; (3) permission from Mission Ranch to extend the EPB onto its property and (4) additional technical studies.

These are not valid reasons for finding this mitigation measure infeasible. To the contrary, the Draft EIR is fundamentally flawed because it fails to adequately consider this mitigation measure by failing to conduct the necessary technical and environmental studies, and incurring necessary funding to do so. The Draft EIR does not explain what additional environmental analysis and technical studies remain to be done. Please explain in detail what technical and environmental studies have been conducted and the results of those studies. Please also explain what additional technical and environmental studies the County and EIR consultant believe are still needed. The County must conduct these needed studies, and recirculate to the public an adequate analysis and consideration of this mitigation measure.

Finally, the Draft EIR's suggestion that mitigation of impacts to Mission Ranch is infeasible because the County has not reached a formal agreement with Mission Ranch is absurd. As a result of discussions between Mission Ranch representatives and County staff, it was understood that the County would be analyzing the extension of the EPB floodwall under CEQA either as a project alternative, or as a mitigation measure and Mission Ranch remains willing to work with the County of Monterey towards a workable solution. The County's shortcutting its review and analysis, and carrying out a project that presents such significant impacts to Mission Ranch is unacceptable. The County has a responsibility and is required under CEQA to fully analyze the project's impacts and to properly identify and analyze feasible mitigation measures to address such impacts.

Thank you for the opportunity to provide comment on the Draft EIR.

Sincerely,

Jacqueline Zischke

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Beretti, Melanie x5285

From: Debbie Lynn Dillon-Adams [ddillonadams@gmail.com]
Sent: Tuesday, January 31, 2017 4:05 PM
To: Beretti, Melanie x5285
Cc: Carmel Paul Ingemanson
Subject: Comments for Carmel River Lagoon Eir
Attachments: Comments to Carmel River EIR 1.31.17.docx

Find attached word document.
Please submit through proper site.
Thank you

Deborah Dillon Adams
26340 scenic Road, Carmel .Ca 93923



Comments to Carmel River Lagoon EIR
1.31.17 from Deborah Dillon-Adams

received
Jan. 31, 2017

I quote excerpts from the EIR

"2.2 PROPOSED PROJECT OBJECTIVES

The primary objective of the proposed project is to implement a solution to improve the functions and values of the ecosystem in and around the Lagoon by restoring the Lagoon's historic hydrologic, pre - management conditions to the extent feasible to protect and improve habitat for fish and wildlife while maintaining flood protection...

To accomplish this primary objective, the proposed project would need to meet the following objectives:

- Consistent with the MOU, reduce the necessity for mechanical breaching of the sandbar to the greatest extent practicable;
- Maintain the current level of flood protection for existing public facilities and private structures in the low-lying developed areas located immediately to the north of and within the Lagoon;
- and
- Protect Scenic Road embankment and the California Department of Parks and Recreation's (State Parks') restroom, interpretive, and parking facilities from scour resulting from a northerly-aligned Lagoon outflow channel that may result from a reduction in mechanical breaching;
- Protect the Scenic Road embankment from the increasing risk of erosion resulting from ocean storm surge and high tides, which could increase in severity due to climate change; and
- Allow for interim management of the sandbar while the design and construction of the other project components proceed;
- Design and construct project elements within the timeframe required as outlined in the MOU; and
- Minimize infrastructure that could detract from the function and value of the natural environment."

From Definitions for Objectives page 9

EPB = Ecosystem Protective Barrier

SRPS = Scenic Road Protective Structure

ISMP = Interim Sand Bar Management

Comments from Deborah Dillon-Adams, The Primary Objective and the objectives listed above of the EIR needs to be evaluated based on the following:

- 1. The wording of the EIR Primary Objective is not realistic**, namely “restoring Lagoon’s historic hydrologic, pre - management conditions to the extent feasible”. If it is true that the Carmel River Lagoon and River mouth opening “has been managed” since 1930, then it is not feasible to meet the listed objectives on Page 9 without thoughtful management which has been done successfully by the County of Monterey, in cooperation of the other agencies. The objective should be rewritten without this phrase “restoring the historic hydrologic, pre-management conditions”. The actions steps and preferred methods of implementation should be re-written accordingly.
- 2. The effects on scouring the rivers and rate of flows without the San Clemente Dam need to be documented.** This water year 2016 beginning October 1, 2016 is the first year for Above Normal rainfall for the Carmel River and San Clemente Creek flows since the removal of the San Clemente Dam and reroute of the Carmel River. The effects on scouring the river and rate of flows without the dam on the creeks along with the effects of the Soberantes Fire on the creeks and river should be evaluated for six years prior to taking any further action to build structures of EPB, SRPS or other alternates at the Lagoon. The ISMP should continue with modifications. The reasons, a) run-off from hillsides affected by fire and removal of the dam has caused a “free flowing” scouring and removal of loose debris that will improve habitat for Steedhead Trout spawning, alewives, and mature fish along rivers & creeks. The eggs laid this season will result in anadromous fish that will come down river to the sea in 2-3 years and then returning approximately in 2-3 years to spawn. b) Data has not been collected on the “Free flowing” streams since the removal of the dam. c) Data on improved fish counts & habitat needs to be available to the public. d) The Lagoon is part of a larger ecosystem that has been altered and therefore needs to be evaluated in a larger context of the Carmel River and its tributaries.
- 3. The justification for adding northern breaching of the Carmel River to the Objectives is based on faulty use of the data and inaccurate statement of facts..** On page 16 of Fishery Analysis for the Carmel River Lagoon Biological Assessment Report March 2014, compared to the data reported on the Table 1. Carmel Lagoon First Seasonal Breach (FSB) of Each Year Page 19 of The Fishery Analysis..... Page 14 “The initial mechanical breach of the rainy season results in significant steelhead habitat loss, and juvenile steelhead exit to the ocean. **If the breach occurs just prior to the expected natural breach under high stormflow conditions, the impact is insignificant.**” (The data shows that 17 out of the 20 years the impact was insignificant. The data shows in 20 years that only 2 times did the “mechanical opening occur in late November 21 to 25 days prior to the “natural opening” by the sea waves.) Based on the further explanation this date is suitable for steelhead smelt maturity to travel to sea normally. **Only once in the 20 years** in November 3, of 1998 was the “mechanical opening” 20 days prior to the natural opening that could have affected some smelt. On page 16 continues “However, if the mechanical breach occurs at low stormflows that would have likely delayed a natural breach from 5 days to weeks after the mechanical breach, the impact would be significant in terms of lost growth of juveniles prior to entering the ocean and increased mortality rate at the smaller size” This applied to breaches in October or early November.... Page 16 sets the stage for assumptions

such as” juvenile steelhead get flushed out to sea quoting James 2005.” The normal life cycle of anadromous steelhead fish is that as juvenile smelt, they go to live in the sea for 2 to 7 years before returning to the river..... Page 16 also stated was that “mechanical breaching comes days to weeks earlier than natural breaching 25% of the years”. This has miss stated the facts that 95% of the years the mechanical breaching was done correctly to balance the fall timing of high river flows with high waves and the natural opening of the Carmel River. In my opinion the southern opening of the Carmel River has been done appropriately 90% of the years up to 2012, the justification to include a northerly opening to river is contrary to the other objectives of protecting Scenic Road and State Park public facilities, the Steelhead migration to and from the sea , and the sand on the beach.

4. **Needs of the Snowy Plover have been partially addressed with the ISMP , but ignored with the “Additonal Objective of opening the river to the north”**. Snowy Plover is one of the species listed to be protected by this EIR on Page 66 of Exhibit A. On Exhibit A page 63 “the need to close the river mouth and reestablish the sandy berm by “mechanical means” is important for the nesting Snowy Plovers”. In my opinion this is a win-win for keeping the Lagoon water levels up for the fish over the dry summer and fall months, I would agree. My additional comment is that the Snowy Plovers gather in the fall and winter months in indentations of dry sand on the berm at the River mouth. An annual northerly opening of the river mouth will take out this Snowy Plover habitat on the berm. A traditional southern opening of the Carmel River allows the Snowy Plover to use the dry sandy berm for a longer period in the fall, winter and in the spring. Data on the Snowy Plover populations and aspects to improve their habitat has not been adequately presented to the public discussion in this EIR.

Thank you for consideration of these comments.

Deborah Dillon-Adams from
26340 Scenic Road, Carmel Ca. 93923
530 908-6123

Friedrich, Michele x5189

From: Barbara Buikema [Buikema@cawd.org]
Sent: Tuesday, January 31, 2017 4:23 PM
To: Beretti, Melanie x5285; ceqacomments
Subject: Comment Letter 2 - CAWD 01-31-17
Attachments: DEIR Comment Letter 2 01-31-17.pdf



Melanie

Attached please find our second comment letter on the Carmel Lagoon Ecosystem Protective Barrier Draft Environmental Impact Report. We found that we had additional items that we wanted to include in our comments.

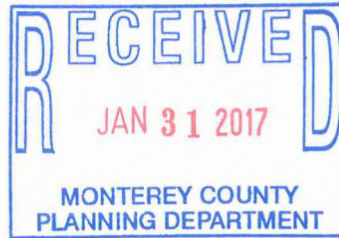
Thank you
Barbara Buikema
General Manager
Carmel Area Wastewater District
831-624-1248



Carmel Area Wastewater District

P.O. Box 221428 Carmel California 93922 ❖ (831) 624-1248 ❖ FAX (831) 624-0811

Barbara Buikema
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Michael K. Rachel
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Charlotte F. Townsend
Ken White

January 30, 2017

Attn: Ms. Melanie Beretti, Special Programs Manager
Monterey County – Resource Management Agency
168 W. Alisal, 2nd Floor
Salinas, CA 93901

Dear Ms. Beretti,

The Carmel Area Wastewater District provides these further comments on the Draft EIR for the Carmel Lagoon Ecosystem Protective Barrier.

CAWD has pointed out that the DEIR is not consistent with the on-the-ground facts. In this letter we start with additional comments on the inaccuracy of the DEIR claims about elevation of the CAWD plant. The attached illustrations, exhibits A and B, were produced by Schaaf & Wheeler Consulting Civil Engineers at the request of the Carmel Area Wastewater District (CAWD). They contain the most accurate topographic information available to the District and are the basis of concern relating to possible plant inundation.

The topographic data acquired from NOAA was produced using Light Detection and Ranging (LIDAR) high-resolution elevation measurement (exhibit A). Although this information has an acceptable level of accuracy, error is introduced by dense vegetation where canopy coverage prevents the light pulse from reaching the ground. Errors up to one half of the vegetation height are not uncommon. In instances of dense vegetation data gathered cannot be relied on and ground surveys are required.

The data acquired from NOAA was used by the District to review the LIDAR map and topographic information gathered by Whitson Engineers that the County presented in the DEIR¹. The NOAA data illustrates the topographic information along the river, as well as along the southern boundary property line of the CAWD plant. The northern and southern boundaries are heavily vegetated. Based on the NOAA data, the CAWD southern boundary is depicted on the Schaaf & Wheeler exhibit A as being above the elevations of concern, even though this is not true. This type of inaccuracy often occurs in locations where there is heavy vegetation resulting in poor resolution in the LIDAR data of the true elevations.

The NOAA data shows the areas along the Carmel River that have heavy tree cover are noted as "ground not visible" This is consistent with general engineering practice. Data that has significant error is often noted on plans so that it can be further investigated.

The DEIR relied on a Whitson map that used LIDAR data. The LIDAR data cannot be relied upon under these conditions so it is potentially inaccurate. The Whitson/DEIR map states in very tiny print in certain areas that "tree cover ground not visible" and "ground not visible." These notes are not visible in the print version of the Draft EIR, and are visible to us only in the electronic version when we increased the size 500%. The northern boundary of the CAWD plan is noted in this tiny print as "tree cover ground not visible." However, this same heavily treed and vegetated condition exists along the southern boundary of the CAWD property, but the DEIR does not make the same notation in the area of dense vegetation regarding the lack of visibility and elevation accuracy (See DEIR, Figure 3-2). In fact, the entire CAWD southern boundary is bordered by 80 to 100 foot tall eucalyptus trees which are not deciduous. The DEIR omitted this critical information. Thus, the claimed DEIR elevations cannot be relied upon, but that is what the DEIR did in its claims as to the extent of impacts, damages and harm to the CAWD property.

For more accurate information, ground surveys are required. The assumption that the treatment plant is bounded by a levee, with the added errors in the DEIR figures, apparently has erroneously led the County to assume the District property would not be put at risk and would not object to higher surface

¹ Map titled "Carmel River Lagoon Ecosystem Protective Barrier, Dated March 27, 2013, DEIR Figure 3-2.

water levels and potential flooding.

At CAWD's expense additional data was obtained in 2013 by ground surveys performed by Bestor Engineers. This data (exhibit B) is the most reliable survey to date. Exhibit B demonstrates that there was a significant portion of the CAWD plant that was between the elevations of 12 to 16.5 feet (Datum NAVD 88). That area likely would be inundated by backwater from the lagoon at the lagoon water elevations the County proposes in its Draft EIR.

The boundary along the CAWD southern edge was further investigated to determine if water could enter the plant along this perimeter. There is significant vegetative duff (leaves, bark, and grass clippings) but no fill dirt, natural soils elevations or compacted berm was observed by the District Engineer. The ground survey performed by Bestor Engineers was overlaid on existing plant photography to illustrate the areas of the CAWD property which would be inundated by lagoon waters under the different elevations proposed in the DEIR (exhibit B). This map represents the most probable surface water flooding scenario.

After further review of the lagoon contours, one alternative that was not presented in the DEIR, but that CAWD believes should be analyzed, is the possibility of deepening the south finger of the lagoon or another location along the river where fish habitat could be better maintained. If the fish species of concern could be provided pools further up river from the sand bar there may be less impact to these species allowing for different lagoon management to be a more favorable alternative that might have a lower level of impacts to CAWD property than the proposed project. In the opinion of the District Engineer, there may be additional benefits to this approach in the future as the community begins to better understand sea level rise impacts.

The maps included with this letter were prepared by Schaaf & Wheeler, who are Consulting Civil Engineers with expertise in water resources engineering and analyzing floodplain hazards. The technical comments in this letter, as well as those included in CAWD's earlier letter, were prepared at the direction of the District Principal Engineer, Drew Lander C.P.E. Prior to his employment with CAWD, Mr. Lander was employed by Napa County as a land use development engineer where he also served as a County Flood Plain Manager. During his tenure with Napa County Mr. Lander was licensed through the Association of State Floodplain Managers (ASFPM) as a Certified Floodplain Manager and performed

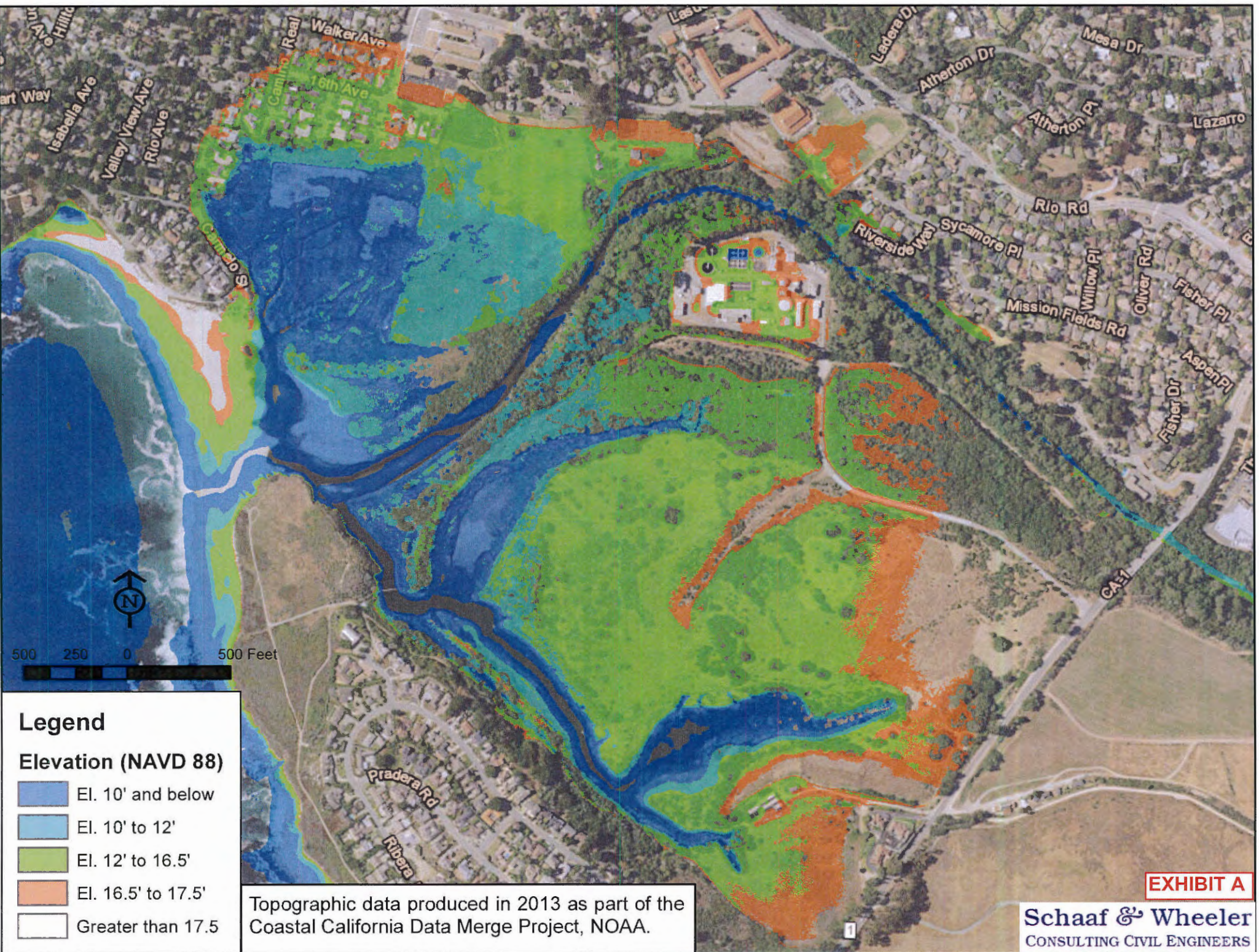
technical evaluation of flood risk and flood management. CAWD's earlier comments also heavily utilized historical records and employee knowledge of the past and existing conditions surrounding the lagoon and plant area.

We again point out that the Draft EIR should be revised and recirculated. Thank you for this additional opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Buikema". The signature is written in a cursive, flowing style.

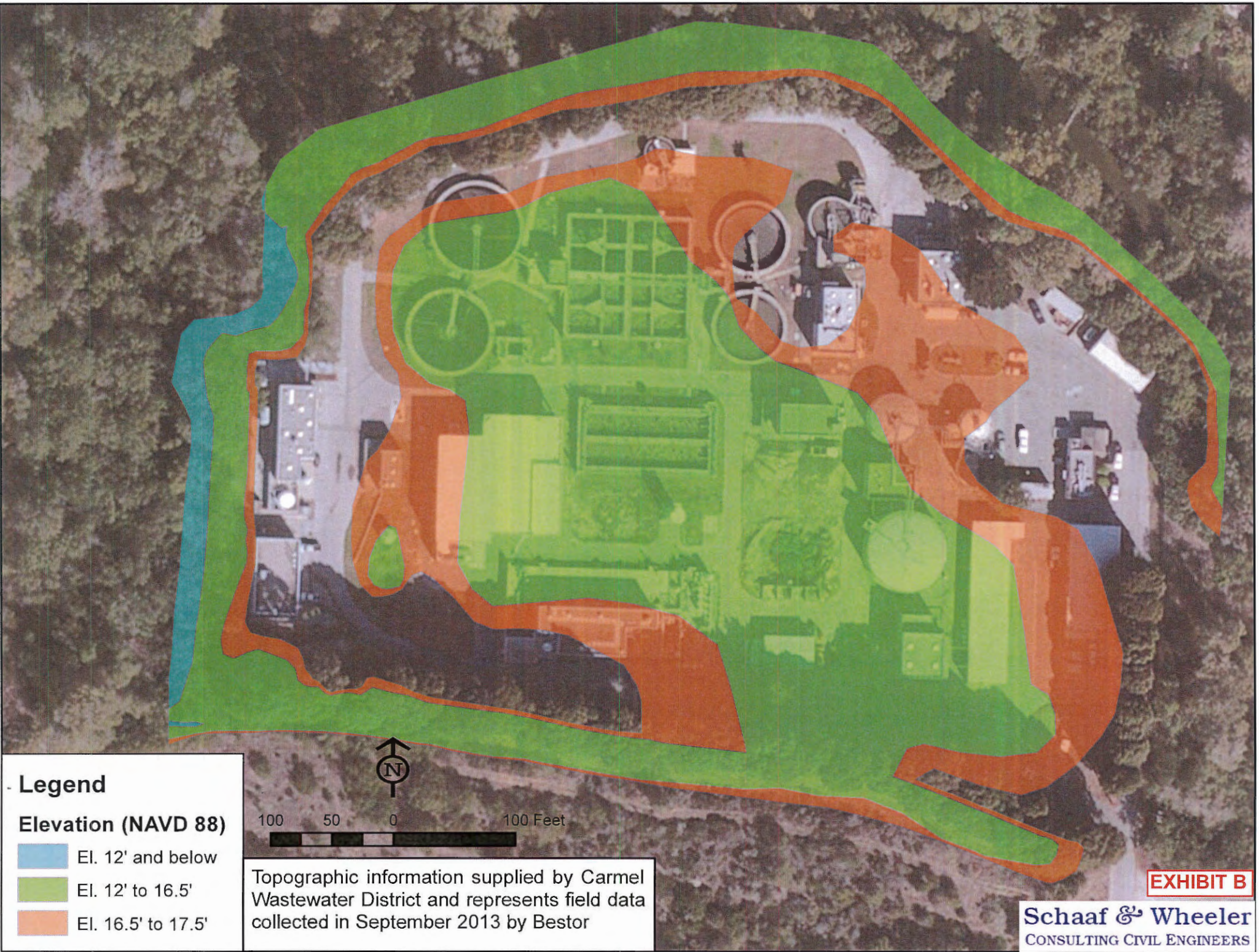
Barbara Buikema
General Manager



Topographic data produced in 2013 as part of the Coastal California Data Merge Project, NOAA.

EXHIBIT A

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS



Legend

Elevation (NAVD 88)

- El. 12' and below
- El. 12' to 16.5'
- El. 16.5' to 17.5'

100 50 0 100 Feet

Topographic information supplied by Carmel Wastewater District and represents field data collected in September 2013 by Bestor

EXHIBIT B

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

Friedrich, Michele x5189

From: Nicholas Whipps [nwhipps@wittwerparkin.com]
Sent: Tuesday, January 31, 2017 4:43 PM
To: ceqacommments
Cc: Pearl Kan; Brian LeNeve
Subject: Carmel Lagoon EPB SRPS ISMP DEIR Comments
Attachments: 2017 1 31 WP DEIR Comments w Attachments.pdf

Good Afternoon,

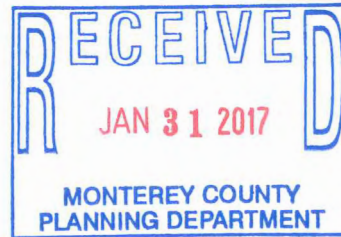
Attached, please find comments regarding the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project, SCH Number 2014071050.

Very Truly Yours,

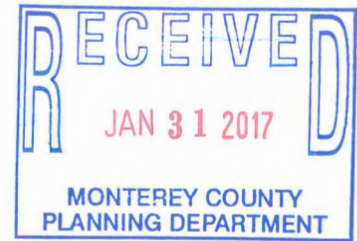
NICHOLAS WHIPPS



WITTWER PARKIN LLP
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January 31, 2017

SENT VIA EMAIL AND US MAIL

Monterey County Resource Management Agency
Melanie Beretti
Special Programs Manager
168 Alisal Street, 2nd Floor
Salinas, CA 93901
CEQAcomments@co.monterey.ca.us

**Re: Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection
Structure Project, Interim Sandbar Management Plan DEIR
File Number REF120051**

Dear Ms. Beretti:

This law firm represents the Carmel River Steelhead Association (CRSA). These comments are submitted on behalf of CRSA to the County of Monterey Resource Management Agency (County) in response to the County's Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project (Project) Draft Environmental Impact Report (DEIR).

The Project DEIR is inadequate because it lacks an adequate Project description and fails to provide feasible alternatives and mitigation for any component of the Project. In addition, because the Project will cause a multitude of significant environmental impacts, the Corps must prepare an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). The Project, as described, lacks sufficient definition for state and federal agencies to rationally permit it. Unless and until the County provides an adequate description of its proposed actions, there exists no rational basis for NMFS and FWS to permit the incidental take of species listed under the Endangered Species Act (ESA).

I. The Project Is Infeasible and the Project Description is Inadequate

As described in the DEIR, the Proposed Project and none of the other alternatives that contain variations of the EPB and SRPS are feasible, because each of these alternatives would require California Department of Parks and Recreation (State Parks) to allow these alternatives to encroach on State Parks land. As the County recognizes in its DEIR, “to date, State Parks has not been supportive of locating the proposed EPB project component on State Parks property.” (DEIR, at 3.0-29.) The County is not alone in this assessment; rather, there is a wide consensus that State Parks refuse to place any Project components on State Parks lands. For instance, the County-commissioned Feasibility Report reached this same conclusion, noting:

One of the primary constraints to the implementation of the EPB and SRPS projects may be acquiring the necessary right of way, as the majority of both projects are proposed to be implemented on properties outside the control of the County. Of particular concern is the use of land owned by the California Department of Parks and Recreation (State Parks). As of the time this report was prepared, there has been no commitment by State Parks for the use of this land. Use of this land will require some agreement between the agencies and may require legislative action.

(Carmel River Lagoon Ecosystem Protective Barrier (EPB) and Scenic Road Protection Structure (SRPS) Projects Feasibility Report at 22-23 (2013).) It is legally infeasible to implement the SRPS and EPB components without the support of State Parks, which has stated its clear opposition to the use of its lands near the lagoon. Thus, all alternatives and mitigation that rely on implementing these Project components are infeasible. The County must provide feasible replacements to these Project components and mitigation measures.

The ISMP would occur entirely on property within the jurisdiction of the County. However, a Sandbar Management Plan-only approach is also legally infeasible. As the County recognizes, this would “not reduce the need for breach management, and would be infeasible since the NMFS would not issue the necessary permits for this alternative.” (DEIR, at 5.0-12.) Thus, the entire Project, as described, as well as any mitigation measures that compose the Project, is infeasible.

It is unclear from the EIR how the County will resolve the issue concerning State Parks, and how this Project will proceed without State Parks and the County coming to a fundamental agreement as to placement of the EPB and SRPS. Without the support of State Parks, the Project

will not be able to move forward. If the two permanent features of the Project will not be able to move forward in the near future, under the EIR, the ISMP becomes the sole management tool to improve habitat for threatened and endangered species in the lower Carmel River and Lagoon, improve natural floodplain function, and protect public infrastructure while maintaining flood protection to existing developed areas. This would be an inadequate solution to the problem because it would bring us back to the status quo where NMFS would not issue necessary permits.

The EIR makes clear that the project objective is “to avoid a JO issued by NMFS,” (DEIR, 3.0-18). However, such a project objective will not be satisfied if the main Project components remain infeasible. Without State Parks commitment, the two main permanent components of the Project will not be able to move forward. If this Project lacks both the EPB and SRPS, the Project will not satisfy the project objective set forth in the DEIR because it will not demonstrate an ability to avoid impact to federally listed wildlife species to the greatest extent feasible. Please provide more detail on how the County plans on resolving the issue with State Parks and what alternatives the County will implement if State Parks does not agree to placement of EPB and SRPS on State Parks property.

Finally, the description of the ISMP Project Component’s timeline is inadequate because it suggests that this interim plan may be in place indefinitely: “The process to complete design, environmental review, permitting, and construction is estimated to take up to eight years depending on funding and resource availability, however, the County is making every effort to reduce this timeframe to five years or less.” (DEIR 3.0-49). It should be noted that under the MOU between the Army Corps, NMFS, and the County, the MOU only remains in force until September 30, 2020, unless extended. The Board of Supervisors approved the ISMP and the MOU in 2013. The steps envisioned under the ISMP were never properly implemented from 2013 to this day.

Unfortunately, for the past several years, the County relied on emergency permitting actions to manage the lagoon as opposed to the process set forth within the ISMP. There are but three years left in the MOU, and yet the Project Description acknowledges that it may take up to eight years until the EPB and SRPS is completed. Meanwhile, the County has not even come into a basic agreement with State Parks with regard to the right of way. There is simply no finite timeline to get this Project off the ground, and no mechanism in place to properly implement the ISMP, and to hold the County accountable. What assurances do the public have that the ISMP will be implemented when the County has failed to implement the ISMP for the past four years? What assurances do the public have that the ISMP will be an interim solution and not a de facto permanent one? Please provide more analysis as to how this Project will ensure that the ISMP will be properly implemented and only for a true interim period. Currently, the Project

description, including the objective and timeline, are too amorphous to qualify as a stable and finite description, as is required under CEQA.

With this backdrop, there exists a serious risk that the U.S. Army Corps of Engineers, NMFS, and USFWS will permit the Proposed Project, despite its fundamental flaws, its potentially greater-than-reported impacts, and the infeasibility of its implementation. If these agencies allow the County to implement the Proposed Project, there is absolutely nothing in the DEIR that would place limits on the County that would prevent it from only implementing the ISMP component of the Project for the duration of the CWA section 404 Permit. Therefore, approving the Project as-is would be a clear subversion of NMFS' directive that an ISMP-only approach is impermissible. Absent a strong showing of feasibility of the EPB and SRPS Project components, combined with a legally binding phase-out of the ISMP-only stage of the Project, any federal or County approval of the Project, as described, would be arbitrary and capricious.

II. The DEIR Provides an Inadequate Baseline Description

The DEIR fails to adequately describe the environmental baseline. According to CEQA Guidelines section 15125, “[a]n EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published . . . both from a local and regional perspective.”

The County states in the Project DEIR that, starting in 2005, the Carmel River Watershed Conservancy, NMFS, and various other agencies, organizations, and individuals worked to develop “a long-term solution to the ‘breaching issue.’ This process ultimately yielded the formation of a Technical Advisory Committee and, in 2007, the publication of the Final Study Plan for Long Term Adaptive Management of the Carmel River State Beach and Lagoon [citation], which identified the baseline studies needed to find a long-term solution to managing the Lower Carmel River and Carmel Lagoon.” (DEIR at 3.0-15.) The Study Plan identified several studies the Technical Advisory Committee, of which the County was a part, determined were necessary to adequately analyze baseline river and lagoon conditions. (Final Study Plan for Long Term Adaptive Management of the Carmel River State Beach and Lagoon (2007).) Such studies included, but were not limited to:

- Historical changes and trends of the Carmel River barrier beach and adjacent bluffs;
- Sediment transport and hydrodynamics affecting the Carmel River barrier beach;
- Topography, bathymetry, and historical changes in volume and area of the Carmel River Lagoon; and
- Historical inflow and outflow to the Carmel River Lagoon.

(*Id.*) Although the DEIR references this Study Plan, it does not seem to provide the studies the Technical Advisory Committee recommended. It is unclear whether any of these baseline studies were conducted. If any of these studies were conducted, we are unaware of any references to, or conclusions drawn from, these baseline studies in the DEIR.

The Biological Resources section also seems to lack baseline information on over a dozen ESA-listed species FWS suggests may be present within or near the Project area that the Project may impact. Appendix E mentions several of these species, but fails to cite studies or reference any surveys that would support the conclusion these species are not present. These species include:

- California tiger salamander (Threatened)
- California condor (Endangered)
- California least tern (Endangered)
- Least Bell's vireo (Endangered)
- Marbled Murrelet (Threatened)
- Southwestern willow flycatcher (Endangered)
- Vernal pool fairy shrimp (Threatened)
- Tidewater goby (Endangered)

(ISMP, EPB, and SRPS Project IPaC Resource List.)

For some of these species, the County concludes that “no occurrences are known” within the relevant Project area, without providing support for this conclusion. Absent reference to a recent biological survey, the County cannot adequately determine whether these species are actually present, especially in regards to those species with suitable habitat identified within the Project area.

III. The DEIR Lacks Reasonable Alternatives

CEQA requires that an EIR provide a range of reasonable alternatives. Here, the range of alternatives is woefully inadequate. First, all of the alternatives which consider the SRPS and EPB are currently infeasible given the fact that State Parks has not authorized a required right of way. Thus, such alternatives are not reasonable ones.

The alternatives which contemplate either a delayed EPB or no EPB are also unreasonable because then such Project would rely on the ISMP on an ongoing basis as the

Melanie Beretti, Special Programs Manager
DEIR – Carmel Lagoon EPB, SRPS, ISMP
January 31, 2017
Page 6

primary component for managing the sandbar while the County expends eight years gathering information: “This alternative would include an 8-year Management and Monitoring Plan (MMP) to collect more data to inform the efficacy and design of an EPB project component.” (DEIR 5.0-37). The MOU expected that a permanent fix for the sandbar management to be instituted by 2020. The alternatives which possess long term monitoring periods before the actual permanent components are implemented are unreasonable as they extend the timeline well beyond 2020 and will result in unacceptable harm to habitat and endangered species, including S-CCC steelhead. Such alternatives do not meet the project objective to avoid a Jeopardy Opinion by NMFS. The County must consider a range of reasonable alternatives that meet project objectives in order for this document to be a valid CEQA document.

Very truly yours,
WITTWER PARKIN LLP



Nicholas Whipps

cc (via email): client

Encl.

FINAL

STUDY PLAN for LONG TERM ADAPTIVE MANAGEMENT of the CARMEL RIVER STATE BEACH AND LAGOON

Stakeholders:

Big Sur Land Trust
California American Water
Calif. State University Monterey Bay
Carmel Area Wastewater District
Carmel River Lagoon Coalition
Carmel River Steelhead Association
Carmel River Watershed Conservancy
Monterey County Service Area 50

Technical Advisory Committee:

California Coastal Commission
California Department of Fish and Game
California State Parks
Monterey County Public Works Department
Monterey County Water Resources Agency
Monterey Peninsula Water Management District
NOAA Fisheries
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service



photo by Paul Miller, Carmel Pine Cone, August 25, 2004

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Executive Summary

The Carmel River State Beach, including its adjacent Lagoon area wetlands preserve, is one of the most scenic and ecologically important public resources on California's Central Coast. Because of its uniquely attractive and valuable location, agricultural uses began and houses were built on lands immediately adjacent to the Beach and Lagoon, many decades before the state acquired the property. Primarily because the Carmel River has served as the Monterey Peninsula's main water resource for over 100 years, the Lagoon level remains depressed through the summer after spring flows cease and into late fall when the lower river is dry; wind and waves build the Beach into a natural barrier to outflow and in the winter, the level rises as storms cause the river and the ocean to fill the Lagoon to a level that threatens adjoining homes. In most winters since the early 20th century, private property owners, the State itself and, for the last two decades, the County of Monterey have created an opening in the Beach prior to the river becoming powerful enough to break through to the ocean. This action is taken in order to protect adjacent homes and private lands from flooding. With Central Coast steelhead trout, California red-legged frogs and other threatened species having come under the protection of the Endangered Species Act over the past decade, federal and state environmental enforcement agencies have become increasingly concerned about the adverse impact of these emergency breaching actions to artificially lower the Lagoon water level. The result is a problematic convergence of competing interests: Homeowners expect protection from potential flood inundation caused by an expanding Lagoon; while federal and state agencies demand action to protect rare fish and amphibian species, which need adequate Lagoon water levels and water quality to survive.

This Study Plan represents the first, comprehensive effort by affected federal, state and local public agencies to analyze and devise the best Beach and Lagoon management scheme to effectively meet both of these competing interests. The catalyst for this coordinated planning effort was a winter 2004-2005 emergency action by the County of Monterey to protect homes from flooding. This action involved breaching the barrier Beach in a non-traditional direction at the urging of the National Marine Fisheries Service (NMFS), which was intended to maintain Lagoon water levels as high, and for as long, as possible. The unintended results were severe erosion of a portion of the Beach bluff that threatened the stability of the County-maintained frontage road (Scenic Road) and damage to the Carmel River State Beach parking facility, both of which alarmed adjacent homeowners. In June 2005, the Carmel River Watershed Conservancy (CRWC) and the NMFS organized a meeting of affected agencies and concerned residents to discuss the breaching effects issue. The outcome of the meeting was two-fold: first, the voluntary formation of a Technical Advisory Committee (TAC) comprised of State Parks and Recreation staff responsible for managing the Beach and Lagoon, plus water resource engineers, environmental scientists and other technical staff from those local, state and other federal agencies with functional responsibilities related to the Beach and Lagoon; and second, a Coalition of community and neighborhood groups was formed whose interests include flood protection, Beach sand management, and Lagoon habitat preservation.

In the course of developing this Study Plan, many potential actions to address the problems discussed in the June 2005 meeting were identified by the TAC, including some

which have been promoted by Coalition members. The TAC thoroughly reviewed and analyzed available facts and data on the Beach and Lagoon. The TAC concluded that an insufficient body of technical knowledge exists regarding the complex physical interaction of the Beach and Lagoon, and its effect both on Beach stability and the threatened fish and other species that use the Lagoon as habitat. In order to complete and implement a viable long-term management plan, as well as to secure required permits, the TAC concluded that adequate baseline data and information is required. Thus, through its creation of this Study Plan, the TAC has prepared a detailed scope of work that 1) sets out short- and long-term objectives for integrated management of the Beach and Lagoon, in order to effectively resolve the competing interests noted above; and 2) describes technical studies of sediment transport and other physical processes involving the Beach and Lagoon, plus preliminary engineering investigations of potential flood and habitat protection solution alternatives, which would guide long-term plan completion. The total estimated cost of these studies and investigations is approximately \$850,000. The TAC has set of goal of completing these studies within three years of receiving a funding commitment. The cost to complete and implement the long-term management plan cannot be estimated at present, but easily could be several multiples of that figure.

The TAC has researched, but been unable able to identify any known federal, state or local resources in existing agency budgets to fund this Study Plan. The TAC and Coalition share an interest in pursuing possible funding resources that could be applied for under current federal or state flood protection and/or ecosystem restoration grant programs. The Monterey County Water Resources Agency (Agency) and the Monterey Peninsula Water Management District (District), aided by Coalition members, will investigate possible funding through annual State budget line items or special appropriations that the Legislature will be making to implement Prop. 84 and 1E bond acts that California voters approved in November 2006, and other funding opportunities as they arise. The Agency and District, as well as members of the Coalition, have preliminarily researched existing federal and state programs, under which special status is granted to unique coastal wetlands resources that lack a permanent institutional structure to integrate management, operation, funding, preservation, and environmental education. A nearby example of such special status is the Elkhorn Slough National Estuarine Research Reserve, which is a partnership of federal and state resource agencies, educational institutions, and local non-profit organizations. While the Study Plan is being completed, the Agency, District and Coalition will continue to investigate and pursue, with the appropriate government decision-makers, the potential for Carmel River State Beach and Lagoon being granted a special reserve program status.

This document has been prepared by representatives of the federal, state and local agencies serving on the TAC. It does not necessarily represent the opinions, beliefs, or stated positions of any individual, group, private or public entity. This document is intended to be a plan to gather information for developing a comprehensive long term management program for the Carmel River Lagoon and surrounding areas. This document is not intended to be used in formulating policies, amending existing regulations or requirements, or for proposing any management actions other than planning.

Background

The Carmel River Lagoon is a high value environment, both in human and ecologic terms. The lagoon and adjacent Carmel River State Beach (see [Figure 1](#)) are popular recreation sites. Multi-million dollar homes with spectacular vistas dot the bluffs above the lagoon and beach to the north and south of the river mouth. An historic resort and several homes line the northern shore of the lagoon in a pastoral setting. Ecologically, the lagoon serves as keystone habitat for multiple threatened and protected species, including a distinct population segment of steelhead (*Oncorhynchus mykiss*) and the elusive California Red-legged frog (CRLF)(*Rana aurora draytonii*). The ecosystem is a dynamic interface between the marine and freshwater river system that incorporates freshwater wetlands and open water habitat. As such, this area provides an extremely rich and abundant environment for fish and wildlife.

The value of this environment to the people of California was recognized in the last century with the establishment of Carmel River State Beach in 1949. The one-mile long beach borders Carmel Bay (see [Figure 1](#)), which was designated as an Area of Special Biological Significance (ASBS) by the California Legislature in 1974. This ASBS includes 6.7 miles of coastline bordering the City of Carmel and the Pebble Beach Golf Course, lies entirely within the Monterey Bay National Marine Sanctuary (MBNMS), and contains the Carmel Bay State Marine Conservation Area. The Point Lobos Ecological Reserve ASBS is adjacent to and just south of the Carmel Bay ASBS. The beach lies at the head of the Carmel Submarine Canyon, which leads into one of North America's largest underwater canyons – the Monterey Canyon.

The Carmel River, a portion of which lies in the Ventana Wilderness, is the largest freshwater stream flowing into Carmel Bay. The lagoon and adjacent wetlands are formed at the interface between the marine and freshwater environments in a suburban setting. In 1974, State Parks purchased what is known as the “Odello West” land, a low-lying floodplain area adjacent to the lagoon and immediately west of Highway 1. The lagoon and surrounding area, which total about 300 acres, were designated the Carmel River Lagoon and Wetlands Natural Preserve in 1995.

With the establishment of the nearby Carmel Mission in 1770 by the Capuchins, the area around the lagoon was converted from riparian forests and wetlands to agricultural use. Beginning in the 1920's, the Odello Family grew artichokes on the property. In 1996, in cooperation with the California Department of Transportation (CALTRANS), State Parks began converting the agricultural lands back to wetlands and riparian forest. Habitat restoration efforts are ongoing. This area has also been the site of numerous natural history research and education efforts.

The natural function of the lagoon ecosystem has been compromised by development and resource use in the immediate vicinity and in the contributing watershed. There are several significant impacts to the lagoon ecosystem. First, the annual withdrawal of up to about 15,000 acre feet of water from the river system to supply the needs of the Monterey Peninsula causes the river to go dry during most summers, deprives the

lagoon of surface inflow, and significantly reduces groundwater inflow. Thus, there is little or no freshwater input during the dry season in most years. Second, low lying homes built before modern floodplain regulations were enacted flood if lagoon elevations fluctuate naturally. To prevent flooding in the neighborhood of the lagoon, the barrier beach is frequently manipulated.



Avian species at river/ocean interface

The Carmel River Lagoon is habitat for species protected by the Federal Endangered Species Act (ESA). Several agencies including the National Marine Fisheries Service (NMFS or NOAA Fisheries), the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) are concerned about artificial breaching of the barrier beach, which can result in dangerously low water levels in the lagoon.

Figure 1

Carmel River Lagoon Area



Image file = D:\larry\CRprojects\Lagoon\viemap.tif

Third, the supply of sand to the beach has been sharply reduced by sand and gravel mining at the beach and along the river, construction of Carmel River main stem reservoirs that trap sand from the upper watershed, and floodplain development in the main portion of Carmel Valley that has also reduced the supply of sand to the beach.

Normally, the nexus for taking action to manage the beach during the winter is the threat of flooding in low-lying area around the lagoon. When the river begins flowing into the lagoon each fall or early winter, the lagoon rises and would, under natural conditions, keep rising until it overtops the barrier beach and creates an outlet channel through the beach. If this process were allowed to occur naturally, the low-lying residential neighborhood to the north of the lagoon would likely be flooded. Historically, the cut for the lagoon outlet has been located on the southern end of the barrier beach, near rocky outcrops. The resultant outflow from the lagoon often cuts a large, nearly straight channel in the barrier beach (a breach) that is low enough to cause the lagoon to drain to a level that significantly reduces or completely eliminates habitat for steelhead and other aquatic species.



In this c. 1900 photograph, a four-horse team is dragging a scoop, used to create a low spot, so the river mouth would open, decreasing the water level of the lagoon and surrounding farmland. As the land was subdivided and houses began to encroach on the wetlands, it was not unusual to see men take out their shovels and dig a ditch to start the river flowing out, preventing their homes from flooding. (Monterey Public Library Collection.) - Adapted from a new pictorial history book Images of America - Carmel by the Sea by Monica Hudson.

Evidence from historical photographs (see photo above) and local accounts suggests that the barrier beach has been routinely breached and the lagoon drained since at least the early 20th century. Photographs and oral stories (Hampson, personal

communication with John and Bruna Odello, 1991) relate that the Odello family managed the lagoon and lower part of the river for several decades between the 1920's and 1950's. It is unclear whether the lagoon was actively managed in the 1960's by private or public groups.

To prevent flooding, Monterey County Department of Public Works cuts a small channel through the barrier beach to allow the water to flow to the ocean before the lagoon rises to flood stage. Continued outflow widens the channel.



Cutting an outlet through the beach - December 2004

During the 1970's, State Parks contracted for the opening of the river mouth. By the late 1970's, this responsibility was taken over by Monterey County Public Works under the direction of the Monterey County Water Resources Agency (MCWRA) and the County Board of Supervisors. During the past several years, the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS or NOAA Fisheries) and the California Department of Fish and Game (CDFG) have given technical advice to Monterey County Public Works on how to minimize impacts to protected species. The resource agencies' basic goals are to minimize adverse impacts to fish and wildlife, minimize the need to mechanically breach the lagoon and to maintain adequate lagoon levels after a breach occurs.

In the winter of 2005, the river mouth was directed to the north end of the lagoon with the intent that an outlet channel would form across the barrier beach without completely evacuating the lagoon. NOAA Fisheries and CDFG considered the experiment a success in avoiding a breach and maintaining higher water levels in the lagoon. However, in the spring, large ocean swells and high tides lowered a portion of the beach. Above average river flows combined with large waves overtopping the beach removed much of the sand dune that was adjacent to the Scenic Road bluff. The lagoon outlet channel was pushed back to the base of the bluff, undermined the edge of the State Beach parking lot, and threatened the stability of Scenic Road. In March and again in May, Monterey County Public Works brought equipment onto the beach to divert the flow of the river farther to the south and to push sand against the bluff that supports the road.



In the past the river mouth has migrated to the north on several occasions. To protect Scenic Road (at the top of the sandy bluff in the center of the photo), the County has redirected the river away from the north end of the beach in five years of the 12-year period between 1993 and 2005 (see next photo).

Simultaneous closing of the north outlet and opening of an outlet to the south, March 1993.



Developing a Solution

On June 14, 2005, NOAA Fisheries and the Carmel River Watershed Conservancy (CRWC) organized a stakeholder meeting on the issue of management of the Carmel River Lagoon and barrier beach. At that meeting, all agencies and stakeholder groups present agreed to form a technical advisory committee (TAC) charged with examining the basic sciences of coastal, marine and river processes and the impacts on beach dynamics. The TAC was charged with determining the information needed to make informed decisions and plans to preserve and enhance the geophysical and ecological functions of the Carmel River Lagoon and barrier beach.

After public input and discussion of the issues, State Parks volunteered to host and facilitate a series of working meetings to develop recommendations to ensure stability of the bluff that supports Scenic Road and develop protocols for effectively managing the Carmel River Lagoon and barrier beach. Subsequently, the facilitation role has been taken up by the Monterey Peninsula Water Management District (MPWMD).

An additional outcome of the June 14, 2005 meeting was that several stakeholders formed the Carmel River Lagoon Coalition¹ to advocate for solutions to the issues identified during the meeting.

Affected Organizations

- California State Parks - Landowner
- U.S. Army Corps of Engineers – Clean Water Act, Section 404 Permit
- California Department of Fish and Game – Fish and Game Code Section 1601, Streambed Alteration Agreement
- California Coastal Commission – Coastal Development Permit
- Monterey County Planning Department – Emergency Clearance
- Monterey County Public Works Department – Equipment Operators
- Monterey County Water Resources Agency – Flood Control
- NOAA Fisheries – Endangered Species Act – Steelhead
- US Fish & Wildlife Service - Endangered Species Act – Red-legged frog
- Monterey Peninsula Water Management District – Water and Habitat Management & Mitigation
- Carmel River Watershed Conservancy—Conservation Organization
- Carmel River Steelhead Association – Fisheries Conservation & Habitat Restoration
- Carmel Point and Lagoon Preservation Association – Protection of Private Property/Lagoon Environment
- Homeowners for Effective Lagoon Management (HELM) – Protection of Private Property/Lagoon Environment

Technical Advisory Committee (TAC)

The TAC consists of scientists and management representatives of the regulatory agencies: California State Parks, NOAA Fisheries, California Department of Fish and Game, California Coastal Commission, US Army Corp of Engineers, US Fish & Wildlife Services, Monterey Peninsula Water Management District, Monterey County Public Works Department, and Monterey County Water Resources Agency.

¹ The Carmel River Lagoon Coalition is a volunteer group that includes representatives of the Carmel River Steelhead Association (CRSA), the Carmel River Watershed Conservancy (CRWC), Homeowner's for Effective Lagoon Management (HELM), the Big Sur Land Trust (BSLT), County Services Area 50 (CSA 50), Save Carmel River Beach (SCRB), and the Carmel Point and Lagoon Preservation Association (CPLPA).

Progress to Date

Since forming in 2005, the TAC has met on a monthly basis to monitor beach, lagoon, and river conditions and to develop interim and long term management strategies. The TAC established a liaison (a representative from the TAC facilitating agency) between the TAC and the Carmel River Lagoon Coalition to communicate results of meetings and solicit public input on management strategies.

During the winters of 2005-06 and 2006-07, the TAC provided a forum for communicating technical information and making recommendations for managing the barrier beach. This study plan, which includes a description of the information needed, identifies what scientific studies are critical to make informed decisions and develop a Long Term Plan. The Scope of Work included is considered critical to ensuring management decisions will be effective in addressing the issues. Estimated costs for the studies are included.

In early 2007, the TAC began discussions of formulating an interim strategy based on adaptive management principles. This interim strategy will serve as a short-term management plan until the long term management plan described in this document is complete.

Next Steps

The next steps will be to complete an interim adaptive management plan, secure the appropriate authorizations to carry out the interim plan and secure funding for the proposed Scope of Work and Studies to be completed for a long term plan.

Problem Definition

The Carmel River Lagoon and barrier beach is the transition area between the 255 square-mile Carmel River watershed and the Carmel Bay. It is a dynamic environment with many natural forces, including high Carmel River flows, powerful ocean swells, constant wind and wave action, and a highly mobile landscape predominated by sand. High energy and mobile materials converge around the Carmel River Lagoon to generate flooding, erosion and sedimentation processes. The outlet for this dynamic power is through the barrier beach, which is confined laterally by bedrock outcrops to the north and south of the mouth.

Two physical processes collide with social expectations at this high energy boundary setting. First, erosion of the sandy bluffs adjacent to the lagoon is influenced by ocean dynamics, river flow, and sand supply. Second, the elevation of most of the barrier beach usually exceeds the first floor elevation of many of the low-lying structures near the lagoon. If the low point or outlet through the beach is allowed to remain higher than these structures, they are exposed to flooding when the lagoon fills as a result of river inflow and/or overtopping of the barrier beach by large ocean waves. In order to reduce the potential for flooding, frequent manipulation of the outlet location and elevation is

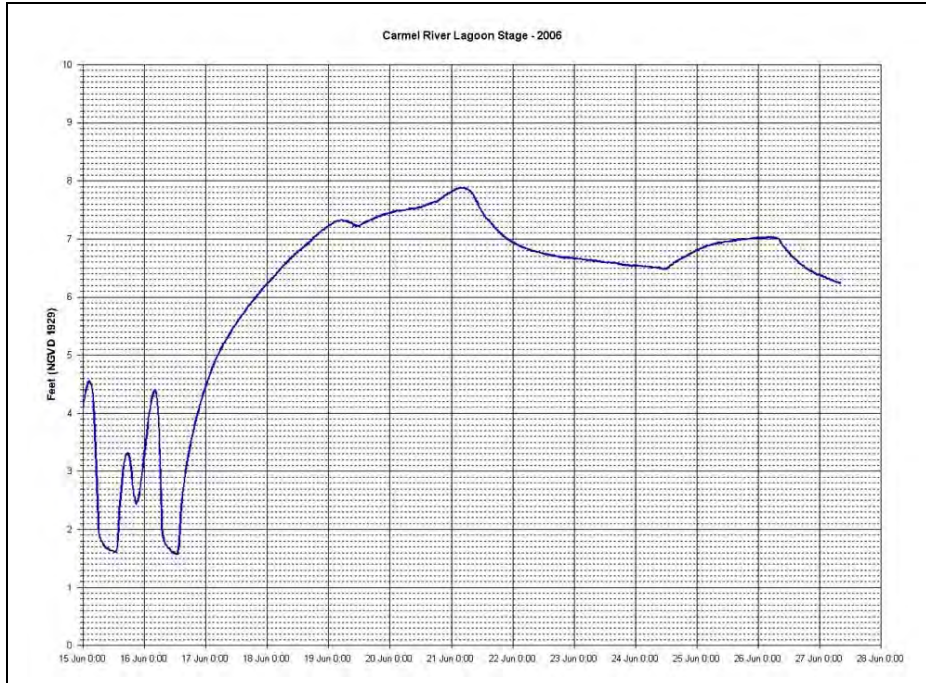
undertaken, which has resulted in many undesirable consequences to fish and wildlife. It should be noted that the configuration of the barrier beach is not a significant factor during floods resulting solely from high river flows – these are relatively infrequent events during which river flow is high enough to wash out most of the beach.

During the summer and fall, when Carmel River flows are not high enough to maintain an open channel through the beach to the ocean, the barrier beach is built up by wind and wave action. To reduce flood risk prior to the onset of increased river flows in late fall and early winter, Monterey County, which is the local agency responsible for responding to floods, manages the location of the lagoon outflow channel by lowering a section of the barrier beach from the lagoon to the ocean. Historically, this barrier beach management has resulted in artificial breaching of the barrier beach. In many years, this activity occurs just a few hours or within days before a natural outlet channel would form. However, during periods with sustained low flows (20 cubic feet per second or less), it is likely that artificial breaching occurs up to several weeks before a natural outlet channel would form. During periods in the winter and spring, when river flows drop and the lagoon mouth closes temporarily, mechanical breaching is often performed to prevent flooding of low-lying areas, even at relatively low river flows. The timing of these breaches is in contrast to a naturally functioning lagoon system that may have remained closed and full during low inflow periods.

In October 1996, Don Alley, a local aquatic biologist, conducted a population survey and estimated a total of approximately 5,640 juvenile steelhead. A somewhat similar survey conducted in December 2006 by the TAC and Carmel River Lagoon Coalition estimated a total of 3,730 juveniles (note that the surveys are not directly comparable). The winter run of adult steelhead counted at the San Clemente Dam (18.6 miles upstream of the lagoon) has ranged from about 300 to almost 900 since 1995. Estimates of the juvenile population in the Carmel River Basin range from about 90,000 up to about 175,000. Measurements of smolts and young-of-the-year in the main stem of the Carmel River during the spring migration in the early 1990's showed that up to 800 fish per day were moving downstream toward the lagoon during ideal conditions. The presence of CRLF has been documented in the vicinity of the Lagoon. But effects of artificial breaching on egg masses, tadpoles, and number of adults are unknown.

Habitat quantity is directly related to water elevation in the lagoon. At a water level of about two feet (NGVD 1929), the area of the lagoon is estimated to be about two acres. Whereas, at nine-foot level, the area of the lagoon is estimated to be about 80 acres, a forty-fold increase. It is known that artificial breaching can have significant effects on life cycle stages of at least two of the species of concern at the Lagoon – steelhead and CRLF. Breaching of the barrier beach for flood control purposes frequently results in low lagoon elevations, elimination of most of the aquatic habitat of the lagoon, and a short and steep outflow path to the ocean. In recent years, the County has attempted to manage the location of the lagoon outflow channel across the barrier beach by simulating a natural channel meander pattern to minimize environmental impacts. However, fixing the river mouth at a specific location on the beach is difficult due to the complex interaction of waves, tidal fluctuation, river flow, and sand transport. Because

more frequent and more expensive manipulations to maintain habitat have resulted, management of the barrier beach to minimize fish and wildlife impacts has been frustrating and failed to accomplish the desired results.



The graph at left shows lagoon water surface elevations between June 15 and June 28, 2006. Troughs in the line are associated with low tide and an outflow channel to the south, adjacent to bedrock outcrops. A steady rise beginning June 17 is due to a closure action conducted by State Parks to increase the elevation of the lagoon. Data from MPWMD gage station, South arm of Lagoon.

In addition to flood prevention, the County also manages the barrier beach to direct the lagoon outflow channel away from the eroding sandy bluff that underlies Scenic Road along the north half of the beach. Barrier beach management by Monterey County Public Works is carried out with heavy equipment when necessary and with hand labor when limited amounts of sand need to be moved. Another complicating factor is that private citizens digging at the beach with hand tools sometimes cause an illegal breach of the barrier beach.

Management Components

The challenge of managing the barrier beach and lagoon has several components including: Geologic, Ecologic; Regulatory; Financial; Social; and Institutional. These are discussed in more detail below.

Geologic

The lagoon outlet channel meanders across the beach and is constrained by rocky granodiorite outcrops underlying the north and south ends of the beach. These rocky outcrops are separated by approximately 600 feet of fine to coarse sands, with little gravel. The basic configuration of the rocky outcrops appear to be similar with wide, rounded slots cut by wave and water action that are filled in by beach sands. However, the effect of the outcrops as a control on the lagoon water surface elevation appears to

be somewhat different, which may be due to the orientation of the slots and the varying width of the beach from north to south. The beach width above sea level varies seasonally as sand moves on and offshore, but is generally larger at the north end (about 250 feet) near Stewart's Cove than at the south end (about 100 feet).

Three critical functions of the barrier beach have been identified:

- Protection of the shoreline bluffs.
- Prevention of combined storm and tidal surge from inundating low lying areas around the lagoon.
- Impoundment of water to form a fresh and seasonally brackish water lagoon above sea level.

Known interrelated factors affecting barrier beach dynamics include:

- Sediment supply/ watershed processes
- Littoral sediment transport along the beach
- Swell size, period, and direction in concert with tidal stage
- Migration of the river mouth

The lagoon outlet channel varies in width according to the volume of sand and water passing through it and can range from as little as 20 feet wide at low flows to more than 200 feet wide after a breach or during major river flow events. A critical feature of the outlet channel is the length over which the channel meanders through the beach. Breaching to the center of the barrier beach usually results in a short steep channel not controlled by bedrock shelves. This lowers the base elevation of the outflow channel to sea level, and thus drains most of the water in the lagoon.

A breach to the south or north adjacent to the bedrock outcrops can have similar results, if the channel cuts directly through the barrier beach. A meandering channel of up to 1,500 feet across the beach is associated with higher base water levels in the lagoon (i.e., above four feet). However, conditions for a meandering channel appear to include a combination of beach width sufficiently large to encourage meandering (i.e., greater than 150 feet), river flows that are not large enough to scour the lagoon outlet channel down to near sea level, and a swell height and direction along with tidal fluctuations that encourage beach building.

A northern outlet has been shown to risk erosion of the sandy bluff and dune adjacent to Stewart's Cove that supports Scenic Road. However, a northern outlet also results in a longer outlet channel and higher lagoon elevations more frequently than a southern outlet. The MPWMD Technical Memorandum 05-01 "Surface Water Dynamics at the Carmel River Lagoon, Water Years 1991 through 2005" showed that an elongated channel to the north formed in 1993, 1997, and 2005. In both 1993 and 2005, Monterey County Public Works took action to prevent loss of Scenic Road due to erosion of the sand dune adjacent to it. During powerful winter and early spring storms, there are

periods when ocean surge and river flows thwart or obstruct efforts to prevent beach sand erosion.

With the river flowing freely to the ocean, water levels in the lagoon frequently fluctuate diurnally, which suggests a strong tidal influence. Water level is directly related to habitat volume and quality in the lagoon. The lowest lagoon stage on record (since 1991), which was in June 2006 at 1.6 feet (NGVD 1929), was with an outlet configuration that was adjacent to the southern bedrock shelf. Since the early 1990's the County has often attempted to lower the barrier beach on the south or north end of the beach.

Breaching the barrier beach reduces the volume of water in the lagoon by as much as 300 to 700-acre feet and eliminates most of the open water habitats in the lagoon ecosystem. The north arm of the lagoon is completely dewatered along with much of the emergent shoreline vegetation around the whole lagoon, including the recently excavated south arm.

There is uncertainty regarding the long term trends related to the width and volume of sediment that make up the barrier beach. Based on data available and personal observations, some claim the barrier beach is as large and healthy as ever, while others point to the general trend of beach erosion along the Central Coast and to recent losses of sand at the Carmel River State Beach as proof of a long term trend. Factors influencing the supply of sand and the shape of the barrier beach complex may include:

- The sand supply has been reduced during the past century by upstream reservoirs and sand and gravel mining. Since the early 1900's, this reduction has totaled as much as five million cubic yards.
- Over the past two decades, bank stabilization projects along the lower 15 miles of the river have further reduced sand supply to the beach.
- The steepness of the beach and the configuration of the longshore bar may be affected by the size of sand being washed out of the watershed. Recent (MEI, 2002) sediment characterization studies at San Clemente Reservoir indicate that much of the material trapped in that reservoir is much finer (0.25-0.40 mm) than the material that is currently supplied to the beach from undammed tributaries and main stem bed and bank erosion (0.5-2 mm).
- Reduced sediment delivery, combined with sea level rise, may result in regression of the barrier beach and bluff erosion. It is not known if this process is already underway.
- Continued artificial breaching of the barrier beach may be contributing to beach sand losses by increasing the frequency of large magnitude outflows that can carry significant quantities of fine and medium grained sand offshore beyond the surf zone.
- Large magnitude, low frequency storm events may dramatically reshape the nearshore and offshore environment and create a sediment sink area that the reduced supply of sand cannot replenish.

The delivery of sediment by river flows to the beach is not well understood, nor are the hydraulic interactions between river flows, variable ocean waves, and tidal fluctuations impacting sediment transport to and from the barrier beach well understood. The historical size trends, migration of the barrier beach, and the stability of the sandy bluff are not well understood.

Ecologic

The artificial lowering of the outlet channel and the draining of freshwater from the lagoon has two direct and immediate impacts. First, it opens the barrier beach to ocean tides and waves, which allows seawater and organic material into the lagoon and can create poor (or lethal) water quality conditions in the remaining, limited open water habitats in the South Arm. Second, the greatly reduced open water area in the drained lagoon subjects fish to an increased risk of predation by birds. These effects are most severe during periods of low inflows.

Thus, a river channel that cuts deeply through the barrier beach through the winter and spring seasons (until flows have nearly ceased in late spring or early summer) keeps the lagoon water volume and elevation very low, which severely limits and compromises the quantity, quality and function of the freshwater lagoon ecosystem.



Temporary sandbags and tarps were used to raise the lagoon water level in Summer 2006

If the barrier beach forms during the spring/early summer period when there is sufficient river flow, the lagoon rises and converts to freshwater, which provides abundant and valuable breeding and rearing habitat during critical life history stages of fish and wildlife species. Alternatively, if the barrier beach forms late after river flows have nearly ceased, a significant volume of saltwater remains in the lagoon over the summer and the volume of aquatic habitat is reduced. The ecosystem remains compromised until winter rains return, bringing river, subsurface, and overland flows which flush out the salt water.

Under natural conditions, barrier beach freshwater lagoon ecosystems are seasonally formed by waves and ocean currents at river mouth beaches. These ecosystems provide abundant and valuable habitat during critical life history stages of many fish and wildlife species. However, it is a dynamic system subject to significant variation. Even under natural conditions, wide variations in habitat characteristics occur year to year.

Fish and wildlife have evolved life history strategies dependent upon these rich and abundant freshwater lagoon ecosystems for the survival of their populations. Compromising the quantity, quality, and function of these ecosystems is a factor in population declines of several fish and wildlife species.

Preliminary Ecologic and Geologic Conclusions

There is no comprehensive long-term, multi-agency plan linking management of the Carmel River and its watershed with management of the Carmel River Lagoon. Effective management of the Carmel River Lagoon will require an understanding of and the ability to effectively work with these complex geofluvial and coastal processes. Therefore, rigorous scientific investigations are necessary to better understand the ecosystem, develop alternative management strategies and assess effects of ongoing and proposed management actions. The understanding and information developed from these investigations are necessary to identify reasonable and prudent management solutions that protect and insure maximum multiple beneficial use of this undeniably beautiful, and potentially rich and abundant environment.



Tagging (shown below) and re-capture of steelhead in the lagoon indicate the numbers of fish that could be at risk.

Comprehensive studies addressing river and ocean sediment interactions as they influence the barrier beach as well as sandy beach bluff integrity are needed. These are the first among the several investigations that need to occur, and are of the highest immediate priority among the several components necessary for development of a comprehensive long term management plan.

Considering the values of the human environment and Public Trust resources at risk, and the potential legal liabilities involved, finding resources and funding for these rigorous scientific investigations should be a high priority.

Regulatory Issues

Since the late 1970's, the County has breached the lagoon as an emergency flood prevention action. In the early 1990's, the California Coastal Commission (CCC), U.S. Army Corps of Engineers (Corps), and California Dept of Fish and Game (CDFG) informed the County that its beach management actions were impacting natural resources and that these actions were not eligible for emergency permits due to the predictability of flooding (i.e., action is needed whenever the lagoon stage reaches an elevation of 10, which occurs regularly). The agencies requested that Monterey County apply for and obtain regular permits to authorize this ongoing activity. In response, Monterey County filed applications with the CCC, CDFG, and the Corps in October 1992 that included the "Monterey County Department of Public Works Interim Plan and Criteria for Emergency Breaching of the Carmel River Mouth, October 1, 1992." The County has followed up at various times in the past 10 years with additional applications and materials. However, the applications have been deemed incomplete due to lack of supporting data and analysis.

Private citizen actions to breach the lagoon outflow channel are without legal authorization. Public or private actions, whether otherwise legal, which result in harm to protected wildlife species, or modification of habitat that directly results in harm to individuals of the species, are illegal pursuant to the State and Federal laws protecting threatened and endangered wildlife. State and Federal wildlife agencies may issue permits for otherwise legal activities which may cause incidental harm, provided that they do not appreciably affect species population size, structure, or range.

Many wildlife species with declining populations, along with the ecosystems on which they depend, are protected pursuant to the statutes of the United States Endangered Species Act, United States Clean Water Act, the California Endangered Species Act, California Fish and Game Code, State Park regulations, and others.

The Carmel River Lagoon is known to support populations of multiple protected species including, Brown Pelicans, Snowy Plovers, South-Central California Coast Steelhead, California Red Legged Frogs, and Western Pond Turtles.

Management actions to preserve functions of the barrier beach and fresh water lagoon ecosystem, and management actions to protect public and private property are necessary. Cooperation of regulatory agencies and stakeholders is essential to the success of the development of an effective management plan intended to find a balance between protection of private property, public infrastructure and Public Trust resources.

Financial

Significant and sustained funding will be necessary to carry out the data collection, analysis and mitigation measures required to balance management of Public Trust resources with protection of public and private property. To date, sources for these funds have not been identified.

Table 1 – Estimate of Study Costs

Agency	Contact	Study	Estimated Cost (\$)	Time to complete study (months)
NMFS	B. Cluer	P 1	30,000	6
NMFS	B. Cluer	P 2	250,000	36
MPWMD	L. Hampson	P 3	60,000	12
MPWMD/ State Parks	K. Urquhart/ K. Gray	P4	125,000	36
MCWRA	B. Phillips	M 1	100,000	36
MCWRA	B. Phillips	M 2	25,000	6
MCWRA/ MCPW	B. Phillips/ V. Lewis	M 3	50,000	12
NMFS	B. Cluer	M 4	30,000	6
MPWMD	L. Hampson	BPS 1	8,000	3
MPWMD	L. Hampson	BPS 2	12,000	3
Estimated Cost (2005)			\$ 690,000	
Contingencies and inflation to 2010			x 1.24	
Total			\$ 855,600	
Study	Title			
P 1	Historical changes and trends of the Carmel River barrier beach and adjacent bluffs			
P 2	Sediment transport and hydrodynamics affecting the Carmel River barrier beach			
P 3	Monitoring beach and river mouth dynamics and correlating with physical processes			
P4	Biological and physical monitoring of Lagoon ecosystem habitat conditions			
M 1	Investigate funding resources to flood proof private residences and public assets within Carmel River lagoon			
M 2	Flood risk reduction for private residences and public assets within the Carmel River Lagoon			
M 3	Engineering analysis for stabilization of the sandy bluff underlying Scenic Road			
M 4	Engineering analysis for stabilization of the sandy bluff through beach replenishment.			
BPS 1	Topography, bathymetry, and historical changes in volume and area of the Carmel River lagoon			
BPS 2	Historical inflow and outflow to the Carmel River Lagoon			

Social

The lagoon and State Beach attract a large number of visitors annually. Historically, during periods of low flow in the winter and spring, waves can close off the lagoon outlet while the river continues to fill the lagoon. Visitors who see the lagoon at a level close to overtopping the barrier beach have sometimes attempted to breach the barrier beach to drain the lagoon. At high lagoon water elevations, this can be easily accomplished by excavating a short trench across the low point in the beach. State Parks has taken steps to discourage this activity, including posting signs prohibiting this activity and increasing ranger patrols at critical times. However, this activity is vandalism that continues to be a factor influencing the level of the lagoon and function of its habitat.

Institutional Issues

Development in low lying flood prone areas around the Lagoon predated modern floodplain regulations adopted in 1984 and modern legislation to protect the environment (e.g., CEQA in 1970, the ESA in 1973, and the California Coastal Act in 1976). More recently, with the listing of CRLF in 1996 and steelhead in 1997 as threatened species, there has been an increasing awareness at all agency levels of the immense value of the lagoon to these and other species of concern. However, responsibility for regulating and managing the resources around the lagoon is divided among no less than 10 local, State, and Federal agencies. None of these agencies have a mandate or the resources to integrate flood protection, recreation, beach restoration, habitat and species protection, infrastructure defense, and watershed management to benefit the lagoon.

Thus, agency actions to manage and regulate the lagoon, surrounding area, and the Carmel River watershed have generally been focused on satisfying individual agency responsibilities. This approach has resulted in uncoordinated management decisions, without an overall plan to balance the various competing interests, which is clearly not a model to continue into the future.

Formation of a TAC comprised of the regulatory and responsible agencies and the formation of the Carmel River Lagoon Coalition have been steps toward integrating resource management. However, there is a need to establish an organization with a mandate and resources to address the immediate problems and to manage the lagoon over the long term.

Overall Scope of Work

STUDY PLAN FOR LONG TERM ADAPTIVE MANAGEMENT OF THE CARMEL RIVER LAGOON AND BARRIER BEACH

1. Problem Definition Statement

- A.** Describe the problem at hand and need for Management Plan
- B.** Regulatory Setting – relevant regulatory agencies and requirements
- C.** Describe process and timeline for developing plan (and those involved in the process)
- D.** Objectives of plan
 - 1. Short-Term Objectives - can also be considered as interim approach to reaching long-term goals
 - (a)** Reduce risk of failure at Scenic Road slope
 - (b)** Reduce risk of erosion at toe of slope
 - (c)** Reduce risk of erosion of Scenic Road slope
 - (d)** Reduce risk of river mouth migration against Scenic Road
 - (e)** Investigate whether there are adverse impacts to sensitive species from flooding and minimize adverse impacts from short-term management actions as feasible
 - (f)** Monitor physical and biological parameters (monitoring plan being developed by MPWMD/State Parks; coordination with other sources of info)
 - 2. Long-term Objectives
 - (a)** Develop management solution that is consistent with all regulatory resource management requirements (e.g., Coastal Commission, NOAA, CDFG, USFWS, USACOE, et al.)
 - (b)** Conduct Alternatives Analysis and select preferred Alternative for managing lagoon and barrier beach
 - (c)** Reduce problems associated with flooding from Carmel River lagoon when river mouth is closed
 - (d)** Reduce adverse impacts to sensitive species from flooding and from breaching events
 - (e)** Restore and/or mitigate areas impacted by management activities (e.g., barrier beach, dune slope to Scenic Road, lagoon and freshwater habitats)
 - (f)** Monitor physical and biological parameters (monitoring plan being developed by MPWMD, and coordinate with other sources of information)

(g) Coordinate/integrate with other ongoing management plans for the Carmel River and watershed

(h) Develop process to allow for Adaptive Management

2. Geographic Extent of Management Plan –

- A.** Eastern boundary = Coastal Zone boundary (area that includes the lagoon) – note: consider expanding to eastern end of Big Sur Land Trust managed properties east of Highway 1.
- B.** North and south boundaries - inland of barrier beach berm crest. This area is approximately represented by the Federal Emergency Management Agency Flood Insurance Study 100-year flood zones (zones A7 and A8 inland of barrier beach berm crest). This area includes low-lying homes along the north side of the lagoon in the 100-year flood zone and areas of shallow flooding.
- C.** North and South boundaries - seaward of barrier beach berm crest. This area extends from the inland extent of Zone A seaward of barrier beach crest, as far north as Carmel River State Beach northern boundary near Carmel Point, and as far south as southern end of Carmel River State Beach (i.e., south unit of Carmel River State Beach), near Granite Point.
- D.** Western boundary. This coincides with the western boundary of the entire Carmel River State Beach (both northern and southern units)
- E.** The management area includes facilities and infrastructure, environmental resources, and public access and recreational amenities that are part of the Carmel River State Beach.
- F.** The management area is part of and affected by requirements of the Carmel Bay Area of Special Biological Significance and the Monterey Bay National Marine Sanctuary.
- G.** The management area is located in and affected by physical processes within the Carmel Bay Littoral Cell
- H.** The management area is part of and is affected by management decisions and actions taken in the Carmel River Watershed
- I.** The portion of Scenic Road along the boundary defined above is included as part of this management plan due to its proximity to the lagoon and potential impacts to the road from management actions.

3. Background Information

- A.** Historical and current physical setting of the management plan area
 - 1.** Identify previous studies and work done and what information may be lacking
 - 2.** Identify the historical and current conditions at onshore/beach/lagoon – wave climate / tides / flows/offshore bathymetry - can get information from existing documents, with references to these documents in bibliography

3. Historical conditions in the watershed – e.g., hydrology, land-use, water supply, streambank restoration efforts
 4. Identify what changes have occurred over time – prior to human intervention, and post human intervention
 - (a) Watershed overall
 - (b) Lagoon
 - (c) River mouth
- B. Describe History of Management of Carmel River Mouth – identify all the management approaches that have been used in the past to manage the river mouth**
1. Pre-county management history
 2. County involvement and management – including various protocols used in the past, and current protocols
 3. State Parks involvement and management – development of facilities, public access are recreational opportunities
- C. Describe History of Past Breaching Events**
1. Include a chronology of breaching events (natural and mechanical) - can use information from County records, previous documents (e.g., PWA Lagoon Enhancement Plan, etc.)
 2. Include a time-series analysis to show observed configuration/formation of river mouth over time, especially when the river was breached (get info from aerial photos, historical maps and charts)
- D. Describe Physical Processes Affecting Barrier Beach Dynamics and Lagoon Hydrology**
1. Beach morphology - extent and profile changes over time – topographic and geologic setting
 2. Tide, current and beach wave dynamics
 3. Watershed hydrology and climatologic conditions – note proposed FEMA/MCWRA restudy of Carmel River and revised Flood Insurance Rate Maps (confirm date of publication for new maps)
 4. Sediment transport regimes
 - (a) Carmel River watershed
 - (b) Carmel Bay Littoral cell
 5. Examine Effect Of Barrier Beach Management On Hydrology
 - (a) of the lagoon and surrounding aquifer
 - (b) implications for dry season water supply to the lagoon

- (c) potential seawater intrusion of the aquifer
6. Describe How Variability of Physical Dynamics and Management Approaches Can Affect Barrier Beach and Carmel River Mouth Morphology (can use example of what occurred from 2004/2005 and 2005/2006 breaching events—and how it can change the physical conditions at the Carmel River mouth, and lead to specific management actions/concerns)
 - (a) Changes to sand supply in watershed and littoral cell due to past and potential management actions in watershed and along coast
 - (b) Changes to barrier beach topography and beach volume due to past and potential changes in sand supply
 - (c) Changes to wave and tidal dynamics due to changes in sand supply, beach morphology and seasonal and cyclical variability of climatologic conditions
 - (d) Changes in Carmel River hydrology due to past and potential changes in water supply/demand
 - (e) Sediment transport and hydrodynamics (e.g., inputs from river, beach, bluffs, flux through littoral system, losses to submarine canyon due to proximity of Carmel Canyon head)
 - (f) Changes in management purpose/approach/protocols
 - (i) Take into account major changes that might happen in future, e.g.:
 - (1) San Clemente Dam
 - (2) Future water supply projects that might change (+/-) flow regime in river
 7. Potential impacts of flooding on land use and infrastructure - Identify what areas, structures and infrastructure, at what elevations, would be flooded if river mouth is not breached.
 8. Potential impacts to Scenic Road
 9. Potential impacts to State Parks facilities and infrastructure, environmental resources, and public access and recreational amenities
- E. Describe Biological factors and influences**
1. Describe biological setting and requirements
 - (a) aquatic habitats – fauna and flora
 - (b) terrestrial habitats – fauna and flora
 - (c) sensitive species status – known population characteristics and dynamics
 2. Describe factors influencing biological health
 - (a) water quality and salinity

- (i) increased salinity due to overtopping
- (ii) potential freshwater inputs

(b) storm water issues and relationship to Carmel Bay ASBS

F. Describe Cultural Resources and potential impacts

4. Describe and Analyze Alternatives – determine how best to resolve problems associated with river mouth breaching now and into the future. Describe the least environmentally damaging feasible alternative. Each alternative may have a short-term, mid-term and long-term aspect.
 - A. No action alternative – identify opportunities/constraints of unmanaged versus managed ecosystem (i.e., of managing the system, or letting natural processes occur)
 - B. Potential changes in short-term management approach to reduce risks and respond to current conditions.
 1. Establish protocol/barrier beach management practices for winter that reduce potential for a full breach to occur.
 2. Repair of Scenic Road slope - consider both temporary and long term project
 3. Stop or significantly curtail the practice of mechanically breaching lagoon and implement alternative flood control measures, such as construction of temporary flood barriers.
 4. Mechanically manage barrier beach berm crest height (through grading) to avoid accidental breaches in non-optimum locations
 5. Initiate and manage mechanical breach in preferred location to minimize potential erosion of Scenic Road slope
 6. Manage base elevation of outflow channel by maintaining a channel over a bedrock sill or install a temporary or permanent weir structure.
 - C. For short term - (some alternatives not used could be incorporated into long-term alternatives)
 1. Build up Scenic Road slope with compacted soil and/or sand
 2. Re-establish gentler gradient and revegetate slope / dune restoration component
 3. Protect Scenic Road slope from surface water runoff (e.g., improve curb and drainage, install drop inlets to storm-water system)
 4. If breaching is necessary, manage river mouth position away from base of Scenic Road
 5. Use breaching protocols to inform and perform breaching in an approved interim manner
 - D. For long term –

1. Restore beach topography/nearshore bathymetry as well as Scenic Road bluff/State Beach access - what sources are available (sediment sources may be from nearshore/offshore dredging, sediment bypassing of San Clemente Dam, importing of sediment) – factors include cost, transport requirements, other
 - (a) Replace sand lost in the past to raise beach elevation and widen beach
 - (b) Reestablish offshore bathymetry and widen beach to attenuate wave energy
2. Place revetment at toe and some portion of slope
3. Construct vertical retaining wall/seawall at base of bluff – use sand against wall to hide structural elements and revegetate
4. Reduce problems associated with flooding from Carmel River lagoon when river mouth is closed
 - (a) Look into potential to set up a zone of benefit to fund management plan implementation activities
 - (b) remove buildings that flood
 - (c) raise or otherwise flood-proof buildings that flood – look at potential flood-proofing approaches
 - (d) construct floodwall or levee (and possible pumping system) to prevent flooding of existing structures
 - (e) mechanical control of lagoon wse (using additional outlets, pumps, etc.- e.g., possible use of CAWD outfall or new pipe to control wse and improve water quality in lagoon)
 - (f) temporary and removable rubber bladder floodwall to protect north shore homes during high lagoon elevation events
 - (g) manage sandbar maximum elevation below flooding level by mechanically grading to lower berm crest in preferred locations
 - (h) allow breaching only if sensitive species and all coastal resources are protected from adverse impacts
 - (i) time breaching to occur when wave climate, tide conditions and inflow rates are optimum
 - (j) consider flood storage capabilities of adjacent lands in management plan area (e.g., additional storage ponds on Odello or State Parks properties?)
 - (k) consider adjacent land use activities as opportunities and/or constraints
5. describe alternative approaches to reduce adverse impacts to sensitive species from flooding and from sandbar management
 - (a) don't breach
 - (b) avoid breaching

- (c) control base elevation of breach channel to prevent complete lagoon evacuation.
 - (d) Additional freshwater input from wells located in the lower Carmel River Aquifer
 - (e) Additional freshwater input from CAWD treated water
 - (f) Additional (natural) freshwater input from a reduction in groundwater pumping in the Carmel River Aquifer
6. If continued breaching is necessary:
- (a) Reduce loss of sand from the system
 - (i) develop sand budget
 - (ii) initiate and manage breach channel location (if breaching still necessary) to keep sand in system
 - (iii) evaluate additional sand sources
 - (b) Build aesthetically pleasing sill to fix and maintain base elevation control
 - (c) Other measures to mitigate for unavoidable impacts
5. Identify additional info needed to understand impacts/risks/options/constraints
- A. Identify other interested agencies/stakeholders/other possible partners for data collection, management activities, funding coordination, and process for coordination and input
 - B. Obtain historical data from interested parties such as homeowner's associations
 - C. Need new and/or recent bathymetric survey of offshore and of lagoon area (MPWMD to complete lagoon survey and rating curve in 2007)
 - D. Need topographic survey of onshore beach/bluff change
 - E. Need to see if other sand supplies are possible
 - 1. from San Clemente Reservoir?
 - 2. from State Parks, other projects?
 - 3. from potential dredging in Carmel Bay, or other dredging projects in the region?
 - 4. from Beach to the South
 - F. Identify underlying topographic/geologic controls (e.g., bedrock sill) - determine exactly the elevation and extent of where the bedrock sill is under the barrier beach?
 - G. Identify habitat monitoring needs
 - 1. aquatic species – flora and fauna
 - 2. terrestrial species – flora and fauna
 - 3. sensitive species

- 4. water quality**
 - H.** Need elevations and relationship to tide and wave runup to see if sand replacement is really necessary
 - I.** Need to evaluate sand volume lost/needed
 - J.** Need to determine if that quantity is available
 - K.** Compile and complete baseline studies
- 6.** Identify capital and O&M funding sources, opportunities and constraints, potential for setting up zone of benefit and/or geohazard abatement district, potential funding from water users, etc
- 7.** Identify public outreach opportunities for community education, involvement and volunteer opportunities
- 8. Describe Proposed Management Strategy**
 - A.** Develop rating system or criteria for selecting the preferred alternative(s) in line with objectives established in Section 1 above.
 - B.** Describe preferred alternative (may be combination of actions), and any necessary mitigation measures necessary to avoid and/or reduce unavoidable project impacts
 - C.** Describe Implementation and Mitigation plan, including any standard protocols and BMPs that may be necessary
 - D.** Describe timing for implementation, including timelines for priority needs/actions and possibilities for implementing experimental or phased tasks that require and can give resulting information as feedback and input into next steps or phases of activities.
 - E.** Describe Permit Coordination needs
 - F.** Describe coordination with other management plans, ongoing activities
 - G.** Describe Monitoring and Reporting Plan
 - 1.** Physical conditions, including water quality
 - 2.** Biological conditions
 - H.** Describe Adaptive Management Process
 - I.** Describe Emergency Management protocols – identify possible emergency situations, evaluate existing emergency protocols and incorporate any new protocols needed, and how to coordinate with necessary permitting agencies

Baseline Studies to Develop a Long Term Management Plan ²

Investigation of Physical Processes

STUDY SCOPE: P 1 - Historical changes and trends of the Carmel River barrier beach and adjacent bluffs

Problem Statement:

The sand supply to the barrier beach complex has been reduced during the past century by upstream dams, and sand and gravel mining. In the past two decades, widespread bank stabilization has further reduced sand supply to the beach. Reduced sediment delivery and sea level rise may result in regression of the barrier beach, leading to accelerated bluff erosion. Although bluff instability presently exists, it is not known if beach regression is already underway. The historic size trends, seasonal migration of barrier beach sands on and off shore, and the effects on the stability of the sandy bluff are not well understood. Also, little is understood of the interactions between human activities and the natural physical processes in this complex environment.

The Carmel River barrier beach and surrounding sand bluffs have been developed with homes, roads, and recreational infrastructure over the past few decades. These valuable public and private assets are subject to the erosion and aggradation of the sandy deposits as ocean and river processes coalesce in the dynamic physical setting. Multiple changes in the watershed have modified the hydrology and sediment delivery to the barrier beach over the past century. Changes in ocean level and changes in nearby land use and vegetation patterns may also affect the dynamic setting where human constructs strain to coexist with natural processes.

Basic Approach:

Areal size, location, and sand volume of the barrier beach complex may be determined from a systematic analysis of historical photographs, maps and survey information. The areal extent of sandy beach has been examined in a couple previous efforts. These have used only partial data sets, not the entire catalogue of available information, and have not examined volume changes.

Products:

A chronology of sandy beach area and other geometric measures as monitored by the series of aerial photographs, maps, surveys, and bathymetry. The chronology should specify the long term trend in barrier beach size and location with respect to the sandy bluffs. Understanding the long term trend, valuable information needed to predict the future trajectory, is necessary to effectively manage the barrier beach complex.

² All cost estimates were made in February 2006 and should be considered preliminary.

Estimated Cost: NOAA has located and collected some of this historical information. A photogrammetric analysis of aerial photographs is required to determine past beach volumes---\$30k.

STUDY SCOPE: P 2 - Sediment transport and hydrodynamics affecting the Carmel River barrier beach

Problem Statement:

The Carmel River barrier beach is the focus of intense management activities to reduce flood elevations in the lagoon in order to protect low-lying homes and public and private infrastructure. The barrier beach is located where Carmel River delivers sediment via river flows from the dammed and depleted watershed, and where the river and dynamic Pacific Ocean meet. Breaching the barrier beach is also used to direct river flows away from the sandy bluff underlying Scenic Road. Continued mechanical breaching of the barrier beach may be contributing to beach sand losses in the already sediment-limited setting, potentially accelerating bluff erosion. The delivery of sediment to the beach and the hydraulic interactions between river flows, ocean waves, tidal cycles, and littoral currents, and the impacts on barrier beach dynamics are not understood in sufficient detail such that impacts of alternative, or current management schemes can be evaluated. In addition, managing the barrier beach outlet channel solely for human benefits by breaching interferes with the physical processes that sustain biologically productive lagoon elevations that are critical to sustaining populations of several Federal and/or State protected wildlife species.

Basic Approach:

Mapping of currents and sediment transport in the near shore and beach environment would demonstrate the processes of sediment transport within the barrier beach and littoral current setting. Sediment recycling and the fate of sand transported off the barrier beach by the Carmel River in various configurations and wave climates is necessary information to develop in order to manage the sediment resource for long term retention. Similarly, sand transport by wind from the barrier beach to the sandy bluffs is not quantified, but is likely an important process with management implications. These field research efforts should be conducted for multiple wave, tidal, and river flow conditions in order to develop understanding of the range of physical processes acting on beach dynamics.

Products:

Building on the historical trend analysis of beach changes, this scope will develop conceptual and numerical models that couple sediment transport processes in the complex hydrodynamic setting of river processes, near shore and barrier beach ocean processes. The model should reproduce the past history of beach changes as well as have predictive capabilities that can be used to assess different management scenarios and future watershed and ocean conditions.

Estimated Cost: The Coastal and Marine Geology Program of United States Geological Survey (USGS) has expressed interest and willingness to conduct these complex studies. Initial discussions indicate funding for a postdoctoral researcher would be required.----\$250k.

STUDY SCOPE: P 3 - Monitoring beach and river mouth dynamics and correlating with physical processes

Problem Statement

Continued artificial breaching of the barrier beach may be contributing to beach sand losses in the already sediment limited setting. The delivery of sediment via river flows to, and up and down the beach is not understood. Nor is the impact of hydraulic interactions between river flows, variable ocean waves, and tidal fluctuations on sediment transport to and from the barrier beach well understood. Starting in the early 1990's, the County has always attempted to lower the barrier beach on the south or north end of the beach in an effort to minimize impacts to the lagoon ecosystem and protected species. However, due to river mouth migration caused by little understood physical processes, and/or unauthorized breaches by private citizens, the lagoon has ended up being breached throughout critical breeding and rearing periods of threatened and endangered wildlife species, severely compromising the habitat value for populations of these protected wildlife species.

Basic Approach

It is known that the mouth of the Carmel River migrates either north or south along the barrier beach. The direction of migration is thought to depend on ocean swells, littoral current direction and perhaps tidal fluctuations. However, why it migrates one way or the other, and under what ocean conditions is not understood. Monitoring the river mouth and beach dynamics real time, and correlating with the recorded ocean physical processes of swell size and direction, tidal fluctuation, and correlated littoral current direction is necessary to develop the knowledge and understanding which will be necessary to ensure the effectiveness any plan for management of the Carmel River Lagoon. Real time monitoring would use one or two stationary video cameras to take time lapse photography of the river mouth and beach dynamics and could help discourage illegal breaching activity.

Products:

The time stamped video would be correlated with recorded ocean conditions of swell height and direction, tidal fluctuation and littoral current direction along with river flow levels. Analysis and correlation of these variables would determine which direction the river mouth might migrate under variable river and ocean conditions. This information would be invaluable in planning management actions to protect property and ecosystem values of the lagoon. The video would also be available on a website in near real time for viewer observation and analysis.

Estimated Cost:

Preliminary discussion with Dr. Ed Thornton of the Monterey Naval Post Graduate School indicate he would be interested and willing to fold this study scope into similar ongoing research he is conducting at other sites along the Central Coast with funding from NOAA. The costs of additional equipment and personnel for web posting and analysis of results.-----\$60k.

STUDY SCOPE: P4 - Biological and physical monitoring of Lagoon ecosystem habitat conditions

Problem Statement

The Carmel River Lagoon is known to support populations of multiple protected wildlife species including, Brown Pelicans, Snowy Plovers, South-Central California Steelhead, California Red Legged Frogs, and Western Pond Turtles. Continual breaching of the barrier beach through the winter and spring seasons (until flows have nearly ceased in late spring or early summer) severely limits and compromises the quantity, quality and function of the freshwater lagoon ecosystem. The ecosystem remains compromised until winter rains return, bringing river, subsurface, and overland flows, which flush out the salt water.

Basic Approach

A comprehensive monitoring of the physical habitat conditions and the seasonal responses of the biota of the lagoon is needed to ensure management planning takes into account the range of impacts management actions have on the primary and secondary productivity of the lagoon ecosystem. The recovery of threatened and endangered species will be much more likely if greater understanding of critical life history associations with the lagoon environment are incorporated into the long-term plan for management of the Carmel River Lagoon.

Products

Qualitative and quantitative description and modeling of lagoon wildlife species population responses to changing seasonal and physical habitat conditions, and projection of responses to management alternatives.

Estimated Cost:

Initial discussions between State Parks, the California Dept. of Fish and Game, US Fish and Wildlife Service, NOAA Fisheries, and the Monterey Peninsula Water Management District indicate a willingness to collaborate on these studies. Costs to State Parks and Fish and Game would be for seasonal aides, and analysis of data and report preparation. ---\$125k

Evaluation of Management Alternatives

STUDY SCOPE: M 1 – Investigate funding resources to flood proof private residences and public assets within Carmel River lagoon

Problem Statement:

Monterey County and other public and private agencies have infrastructure within the 100-year floodplain surrounding the Carmel River lagoon. Seasonal barrier beach elevations of Carmel State Beach cause flooding within the 100-year floodplain for flows in the Carmel River which have very short repeat frequencies (at least yearly or more frequently). To reduce flood risk, the County excavates an outflow channel across the barrier beach to lower lagoon water surface elevations. Additionally, private citizens take it upon themselves to continue to breach the river when they feel threatened, which is not legal and can have serious unintended consequences both to the physical setting and to legally protected wildlife species.

Flood reduction by artificially breaching the Carmel River barrier beach results in rapid evacuation of the highly productive lagoon ecosystem, an ecosystem crucial to the survival of declining populations of several State and Federally listed and protected species. Breaching is not authorized by any regulatory purview other than emergency measures. Repeated breachings yearly, and over several decades is not recognized as an emergency.

Basic Approach:

Federal and state programs have addressed repeat flood insurance problems through the development of flood protection programs. These programs include funds for relocating, elevating, purchasing, and other means of flood proofing homes and infrastructure in flood prone areas.

Products:

An exhaustive desktop investigation into funding resources from federal, state, local, and private sources. Alternatives analysis to determine which methods of flood proofing are feasible. Development of a public education program to foster support and buy-in for flood proofing. A management plan for implementing a funded flood proofing program.

Estimated Cost: \$100k

STUDY SCOPE: M 2 – Flood risk reduction for private residences and public assets within the Carmel River Lagoon

Problem Statement:

Monterey County has public infrastructure and permitted homes within the 100-year floodplain, and below Ordinary High Water elevations of the Carmel River Lagoon. To reduce flood risk, the County excavates an outflow channel across the barrier beach to lower lagoon water surface elevations. Additionally, private citizens take it upon themselves to continue to breach the river when they feel threatened, which is not legal and can have serious unintended consequences both to the physical setting and to legally protected sensitive wildlife species.

Flood reduction by artificially breaching the Carmel River barrier beach results in rapid evacuation of the highly productive lagoon ecosystem, an ecosystem crucial to the survival of declining populations several listed and protected species. Breaching is not authorized by any regulatory purview other than emergency measures. Repeated breachings yearly and over several decades is not recognized as an emergency by any regulatory agency and is thought to be taking a high toll on protected species. Alternative engineering innovations providing structural solutions to prevent flooding may be feasible methods to prevent the rise of floodwaters, which inundate homes and infrastructure surrounding the lagoon.

Basic Approach:

An exhaustive desktop evaluation of structural alternatives. Innovative structural alternatives to breaching the barrier beach may include surface and/or piped spillways, an inflatable buried dam or buried and anchored redwood logs, and perhaps other structures as well.

Products:

A comprehensive desktop evaluation of structural alternatives to determine which methods of flood reduction and control are technically feasible in this setting. Cost estimate for: raising, or purchasing (from willing sellers) and removing structures; constructing temporary or permanent flood control facilities; operation and maintenance costs for all alternatives or combination of alternatives.

Estimated Cost: \$25k

STUDY SCOPE: M 3 - Engineering analysis for stabilization of the sandy bluff underlying Scenic Road

Problem Statement:

The sandy bluff underlying Scenic Road is at risk for erosion from ocean waves, from sea level rise, from sediment depletion, from recreational uses, and from river flows. The bluff is a narrow and fragile defense between immensely powerful physical processes and the human environment of valuable public infrastructure and private homes. Solutions to bluff stabilization can be addressed independently of solutions to the lagoon flood management issues. A stabilized bluff can relieve the risk of river processes as well.

Basic Approach:

Gather and organize existing data on near shore bathymetry, barrier beach topography, ocean waves and currents, river scour potential, and engineering materials of the bluff. Standard engineering evaluation of forces applied to bluff and calculation of resistive strength required for stabilization.

Products:

An engineering evaluation of proven structural alternatives to stabilize the sandy bluff underlying Scenic Drive. Structure shall be capable of withstanding ocean processes including sea level rise and barrier beach diminishment, as well allowing for river flows to impinge along the toe of the slope. Preliminary engineering designs for feasible alternatives consistent with regulatory requirements, including cost estimation of constructing and maintaining the structures, and mitigation measures that may be necessary to avoid and/or reduce possible adverse impacts.

Estimated Cost:

\$50k

STUDY SCOPE: M 4 - Engineering analysis for stabilization of the sandy bluff through beach replenishment.

Problem Statement:

The sandy bluff underlying Scenic Road is at risk for erosion from ocean waves, from sea level rise, from sediment depletion, from recreational uses, and from river flows. The bluff is a narrow and fragile defense between immensely powerful physical processes and the human environment of valuable public infrastructure and private homes. Solutions to bluff stabilization can be addressed independently of solutions to the lagoon flood management issues. A stabilized bluff accomplished through beach replenishment, which extends the beach seaward and vertically, would also reduce the risk of river caused erosion as well.

Basic Approach:

Gather and organize existing data on near shore bathymetry, barrier beach topography, ocean waves and currents, river scour potential, and materials of the bluff. Standard engineering evaluation of forces applied to beach-bluff complex, and of the necessary sand volume and supply rate needed over time to prevent erosion of the beach-bluff complex. This evaluation would also incorporate the information developed from **STUDY SCOPE: P 2**, Sediment transport and hydrodynamics affecting the Carmel River barrier beach.

Products:

An engineering evaluation of the cost and feasibility to stabilize the beach and sandy bluff underlying Scenic Drive through beach replenishment. The evaluation would include evaluation and cost estimates for supply and transport of sand from potential sources such as the sediments stored behind San Clemente Dam, dredge materials from offshore in Carmel Bay or other dredging sites. Preliminary engineering evaluations would consider not only costs and feasibility, but also consider aesthetic and community concerns, and identify potential mitigations for impacts.

Estimated Cost: \$30k

Baseline Studies of Physical Setting

STUDY SCOPE: BPS 1 - Topography, bathymetry, and historical changes in volume and area of the Carmel River lagoon

Problem Statement:

Development of a reasonably accurate and predictive numerical model of the hydrodynamics in the Carmel River Lagoon and at the barrier beach depends on similarly qualified reconstructions of water volume in the lagoon over the historical period from 1991 through 2005. This period corresponds to the historical stage record for the lagoon, which can be correlated to estimates of volume during four periods: 1991-1994; 1995-1998; 1999-2003 and 2004-on.

Basic Approach:

Areal size, volume, and stage of the Carmel River Lagoon may be determined from a systematic analysis of historical photographs, maps, topographic survey information and updated with a new, topographic survey of the lagoon surface waters and surrounding wetlands. The volume of water has been determined in two previous efforts and this information as well as updated topographic surveys will be used to provide volume, depth and stage relationships during the four key periods. Once developed, these relationships can be used to reconstruct a historical time-series of volume and area for the period from 1991-2006 (current).

Products:

Relationships for volume, area and stage will be provided for key historical periods. A time-series of volume and area for the period from 1991 to 2006 (current) will be reconstructed using continuously recorded stage and runoff data and summarized in standard USGS formatted data report style. Understanding the long-term, seasonal and short-term changes in lagoon volume and area is valuable information needed to understand historical habitat values and predict the future changes in water quality and aquatic habitat values.

Estimated Cost: \$8K

Partially funded by MPWMD through Prop 50 Grant tasks (updated topography, but additional funds may be needed to conduct remainder of tasks.

STUDY SCOPE: BPS 2 – Historical inflow and outflow to the Carmel River Lagoon

Problem Statement:

The timing and volume rate of inflow and outflow to the Carmel River Lagoon are key components in developing understanding the complex nature and interaction of sediment movement and the hydraulic interactions of outflow with ocean waves, tidal cycles, and littoral currents. Yet, the existing information on inflow (streamflow at Highway One), lagoon stage and volumes has not been assembled into one coherent, reconstructed time series of inflow, stage, volume, and outflow. This information is needed in order to conduct the studies scoped in P1 and P2, following.

Basic Approach:

A standard model for reservoir operations will be applied to the lagoon using historical measurements of stream flow and lagoon stage and historical estimates of volume to solve for lagoon outflow.

Products:

A time-series of inflow, stage, volume and outflow will be provided for the period from 1991 to 2006 (current) and summarized in standard USGS formatted data report style. Understanding the long-term, seasonal and short-term changes in lagoon outflow is valuable information needed for developing an hydrodynamic model of flow and sediment and to understand historical habitat values and attraction events for adult steelhead and predict the future changes in water quality and aquatic habitat values.

Estimated Cost:

\$12K

As noted above, partially funded by MPWMD through Prop 50 Grant tasks but additional funds/staff time are needed to conduct remainder of tasks.

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IPaC

IPaC resource list

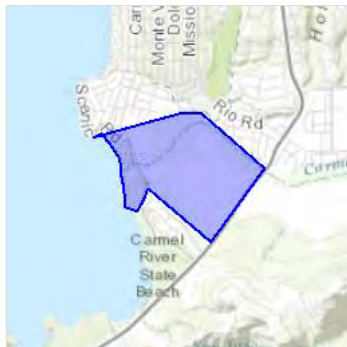
Project information

NAME

ISMP, EPB, and SRPS Project

LOCATION

Monterey County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

This resource list is for informational purposes only and should not be used for planning or analyzing project level impacts.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to “request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action” for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Review section in IPaC or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by creating a project and making a request from the Regulatory Review section.

Listed species¹ are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii* Threatened
 There is a **final critical habitat** designated for this species. Your location overlaps the designated critical habitat.
<http://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander *Ambystoma californiense* Threatened
 There is a **final critical habitat** designated for this species. Your location is outside the designated critical habitat.
<http://ecos.fws.gov/ecp/species/2076>

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/5945	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8035	Threatened

Conifers and Cycads

NAME	STATUS
Gowen Cypress <i>Cupressus goveniana</i> ssp. <i>goveniana</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8548	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/498	Threatened

Fishes

NAME	STATUS
Tidewater Goby <i>Eucyclogobius newberryi</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/57	Endangered

Flowering Plants

NAME	STATUS
Beach Layia <i>Layia carnosa</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/6728	Endangered
Clover Lupine <i>Lupinus tidestromii</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/4459	Endangered
Coastal Dunes Milk-vetch <i>Astragalus tener</i> var. <i>titi</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/7675	Endangered
Hickman's Potentilla <i>Potentilla hickmanii</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/6343	Endangered
Marsh Sandwort <i>Arenaria paludicola</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/2229	Endangered
Menzies' Wallflower <i>Erysimum menziesii</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/2935	Endangered
Monterey Clover <i>Trifolium trichocalyx</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/4282	Endangered
Monterey Gilia <i>Gilia tenuiflora</i> ssp. <i>arenaria</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/856	Endangered
Monterey Spineflower <i>Chorizanthe pungens</i> var. <i>pungens</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/396	Threatened
Yadon's Piperia <i>Piperia yadonii</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/4205	Endangered

Insects

NAME	STATUS
Smith's Blue Butterfly <i>Euphilotes enoptes smithi</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/4418	Endangered

Mammals

NAME	STATUS
Southern Sea Otter <i>Enhydra lutris nereis</i> No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8560	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Red-legged Frog <i>Rana draytonii</i> http://ecos.fws.gov/ecp/species/2891#crithab	Final designated
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> http://ecos.fws.gov/ecp/species/1007#crithab	Final designated
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> http://ecos.fws.gov/ecp/species/1007#crithab	Final designated
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> http://ecos.fws.gov/ecp/species/1007#crithab	Final designated
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> http://ecos.fws.gov/ecp/species/1007#crithab	Final designated
Steelhead <i>Oncorhynchus (=Salmo) mykiss</i> http://ecos.fws.gov/ecp/species/1007#crithab	Final designated

Migratory birds

Birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#).

NAME	SEASON(S)
Allen's Hummingbird <i>Selasphorus sasin</i> http://ecos.fws.gov/ecp/species/9637	Breeding
Ashy Storm-petrel <i>Oceanodroma homochroa</i> http://ecos.fws.gov/ecp/species/7237	Breeding
Bald Eagle <i>Haliaeetus leucocephalus</i> http://ecos.fws.gov/ecp/species/1626	Year-round

Black Oystercatcher <i>Haematopus bachmani</i> http://ecos.fws.gov/ecp/species/9591	Year-round
Black Swift <i>Cypseloides niger</i> http://ecos.fws.gov/ecp/species/8878	Breeding
Black-vented Shearwater <i>Puffinus opisthomelas</i>	Wintering
Burrowing Owl <i>Athene cunicularia</i> http://ecos.fws.gov/ecp/species/9737	Year-round
California Spotted Owl <i>Strix occidentalis occidentalis</i> http://ecos.fws.gov/ecp/species/7266	Year-round
Cassin's Auklet <i>Ptychoramphus aleuticus</i> http://ecos.fws.gov/ecp/species/6967	Year-round
Costa's Hummingbird <i>Calypte costae</i> http://ecos.fws.gov/ecp/species/9470	Breeding
Flammulated Owl <i>Otus flammeolus</i> http://ecos.fws.gov/ecp/species/7728	Breeding
Fox Sparrow <i>Passerella iliaca</i>	Wintering
Lawrence's Goldfinch <i>Carduelis lawrencei</i> http://ecos.fws.gov/ecp/species/9464	Breeding
Lesser Yellowlegs <i>Tringa flavipes</i> http://ecos.fws.gov/ecp/species/9679	Wintering
Lewis's Woodpecker <i>Melanerpes lewis</i> http://ecos.fws.gov/ecp/species/9408	Wintering
Long-billed Curlew <i>Numenius americanus</i> http://ecos.fws.gov/ecp/species/5511	Wintering
Marbled Godwit <i>Limosa fedoa</i> http://ecos.fws.gov/ecp/species/9481	Wintering
Nuttall's Woodpecker <i>Picoides nuttallii</i> http://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse <i>Baeolophus inornatus</i> http://ecos.fws.gov/ecp/species/9656	Year-round
Olive-sided Flycatcher <i>Contopus cooperi</i> http://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon <i>Falco peregrinus</i> http://ecos.fws.gov/ecp/species/8831	Year-round
Pink-footed Shearwater <i>Puffinus creatopus</i>	Year-round
Red Knot <i>Calidris canutus</i> ssp. <i>roselaari</i> http://ecos.fws.gov/ecp/species/8880	Wintering
Rufous-crowned Sparrow <i>Aimophila ruficeps</i> http://ecos.fws.gov/ecp/species/9718	Year-round

Short-billed Dowitcher <i>Limnodromus griseus</i> http://ecos.fws.gov/ecp/species/9480	Wintering
Short-eared Owl <i>Asio flammeus</i> http://ecos.fws.gov/ecp/species/9295	Wintering
Snowy Plover <i>Charadrius alexandrinus</i>	Breeding
Tricolored Blackbird <i>Agelaius tricolor</i> http://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe <i>aechmophorus occidentalis</i> http://ecos.fws.gov/ecp/species/6743	Wintering
Whimbrel <i>Numenius phaeopus</i> http://ecos.fws.gov/ecp/species/9483	Wintering
Yellow Warbler <i>dendroica petechia</i> ssp. <i>brewsteri</i> http://ecos.fws.gov/ecp/species/3230	Breeding
Yellow-billed Magpie <i>Pica nuttalli</i> http://ecos.fws.gov/ecp/species/9726	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

Facilities

Wildlife refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Not for consultation

Beretti, Melanie x5285

From: Watson, Michael@Coastal [Michael.Watson@coastal.ca.gov]
Sent: Tuesday, January 31, 2017 4:59 PM
To: Beretti, Melanie x5285; Foster, Kenneth@SLC; Sanderson, Brandon@Wildlife; Brown, Gregory G SPN; Swanberg, Carrie@Wildlife; 'Chad Mitcham (USFWS)'; Bailey, Craig@Wildlife; Carl, Dan@Coastal; 'Jacqueline Pearson-Meyer - NOAA Federal'; Karen Grimmer; Katerina Galacatos; Sanders, Kim@Waterboards; Knowles, Glen; Connolly, Linda@Wildlife; Michniuk, Dennis@Wildlife; Rienecke, Steven@Wildlife; Sophie De Beukelaer - NOAA Affiliate
Cc: Holm, Carl P. x5103
Subject: RE: Carmel Lagoon DEIR - Request to extend public review period
Attachments: Comments on Carmel Lagoon Draft EIR 1.31.2017.pdf; Comments on Carmel Lagoon Ecosystem Barrier, Scenic Road Armoring, and Sandbar Mngt Plan 7.22.2014.pdf; Scoping Comments on Carmel Lagoon Admin Draft EIR 3.17.2016.pdf

Hello Melanie,
Attached are the comments from Coastal.
Mike



Mike Watson
Coastal Planner
California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060
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CALIFORNIA COASTAL COMMISSION

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CALIFORNIA COASTAL COMMISSION

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received
Jan. 31, 2017



January 31, 2017

Melanie Beretti
Monterey County Resources Management Agency
168 West Alisal Street, 2nd Floor
Salinas, CA 93901

Subject: Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Draft Environmental Impact Report (DEIR)

Dear Ms. Beretti:

Thank you for providing the opportunity to review and comment on the DEIR for the County's proposed Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan (ISMP) project. We have previously provided comments to the County's Resource Management Agency on the Notice of Preparation (NOP) and Administrative Draft EIR for these projects; those comments are attached to this letter and incorporated by reference. As we have identified to the County for many years, we again reiterate that our main concern with this project is that it proposes substantial alterations to the river and lagoon system and to the beach and adjacent bluffs for the primary benefit of a handful of private residential property owners, when it appears clear that there are more appropriate and less environmentally impactful alternatives that can address the identified problem with less impacts, including putting the burden more squarely on the property owners who stand to benefit from these flood control projects. As we have consistently advised, it is clear to us that the flooding problem that has been identified suggests different and significantly less environmentally impactful solutions than are being proposed, and we continue to suggest that the County strongly consider some of these less impactful solutions. It has also long been clear to us that the projects proposed as solutions have certain fatal flaws that will require that alternatives be pursued, including the fact that the underlying landowner (the California Department of Parks and Recreation, or State Parks) does not support the several components of the project, and has said it will not allow them on its property, as we have previously noted. Please accept the following additional comments:

Initial Observations

Coastal Permitting Requirements

The DEIR correctly states that the project will require a coastal development permit (CDP) from the Coastal Commission (DEIR, p. 3.0-51).

- *Comment 1:* The standard of review for the required CDP is the Chapter 3 policies of the Coastal Act. This means that the project will need to be consistent with all of the Chapter 3 policies in order for the Commission to approve a CDP for the project. On that point we note that the Coastal Act consistency analysis contained in the DEIR was done

incorrectly, including because it failed to include many relevant Coastal Act policies and issues, and included flawed analyses on many of the issues it did analyze. If the DEIR's discussion of Land Use consistency (Section 4.9) includes an analysis of these policies, it should identify the fact that the project is not consistent with such policies as identified in this letter. These inconsistencies should be considered significant under CEQA, and should require avoidance (and/or mitigation, if allowable under the Coastal Act) under CEQA as well.

Project Objectives

We understand that the objective of the proposal is primarily to provide a long-term solution to flooding of private upland development in a manner that avoids the need for mechanical breaching of the lagoon sandbar and thereby improving the ecological functioning of the river lagoon for habitat values. We support the County's efforts in that regard.

- *Comment 2:* As stated in our prior comments, significant components of the project, including alterations of the natural river and lagoon system, as well as shoreline armoring, can only be authorized under the Coastal Act in a very limited set of circumstances, and where there are no feasible, less environmentally damaging alternatives. We continue to believe that those circumstances are not present here, and that there are feasible, less environmentally damaging alternatives to the proposed project, including as discussed in more detail below.

Project Applicant

One of the more unique aspects of this project is the fact that the County is essentially taking on the responsibility (permitting, financial and otherwise) to provide flood protection for approximately 15 coastal property owners who have chosen to purchase and maintain private residences in a hazardous floodplain area. Indeed, each of the three proposed project components (EPB, SRPS, and ISMP) are being proposed, in one way or another, to either directly address, or allow for alleviation, of flooding-related impacts to these residential structures. It is therefore unclear to us why these property owners are not the applicants, or at least co-applicant's with the County, for this project given that the fundamental purpose of the project is to mitigate for flooding impacts to the structures that they own.

- *Comment 3:* What is the County's obligation, legal or otherwise, to provide flood protection for these 15 coastal property owners who have chosen to purchase and maintain private residences in the Carmel River floodplain? Why are these property owners not the applicants, or co-applicants with the County, on this project?
- *Comment 4:* In terms of the future required CDP application, given the fact that the central purpose of the project is to provide flood protection for private residential structures, and that many of the potential alternatives would likely require development located on the properties occupied by these structures (including more environmentally

protective alternatives that may be required under the Coastal Act), we would suggest that the CEQA document and any associated applications be structured such that these property owners are applicants or co-applicants with the County.

Project Scoping

Our previous comment letters requested that the DEIR include a detailed description of all development at risk from flooding (e.g., private residences, roads/parking, critical infrastructure, etc.), the precise nature of the flood risk for each such development, and an evaluation of the full range of potential alternatives to address the flood risks for that specific development. It is not clear to us that this critical information has been developed and thus we continue to recommend that this information be developed and provided in the EIR.

- *Comment 5:* The EIR should include a detailed analysis of each structure affected by flooding, public (including the Carmel Area Wastewater District Treatment Facility) and private, from seasonal lagoon formation. It should define when such flooding occurs (e.g., at what water surface elevation), frequency of occurrence, and should describe the specific impacts of the flooding on each structure (e.g., how is the structure affected? basement flooding, exterior foundation, habitable rooms?), including whether such flooding causes temporary or permanent damage to such structures. It should then focus on the precise nature of each individual development's flood risk, and provide an evaluation of the full range of potential alternatives to address the flood risks for that specific development.

Regarding the Scenic Road Protection Structure (SRPS) and the need for said structure, the DEIR states that it is thought that in some years the river would naturally breach and continue to flow in a northerly direction that under certain conditions could lead to erosion of the toe of the slope beneath Scenic Road and the loss of access to private residences and critical infrastructure. The stated objective of the SRPS is to prevent erosion of the toe of the slope and forestall landward migration of the bluff toe.

- *Comment 6:* The DEIR did not provide any evidence of this naturally-occurring phenomenon (i.e., natural breach to the north) but did detail two fairly significant scour events that resulted after the sandbar was artificially breached to the north in 2005 and again in 2010. Thus, absent evidence of a bona fide threat to Scenic Road and/or critical infrastructure associated with a naturally functioning river lagoon, we recommend that the EIR reevaluate the need for this project element.

With regard to the Interim Sandbar Management Plan (ISMP), while we understand that mechanized breaching of the Carmel River lagoon sandbar has been necessary to reduce water levels in the lagoon mainly to prevent flooding of existing residences and facilities upstream of the lagoon previous to and during the environmental planning process, it must also be noted that the practice has its own set of significant resource impacts. Thus, in our view the activity is

solely considered to be a means to an end. That is, the Commission has authorized mechanical breaching via issuance of emergency CDPs over the past few years with an expectation that the development of a DEIR and a robust evaluation of potential alternatives will ultimately lead to the least damaging feasible alternative that allows the Carmel River and river lagoon system to function naturally without reliance on mechanical breaching and artificial manipulation of the sandbar. Further, future authorizations to breach the lagoon sandbar would be contingent upon continued development and progress on a long-term comprehensive response to managing the Carmel River lagoon. We do not support continued mechanical breaching of the sandbar indefinitely out into the future, rather we want to ensure that the current efforts result in a modified way of addressing flood issues that is most protective of coastal resources and the natural environment.

Flooding Analysis

The flooding analysis should examine both current conditions and a range of sea level scenarios. The Commission's 2015 Sea Level Rise Policy Guidance provides information on this type of analysis and the range of sea level rise projections that might be appropriate for this location.

- *Comment 7:* What range of sea level rise projections have been examined for the proposed flood risks and what alternatives are available if the proposed design conditions are exceeded in the future? Do any of the examined alternatives provide for adaptive capacity and if so how? Please ensure that the EIR identifies potential flood risks using appropriate sea level rise estimates in all cases and permutations.

Alternatives Analysis

Flood-Proofing Private Residential Structures

The DEIR considered but eliminated the alternative to flood-proof at risk structures (DEIR, p. 5.0-13). The asserted rationale for elimination of this alternative is that "flood proofing areas below the base flood elevation in residential buildings is not permitted under the NFIP (National Flood Insurance Program) except in communities that have been granted an exception to permit flood-proofed basements, which does not apply in the Lagoon area."

We strongly disagree with the DEIR's elimination of this alternative, including the rationale behind its elimination, and we continue to believe that elevating and/or flood-proofing the affected structures is likely the most appropriate and Coastal Act consistent alternative to meeting the project's objective of providing long-term flood protection to the affected private residences.

- *Comment 8:* We question whether FEMA actually prohibits property owners from flood-proofing their structures, and/or whether and to what extent such flood-proofing would affect the property owners' ability to obtain flood insurance. We therefore request that the County engage in formal consultation with FEMA for direction on this issue (CEQA Guidelines Section 15096).

- *Comment 9:* In any case, the DEIR should include a more robust discussion of this alternative, which appears to be the most Coastal Act consistent alternative, including discussion about whether an exception to the identified NFIP issue, if applicable, can be applied for this instance.

Ecosystem Protection Barrier at Property Line Alternative

The DEIR also considered, but eliminated from further consideration, the alternative that the EPB be located along the boundaries of the residential property lines (DEIR, p. 5.0-9). The purported basis for elimination of this alternative was: 1) need for access along the barrier for operation and maintenance activities, 2) the size of pumping equipment that would be required; 3) the resulting lack of right of way for implementation of storm water treatment facilities, and 4) the need for easements to be obtained from the affected private residential property owners.

- *Comment 10:* We disagree with the DEIR's elimination of this alternative, including the stated rationales for its elimination, and continue to believe that this alternative warrants further and more thorough consideration (see also comments above regarding the affected property owners and need for their involvement in the proposed project). Please provide an evaluation of this alternative in the alternatives analyses, as well as a permutation where the EPB is located further upslope from the property lines in areas that are outside lagoon habitat.

The rationales for rejection of this alternative revolve around two main issues: 1) the fact that the improvement would be constructed on private property, and 2) conveyance of potential storm water run-off. With regard to the first issue, we again question why the residential property owners, on whose behalf this project is being proposed, are not co-applicants with the County as discussed above (see, Comments 2 and 3). It is the property owners who are affected, and it is entirely reasonable that they bear responsibility for the potential solutions to address the flooding issues.

- *Comment 11:* The DEIR should include a detailed exploration of options under which the County could work with the affected private residential property owners to assist those property owners in alleviating the perceived flooding impacts, including easements (to the extent needed), maintenance agreements, etc., that would allow/facilitate a project on their properties. Again, we believe that the burden of addressing the flooding impacts on these private, residential properties, which are located in the flood plain, lies squarely with the property owners, and we do not believe that placing the proposed project on public property (including the EPB and/or SRPS) is warranted, especially given the attendant impacts that will result from these proposed projects.

With regard to the second issue of storm water runoff, it is unclear how an EPB at the property line would negatively impact storm water runoff.

- *Comment 12:* The DEIR should include a more thorough analysis of the storm water runoff issue, including potential options for how storm water runoff could be conveyed and appropriately managed with this EPB at Property Line (or inland of it) alternative.

Ecosystem Protection Barrier on State Parks' Property Alternative

The DEIR acknowledges that the EPB located on State Parks' property alternative is not feasible because State Parks does not support this alternative, and also because this alternative would require legislative action (DEIR, p. 2.0-3). Indeed, State Parks has consistently maintained that the proposal includes development in a Natural Preserve (the highest level of protection and designation afforded to highly sensitive and unique or underrepresented habitat in the State Park system) and would represent a taking of public property and a grant or benefit to the owners of the adjacent private residences. State Parks has further indicated that it does not intend to grant the necessary authorization for the project to proceed.

- *Comment 13:* As previously indicated, for the purposes of the CDP application to the Commission, it is incumbent on the applicant to provide evidence of interest in the underlying property. Under no circumstances may the Commission accept an application for development without appropriate proof of interest in the property or authorization from a property owner stating that development may take place on their property. Given that the property owner (State Parks) will not agree to construction of the EPB on its property, the EIR should eliminate *all* iterations of this alternative from further consideration.

Alternatives to Scenic Road Protection Structure

As discussed in our prior comment letters and again above, the Coastal Act allows for shoreline armoring in cases where it is needed to protect existing structures that are in danger of erosion, when there is no feasible, less environmentally damaging alternative, and when such armoring is designed to eliminate or mitigate impacts on local shoreline sand supply.

- *Comment 14:* In order to adequately evaluate the proposal for Coastal Act consistency, the EIR must: 1) identify the existing threat that the proposed revetment will abate (i.e., the existing structures that are currently threatened must be identified, and the nature of the threat must be identified); 2) evaluate the list of potential alternatives including the "no project," alternative, soft options (e.g., berming, etc.), removal/relocation of threatened structures, more vertical armor solutions, and any potential combinations of these and other measures. For each alternative evaluated, the EIR should assess the impacts to coastal resources, including public access and sand supply, and identify appropriate avoidance techniques or, where allowed under the Coastal Act, mitigation for project related impacts. We do not believe that the DEIR has appropriately evaluated the Scenic Road armoring proposal for consistency with Coastal Act requirements. In addition, the DEIR has not adequately assessed the impacts of the identified alternatives

to the SRPS (see also, Comment 16 below), nor does the DEIR include specific mitigation measures to offset the impacts that would result from shoreline armoring.

Biological Resources

The Coastal Act marine environment policies protect biological resources and require that development, including that intended for flood protection, be the most environmentally protective "feasible" option to protect existing development. The Coastal Act further requires that all feasible mitigation measures be incorporated into the project.

- *Comment 15:* The EPB alternative on State Parks' property includes installation of a sheet pile wall roughly 2,000 feet in length (3,200 feet with the extension included in various alternatives) and extends a minimum of 40 feet into the wetland on State Parks' property. Again, as previously described, we are concerned that the County is pursuing an alternative that is infeasible because the property owner does not consent, and because there are other environmentally less damaging feasible methods for protecting existing structures located in the floodplain. We continue to recommend that the flood protection aspects of the project evaluated in the DEIR be revised to avoid alterations to the river and lagoon as much as possible, and instead consider alternative measures to protect the private residences and other structures that are determined to be at risk outside of the river/lagoon area as much as possible.

Geologic Resources/Shoreline Armoring

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, with the exception of new coastal dependent uses, the Commission has consistently interpreted this policy of the Coastal Act, in conjunction with others, as limiting the construction of shoreline protective structures to those required to protect existing structures in danger from erosion. The Coastal Act also requires that any protective structure approved pursuant to Section 30235 be designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The Coastal Act provides these limitations because shoreline structures can result in a variety of adverse effects on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach and associated ecosystems. Preference and priority are given to alternatives that would not result in altering the natural coastal processes/dynamics adjacent to and within a project site or area.

- *Comment 16:* The proposed project includes shoreline armoring (i.e., 15,000 tons of riprap) designed to protect Scenic Road and the Carmel River State Beach parking lot, neither of which have been demonstrated to be threatened from erosion in the DEIR. It is evident from the figures provided in the DEIR that the riprap revetment will have a large footprint (i.e., over 1,000 linear feet in length and 50 feet in width) and will encroach onto a large portion of the public beach (i.e., it will occupy more than one acre of beach).

Therefore, it is clear that the riprap revetment will have substantial negative impacts to public access. A revetment of this size will also likely have a significant adverse impact on sand supply and other coastal resources, including the significant public viewshed and the ecosystem functions of the beach. Please see our comments on the NOP (enclosed) for the required analysis of the existing threat, the nature of the threat, and a range of alternatives that must be investigated within the context of the EIR. Similar to our comments on the EPB, we recommend that if there is a substantiated defined threat to existing structures, that the DEIR evaluate a preferred armoring response that is the least environmentally damaging feasible alternative, including with regard to the potential impacts on public beach access and sand supply and the above-mentioned lagoon/wetland resources. We further recommend that the EIR identify and develop a mitigation program that will be necessary to offset any and all identified coastal resource impacts associated with the armoring project.

- *Comment 17:* Similar to our comments on the EPB on State Parks' Property alternative, it is incumbent on the applicant(s) to provide evidence of interest in the underlying property. It is our understanding that the property owner, State Parks, does not support the construction of a 1,000-foot-long, 50-foot-wide riprap revetment on its property at Carmel River State Beach. Again, the Commission is not able to accept an application for development without written authorization of the underlying property owner stating that the development may occur on their property. Given that the property owner (State Parks) will not agree to construction of the SRPS on its property, we recommend that the DEIR acknowledge this position and reevaluate this alternative accordingly.

Analysis of Land Use Consistency

The DEIR states in numerous places that the "Relevant Planning Documents" include the California Coastal Act (see, e.g., Sections 4.1-13 [aesthetics analysis], 4.3-48 [biological resources analysis], and 4.5-29 [geology, soils, and seismicity]), and then refers the reader to Section 4.9 for a description of these regulations and plans. However, Section 4.9's discussion of the relevant Coastal Act policies omits many of the most critical ones.

- *Comment 18:* If retained, the analysis of Coastal Act consistency provided in Section 4.9 should also identify Sections 30231 (biological productivity), 30233 (fill of wetlands), 30235 (shoreline armoring), 30236 (flood protection) and 30240 (protection of environmentally sensitive habitat areas), and should also acknowledge that the project as proposed does not comply with these policy requirements and therefore the project will result in significant impacts that cannot be mitigated.
- *Comment 19:* The conflict resolution analysis discussed in DEIR Section 4.9 is not appropriate; does not follow the Commission's process for conflict resolution; and does not note that the Commission alone has the authority to invoke the conflict resolution process of the Coastal Act. The EIR's Coastal Act policy analysis should therefore focus

solely on how the project conforms or does not conform with the Coastal Act's Chapter 3 policies, and should eliminate the discussion of conflict resolution.

Analysis of Carmel River Floodplain Restoration and Environmental Enhancement (CRFREE) Project and its Potential Effects on the Proposed Project

We understand that another project is currently underway to address flooding issues associated with the Carmel River. Specifically, the CRFREE project is predicated on increasing floodplain capacity, reestablishing hydrological connectivity between the Carmel River and the southern arm of the Carmel River lagoon, providing important public access and recreational connectivity, and carefully protecting and enhancing environmentally sensitive habitat areas (ESHAs) found in and around the project site. When complete, this restored landscape, along with its network of trails and related improvements, will provide significant flood protection, habitat restoration, and recreational opportunities in the lower Carmel River area.

- *Comment 20:* The EIR should include a detailed analysis of how the CRFREE project will affect flooding impacts associated with seasonal lagoon formation at the River mouth, including whether and to what extent that project may obviate the need for the proposed project.

Impacts to the Carmel Area Wastewater District (CAWD) Treatment Plant

The DEIR notes that implementation of the proposed EPB project element would alter existing drainage patterns of the lower Carmel River and lagoon and potentially lead to increased flood risks to the CAWD facility, but lacks sufficient technical background information to fully assess the potential flood impacts associated with the proposed EPB project element. The DEIR however makes broad assumptions regarding the elevation of existing facilities, height of uncertified levees, ground water elevations, etc., and concludes that the EPB project component will likely result in significant, unavoidable impacts to the CAWD facilities. CAWD has suggested that the project impacts could result in the need to shut down operations of the plant facilities during flood conditions and that that is an unacceptable risk that has not been adequately evaluated or mitigated within the context of the DEIR. We note that while the focus of the DEIR is primarily for flood control of existing private residential structures at the lower reaches of the lagoon, the DEIR should consider the river and lagoon system more holistically including with regarding to impacts to critical infrastructure upstream of the proposed EPB project, the effects of global climate change and sea level rise, as well as how some of the flooding impacts might be effectively mitigated (see also Comment 20 above).

Even without the EPB project, elimination of mechanical sandbar breaching is likely to result in the CAWD facility experiencing increased risk from riverine flooding, over-topping of levees, and/or an increase in groundwater levels and seepage. As the plant approaches its 85th year in existence, and as it appears that potentially significant improvements may be needed to protect it against flooding, including in light of sea level rise and this proposed project, it is incumbent on

the County to assess impacts associated with the project and the CAWD plant, including in light of the CRFREE project.

- *Comment 21:* The EIR should consider the proposed project in light of the river and lagoon system more holistically, including regarding to impacts to critical infrastructure such the CAWD facility, so that potential impacts, including those related to the effects of global climate change and sea level rise, are appropriately disclosed and addressed, including over the long term and in combination with any other projects (e.g., potential CAWD proposals to address flooding and other issues even without the proposed project) (see also Comment 20).

Thank you for the opportunity to comment on the DEIR. As we have informed the County for many years, we again strongly urge the County to work with the limited number of affected landowners to develop a flood control project on these private properties that can help alleviate flooding concerns in that way as opposed to the manner being proposed. The current proposal is fraught with problems, including regulatory fatal flaws in that State Parks will not allow the projects on its property. Good planning and public policy point to different alternatives than currently proposed, and we would be happy to work with you and the affected landowners to explore such solutions. In any case, we note again that the DEIR needs to include a robust discussion of these alternatives as well, as both described above and in our previous letters (see attached). Any CDP application for the currently proposed projects will require that information.

If you have any questions regarding these comments, please don't hesitate to contact me or Mike Watson of my staff at 831-427-4863. We look forward to continued collaboration on these important Carmel River lagoon flood management issues.

Sincerely,



Dan Carl
District Director
California Coastal Commission Central Coast District Office

Enclosures: July 22, 2014 comments on EIR Notice of Preparation
March 17, 2016 comments on Administrative Draft EIR

Copies to: County email distribution list (via email only)

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July 22, 2014

Carl Holm, Deputy Director
Monterey County Resources Management Agency –Planning Dept.
168 W. Alisal Street, 2nd Floor
Salinas, CA 93901

Subject: ***Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Notice Of Preparation (REF120051)***

Dear Mr. Holm:

Thank you for the opportunity to review and comment on the Notice of Preparation for the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure, and Interim Sandbar Management Plan project.

As you know, the Carmel River Lagoon is located on tidelands and thus is within the retained coastal permitting authority of the Coastal Commission. All development activities within the lagoon, including installation or placement of shoreline armoring (e.g., sheet pile, rip-rap boulders, etc.) or activities that change the intensity of use of the land or public access to the coast will require a coastal development permit from the Coastal Commission. The standard of review for projects located within this area is the Coastal Act.

We would like to acknowledge the high quality work that the County and Denise Duffy & Associates have accomplished to date in the preparation of the NOP environmental document, including the time and detail put into developing the plan and accompanying maps. We understand the objective of the proposal is to improve the ecological function of the lagoon for habitat values and natural floodplain function, and to avoid the need for mechanical manipulation of the lagoon sandbar without increasing flood risks to adjacent private residences and public facilities. The project includes installation of a sheet pile wall at the northern reach of the lagoon, a rip-rap revetment along the toe of the slope beneath Scenic Road, and interim sandbar management (i.e., breaching and closing) of the mouth of the lagoon as needed until the project is completed. As noted in the NOP document, the project is intended to provide a long-term solution to flooding and habitat impact issues that avoids unintentional "take" of listed species while maintaining the existing level of protection of properties and infrastructure.

As described further below, pursuant to the Coastal Act, significant components of the project, including fill of wetlands and open coastal waters, as well as shoreline protection, can only be authorized under a very limited set of circumstances, and where there is no feasible, less environmentally damaging alternative. Accordingly, it will be critical for the draft EIR to include an evaluation of a thorough range of feasible alternatives, including varying permutations of certain alternatives (e.g., different locations for the EPB). Per the Coastal Act definition, "feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." And though it is too soon to have



California Coastal Commission

formed any conclusions, we expect that the environmental document will be critical to the development of the type of information necessary to allow a coastal permit to appropriately be considered.

Ecosystem Protective Barrier

The proposed ecosystem protective barrier (EPB) sheet pile wall, including alternatives 2A and 3B extension, appears to be roughly 3,200 in length and extends from Carmelo Street east across the Mission Ranch property. The proposed EPB is setback upwards of 40 feet from the State Park property (and is setback even farther from the Carmel Unified School District and Mission Ranch properties) and is located within the lagoon itself. The Coastal Act allows for fill in wetlands and open coastal waters under a limited set of circumstances and where there is no feasible, less damaging alternative and where all feasible mitigation measures have been applied to minimize adverse impacts. In order to appropriately analyze the proposal for Coastal Act consistency, the CEQA document must define the flood problem that needs to be addressed and include an assessment of the expected flood damage under a "no project" scenario relative to a range of potential flood situations. The draft EIR should include a list and a detailed description of all development at risk from flooding and the nature of the flood risk in each case (e.g., residential flooding, lawn flooding, public facilities flooding, etc.). The draft EIR must also evaluate the range of alternatives that are available to address the clearly demonstrated flooding risks. The list of alternatives should at a minimum include: use of sand bags; levee modifications; channel maintenance; increasing the elevation of flood prone areas; bank stabilization; upstream flood relief measures; relocation, removal or flood-proofing of threatened structures and facilities; and combinations of these and other measures. Each alternative must be understood in relation to its ability to address documented flood risks and its potential impact on the Carmel River and Lagoon resources and public recreational access. Please provide adequate detail over the same range of evaluation factors (including expected costs and impacts to install and maintain the alternative, as well as degree of resource protection benefit provided) to allow a clear comparison of the alternatives described.

Scenic Road Protection Structure

The proposed revetment at the toe of Scenic Road appears to be approximately 1,050 feet in length extending from roughly Valley View Way east to the State Park parking lot. While the NOP does not provide the actual details on the size of the revetment, it is clear that the revetment will have a fairly large footprint and will encroach onto the public beach. It is anticipated that the revetment will also have a significant impact on local sand supply. The Coastal Act allows for shoreline armoring in cases where it is needed to protect existing structures that are in danger of erosion, when there is no feasible, less environmentally damaging alternative, and when designed to eliminate or mitigate impacts on local shoreline sand supply. Thus, in order to adequately evaluate the proposal for Coastal Act consistency, the draft EIR must identify the existing threat that the proposed revetment will abate (i.e. the existing structures that are currently threatened must be identified, and the nature of the threat must be identified), evaluate the list of potential alternatives including the "no project," alternative, soft options (e.g., berming, etc.), vertical wall solutions, removal/relocation of threatened structures, and any potential combinations of these and other measures. For each alternative evaluated, the draft EIR should assess the impacts to public access and sand supply, and identify appropriate mitigation for all project related impacts.

Interim Sandbar Management



Carl Holm
Carmel Lagoon Notice of Preparation
July 22, 2014
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We understand that it may be necessary to manage the sandbar at Carmel River State Beach during wet periods when lagoon water levels are high, including by cutting and managing a channel between the Lagoon and Carmel Bay to reduce the water level in the Lagoon so as to avoid/minimize flooding of existing residences and State Park facilities upstream of the Lagoon fronting Carmel River State Beach. The NOP notes that water levels in the lagoon will be managed in a manner that minimizes impacts to both wildlife and property during these events and anticipates that it could be between five and eight years until the environmental review and construction phases of a comprehensive solution to the up-stream flooding are completed. During this interim period, and as indicated in the past, management of the river lagoon and associated activities (i.e., including sandbar breaching) would constitute development for which a CDP will be required. Future CDP and/or emergency CDP authorization for sandbar management activities will only be allowed when there is a demonstrated threat of up-stream flooding to existing structures and/or facilities, and only after all other possible flood protection measures (e.g., sand bags, rubber dams, etc.) have been applied to protect adjacent threatened homes, infrastructure, and other development. All requests for future sandbar management authorization must be accompanied by appropriate construction requirements and mitigation measures that will ensure the protection of sensitive coastal resources. Finally, any future requests for sandbar management will be contingent upon the continued development of the Environmental Impact Report and ultimately submittal of a CDP application to implement the long-term comprehensive response to managing the Carmel River Lagoon.

Thank you for the opportunity to comment on the NOP. With the suggestions described herein, we expect that the DEIR document will provide a sufficient level of detail to allow for a careful analysis of the project for Coastal Act policy conformance issues. We look forward to reviewing the DEIR and will provide additional comments at that time.

Regards,

Mike Watson
Coastal Planner, Central Coast District Office



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March 17, 2016

Melanie Beretti
Monterey County Resources Management Agency
168 West Alisal, 2nd Floor
Salinas, CA 93901

Subject: Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Administrative Draft Environmental Impact Report (Admin Draft EIR)

Dear Ms. Beretti:

Thank you for providing the opportunity to review and comment on the Admin Draft EIR for the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure, and Interim Sandbar Management Plan project. We have previously provided comments to the Resource Management Agency on the Notice of Preparation (NOP) for the project (enclosed) and thus will limit our comments at this time to what we believe are a couple fairly significant obstacles to the project as proposed. Complete comments on the substance of the EIR, including the various resource topic areas, will be provided during the future public review period.

First, we understand that the objective of the proposal is to improve the ecological functioning of the river lagoon for habitat values while providing a long-term solution to flooding of upland development in a manner that avoids the need for mechanical breaching of the lagoon sandbar. We support the County's efforts in that regard. However, as stated in our comments on the NOP, significant components of the project, including fill of wetlands and open coastal waters, as well as shoreline protection, can only be authorized under the Coastal Act in a very limited set of circumstances, and where there is no feasible, less environmentally damaging alternative. The NOP comment letter recommends the draft EIR contain a detailed description of all development at risk from flooding, the nature of the flood risk, and an evaluation of the full range of potential alternatives to address the flood risks. It is not clear to us that this critical information has been developed and thus we continue to recommend that this information be developed within the context of the public review draft of the EIR.

As to the obstacles of implementing the project proposed in the Admin Draft EIR, we are concerned that the County is pursuing an alternative that is infeasible because it involves placing "fill" into coastal wetlands, which is not supported under the Coastal Act. The EPB portion of the project includes installation of a sheet pile wall roughly 2,000 feet in length (3,200 feet including alternatives 2A and 3B extension) and extends a minimum of 40 feet into the lagoon on State Park's property. The Coastal Act allows for fill in wetlands and open coastal waters under a limited set of circumstances, none of which includes the protection of private residences, soccer fields, and related infrastructure. We recommend that the flood protection aspects of the

project evaluated in the Draft EIR be revised to avoid wetland fill and instead consider alternative measures to protect the private residences and other structures that are determined to be at risk.

Additionally, the proposed project includes shoreline armoring (i.e., rip-rap) to protect Scenic Road and the Carmel River State Beach parking lot, neither of which have been demonstrated to be threatened from erosion. The Admin Draft EIR does not provide the actual details on the size of the revetment, though it is evident from the figures provided that it will have a large footprint and encroach onto a large portion of the public beach. A revetment of this size will also likely have a significant adverse impact on sand supply. Please see our comments on the NOP for the required analysis of the existing threat, the nature of the threat, and a range of alternatives that must be investigated within the context of the Draft EIR. Similar to our comments on the EPB, we recommend that if there is a substantiated defined threat to existing structures that the Draft EIR evaluate a preferred armoring response that is the least environmentally damaging feasible alternative, including with regard to the potential impacts on public beach access and sand supply and the above-mentioned wetland and lagoon resources.

Finally, the preferred alternative is infeasible because the County has not obtained authorization from the underlying property owner, i.e. State Parks, to proceed with the development (i.e., install the EPB into the lagoon and place rip-rap rock onto a public beach). State Parks has consistently maintained that the proposal includes development in a Natural Preserve (the highest level of protection / designation afforded to highly sensitive and unique or underrepresented habitat in the State Park system) and represents a taking of public property and a grant or benefit to the owners of the adjacent private residences. State Parks has further indicated that it does not intend to grant the necessary authorization for the project to proceed. It is incumbent on the applicant to provide evidence of interest in the underlying property. Under no circumstances may the Commission accept an application for development without proof of interest in the property or authorization from a property owner stating that development may take place on their property. For these reasons, we recommend that the Draft EIR consider other options that do not include development on State Parks' property or other public land.

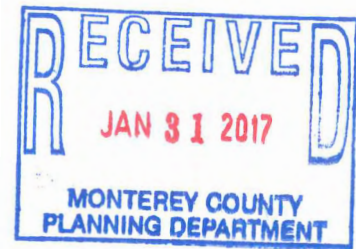
Thank you for the opportunity to comment on the Administrative Draft EIR. With the suggestions described herein, we expect that the Draft EIR document will provide a sufficient level of detail to allow for a careful analysis of the project for Coastal Act policy conformance issues. We look forward to reviewing the Draft EIR and will provide additional comments at that time.

Sincerely,

Mike Watson
Coastal Planner
Central Coast District Office

January 25, 2017

Melanie Beretti
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RE: Comments on the Carmel River Lagoon Draft EIR

To many locals and visitors from all over the world, the north end of Carmel River Beach from Carmel Point to the lagoon is the most beautiful on the Monterey Peninsula and some say on the West Coast. If the Environmental Protection Barrier is delayed, or never built, I am concerned that the plan to route the river north every year is an unacceptable experiment which will allow the river to lower the beach to sea level and invite the ocean to crash at the base of Scenic Road. Even if an adequate structure protects the road from collapse, the river will scour the beach to sea level, the river and ocean will then pull the sand into the underwater canyon just off shore and there will be no north beach left.

I have spent much of my youth on the Carmel River Beach and paddling in the lagoon and am a retired Carmel contractor. I also studied Marine Biology in college. The selected rip rap option for protecting the bluffs is totally inadequate for the wave strength and river forces on this beach. It is not properly engineered and can't be until the underlying bedrock is located at the bluffs and forward to the water. The design approach taken will be different depending on the existence, depth, and regularity of the bedrock under the bluffs. Even properly engineered rip rap might be adequate to protect the road bluffs from the ocean, but not from the overwhelming forces of the river and the ocean together. Anyone doubting this would have been convinced if they had been on the beach 1/11/17 with the king tide and high waves combined with the wide surging river. The damage done to the bluffs supporting Scenic Rd. in 1993 and 2005 has not yet been restored. Half the parking lot has been undermined and lost from breaching

to the north that could not be controlled by piles of sand. The parking lot is necessary to allow level access to the beach especially for older people and people with disabilities who can't negotiate stairs. The rip rap preferred alternative is not only undersized in terms of boulder size, but interferes with public access to the beach and takes up too much of the beach. The whole walking surface of the northern beach will be covered with the piled rock until the groin like alignment ends perpendicular to Stuart's Cove. This limits recreational use and would create an attractive hazard. Also, the visual impact of the large rip rap footprint which interferes with public use and access on the northern Carmel River Beach is unacceptable and unnecessary given other protective wall alternatives. Those walking along the shore could have their escape path from waves blocked. Also sand coverage most of the year is in doubt. After river scour, it might take years to cover much of the rock with sand even if the river stops running next to it. This is especially true because after year after year of purposeful northern breaching the sand is going to be lowered and washed to the deep offshore canyon. Incompletely covered rip rap endangers the public because people can get their legs caught in holes. The conceptual design shows the base of the rip rap at a level that is not necessarily anchored on bedrock. It is likely to sink and the rocks to scatter with the waves. The cloth or rocks behind the surface rocks will need to be replaced and the rocks likely to move and scatter. Also the rocks are not likely to blend with the surrounding in color and contour. The overall visual impact of properly sized rocks and the groin portion guiding the river to the water will split the beach and the whole project will be much uglier than the other alternative structures. I understand from the most recent peer review report by Mark Foxx of Haro and Kasunich and Associates to the CSA 1 that the design of the structure may be more complex than just one design. Different portions of the protective structure may have to transition from one design to another. From attached pictures (figures 1-5) of the river bed 5/25/2005 at the moment the river flow was redirected just south of the tree the following can be seen:

1. Between the parking lot and the heritage Cypress Tree there are granite outcroppings of irregular height, and possibly areas amongst them with no bedrock. (Figure 1 on 5/25/2005)
2. Then near the base of the bluff below the heritage Cypress there is a transition to a basaltic black rock mixed with orange rock that may constitute a fault according to Doug Smith CSUMB geology professor. (Figure 2-4 on 5/25/2005)
3. We do not know if there is any bedrock at the foot of the bluffs between a few yards north of the Cypress and the north side of Stuart's Cove. (Figures 6-9) About two meters north of basaltic flat rock there is a transition to no evidence of any rock until the north side of Stuart's Cove where there are granite outcroppings of irregular height.
4. In the cove itself the eroded bank what appeared from the road to be basaltic rock was actually moist friable clay that could be picked up by the handfuls. When this was still exposed, all of this was documented by Doug Smith, a professor of Geology at CSUMB. (Figure 10, 5/25/2005)

I understand that a protective structure is necessary given the sand loss already resulting from two back beach northern river breaches 12 years apart. The bluffs In 1993 went from a very gradual slope of probably 20 degrees (Figures 10-12) through the years to nearly vertical purely sand cliffs with a 10 foot flat shoulder at the edge of Scenic (See Figures 13-14) With the drying, they reached an angle of repose of approximately 35 degrees and the 10 foot shoulder next to the Road disappeared. However when the river was purposely breached north in 2005, and it migrated to the back beach, it lowered the entire north end of the beach to sea level and waves added to the river erosion. An attached picture shows the waves coming straight in and eroding the bluffs to be nearly vertical sand. (See Figure 15) The fines in the sand helped hold up the bluffs, but as they dried, they eroded further. The road narrowed and eventually had to be made one way. After the rerouting of the river path the course barrier beach sand was pushed up against the more vertical finer sand bluffs by bulldozers in three places in pictures (Figure 16-19) to provide less strong support to the road than what was there previously.

Much later beach sand that had covered the parking lot due to a high wave event was transported to the bluffs by heavy equipment and placed around the Cypress, and at the base of the stairs at the end of Valley View Rd. These stairs no longer connect to the beach due to erosion of the sand at the top of the sand ramp to the stairs.

If this much destruction can result from two northern breaches 12 years apart, the amount of erosion downward could be very serious due to persistent northern breaching every year after the bluffs are armored. An estimate needs to be made of how many cubic yards of sand disappeared from the bluffs and the beach just with one back beach northern breach. If this is repeated year after year the erosion is likely to be devastating and irreversible due to the river impact even when the SRPS is in place. It is very likely the northern beach will disappear. The value to the Monterey Peninsula of this scenic gem must be considered. The loss of scenic value, and the loss of access and recreational value to the public are of immeasurable value to the community. The value to the steelhead of the northern alignment is questionable and theoretical.

The northern breach is planned to keep more water in the lagoon for the steelhead that grow to be among the largest on the west coast and thus considered trophies by fisherman who are still allowed to catch and release them from the Carmel River even though they are listed as a threatened species under the Endangered Species Act. According to prominent steelhead (salmonid) physiologists, the hooking of these threatened magnificent fish causes bacterial infections and subsequent possible death.

There are other options for keeping water in the lagoon such as a controlled level spillway at the south end of the beach rather than a long northern channel. Large mature steelhead have been stranded without enough water in the long shallow pathway from the lagoon when they attempt to exit to the sea according to Steelhead Association witnesses. According to Salmonid physiologist Alice Rich in her letter to Dick Butler of the National Marine Fisheries Service (attached) there is no evidence that there is "site specific, scientifically based, cause-and-effect type studies that demonstrate that breaching to the north is better for steelhead

in the Carmel River Lagoon than breaching in any other direction". She explained that the markings and size are not accurate predictors of which fish are able to adjust to salt water. She says "Predation by piscivorous birds on emigrating juvenile salmonids may represent a large source of mortality, as high as 70-80%". A long shallower path to the sea seems to increase the loss of the fish to bird predation as witnessed by many observers in 2005 as noted by Rich. They may need the shortest deepest pathway to the sea to avoid being eaten by birds. Also time in the lagoon poses a high risk of being eaten by the predator striped bass that now inhabit the lagoon (Pine cone quote from Steelhead Association). Steelhead in the Carmel River system may be adapted to this very challenging river and lagoon system. From the same letter by Rich she quotes evidence that as far back as 1880 the lagoon was brackish. Dettman (1984) noted this as well in 1984. The Carmel River Lagoon is cut off from upstream access by loss of flow most summers and so comparisons with other systems with continuous upstream access may be invalid. As far as she has found, no investigations have been done to determine when, and under what conditions, the Carmel River Steelhead are ready to go to sea. I understand the markings and size are unreliable predictors of salt water readiness. I understand that the factors determining when they are ready to go to sea are very complex. The Carmel River system is not well characterized in respect to this genetic race of steelhead patterns of parr smolt transition and readiness to go to sea when in different parts of the river system. All of the habitat impairments upstream can't be corrected at the lagoon by itself and the conversion of a lagoon habitat to something it has never been (Rich) could cause unintended consequences. Like the Elkhorn Slough, the Carmel River Lagoon may have never been a fresh water lake and the steelhead race from the Carmel River may be genetically selected to function within this environment...

There are better alternatives to this folly of a planned persistent northern breach. The decisions against alternatives to the currently planned yearly northern breach after the Scenic Road Protective Structure is completed are not justified and need to be further explored and explained. A southern structure needs to be explored and designed to control flooding of homes behind the lagoon and to keep adequate water in the lagoon. In spite of the Park service desire not to have

to be further explored and explained. A southern structure needs to be explored and designed to control flooding of homes behind the lagoon and to keep adequate water in the lagoon. In spite of the Park service desire not to have artificial structures on the beach, the public really owns the beach and should have a say in the possibility of using a southern fixed level spillway to provide a means to let water escape the lagoon when it is too high so homes don't flood, but capable of keeping enough water in the lagoon to support the ecosystem. Otherwise the most beautiful part of the most beautiful beach in my opinion will be sacrificed to Park inflexibility. The north end of the Carmel River Beach could be lost forever and the base of Scenic Road could become a cliff with waves crashing at the bottom and no place for a northern breach or people. The Carmel community that bought the beach and wetlands and donated it to the Park Service deserves better.

Respectfully Submitted,

Michael Mcomber

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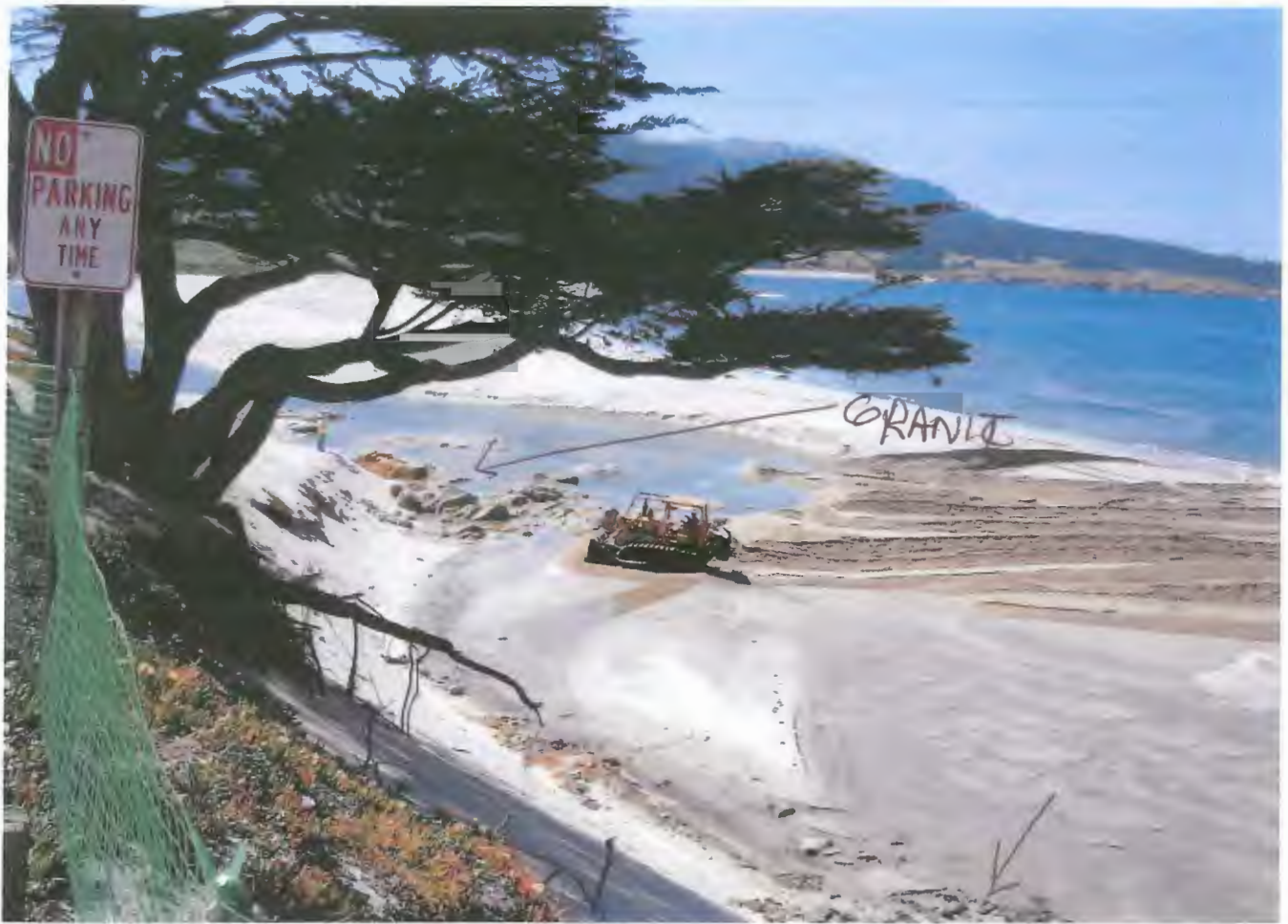


FIGURE 1
5/15/2005

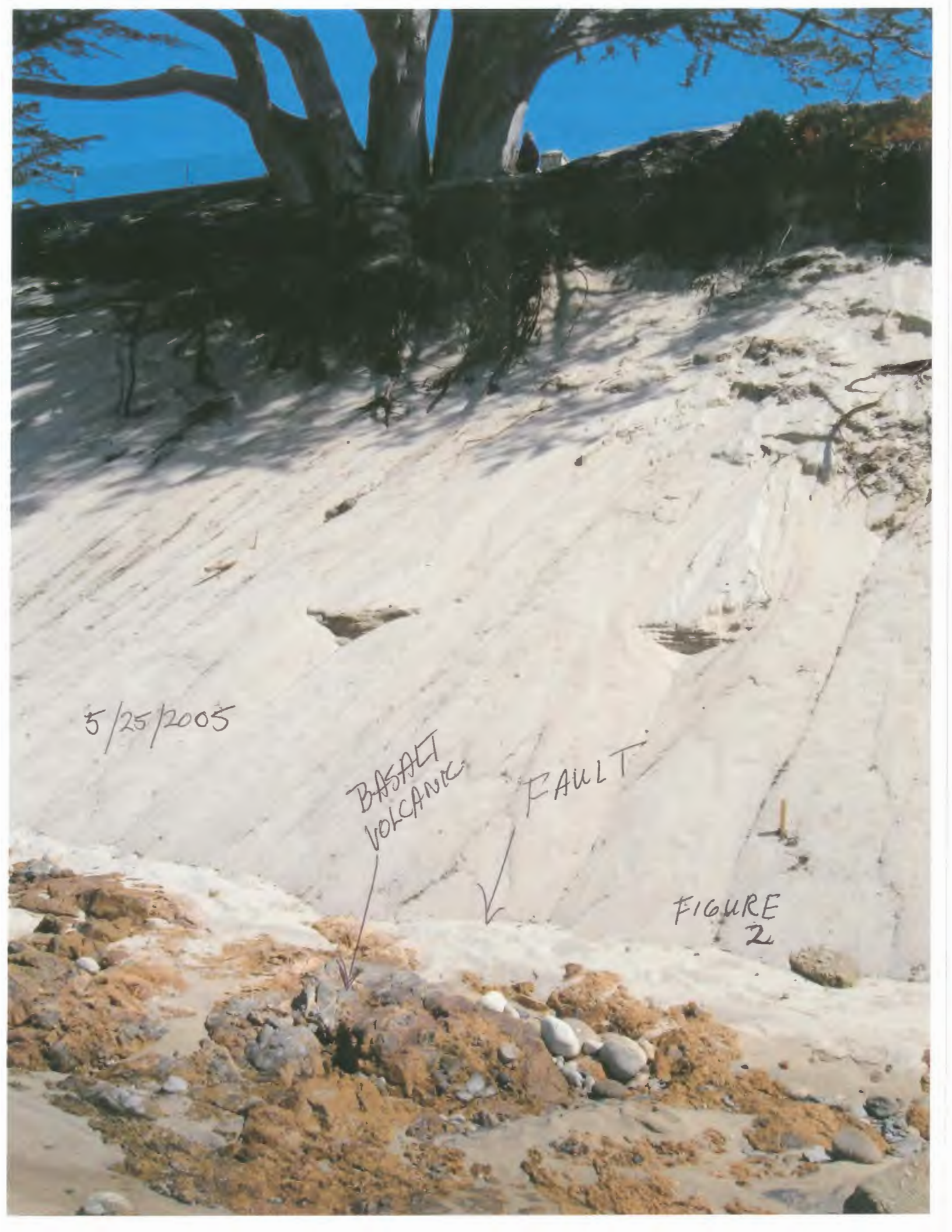
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BASALT
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5/25/2005

BASALT
VOLCANIC

FAULT

FIGURE
2





GRANITE
Rock



BASALTIC
Rock
BASALT

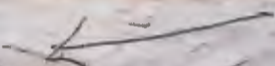
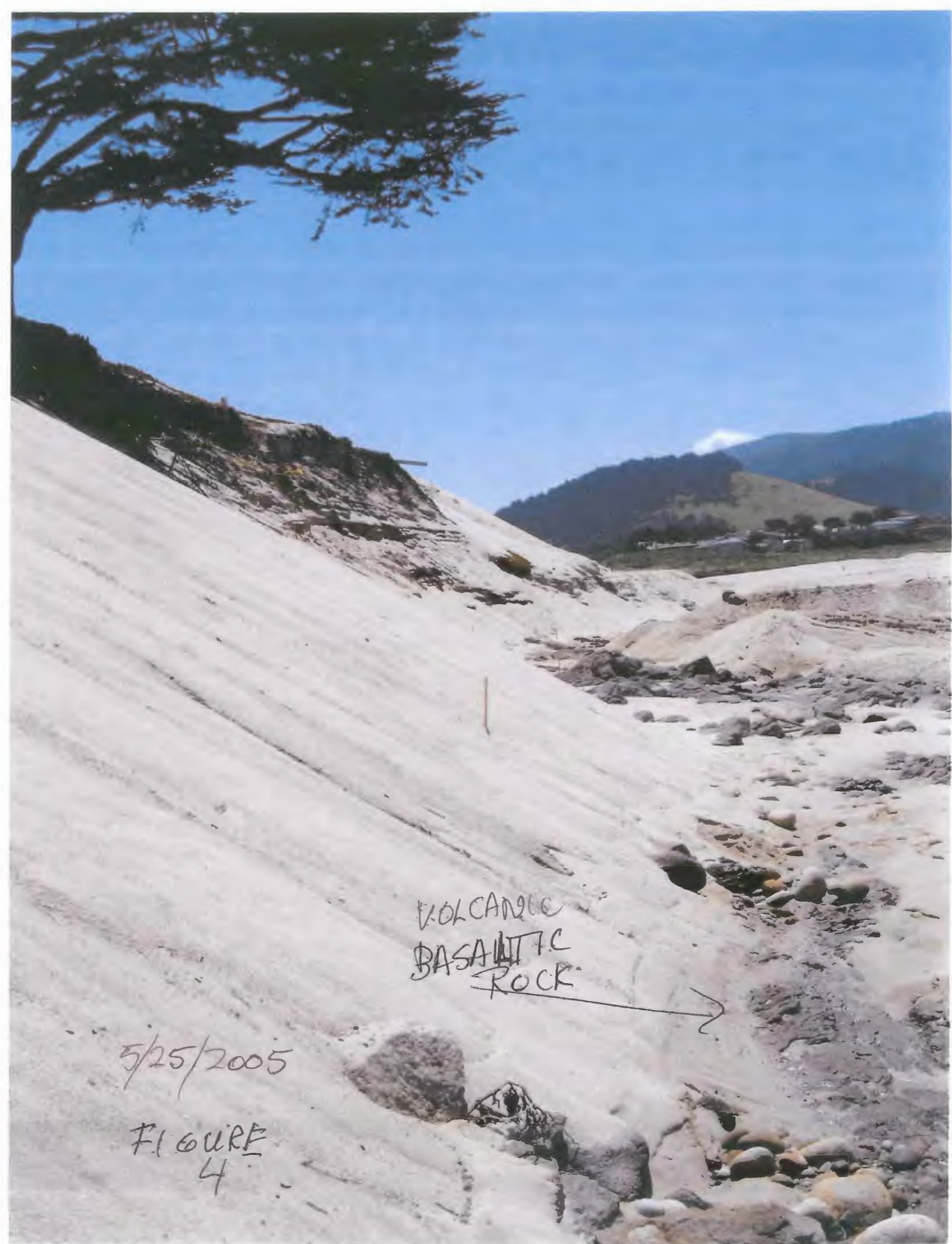


FIGURE 3

5/25/2005



VOLCANIC
BASALTIC
ROCK

5/25/2005

FIGURE
4



FIGURE 5 5/24/2005

FIGURE 6

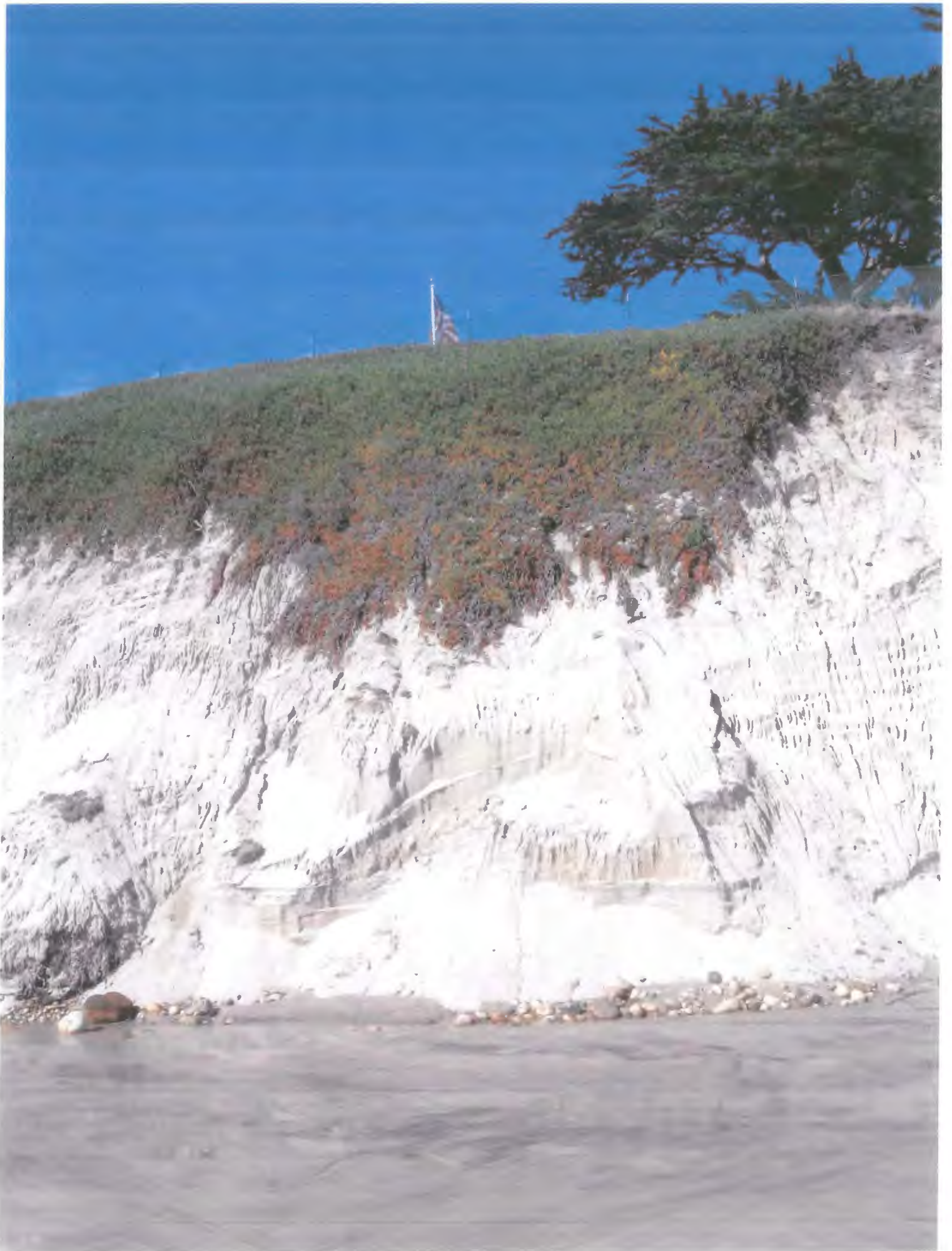
IN FRONT OF 26435 SCENIC NO BEDROCK AT BASE

5/25/2005



1 HOUSE NORTH OF 26435 SCENIC FIGURE 7

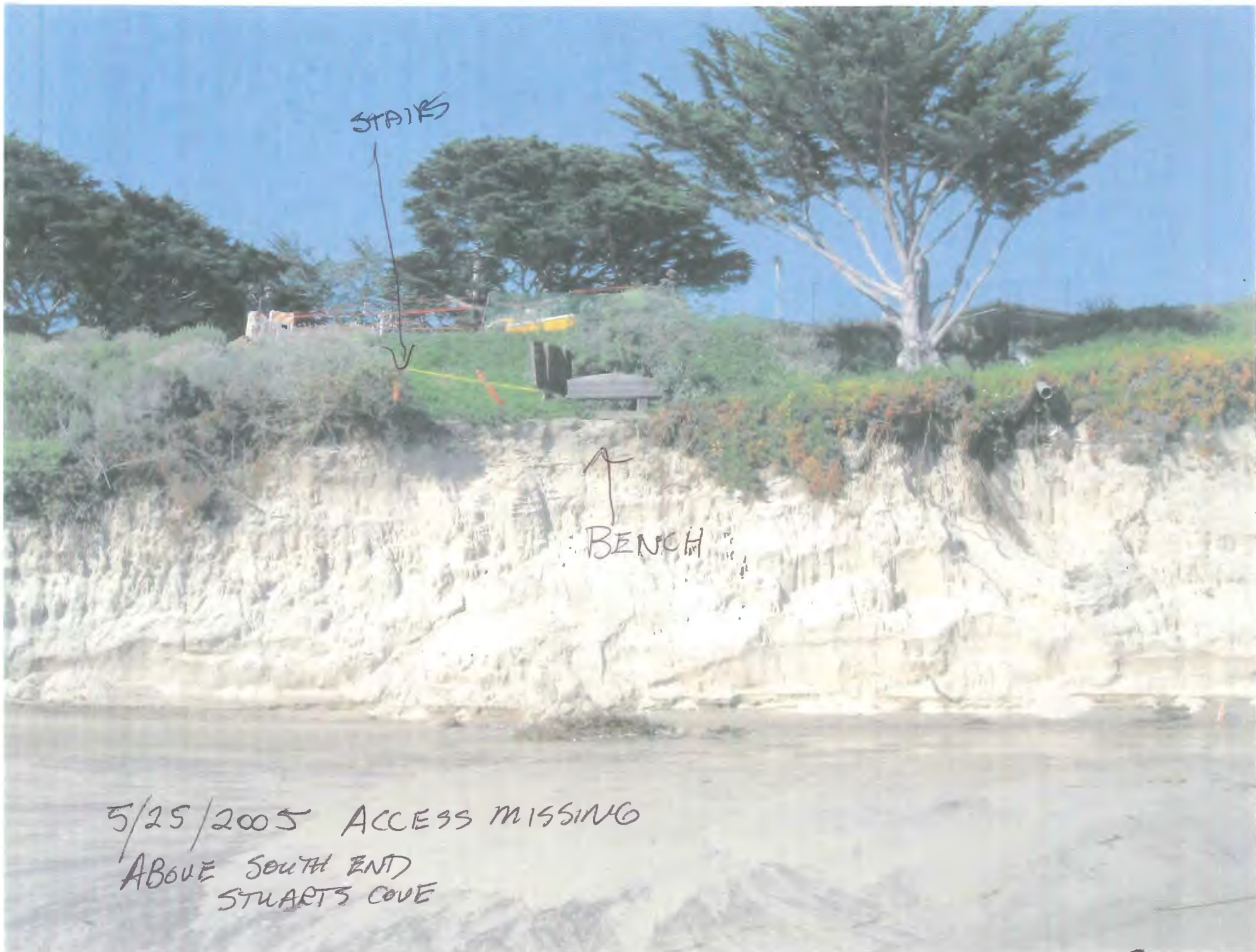
5/25/2005



2 HOUSES NORTH OF 26435 SCENIC FIGURE 8

5/24/2005





5/25/2005 ACCESS MISSING
ABOVE SOUTH END
STUARTS COVE

NEXT TO STUARTS COVE LOST ACCESS FIGURE 9



FIGURE 10

5/25/16

wet clay →



FIGURE 10

AUG 1993 20° slope
AUG 9. 181 NIML 3-4-93

FIGURE 11

1925



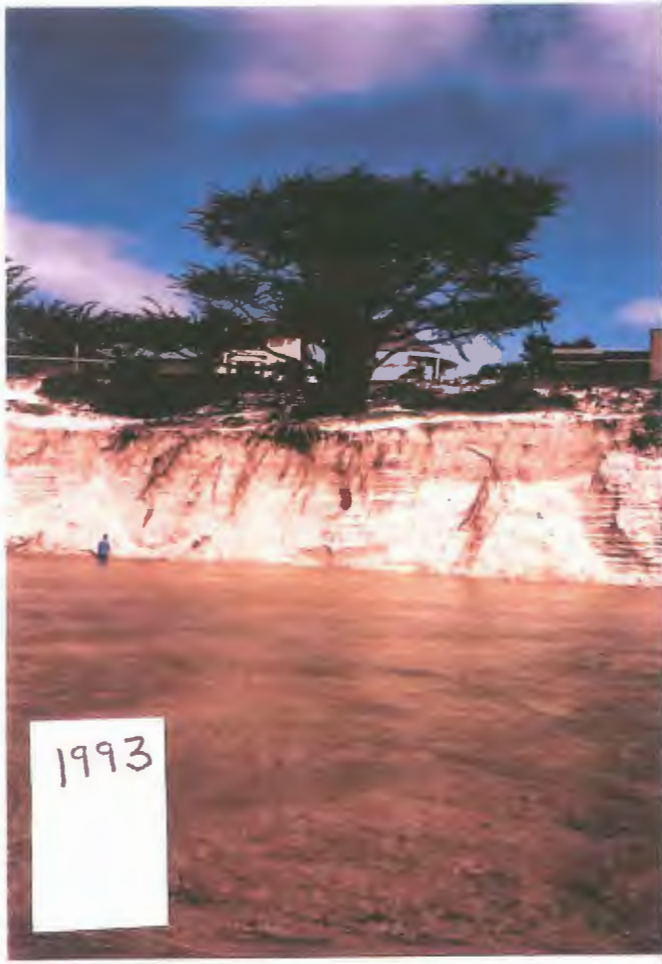
FIGURE 12



↖ SLOPE

~ 1965

FIGURE 13





FIGURE

FIGURE 14

FIGURE 15

3/9/05 15 FIGURE



3/9/05

8/05/2005



FIGURE 18

A 8/05/05

5/25/2005



FIGURE 17

FIGURE 16 5/25/2003





FIGURE 19

AUG 2005

PARKING LOT

2011

After northern breach
destroyed

1/2 parking lot

left foot fault



A.A. RICH AND ASSOCIATES

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Principal

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August 7, 2005

Mr. Dick Butler
Team Leader
National Marine Fisheries Service, Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

RE: Carmel River Lagoon Mechanical Breaching - Steelhead Issues

Dear Dick:

I am writing to you on behalf of the Carmel Point and Lagoon Preservation Association (Association), regarding the impacts of the mechanical and manual breaching of the Carmel River Lagoon on the federally-listed threatened steelhead (*Oncorhynchus mykiss*).

To preface my comments, I would like to provide you with a brief summary of my professional background. I am a fish physiologist and have owned and managed my firm, A. A. Rich and Associates, Fisheries and Ecological Consultants, for 22 years. My Ph.D. focused on the parr-smolt transformation of trout and salmon; my M.S. focused on the stress physiology associated with the handling and transportation of steelhead (Rich, 1983, 1979). I have designed and implemented smolt and stress physiology studies for the California Department of Fish and Game, the County of Sacramento, Barnum Timber Company, Payette National Forest in Idaho, Seattle City Light, and Bangor Hydroelectric Company in Maine. In addition, I have testified on behalf of federal, state, and local agencies, private companies, and non-profit environmental groups on smoltification, handling and transportation impacts on salmonids, water temperature and water quality impacts on salmonids, water diversion impacts and conducted hundreds of salmonid habitat and population studies (Please see attached résumé).

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This project is unusual to me in that there appears to be an absence of a written record, regarding the National Marine Fisheries Service's (NMFS) contention that breaching to the north is best for the steelhead and best for the lagoon. However, my understanding is that NMFS and the County of Monterey agreed on a northern breach at NMFS' insistence (per discussion with John McKeon on April 26, 2005 and County Supervisor David Potter and County Works Public Works Director Ron Lundquist on April 25, 2005). Since I have not been able to obtain any written documentation from NMFS, my comments are based on the following four sources:

- (1) The documents I received from the U.S. Army Corps of Engineers (Corps) file (letters and research) and reviewed for this project. The file was obtained through a Freedom of Information Act request by the Carmel Point and Lagoon Preservation Association;
- (2) Comments made by John McKeon at the April 26, 2005 meeting at NMFS's office in Santa Rosa, attended by you, myself, Dr. Annette Thorn, John McKeon, Dr. Brian Clure, and, by telephone, Mitchell Swanson of Swanson Hydrology + Geomorphology and Mike Hill of the California Department of Fish and Game;
- (3) Comments made by you and John McKeon at the June 14th Forum; and,
- (4) Issues that have been reported to me by Carmel River residents.

From a review of the letters in the Corps file (Hogarth, 1998; Lent, 2001; McKeon, 2002, NMFS, 2003; Rutten, 2003a-g, 2002, 2001a-c; 2000, 1999a, b; Collins, 1994 a,b, 1995; Lundquist, 2002, 2001, 1998a,b, 1997, 1996, 1993a,b, 1992; Gromko, 1992 a,b; Reed, 2000), the Biological Assessment (Entrix, 2001), and a conversation I had with Mr. McKeon on Saturday, April 30th, I gather that an impasse was reached some time ago between NMFS and Monterey County, with regard to resolving the Carmel River Lagoon breaching issue. Instead, the County continues to operate on an emergency basis and breaches the Carmel River Lagoon when water levels threaten property.

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Unfortunately, 2004/2005 NMFS' directive to Monterey County to breach in the northerly direction in order to "protect" steelhead has threatened public use of the area.

Clearly, the breaching issue is complicated, particularly since it involves a threatened fish species, the public, and threatened property. Identifying long-term solutions that will satisfy everyone must be a priority. Thus, at the April 26th meeting with you and your staff, I was pleased to hear Mr. McKeon state that NMFS was in the "...initial analysis phase..." of this project, with regard to the Biological Opinion and that NMFS would welcome new information. To that end, my comments below are meant to clarify and augment what has been reported, thus far, and to begin to assist NMFS and the other relevant parties with resolving the breaching issues of the Carmel River Lagoon and identifying both short-term and long-term solutions.

I am pleased that the Forum took place on June 14th, although my Client, the Association, and I were greatly disappointed that neither I nor Mitchell Swanson was permitted to give our presentations. However, I am hopeful that, by providing the Forum as an initial venue, where all of the stakeholders and agencies could begin to discuss their views/issues, we will begin the process of reaching both short-term actions that will be in the best interests of the steelhead, the public, and homeowners, and long-term solutions which will protect the steelhead, the lagoon habitat, the public use of the beach area, Scenic Road, and homeowners' properties.

To summarize, my comments address the following:

1. There are no site-specific, scientifically-based, cause-and-effect type studies that demonstrate that breaching to the north is better for steelhead in the Carmel River Lagoon than breaching in any other direction;
2. It is not possible to determine the impacts of breaching on steelhead without understanding the physiological status of the steelhead juveniles, the young-of-the-year steelhead, and the steelhead adults when the breaching occurs in the Carmel River Lagoon. The parr-smolt transformation is key to this understanding;

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3. Justifications for breaching to the north were based on incorrect assumptions and/or no quantitative data, and may have increased harm to the steelhead; and,
4. Steelhead "rescue" operations, resulting from emergency redirecting of the river, are probably very detrimental to the steelhead population, particularly when the steelhead are in the midst of their parr-smolt transformation.

Finally, I have made some recommendations regarding the steps necessary to achieve both short-term actions and long-term solutions.

1. **There are no site-specific, scientifically-based, cause-and-effect types of studies that demonstrate that breaching to the north is better for steelhead than breaching in any other direction.**

From the documents I have received, thus far, I have concluded that no cause-and-effect studies have been undertaken that demonstrated that breaching to the north was better for steelhead than breaching in any other direction.

Summary of the types of steelhead-related studies that were undertaken in the Carmel River Lagoon

Dettman (1984)

Dettman reported on the Carmel River Lagoon and its use by steelhead. This study did not focus on the impacts of breaching but rather focused on the amount of instream flows needed for steelhead. However, many of the issues that exist today were documented in that report (for example, sediment build-up resulted in a very shallow lagoon with very few areas deeper than 1-2 feet ("...about 90 percent of the lagoon was less than 2 feet deep.")).

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Alley (1997)

Although the objective of the report was never stated, its title indicated that the purpose was to obtain some data on:

- ❖ fish abundance;
- ❖ water quality (salinity, dissolved oxygen) and water temperature conditions; and,
- ❖ stage height before the sandbar breaching of the Carmel River lagoon and before the dredging and enlarging of the South Arm.

Fish were sampled, using a beach seine, on two dates in October of 1996. Depth profiles of dissolved oxygen, water temperature, and salinity were recorded at 13 sites on two dates, October 1 and November 15, 1996. Stage height was recorded weekly from June through December. Qualitative ratings, such as "good," "fair," and "poor", were used to rate water quality and water temperature conditions. Results indicated that the steelhead preferred the south side of the lagoon where there was deeper water and tules.

There were no cause-and-effect studies to determine the effects of breaching. The author concluded that the dredging and widening of the South Arm would provide a sink of saltwater to collect and remain during the dry season, particularly if there was regular tidal overwash. The author also concluded that habitat would likely be increased for the steelhead.

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Hagar (2002, 2003)

Hagar Environmental Science monitored the Carmel River Lagoon in 2001 and 2002 relative to:

- ❖ the abundance and size of steelhead and other fishes;
- ❖ habitat;
- ❖ water quality (i.e. dissolved oxygen, salinity);
- ❖ stage height; and,
- ❖ incoming stream flows present before and after the sandbar opened.

Although the objective of the study each year was to compare conditions before breaching with those after breaching, some of the conclusions are without merit. For the 2001 study (Hagar Environmental Science, 2002), it was concluded that there was indirect evidence that steelhead remained in the lagoon through the breaching process. Two observations by the author were used to support that contention:

- (1) "... steelhead capture rates (number caught per seine haul) in the lagoon were comparable before and after the breach event."
- (2) "... individual steelhead captured before the breach event in the central part of the lagoon,... were recaptured in the south arm following the breach event."

However, Hagar was unable to sample a large portion of the lagoon at higher lagoon stages. The seining in the deeper water of the south arm was "...less effective since it was difficult to maneuver the seine, fish could swim under the net, and completion of the haul was difficult since there was no stable shoreline on which to haul the seine."

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Furthermore, "Emergent vegetation bordering the main river channel also limited the effectiveness of seining the upstream stations." Thus, one cannot compare the results of the number of steelhead collected before breaching with those collected after breaching, due to Hagar's inability to sample effectively. Hence, the conclusion that the capture rates were the same before and after breaching is questionable and has no basis in fact. In addition, the method used to "tag" fish (scales were removed from a few steelhead) was certainly not effective as only two steelhead collected after breaching had such a mark. Thus, based on the data presented by Hagar, there is no way to determine whether or not the fish collected in the south arm following the breach event were the same as those collected in the central part of the lagoon. Hence, the conclusion that the fish were recaptured in the south arm following the breach event, is also without merit.

Upon completion of the 2001 studies, Hagar Environmental Science (2002) posed two questions:

- (1) Do juvenile steelhead leave the lagoon and enter the ocean during the breach event?
- (2) If juvenile steelhead leave the lagoon, are they physiologically prepared to live in seawater?

To help answer the first question, surveys were conducted after various breaches, to determine if there were any stranded fish. No fish were seen or collected, although it was noted that birds might have fed on the fish. In addition, Hagar speculated that the fish were killed prior to one of the breachings, as a result of anoxic condition and, possibly, increased salinity in the lagoon. However there were no reports of fish dying in the lagoon and the area "... may have been cleaned up by birds." To help answer the second question, Hagar used size, silvering, and scale condition, none of which are reliable quantitative tools for differentiating a parr from a smolt from a fish in transition. Thus, the data reported in the 2002 studies (Hagar, 2003) did not answer either of the questions posed above.

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Although Hagar proposed the seawater challenge test as the best method for determining when the fish are ready to go to sea, this method is used in hatchery studies and is not at all practical in the field because it is a laboratory-based study (Clarke, 1982). Instead, there are other quantitative, non-invasive methods of determining smolt quality in the field which I will discuss shortly.

Watershed Institute (2004-2007)

The monitoring studies being conducted by the Watershed Institute are being funded by California State Parks. The purpose of these studies, which are part of the Carmel River Lagoon Enhancement Project, is to determine the total suitable steelhead and red-legged frog habitat. Water quality, invertebrates, and fishes are being monitored. The data collected under that program will provide some additional information that will be integrated into resolving the breaching issue. These data are in draft form only and have not been released to the public in a final report. However, they may be helpful in the future in determining conditions in the Carmel River Lagoon under different breaching scenarios.

In summary, of all of the steelhead-related studies that I have been able to find and review, none of the studies undertaken have demonstrated that breaching to the north would be better for steelhead than breaching in any other direction. In fact, none of the studies that I have been able to find have addressed the effects of different breaching scenarios on steelhead from a quantifiable standpoint.

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2. Understanding the physiological status of the steelhead and the parr-smolt transformation

Being able to determine when the juvenile steelhead are ready to enter the ocean is important in terms of the breaching of the Carmel River Lagoon. The reason is two fold. Without knowing the physiological state of the juvenile steelhead from year-to-year when they are in the lagoon:

- A. one cannot determine the effects of breaching on steelhead; and,
- B. one cannot use Adaptive Management methodologies to determine what works best for the steelhead and for the homeowners.

In order to determine the impacts on breaching and understand when the juvenile steelhead are ready to migrate to the ocean, one must understand the smoltification process. However, after everyone had finished speaking at the Forum on June 14th, John McKeon approached me and said, "...smoltification is not an issue; we've worked that all out." In addition, you asked me why smoltification was an issue, with regard to breaching. To respond to each of you, I've included a short discussion of just how important smoltification is, particularly as it relates to the breaching issue.

The first question is, "what role does smoltification play in the breaching process, and why do we need to know?" It is important to know whether juvenile steelhead are parr, smolts, or in transition, for two reasons:

- A. If the juvenile steelhead are physiologically ready to enter the ocean, there is a high probability that they **will return** as adults; and,
- B. If the juvenile steelhead are not physiologically ready to enter the ocean, there is a high probability that they **will not return** as adults.

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Knowing the physiological status of the steelhead, both in the lagoon, and emigrating downstream out of the watershed, will allow us to "Adaptively" Manage the lagoon so that both the requirements of the steelhead and those of the homeowners are met.

As you, no doubt know, Adaptive Management is a process which couples science and social needs with the overall goal of promoting the sustainable management of natural systems (Holling, 1978). By determining whether the steelhead are ready or not to go to sea, we will have the benefit of potentially helping them do what they need to do. Without knowing their physiological status, frankly, the result is a form of Russian Roulette, the result of which can easily be a decline in the steelhead population of the Carmel River Watershed. The needs of the fish must be integrated with the needs of the homeowners. Adaptive Management is a way to do this.

How do we determine whether or not a steelhead is ready to go to sea?

What exactly is a smolt, and why is this important? Is a 3-inch fish a smolt? Is a 5-7 inch fish a smolt? The quick answer is that a smolt can be a 3-inch fish, a 5-inch fish, or a 7-inch fish, depending upon locale (e.g., hatchery or wild environment), condition of the fish, and various environmental factors at the time of the study (Morgan and Iwama, 1991; Clarke, 1982; Wagner et al., 1963; Ward and Slaney, 1988; Houston, 1961). But, to answer these questions and others related to the effects of breaching on steelhead, regardless of the direction, one needs to discuss the process of smoltification, or the parr-smolt transformation. In a nutshell, the parr-smolt transformation is one of the most complex physiological, morphological, biochemical, and environmental processes that can happen to a fish as it moves from a fresh water environment to a salt water environment. Smoltification is comprised of an extremely complex set of physiological, biochemical, and morphological changes which respond to various environmental cues (e.g., photoperiod, stream flow, phase of the moon, water temperature) (Folmar and Dickhoff, 1982; Wedemeyer et al., 1980; Hoar, 1988, 1976). It is a period of development in anadromous salmonids that occurs prior to, or

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accompanies, seawater migration. The process begins as the young steelhead emigrate down rivers and tributaries to rivers. In terms of the time it takes to become a smolt, every system is different from every other system and often different races of the same species react differently.

Unfortunately for all of us, the answer to what constitutes a smolt is not as simple as selecting a steelhead of a certain size or color and saying a fish is a "smolt," a "parr," or "in transition." Instead, to determine the stage of a fish, we must rely on non-lethal methods that have been developed during the last 25 years or so that provide the crucial information needed to determine when these little fish are ready to enter the sea.

Thus, to manage the breaching of the lagoon in such a way that it does minimal harm to steelhead, we need to know the physiological status of the steelhead within the Carmel River Lagoon. Hence, when cause-and-effect questions arise, such as the effect of breaching in different directions on steelhead, it is always crucial to collect the appropriate site-specific data.

Over 25 years ago, fish physiologists from academia (myself included), state and federal agencies from California, Oregon, Washington, Alaska, some of the Eastern states, Canada, and the British Isles, and France, began a series of experiments and studies (which continue to this day) related to determining how best to differentiate a parr from a smolt (Folmar and Dickhoff, 1980; Wedemeyer et al., 1980). The reason this all started was that hatcheries were finding poor returns on all of the anadromous salmonid stocks (Folmar and Dickhoff, 1980; Wedemeyer et al., 1980). The common method of determining release had been the reduction and eventual disappearance of parr marks and relative size of the fish. However, agencies were finding that when large, apparently healthy juveniles, with few or no parr marks, were released from hatcheries, they were not necessarily able to thrive at sea.

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Thus, fairly early in the process of attempting to determine just what a smolt was, it was determined by the physiologists that parr marks or the lack of parr marks, and size of fish were not useful indicators for determining whether or not a steelhead or salmon was a smolt or a parr. To determine whether or not a salmonid is ready to go to sea, several general methods have been used, including:

- A. blood and tissue constituents;
- B. percent return as adults, as a function of size of release from hatcheries; and,
- C. result of direct transfer to seawater (i.e., percent survival), also called the "seawater challenge test."

As a result of undertaking literally hundreds of experiments on steelhead and salmon, the following became apparent:

- A. each riverine system was unique for each of the anadromous salmonid species, including steelhead, and, hence, one could not transfer data from one riverine system to another (Hoar, 1988; 1976; Wedemeyer et al., 1980; Folmar and Dickhoff, 1980);
- B. elevated concentrations of the enzyme sodium-potassium gill ATPase was a quantitative indicator of smoltification and could be measured without sacrificing the fish (Zaugg, 1982; Zaugg and McLain, 1972; Zaugg and Wagner, 1973; Moberg et al., 2005; Rich and Loudermilk, 1991; Kerstetter and Keeler, 1976);
- C. size alone, particularly in natural systems, was not an indicator of smoltification for salmonids, although size was frequently used in hatcheries as part of multi-year survival studies (i.e., percent returning as adults, (Moberg et al., 2005); and,

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- D. presence or absence of parr marks by themselves, or silvering of the fish, were not useful indicators (Mobrand et al., 2005; Hoar, 1988; 1976; Wedemeyer et al., 1980).

In fact, in a recent issue of the journal *Fisheries*, in an article on hatchery reform, the authors concluded that to determine smolt quality, more emphasis should be placed on physiological and biochemical changes that occur during the parr-smolt transformation (Mobrand et al., 2005). The authors recommended sodium-potassium gill ATPase, blood thyroxin, insulin, insulin-like growth factor, and body lipid levels. Of these indicators, the use of sodium-potassium gill ATPase is practical in the natural system because the gill tissue can be obtained with minimal stress to the fish (Schrock et al., 1994); the other methods require sacrificing the fish. During the last 20 years or so, in numerous field studies in California, on the Columbia River and its tributaries, in Eastern coastal states and Eastern and Western Canadian Provinces, sodium-potassium gill ATPase has been used to determine the physiological status of anadromous salmonids during the parr-smolt transformation (Schrock et al., 1999, 1998; Hillson, 1997; Kerstetter and Keeler, 1976; Rich and Loudermilk, 1991; Hart et al., 1981; Muir et al., 1994; McCormick et al., 1985; Rodgers et al., 1987; Virtanen and Soivio, 1985; Zaugg, 1989, 1981).

Silvering, Parr Marks, and Caudal Fin Darkening

During the parr-smolt transformation, increased silvering occurs which is a result of the deposition of guanine and other purines in the skin (Zaugg and Wagner, 1973; Haner et al., 1995). However, visual interpretation of silvering with descriptive classifications is subject to bias between observers and differences in ambient light (Haner et al., 1995). In addition, color, including parr marks, can change quite rapidly as a result of handling, water temperature, and other environmental factors (e.g., substrate coloration). Thus, physiologists have turned to other methods such as: (1) measuring the amount of skin guanine concentrations (Johnston and Eales, 1968); and, more recently

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(2) using a combination of gill ATPase measurements with quantifying the amount of light reflecting from the skin (Kazakov and Kozlov, 1985; Haner et al., 1995).

Thus, because visual assessment of silvering, presence/absence of parr marks, and fin darkening have all been demonstrated to be unreliable, physiologists have chosen other, more quantifiable methods to differentiate the parr from the smolt. Thus, in the breaching studies undertaken by Hagar (2003, 2002), the use of silvering, presence/absence of parr marks, and fin darkening, provides no useful information in terms of whether or not the fish were parrs, smolts, or "in transition".

3. Justifications for breaching to the north were based on incorrect assumptions and/or no quantitative data.

Over the last several months, a number of statements have been made as justifications for the northern breach. After reviewing the existing data, it appears that these statements are based on incorrect assumptions, incomplete data, and/or no quantitative data. The following are some of these statements and a response to the statement.

- A. *At the April 26th meeting at NMFS, Mr. McKeon stated that the northerly directed breach was superior because the conditions in the lagoon (i.e., depth, salinity and dissolved oxygen concentrations) were better for steelhead than those as a result of breaching in other directions.*

Response: Lagoon systems are complex and, as such, a steelhead's ability to live, or even thrive in them, is closely linked with changing water volume, water quality, and water temperatures. Thus, when attempting to determine whether or not steelhead adapt to the lagoon habitat, either as they pass through or inhabit the area for awhile, it is of paramount importance to compare data from similar water years. If data from a normal or dry year are compared with those of a very wet year (as was the case this past winter), we are comparing "apples with tomatoes", a fruitless task, at best.

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Inflows were substantially higher (e.g., over 150 cfs) this past winter/spring than those of last year (e.g., 10 cfs), as discussed by Mr. Swanson in his Letter Report to you. Hence, any analysis and conclusions made from the results of the salinity and dissolved oxygen data collected since the initial northern-directed breach this year should incorporate stream flows into the analysis. If stream flows are not considered in the analysis, comparing this year's data with those of last year or previous years, is inappropriate and worthless, from a scientific standpoint.

- B. *One concern that has been raised is that, under the southerly breaching scenario, the steelhead would not be ready to adapt to seawater and would end up at the surface of the lagoon in the freshwater lens and, as a result, be "picked off" by birds.*

Response: There appears to be no scientifically-based evidence that the northern breach results in less predation by birds on juvenile steelhead than a southern breach or a direct breach. In fact, the initial northern breach resulted in a large amount of bird predation on fishes (including juvenile steelhead), as reported by local observers. And, the area residents have subsequently reported that bird predation continued to be a problem for some time when the long channel was created below Scenic Road. Numerous area residents told me that literally hundreds of birds, including pelicans, descended upon the water and surrounding beach and "picked off" fishes by the hundreds.

While we have eye witness accounts and some photographs of the event, we do not have any bird-fish predation studies to scientifically document the large number of steelhead that were probably eaten. This event serves to illustrate the fact that we do not know the extent of predation on juvenile salmonids, either in the Carmel River Lagoon, upstream, or as the fish enter the ocean.

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In addition, the long northern channel, because of its length, provides an excellent opportunity for piscivorous birds to feed on the juveniles as they make their way to the sea. At our April 26th meeting, Mr. McKeon made the statement that "...gulls do not feed on the fish..." This statement is in error as there are many studies demonstrating that gulls do forage on emigrating salmonids, including steelhead (Ruggerone, 1986; Spaans, 1971, Harris, 1965; Collis et al., 2000, 2002). Furthermore, pelicans and other birds feed on the juvenile steelhead, as well (Derby and Lovvorn, 1997). And, as you are probably aware, increased attention by NMFS and other agencies, particularly in the Pacific Northwest, has focused on the tremendously high mortality of emigrating smolts to piscivorous birds (Collis et al, 2002, 2001; Ruggerone, 1986; Derby and Lovvorn, 1997).

Similar to other factors, the number of juvenile steelhead eaten by birds varies from system to system. Anadromous salmonids, including juvenile (and adult) steelhead, are preyed upon during emigration every year in natural systems, and in "un-natural" situations such as when mechanical and manual breaching occurs. Predation by piscivorous birds on emigrating juvenile salmonids may represent a large source of mortality, as high as 70-80% (Ruggerone, 1986).

Thus, it is crucial to know the extent to which steelhead are being preyed upon, both upstream and in the lagoon, and under different breaching scenarios for the Carmel River Lagoon. Since we do not have any bird predation studies, we cannot conclusively state that any breaching scenario results in more or less predation. However, we can identify bird predation as a problem that warrants further investigation.

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- C. *One justification that has been made for a northern breach is that this type of breach would keep the sand bar on the south side high, so that in the Fall, the higher waves would not lap over into the lagoon and make it too salty for the fish before they were ready to go to sea.*

Response: Dettman(1984) stated that "... high ocean swells in mid-September topped the sandbar and added about 1.5 to 2 feet of salt water to the lagoon. This cycle of salt water inflow in the Fall, followed by freshwater inflow during the winter, probably occurs every year in the Carmel River Lagoon. ... Usually spring freshwater inflow to the lagoon is probably sufficient to flush out the salt water that is brought in during the springtime."

Regarding the statement that overlapping waves "... makes it too salty for the fish before they are ready to go to sea," again, we have no site-specific data to suggest that the lagoon would be too salty for the fish or that the inclusion of salt water lowers the DO because of deteriorating seaweed. Thus, before concluding that there is a problem, with regard to the lagoon being too saline, site-specific data should be collected and analyzed.

Based on the available information, there is no basis for stating that breaching to the north would result in a better lagoon, from the standpoint of salinity concentrations than would breaching in other directions.

- D. *Another justification for the northern breach is that if the lagoon were breached straight out, the juvenile steelhead would be swept to sea and not be able to adapt to seawater and would die.*

Response: As discussed in a previous section, unless we know the physiological status (i.e., whether they are parrs, smolts, or in transition) of the juvenile steelhead in the lagoon, we have no way of determining whether or not they are ready to adapt to seawater. Thus, before concluding that there would be

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a problem for the fish, we need to first find out the physiological status of the steelhead.

- E. *Suggestions have been made that the Carmel River Lagoon should become a freshwater habitat area for rearing steelhead.*

Response: Before attempting to create a habitat that may not be suitable for steelhead, at least two historical facts should be considered. First, back in the 1880's, long before there was any mechanical breaching, the Carmel River Lagoon was not a freshwater lagoon. In fact, testimony provided in the 1931 trial of Otey v. CSD, from a local man, Carmel Martin, who was born near the mouth of the Carmel River and grew up on the Martin Ranch, demonstrated that the Carmel River Lagoon was brackish. In the testimony, Carmel Martin stated that, "... we continued fishing for trout, more or less through the summer season, until the water got somewhat stagnant, by being impounded for a long period of time, and the trout tasted of the brackish water..." (Williams and Philip Williams & Associates, 1992). More recently, Dettman (1984) stated that the Carmel River Lagoon could not be considered as good habitat for either adults in the winter or steelhead residents during the summer. Dettman (1984) stated that the water was too shallow, cover was lacking, freshwater inflows were too low, carbon dioxide, water temperatures, and salinity were too high. In summary, the Carmel River Lagoon has never been a freshwater lagoon and, hence, the steelhead never adapted to such an environment.

4. The detrimental effects of steelhead "rescue" operations resulting from emergency breaching.

Steelhead "rescue" operations, resulting from emergency redirecting of the river probably are very detrimental to the steelhead population at anytime during the life of a steelhead, but certainly when the steelhead are smolting. While the rescue effort is an

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admirable concept, it may result in delayed mortality, or even direct mortality. It is well-established that handling of salmonids is extremely stressful to the fish, resulting in the release of stress hormones such as epinephrine and cortisol (Rich, 1983; 1979; Casillas and Smith, 1977; Mazeaud, 1971; Mazeaud et al., 1977). It can result in reduced survival), reduced growth, impaired immune function, and even death (Rich, 1979; Wedemeyer, 1976, 1972; Casillas and Smith, 1977). Furthermore, it is well-known that handling and transporting salmonids during smoltification can disrupt their physiology and actually result in delayed mortality and stress, thus impairing their ability to smolt (Rich, 1983; Wedemeyer et al., 1980). In addition, handling a salmonid removes the protective mucous layer and leaves the fish vulnerable to infection and reduced survival.

Hence, when the modified emergency breaching occurred earlier this year and many people were “rescuing” and moving steelhead back into the lagoon, this may have been the last thing that should have been done, with regard to protecting steelhead. If the steelhead were ready and migrating out to sea, placing them back into the freshwater lagoon could result in “catecholamine shock” and death. Thus, before moving fish during this critical time, it is imperative that the physiological state of the steelhead is known. Furthermore, if it is necessary to collect and transport juvenile steelhead, there are a number of methods I have designed which will reduce handling and transportation stress on the fish, including using a buffered anesthetic in the collection and transportation bucket. Please let me know if you would like additional information on methods that can be employed to safely collect and transport steelhead.

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Some recommendations for both short-term actions and long-term solutions.

Given the lack of cause-and-effect type data, it is not currently possible to determine the effects of breaching, regardless of the direction, on steelhead in the Carmel River Lagoon. However, I believe that the June 14th Forum set the stage for proceeding to the next steps: pulling some cause-and-effect science into the process and identifying and discussing alternatives. To that end, I recommend that three workshops be set up:

- (1) A Science Workshop;
- (2) An "Alternative Solutions" Workshop; and,
- (3) An Adaptive Management Workshop.

Science Workshop

The objective of the Science Workshop would be to identify the science-based issues, and have the various scientists and engineers explain/discuss how best to resolve the breaching issues, from a scientific perspective. Such a format would enable scientists and engineers with differing professional opinions to get together to discuss the issues. In addition, I believe that we should be addressing the whole issue of the lagoon from a watershed perspective, not just from the perspective of the Carmel River Lagoon. The use of a watershed-based approach for the Carmel River Lagoon to resolve the breaching issues was brought up by a number of the participants at the June 14th Forum and has been discussed in various documents I have read. Unfortunately, by focusing only on the effects of breaching on steelhead in the lagoon, we are dealing with the "lowest hanging fruit" and trying to put all our "fish eggs", if you will, in one "lagoon basket." The reason that the lagoon has become such an issue is that humans have destroyed the upstream areas of the Carmel River Watershed, by installing the dam, removing water from the Carmel River System, and destroying the habitat upstream of the lagoon.

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Approaching the current problems from a watershed perspective will allow the participants to address all of the issues affecting the lagoon, the fish, the public, the Carmel River State beach Park, and homeowners.

Alternative Solutions Workshop

The objective of the "Alternative Solutions" Workshop would be to identify and discuss alternatives to breaching, or some combination of breaching and other alternatives. The original problems associated with breaching were related to houses that were built in a flood plain. The houses are there now and, hence, should be protected from flooding. But, it is equally important to find solutions that will protect the public, access to the beach, and homes along Scenic Road.

In a number of letters, NMFS identified alternatives, including identifying alternative lagoon outlet channels in lieu of breaching and developing technically and financially feasible alternative flood control measures.

Adaptive Management Workshop

After the Science Workshop and Alternative Solutions Workshop have been completed, I believe there should be an Adaptive Management Workshop. The objective of the Adaptive Management Workshop would be to discuss and integrate the needs of the steelhead, the public, and the homeowners, as well as to address the various possible alternatives. By doing so, it may be possible, if not in every year, at least in some years, to satisfy all stakeholders, including the steelhead. Every year is different, in terms of rainfall, number of steelhead, the shape and size of the lagoon. The needs of the fish, watershed as a whole, the public and homeowners should all be incorporated into the equation of how best to manage the Carmel River Lagoon. While breaching may resolve flood issues, there may be years or months during the year when breaching would result in damage to the steelhead. At such times, I believe that there should be alternatives to breaching. There are a number of alternatives to breaching which have been brought to the table in the past. I believe that these alternative to breaching need to be addressed, once again.

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In closing, I would like to say that it has been my experience for controversial projects, such as this one, that not only do all "parties" need to come to the table to address and resolve the issues, but effective cause-and-effect studies need to be undertaken. Too often, decisions are made in the absence of cause-and-effect science. The result, I would venture to say, is that we, as humans, often do more harm than good. In this case, continuing to use the same management techniques for the lagoon harms the steelhead and other listed species, as well as threatens homes, property, and lives. All too often, the refrain I hear is that the reason the science is not undertaken is because "there is no money". Well, frankly, given the hundreds of thousands of dollars the "lagoon situation" has cost Monterey County over many years, and given the upheaval this situation has created, year after year, it seems to me that the current method of operations is both rather expensive to humans, and may be resulting in reducing the steelhead population in the Carmel River Watershed.

I am optimistic that the issues can be resolved, and I am pleased that the dialogue seems to be starting with the possibility of long-term solutions as a result. This is a commendable first step. I certainly hope we can find a better way to manage this lagoon than by emergency. In addition, I was reassured when you stated at our April 26th meeting that NMFS would "start over with a clean slate", in terms of "throwing out" past statements made by NMFS, and moving forward to reach both short-term actions that would be in the best interests of the steelhead, the public, and homeowners, and long-term solutions which would protect the steelhead, the lagoon, the public, the use of the beach area, Scenic Road, and the homeowners' properties.

Thank you for the opportunity to provide some input. If you or your staff have questions, or wish to discuss anything contained in this letter, please do not hesitate to contact me.

Sincerely,

Alice A. Rich, Ph.D.

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Cc: Dr. Annette Thorn, Carmel Point and Lagoon Preservation Association
John McKeon, NMFS
Dr. Brian Clure, NMFS
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CARMEL POINT AND LAGOON PRESERVATION ASSOCIATION

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January 29, 2017

RE. Comments on the Carmel River Lagoon Draft EIR

Carmel Point and Lagoon Preservation Association (CPLPA) is a 501 c(3) founded to follow in the footsteps of those in Carmel that raised the funds to purchase Carmel River Beach and Lagoon for the enjoyment of the community, the protection of its scenic beauty, and to create a bird preserve. At that time beaches and marshes could be privately owned and the Coastal Act did not exist. Beach access was not guaranteed to the public. The Audubon Society and local photographers including Ansel Adams and Edward Weston as well as many others led the way to raise the funds to purchase the private property to protect this unusually beautiful beach and lagoon. They then donated it to the State Parks with directions to protect the birds and other wild life as well as to provide guaranteed access to the public. Our organization was formed to follow in their tradition of protecting the public interests. The CSA 1 was formed to speak for homeowners in the Carmel Point area. We were formed to advocate for the original interests of the founders: that is to preserve the natural beauty and public enjoyment of the Scenic area for the community and visitors from all over the world and to preserve the function of the ecosystem.

The CPLPA appreciates all the work that has gone into this Draft EIR. As Board Members we would like to complement you on the extensiveness of your work. Our Board includes members who grew up here, and one who visits from elsewhere and represents visitors. All are environmentalists. We believe there are environmental, public use, visual, and enjoyment impacts of the proposed and preferred alternatives that must be addressed.

As Secretary of the CPLPA, Annette Thorn also owns a home on the bluff, but will address her personal concerns separately from this series of comments at a later time. All the comments below regard only the public interest.

As advocates for the public interests, the visual value of this very beautiful and natural beach needs to be preserved, the public access and enjoyment of use needs to be protected, and the ecosystem needs to be managed for the benefit of all species of plants, fish, and animals, not just one. The Western Snowy Plover, and Smith Blue Butterfly habitat are of particular concern. Another concern is the avoidance of unintended consequences of the projects proposed, including the (a.) potential risk of liberating hydrogen sulfide the product of deteriorating subsurface vegetation into the lagoon of naturally occurring toxic chemicals during the construction of the proposed Environmental Protective Barrier (EPB), (b.) sewage spills in the lagoon from the flooding of the waste water sewage treatment facility, and very importantly, (c.) the flooding of the people in homes behind the lagoon and (d.) road failure when people drive along Scenic Road due to an earthquake or failure of the structural support for the road. There is also a serious concern for the safety of County employees who manage the outlet of the lagoon to the ocean.

Carmel River Beach is valued for its natural beauty, natural bluffs and crescent beach. The Park Service has worked hard to preserve its wild but accessible nature and to keep the beach sanitary by providing useable bathrooms. These efforts need to be respected.

A. The Scenic Road Protective Structure proposed in the EIR is now absolutely necessary. The native support for the road and sewer system has been eroded away by the two back beach northern breaches. One was not diverted until much of the northern beach was lowered a dangerous amount and the river eroded the bluffs to 10 feet from the road in 1993. The 2005 breach was intentional and in the space of three days allowed to get out of hand causing significant destruction of the bluffs supporting the road and sewer line. Now the natural slope supporting the road and the 10 foot shoulder on the ocean side are gone. Support is needed as a protection against an uncontrollable northern breaches or very

large and dynamic wave events. An earthquake would cause liquefaction and collapse as noted in the Haro and Kasunich presentation. The useable beach must be protected for public use by minimizing the footprint of the structure. The visible parts of the structure must be indistinguishable from the natural surroundings.

B. It has become clear that the rip rap design is not acceptable:

The rip rap conceptual design attempted to hide the structure under the sand by hoping it will be buried in sand at least a part of the year. However the footprint is too large. It blocks beach access and use when uncovered and will negatively impact aesthetics of the beach. The Haro and Kasunich and Associates conceptual drawing review revealed that this should not be the preferred opinion and we now agree. They pointed out that the footprint takes up most of the walkable beach and the part heading into the ocean is a barrier to public movement. It could also be a hazard which attracts leg injuries when partially covered with sand. It is likely to interfere with escape from the waves when walking along the shore. Given the drawings in the EIR it is evident that it will interfere with the public ability to walk on the flat part of the beach. More importantly the forces and dynamics on the beach are likely to move even larger rocks around out of the revetment and spread them over the beach in the opinion of Haro and Kasunich and Associates. When this happens the revetment would lose its effectiveness. Another concern is that the filter cloth and or smaller rocks will disintegrate within a shorter time and be very hard to replace to keep the revetment functional. Most importantly sections of the revetment may sink in the sand and not function as a protection in areas with no bedrock or deep bedrock. We do not support the rip rap option as the preferred alternative in the EIR.

C. SRPS: It is important to construct the most effective protective structure to protect the road. The conceptual design alternative must be dictated by the bedrock morphology. It must be the

- a. most effective,
- b. last the longest and,

- c. The one that can be made to look like sloped natural rock matching the surroundings regardless of how much downward erosion occurs at the base.
 - d. This will require a retaining sea-wall according to Haro and Kasunich and may require the same kind of construction that recommended for the parking lot (a tied back retaining wall using king sheet piling) due to the likely lack of bedrock in certain areas such as just a few yards north of the large Cypress to the north end of Stuarts Cove before the granite outcroppings.
- D. Avoid separating the far north end of the beach from the rest of the beach by the SRPS running across the beach and into the ocean:** We believe the SRPS should not run perpendicular to the road across the beach into the ocean at the end of Valley View, as this creates a barrier to public use and ruins the scenic value of the beach. It is likely to be exposed most of the year. It would interfere with access to the rest of the beach. This may also interfere with the sand supply to the end of the crescent beach as groins tend to do.
- E. Now that the bluffs are so steep, public access to the beach are more limited.** We believe the public should have better access to the beach and this must be enhanced with any SRPS. This needs to be carefully attended to in the design of any structures and management. Access needs to be restored at the stairs at the end of Valley view and the parking lot access needs to be accessible to the disabled.
- F. Managing the breach to the north every year after completion of the SRPS could cause the loss of the northern beach, and may even be detrimental to the steelhead survival. It should not occur:**
- a. The northern breach is theoretically better for the steelhead but it's not necessarily scientifically valid that it is the best option for protecting the steelhead considering challenges to the migrating steelhead created by the long shallow channel (Rich). The amount of sand loss on the north end of the beach could eliminate the northern beach altogether based on the

experience with two back beach northern breaches in 1993 and 2005. Based on the sand loss during those two episodes it can be extrapolated that the beach may disappear with continuing breaching to the north. This needs to be thoroughly studied. The visual impact and the beach use and access could be destroyed. This part of the beach is an important asset for the community and the world. The literal sand transport to the north is weak according to Thornton (2005) and the sand at the far north end of the north beach is not coming back in the summer now as much as it has in the past. Much of the sand is transported offshore by the river into the deep underwater canyon. However some replenishment is caused by forceful wave dispersal up and down the beach. Thornton (2005) stated that wave deflection pattern of bending into the north end of the beach is what gives the beach sand distribution its crescent shape.

We need river specific information on the timing and location of the smoltification. Other studies have shown a difference between river and stream systems of whether the fish are ready to function in salt water before they reach the lagoon. Sodium Potassium Gill ATPase would be useful in determining what breach direction and management would most benefit the migrating steelhead. (Rich). We do not know whether the lagoon is just a waystation on the way to the sea in this river system or a system that supports lagoon growth which increases survival at sea. Do they become smolts upstream or downstream of the lagoon?

Bird predation studies are also needed to determine whether there may be more bird predation of the steelhead on their way to the sea in a long shallow channel than a shorter channel. Horrendous bird predation occurred during the 2005 long shallow back beach northern breach according to many witnesses. This needs to be studied and quantified. Does the long shallow pathway to the sea pose a risk to the large mature steelhead getting stuck as was witnessed by some observers in 2005? I personally picked up a large steelhead and got assistance in getting it into the sea safely after it was stranded in too shallow water due to the long pathway to the sea. We

strongly reject the plan to do repeated northern breaches after the SRPS is in place, and request that further study be done on the biological mandates and the river induced erosive sand loss.

- G. Many alternatives were discarded without full exploration or explanation.** These need to be more fully examined. For example, is it possible to make a southern spillway that allows water out to avoid flooding behind the lagoon without lowering the lagoon more than necessary for the steelhead? If this was the only ecologically acceptable option, would the public be able to prevail on the park system to allow it if it can function naturally and be made to look just like surrounding rock? Are there hydrologic engineers who can design something like this that would function well for all concerned without destroying the visual and recreational value of the northern beach? This must be evaluated in the light of a repetitive northern breach that could destroy its own future by elimination the sand on which it depends for making its channel.
- H. Is there an advantage to managing the lagoon in a way that creates a wider beach sand bar in front of the lagoon?** If the breach is through a long sand bar in front of the lagoon does this provide a slower emptying and better control of flooding? Does this keep the lagoon salinity better or is a narrower sandbar more important to provide better mixing and dissolved oxygen?
- I. If the EPB is to be built, the beach should not be lowered to the north before it is allowed to naturally breach.** This could create a self- repeating channel that could destroy the northern beach.
- J. Western Snowy Plover habitat is also critical to this threatened species.** There have been hundreds observed next to the lagoon in sand indentations at one time. This location appears to be preferred by them. A northern breach could seriously degrade this preferred location next to the lagoon. A video of the numbers in this location at one time is available. A northern breach would remove this habitat from the local Western Snowy Plover.
- .

K. The Smith Blue Butterfly is endangered and its habitat was destroyed in a couple of hours due to the northern breach that undermined the bathrooms and destroyed half the parking lot in water year 2010-2011. This illustrates the danger of believing we can control these processes. In the effort to benefit one threatened species, another endangered species lost its habitat.

Please accept these comments and give them serious consideration. An addendum includes individual comments and back up material.

Respectfully submitted,

Carmel Point and Lagoon Preservation Board

Michael Mcomber	President
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Annette Thorn MD	Secretary-Treasurer

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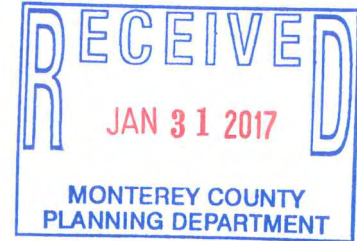
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Secretary Treasurer



Received 1/31/17
Lmtt

January 30, 2017

Monterey County Resources Management Agency
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RE: DEIR for the Carmel Lagoon Ecosystem Protection Barrier, Scenic Road Protection Structure, and Interim Sandbar management Plan

Dear Mr. Holm and Ms. Beretti,

Thank you for the opportunity to comment on the DEIR for the Carmel Lagoon Ecosystem Protection Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan (ISMP). This letter only addresses the December 2016 DEIR and previous letters sent to the County from Director Anthony Jackson on June 20, 2013 and Mat Fuzie on August 13, 2014 still stand as our official department response to the request to place the EPB and SRPS on State Property (Note Attachments).

California State Parks (CSP) had requested a 30 day DEIR review extension which was recently denied. CSP reserves the right to comment further on the DEIR after we acquire the appropriate consultant reviews.

The Carmel Lagoon State Natural Preserve was established in recognition of the areas unique ecological value, habitat types, and for the in perpetuity protection of its unique flora and fauna. Development of the area for the purposes of the EPB is in direct conflict with the park unit classification (PRC 5019.71). The County could avoid these PRC inconsistencies, and conflict with Article 16, Section 6 of the State Constitution, by placing the EPB on adjoining private property.

The DEIR proposes to construct an EPB and SRPS project within state lands to accommodate higher lagoon water levels while protecting private homes and public infrastructure from flood related impacts. However, the studies indicate that mechanical breaching will need to continue for events that exceed the EPBs height elevation. The frequency of this mechanical breaching was unable to be determined with certainty in the final scientific studies. The proposed height of the EPB remains at an elevation that does not meet the height of the 100 year FEMA flood projection. In short, the EPB project does not provide a substantive solution to the very problem it attempts to

address. CSP maintains that this project would not be needed if not for the poorly planned residential development on the bordering private parcels, which were approved within the floodplain of the Carmel River.

Therefore, the proposed EPB to provide flood control relief for homes built within the active floodplain not only fails to meet the threshold to eliminate the need for mechanical breaching, it also implies CSP will gift public lands for the purpose of protecting private property. The County has overreached their jurisdiction in proposing a project that will take place on land owned by CSP. State Park staff has informed the County on numerous occasions over the past four years that the project is not consistent with State Parks mission and that "Natural Preserve" designated lands should not be used for a project that intends to protect privately owned homes from flooding. State Parks has informed the County that taking public trust land and using it for flood protection of privately owned homes is not consistent with Public Resource Code (PRC) 5019.53, 5019.56(c), 5001.9(b), 5019.7, 5001.65 and is inconsistent with the State Constitution Article 16 Section 6.

The DEIR eliminates an alternative to deepen the lagoon siting it is costly and permits may take considerable time to obtain. The local Carmel Area Wastewater District (CAWD) plant intends to replace the clear span sewer line in the south arm lagoon and intends to sheet pile the lagoon to conduct this work. The CAWD work could be a prime opportunity to coordinate agency resources and deepen the south lagoon area to potentially meet NMFS steelhead habitat concerns in the event of a southern breach. State Parks would support increasing the depth of the south lagoon area to enhance steelhead trout habitat and to meet NMFS concerns.

The DEIR lists an Environmentally Superior Alternative (ESA) that is to be updated after receiving additional comments. While the ESA seems to deemphasize the installation of an EPB within the State Natural Preserve it continues to emphasize the need for the SRPS on the State Beach and reserves the EPB project for possible future installation pending further comment and analysis. The installation of up to 1000 linear feet of rip rap boulders (15,000 tons) on the public State Beach will have significant and permanent aesthetic impacts to the beach and is not supported by CSP. More specifically, in the event the riprap wall is exposed and natural wave run-up is not sufficient to cover the riprap wall with beach sand the result will be exposed rip rap that will change the scenic character of an otherwise pristine white sand beach when exposed. The DEIR contains images of exposed riprap, which is unsightly and which changes the visual and scenic character of the beach. Exposed riprap will present an operation safety hazard to the public and when exposed will act as a barrier to access on the beach. CSP will not take on the additional burden of the SRPS development. All of these concerns have been previously expressed to the County.

As part of the ESA there is mention of retaining the Sand Management Plan (SMP). CSP would support the continuance of a SMP and would support increasing the depth of the lagoon. CSP believes these two components, as well as other alternatives not

Carl P. Holm
Melanie Beretti
January 13, 2017
Page Three

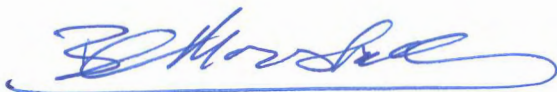
considered would achieve balance between providing flood protection to private houses and nearby public infrastructure as well as meeting NMFS steelhead habitat concerns.

CSP requests that the County propose a project that is within its own jurisdiction, including but not limited to; buying the impacted properties, placing the EPB on adjoining private property or raising the homes. Using public property with high natural resource value to rare and endangered species to solve a problem that is the creation of the County's poor land use planning is unnecessary. Given the impact of global warming and sea level rise, this will be only the first incursion into the lagoon. As sea level rises more protection will be needed and the EPB, if constructed, would likely be moved out further into the lagoon or be raised in height. CSP recommends that the County explore other alternatives.

State Parks cannot support or endorse the EPB being installed as proposed within the State Natural Preserve nor does it endorse the SRPS within the State Beach.

Lastly, should special legislation be proposed to condemn State Natural Preserve lands for the purposes of installing the EPB and SRPS, CSP would oppose such legislation.

Sincerely,



Brent C. Marshall
Monterey District Superintendent
California Department of Parks and Recreation

Attachments: CSP Letter 2013
CSP Letter 2014

cc: Supervisor Mary Adams
US Army Corps of Engineers
National Marine Fishery Service
California Coastal Commission
Carmel River Steelhead Association
Carmel Area Wastewater District



June 20, 2013

Carl P. Holm, AICP
Deputy Director
Monterey County Resource Management Agency
168 W. Alisal Street, 2nd Floor
Salinas, California 93901

Dear Mr. Holm:

Re: Carmel River Lagoon State Reserve EPB and Scenic Road Armoring Project

The California Department of Parks and Recreation (CSP) has reviewed Monterey County's (County) proposed project description and alternatives for the Carmel River Lagoon Ecological Protection Barrier (EPB) and Scenic Road Armoring project. CSP opposes any project that locates a barrier for the protection of private property on public land that is part of the Carmel River Lagoon State Reserve. As a natural preserve, the purpose of the Carmel River Lagoon State Reserve is to preserve unique ecosystems and geological features of the area and allow the natural dynamics of ecological interaction to continue without interference.

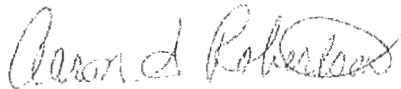
While CSP understands the threat of flooding in this area, the fact that the County allowed development in an area that floods does not mean that a valuable natural and recreational resource should be threatened in an attempt to resolve the problem created by the County's land use policies. Walling off a portion of the lagoon by installing an EPB will result in a net-change to the system, which is likely to result in structural and functional changes to the lagoon. CSP requests that the County propose a project description that does not rely on public property for implementation. CSP also requests that the County consider project alternatives that would address potential flooding issues without impacting the Carmel River Lagoon State Reserve, including but not limited to a barrier constructed on private property, elevating existing homes out of the critical flood zone, a "no project" alternative, and alternative management regimes for the lagoon that could meet both flood protection and resource protection needs while preserving the valuable public use of the preserve property. Based on currently available information, CSP does not believe it is necessary to use a portion of a state preserve to resolve local flooding issues.

Mr. Carl P. Holm
June 20, 2013
Page Two

The dynamics of the Carmel River Lagoon ecosystem are very complex, and CSP believes that a barrier of the type proposed could cause significant impacts on the management of the lagoon were the project to be built—such as a continuing need for mechanized manipulation of the barrier beach as well as the riprap wall paralleling Scenic Road. Any analysis of alternatives must include a comprehensive study of the hydrology and dynamics of the ecosystem. This study should include an in depth hydrological analysis of potential impacts to the Carmel River Lagoon that may be caused by the San Clemente dam removal project.

The County's proposal to place the EPB and Scenic Road armoring improvements on state land for the benefit of private property owners is in direct conflict with CSP's mission and the purposes for which the Carmel River Lagoon State Reserve was created. To impose any portion of the costs of those projects on CSP would result in an unauthorized gift of public funds and resources. Those costs should be borne by the affected private property owners and the local agencies that permitted construction in an area vulnerable to flooding and erosion.

Sincerely,



for
Major General Anthony L. Jackson, USMC (Ret)
Director



DEPARTMENT OF PARKS AND RECREATION
Monterey District
2211 Garden Road
Monterey, CA 93940
(831) 649-2836

Lisa Ann L. Mangat, Acting Director



August 13th, 2014

Carl Holm, AICP, Deputy Director
Monterey County Resource management Agency – Planning Department
168 W. Alisal Street, 2nd Floor
Salinas, California 93901

RE: NOP DEIR for the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar management Plan

Dear Mr. Holm,

Thank you for the opportunity to comment on the NOP DEIR for the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure, and Interim Sandbar management Plan. I want to be clear that this letter only addresses the NOP and that a letter previously sent to Monterey County from Director Anthony Jackson on June 20, 2013 still stands as our official department response to the request to place the EPB and Scenic Road Protection Structure on State property.

California State Parks (CSP) is the owner of the lagoon where the County seeks to build the Ecosystem Protective Barrier, commonly known as a seawall. CSP has continually and constantly informed the County that CSP objects to the placement of this seawall on State property. This seawall is for the benefit of private landowners, who purchased the property from developers who were allowed to build residential units in a flood plain by the Supervisors of Monterey County. This was contrary to proper land use planning, California Coastal Commission policy and good sense. We are aware that the current leadership in the County was not in place when these decisions were made and now the Supervisors seek to appropriate land owned by the people of the State of California in an attempt at following direction from oversight agencies regarding future permitting of flood control activities; activities that are for the benefit of a small group of homeowners. In addition, it was stated that this is not even a complete solution since all parties involved state that mechanical breaching of the sandbar will still have to occur under many scenarios. It is also assumed that global warming will make it certain that this area will again be subject to inundation over time. The Lagoon serves important natural functions that affect a large area, as well as serving as habitat for rare and endangered species.

We would like to see the NOP list project alternatives, all of which have been discussed in the past, several of which would deal with the appropriation of public land and one of which would harm the lagoon even further. These alternatives include placing the EPB

on the property line, raising the homes subject to flooding and extending the EPB further out and into the State Park Natural Preserve. The NOP lists one project alternative in the NOP, which is the preferred alternative. An additional alternative of purchasing the homes should also be discussed, given the long-term impact of global warming.

The NOP states that, " The proposed project is a comprehensive plan meant to promote improvement in ecological function of the lagoon, including natural floodplain function and improvement of habitat for federally listed species.....by allowing the lagoon to breach naturally without increasing flood and erosion risk to private structures and public facilities". The proposed height of the EPB is not even sufficient to meet the height of the 100 year FEMA projection. State Parks believes that this is not the purpose of the project. CSP believes that the project is flood control for privately owned homes that were built within an active flood plain. The County has no jurisdiction to propose or enter into a project that will affect and/or take place on land owned by an adjacent property owner. State Parks staff has informed the County on numerous occasions that the project is not consistent with State Parks mission and that "natural preserve" designated lands should not be used for a project that intends to protect privately owned homes from flooding. State Parks has informed the County that taking public trust land and using it for flood protection of privately owned homes is not consistent with public resource codes 5019.53, 5019.56 (c), 5001.9(b), 5019.7, 5001.65 and is inconsistent with the State Constitution Article 16, Section 6. The Carmel Lagoon Natural Preserve was established in recognition of the areas unique ecological value, habitat type, and for the in perpetuity protection of its unique flora and fauna. Development of the area for the purposes of the EPB is in direct conflict with the park unit classification (PRC 5019.71).

Natural Preserves:

Consist of distinct areas of outstanding natural or scientific significance established within the boundaries of other state park system units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant and animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features illustrative of representative or unique biogeographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations which constitute the basis for the establishment of the natural preserve. Public Resources Code—Div.5, Chapter 1, Article 1, 5019.71.

By placing the EPB on the property line, the County could avoid these PRC inconsistencies and Article 16, Section 6 of the State Constitution.

It is unclear how a manmade barrier installed in a lagoon preserve will improve habitat for federally listed species when in fact a wall can be a genetic barrier that prevents

genetic exchange between previously undivided species. It is also unclear how flood plain function will be improved by truncating the lagoon with a flood wall. Throughout the course of attending meetings and listening to the County, it is apparent that heavy equipment will still be needed.

Regarding the proposed Scenic Road armoring improvements, in the event the riprap wall to protect Scenic Road is exposed and natural wave run-up does not cover the riprap armored wall with beach sand then the resulting exposure will have negative effects on Carmel River State Beach. The Scenic Road riprap wall will completely change the visual and scenic character of a pristine beach when exposed. If not covered with adequate sand, the public may be exposed to an underlying hazard when utilizing the beach. All of these concerns have been previously expressed to the County.

While rock may be a naturally occurring material from a quarry, riprap is not a natural geological feature at the existing beach. The area is coastal sandy bluff, not granite bedrock. Again, when exposed by wave action and or by the Carmel River it will be unsightly and present a hazard to the visiting public. By its own admission, the County has told state park staff that when the rip rap is exposed, bulldozers will be dispatched to cover the riprap with sand. This further exposes the entire intent of the project message which has indicated that by constructing the rip rap wall and EPB, the County will no longer need to place mechanized equipment on the beach.

The area that serves as a bio-swale will concentrate storm water runoff from roadways and over time may see an increase in hydrocarbon pollutant loading as a result from oil and grease on roadways. State Parks does not support concentrating pollutant loads on adjacent lands that have the potential to cross contaminate state park "preserve" designated lands. Any concentration of pollutant loading could also impact species of special concern that the project is alleged to enhance.

CSP requests that the County propose a project that is within its own jurisdiction, such as buying the impacted property, putting a sea wall on the edge of the development or raising the homes. Using public property with high natural value to rare and endangered species to solve a problem that is the creation of the County's poor land use planning is unnecessary. Given the impact of global warming, this will be only the first incursion into the lagoon. To reiterate, as sea levels rises, more protection will be needed and the sea wall if constructed would likely be moved out further into the lagoon or be raised in height.

CSP also has concerns regarding the Carmel Area Wastewater District and service interruptions that would affect our continued operation of the park facilities that are connected to the CAWD for waste water treatment. Any long service interruption could cause CSP to have to close those facilities until service was restored.

This project also has state-wide significance, and will create unacceptable precedent, as many areas along the coast will be experiencing similar impacts over the next 50 years. Will sea walls be extended into all the state lagoons? Will sea walls be built on state property to buttress houses that were built too close to the bluffs? This will need to be discussed in the EIR as well, under cumulative impacts. We believe this project

will create such a dangerous precedent that it would likely cause long term litigation from concerned constituencies. It would also require unprecedented actions to decommission wetland as well as require the State Park and Recreation Commission to reclassify a preserve for the purposes of private property protection.

CSP would support the continuance of practices already permitted by oversight agencies in other areas of the state that would include continued mechanical breaching by the County in conjunction with other management actions and future projects within the floodplain that would reduce potential impacts on endangered and listed species and create a more natural lagoon. CSP believes that absent removal of all public and private facilities that have been built within the 100 year flood plain the lagoon environment cannot be considered completely natural. Therefore managed actions are going to be necessary in the future.

CSP proposes that all agencies previously included in the Technical Advisory Committee (TAC) reconvene and look at the larger landscape for a solution to include the Causeway project, additional improvement to the lagoon landscape and other management efforts within the flood plain that will have a positive effect on the future management of the lagoon. CSP feels that TAC discussion was having a positive result until the county was forced to implement the failed northern breach in 2010 which has resulted in a breakdown of cooperative efforts.

In addition, I have attached a map with the actual boundary of the Natural Preserve Portion of Carmel River State Beach as adopted by the California State Park and Recreation Commission in the Carmel River State Beach General Plan 1996.

Mathew L. Fuzie



Monterey District Superintendent
California State Parks

CC: California State Parks
Steve Lehman, Deputy Director, Park Operations
Kathryn Tobias, Staff Counsel 3
California Coastal Commission
Dr. Charles Lester, Executive Director
Deputy Director, Central Coast District Office
Carmel Area Wastewater District
Barbara Buikema, General Manager
US Army Corps of Engineers, San Francisco District
Katrina Galacatos, South Branch Chief

CARMEL RIVER LAGOON AND WETLANDS
NATURAL PRESERVE
53 ACRES

BOUNDED BY THE STATE BOUNDARY
ON THE NORTH AND EAST, THE
SANDBAR ON THE WEST, AND THE
SLOPE BREAK BETWEEN THE
UPLANDS AND THE LAGOON ON
THE SOUTH.

Legend

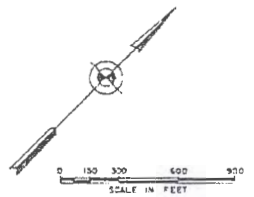
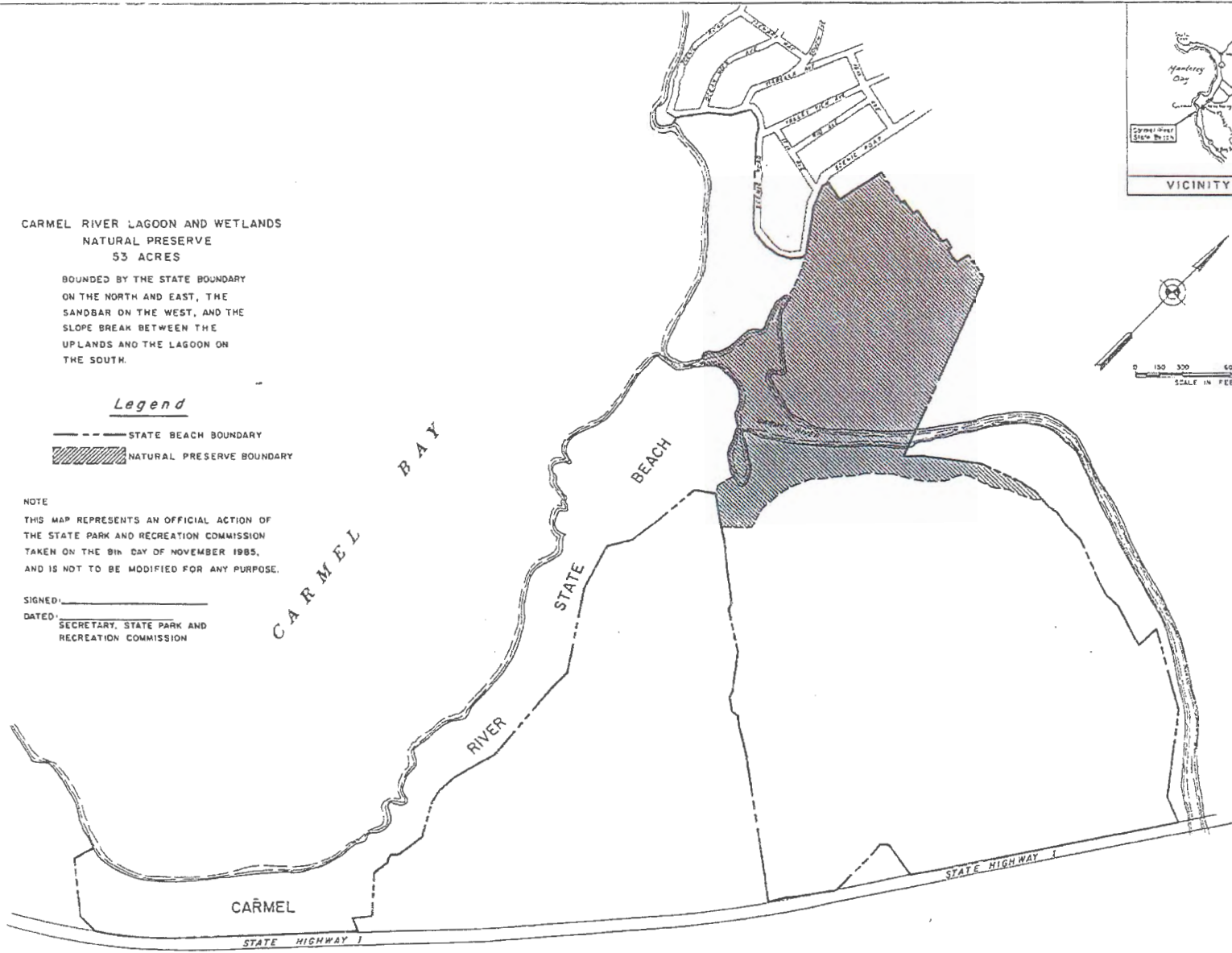
- STATE BEACH BOUNDARY
- ▨ NATURAL PRESERVE BOUNDARY

NOTE

THIS MAP REPRESENTS AN OFFICIAL ACTION OF
THE STATE PARK AND RECREATION COMMISSION
TAKEN ON THE 9th DAY OF NOVEMBER 1985,
AND IS NOT TO BE MODIFIED FOR ANY PURPOSE.

SIGNED: _____

DATED: _____
SECRETARY, STATE PARK AND
RECREATION COMMISSION



REVISIONS	DATE	BY
RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		
APPROVED	DATE	
CARMEL RIVER LAGOON & WETLANDS NP NATURAL PRESERVE (CARMEL RIVER STATE BEACH)		
DRAWING NO.	20881	
SHEET NO.	1	

Beretti, Melanie x5285

From: Sophie De Beukelaer - NOAA Affiliate [sophie.debeukelaer@noaa.gov]
Sent: Tuesday, January 31, 2017 5:08 PM
To: Beretti, Melanie x5285
Subject: Re: Carmel Lagoon DEIR - Request to extend public review period
Attachments: MBNMS_Comments on Carmel Lagoon Draft EIR 1.31.2017.pdf

Hello Melanie,

MBNMS was able to complete our comments on the DRAFT EIR today, please see attached,

Sophie

On Tue, Jan 31, 2017 at 4:05 PM, Beretti, Melanie x5285 <BerettiM@co.monterey.ca.us> wrote:

Thank you for the update.

Melanie Beretti

Resource Management Agency

831-755-5285



From: Sophie De Beukelaer - NOAA Affiliate [mailto:sophie.debeukelaer@noaa.gov]
Sent: Tuesday, January 31, 2017 3:59 PM
To: Beretti, Melanie x5285
Subject: Re: Carmel Lagoon DEIR - Request to extend public review period

Hello Melanie,

Due to unforeseen circumstances, we are not able to finalize our comments on the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project DEIR today. We plan to send them to you at the end of this week. We apologize for any inconvenience.

Also, did you send out a poll for a regulatory conference call? If so, we did not receive it. If not, we'll be on the look-out for it!



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Monterey Bay National Marine Sanctuary
99 Pacific Street, Bld. 455
Monterey, California 93940

January 31, 2017



Monterey County RMA
ATTN: Melanie Beretti,
Special Programs Manager, 168 West Alisal Street, 2nd Floor
Salinas, California, 93901

Subj: Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan Project (ISMPP) DEIR

Dear Ms. Beretti:

NOAA's Monterey Bay National Marine Sanctuary (MBNMS) staff has reviewed the Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan Project (ISMPP) DEIR dated December 2016. The proposed alternative entails building an EPB and SRPS and while the design, environmental review, permitting, and construction of the proposed EPB and SRPS project components proceeds, the County would implement the proposed ISMP project component.

The proposed EPB and ISMP projects, as described in the DEIR, are outside of MBNMS jurisdiction and we have no comments on the proposed project description. However, the SRPS which consists of rock slope protection, also known as rock riprap or revetment, placed at the toe of the road embankment on Carmel River State Beach is within jurisdiction of MBNMS as some of the work is anticipated to be below the Mean High Water Line. Below we reference MBNMS prohibitions that should be considered.

The Office of National Marine Sanctuaries regulations (codified at 15 CFR Part 922) describe and define the boundaries of designated national marine sanctuaries, identify activities that are prohibited in the sanctuaries, and establish a system of permitting and/or authorizations to allow the conduct of certain types of activities that would not otherwise be allowed. The regulations are used by Office of National Marine Sanctuaries to implement the National Marine Sanctuaries Act and national marine sanctuary management plans. Each sanctuary has its own set of regulations set out in a separate subpart within 15 CFR Part 922. Subpart M contains the regulations specific to MBNMS.

Subpart M sets out general prohibitions against certain activities within MBNMS, including (1) discharging or depositing any material or matter within or into the sanctuary (e.g. pollutants, trash, objects, etc.), or from outside the boundaries if it subsequently enters and injures the sanctuary, and (2) drilling into, dredging, or drilling into, dredging, or otherwise altering the submerged lands of the Sanctuary; or



constructing, placing, or abandoning any structure, material, or other matter on or in the submerged lands of the Sanctuary (among other prohibitions). These activities are not allowed in MBNMS unless authorized through a lease, permit, license, approval, or other authorization issued by MBNMS (Section 922.132).

Comment 1: p.3.0-52- Monterey Bay National Marine Sanctuary (MBNMS) – Construction Authorization

- **Change** “Construction Authorization” to “Authorization of Coastal Development Permit (CDP) and/or NPDES Permit”

Comment 2: p.4.8-26- please correct and add the following text:

Carmel Bay is located in the ~~the~~ Monterey Bay National Marine Sanctuary (MBNMS), which was designated as a federally protected area in 1992. The MBNMS is managed by NOAA and includes coastal waters from Marin to Cambria. ~~The~~ MBNMS includes approximately 276 miles of shoreline, extends an average distance of 30 miles from shore, encompasses ~~5,3226~~ 094 square miles of ocean, and is more than two miles deep at its deepest point. ~~The~~ MBNMS was established for the purpose~~s~~ of research, education, public use, and resource protection. ~~The~~ MBNMS includes a variety of habitats that support extensive marine life (MBNMS, 2008).

Under Title 15, Code of Federal Regulations, Section 922.49 (Notification and Review of Applications for Leases, Licenses, Permits, Approvals or Other Authorizations to Conduct a Prohibited Activity), MBNMS has the authority to “authorize” other agency permits to allow the conduct of an activity that takes place within MBNMS boundaries. The authorization process is intended to alleviate the need to get individual permits from multiple government agencies with overlapping jurisdictions. Through the authorization process, as described in MBNMS regulations, a person needs to notify MBNMS of their intent to use another agency’s permit to conduct an otherwise prohibited activity. The Sanctuary then must notify the person and the other agency as to whether or not it objects to the issuance of the other permit. MBNMS may add additional conditions to the other permit that it deems necessary to protect Sanctuary resources and qualities. Only if ~~the~~ MBNMS does not object to an activity by providing written notice to this effect, may the activity proceed.

The National Oceanic and Atmospheric Administration-U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of National Marine Sanctuaries (ONMS), through Monterey Bay National Marine Sanctuary (Sanctuary or MBNMS) has entered into a Memorandum of Agreement with the U. S. Environmental Protection Agency (U.S. EPA), the California Environmental Protection Agency (Cal. EPA), the California State Water Resources Control Board (State Water Board), the California Regional Water Quality Control Board Central Coast Region (Central Coast Water Board), the California Regional Water



Quality Control Board San Francisco Bay Region (San Francisco Bay Water Board), the California Coastal Commission (CCC), and the Association of Monterey Bay Area Governments (AMBAG), the State of California, Environmental Protection Agency, and the Association of Monterey Bay Area Governments to provide an ecosystem-based water quality management process that integrates the mandates and expertise of existing coastal and ocean resource and land-use managers and protects the nationally significant resources, qualities, and compatible uses of MBNMS and the water quality in the watersheds that drain into MBNMS, regarding the MBNMS regulations relating to water quality within state waters within the sanctuary (MBNMS, 20082015). The Memorandum of Agreement provides for MBNMS review authority for the following permits within the Sanctuary:

- NPDES permits issued under Section 13377 of the Water Code;
- WDRs issued under Section 13263 of the Water Code;
- Waivers of WDRs issued under Section 13269 of the Water Code;
- Water Quality Certifications issued under Section 401 of the CWA;
- California Ocean Plan, Thermal Plan, relevant Basin Plans, CWA 208 Plans, California Toxic Rule, Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP);
- Plan for California's Non-point Source Pollution Control Program (NPS Plan), including any management plans prepared under Sections 319 and 208 of the CWA and under Section 6217 of CZARA;
- Total Maximum Daily Loads (TMDLs) required under Section 303(d) of the CWA and 40 CFR Part 130

The Memorandum of Agreement specifies how the review process for applications for leases, licenses, permits, approvals, or other authorizations will be administered within State waters within the Sanctuary in coordination with the State permit program.

he MBNMS also implements a separate Water Quality Protection Program for the Sanctuary and tributary waters. The program is a partnership of many local, state, and federal government agencies (MBNMS, 2008). The program calls for education, funding, monitoring, and development of treatment facilities and assessment programs to protect water quality. The goal of the program is to enhance and protect the chemical, physical, and biological integrity of the Sanctuary.

Comment 3: p.4.8-52: Add new reference

Monterey Bay National Marine Sanctuary (MBNMS), 2016. MOA for the Purpose of Ecosystem-based Water Quality Management. MOA-2015-057/9083. Amended April 2016.



Comment 4: P.5.0-14: MBNMS would like to see a cost estimate difference between the proposed project and this alternative 5.2.1.3 Condemn Housing/Properties Alternative. Under NEPA, alternatives may not be screened out due to cost. Based on research from Pacific Institute and MBNMS work on coastal sediment management issues, we discourage the use of hard structures and, for example, promote the use of adaptive retreat to deal with coastal erosion and sea level rise challenges.

Comment 5: HYD-6 Operational Drainage Pattern Alteration – this impact is identified as Significant and Unavoidable because there is potential to flood the Carmel Area Wastewater District treatment plant and Mission Ranch. Flooding would be a concern in this area as it could lead to sewage overflows at the treatment plant and impact water quality of MBNMS.

Comment 6: Please add the National Marine Sanctuary Act (NMSA) under the regulatory setting for Section 4.3 (Biological Resources) and Section 4.6 (Geology, Soils and Seismicity).

If you have any questions regarding these comments, please contact Sophie De Beukelaer, of my staff, at sophie.debeukelaer@noaa.gov or (831) 647-1286.

Sincerely,



Paul Michel
Superintendent

Cc: Central Coast Regional Water Quality Control Board
California Coastal Commission



Beretti, Melanie x5285

received
Feb. 1, 2017

From: Palkovic, Amy@Parks [Amy.Palkovic@parks.ca.gov]
Sent: Wednesday, February 01, 2017 4:51 PM
To: Beretti, Melanie x5285
Subject: FW: Snowy Plovers...

Carmel Lagoon EIR

Hi Melanie-

I received the email below from a concerned citizen who was interested in commenting on the EPB EIR. I realize the comment period is over and that this is not the process for submitting comments, so I am forwarding this email as an FYI (because I don't know what else to do with it).

Thank you.

Amy Palkovic
Environmental Scientist
California State Parks
2211 Garden Road
Monterey, CA 93940
831.384.7420 office
831.760.7108 cell
Amy.Palkovic@parks.ca.gov

From: T.W. White-Henry [mailto:gybeo77@gmail.com]
Sent: Tuesday, January 31, 2017 4:40 PM
To: Palkovic, Amy@Parks
Subject: Fwd: Snowy Plovers...

Hi Amy Palkovic,

Carleton Eyster suggested that I contact you about the state of the Western Snowy Plovers trying to nest on Carmel River State Beach. I know it is also the last day for commentary on the Monterey EIR as the information about Western Snowy Plovers on Carmel River State Beach is incorrect. Please direct my comments there as I was unable to complete the email document yesterday. Something stopped the completion of any part of the form.

Please see the information contained below. If you would like me to provide actual information on the disturbances caused by dogs and people at Carmel River State Beach, I would be more than happy to volunteer my time. It does seem sad to see these beautiful birds deprived of minimum survival assistance.

Sincerely,

Freya White-Henry

Begin forwarded message:

From: Carleton Eyster <ceyster@pointblue.org>
Subject: RE: Snowy Plovers...
Date: January 30, 2017 at 4:30:31 PM PST
To: "T.W. White-Henry" <gybeo77@gmail.com>

Thanks Freya, for the data and the information!

I counted 42 for Carmel!

I don't know what can be done about the failure at this point to highlight the impacts to plovers (with regard to the lagoon project), but certainly State Parks should receive input as to the observed impact of dogs at that site. Amy Palkovic (Amy.Palkovic@parks.ca.gov) is the Environmental Scientist with State Parks who has been trying to address plover concerns with her superiors within State Parks. I will certainly talk to her about all this.

Carleton

From: T.W. White-Henry [<mailto:gybeo77@gmail.com>]
Sent: Monday, January 30, 2017 10:39 AM
To: Carleton Eyster <ceyster@pointblue.org>
Cc: Will Furman <willfurman@comcast.net>
Subject: Fwd: Snowy Plovers...

Carleton,

Best count for Western Snowy Plovers at Carmel River SB was 42 on Tuesday Jan. 24, 2017. Counts in the 30's on Wednesday and on Thursday.

Disquieting news tho' for Western Snowy Plovers, in the latest Report regarding the County's attempts to control River flooding...

Monterey County Resource Management Agency, Planning, have prepared an EIR for the Carmel Lagoon EcoSystem Protective Barrier December 2016.

<http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-/planning/current-major-projects/carmel-lagoon-ecosystem-protective-barrier-and-scenic-road--4025>

The cut-off date for review of the EIR is January 31, 2017...TOMORROW! It would seem that their information regarding Western Snowy Plovers has not been updated for years...neither does it speak to the detrimental effects of contact with humans over the years...which continues to this day.

SPECIAL-STATUS SPECIES

The Biological Study Area was surveyed for the presence or potential presence of a number of special- status species. The special-status species that are known to, or have been determined to, have a moderate or high potential to occur within or immediately adjacent the proposed project site are discussed below and in the impacts and mitigation section. **Table 4.3-2, Potential for Special-Status Wildlife Species Presence within Proposed Project Components** outlines the presence or potential presence of special-status species within the Biological Study Area and each of the proposed project components. All other species are presented in Appendix C of the Biological Resources Report

From page 43.15

Here below is the relevant section...While the State Parks are responsible for the management of species, they have not as yet, commented...as far as I know.

<http://www.co.monterey.ca.us/home/showdocument?id=15455>

Western Snowy Plover

The western snowy plover was listed as a Federally Threatened species on March 5, 1993 (58 FR 12864- 12874) (USFWS, 1993). Additionally, the western snowy plover is protected under the MBTA. This
December 2016 4.3-21 Carmel Lagoon EPB, SRPS, and ISMP Project Denise Duffy & Associates, Inc. Public Draft Environmental Impact Report
The western snowy plover was listed as a Federally Threatened species on March 5, 1993 (58 FR 12864- 12874) (USFWS, 1993).

4.3 Biological Resources

Additionally, the western snowy plover is protected under the MBTA.

This species is associated with sandy marine and estuarine shores and also rarely occurs at salt ponds. Snowy plovers require a flat, sandy, gravelly or friable soil substrate for nesting. Snowy plover nests are shallow depressions in the sand or soil, sometimes lined with small pebbles, glass fragments, or gravel. Nests are often near objects such as driftwood, rocks, or defoliated bushes, although nests may also be found on barren ground with no nearby cover. Nests are typically within 100 meters (328 feet) of water, but can be several hundred meters away where no vegetative barrier exists between the nest and water (USFWS, 2007). The breeding season in California typically begins in early March and extends through August. Clutch size is typically two to six eggs and chicks reach fledging age approximately one month after hatching (USFWS, 2007). Snowy plovers glean insects and amphipods from the dry sand of upper beaches along the coast, occasionally foraging in wet sand for young sand crabs. Gulls, ravens, coyotes, and skunks are predators of adults, eggs, and young. The historical nesting of snowy plovers on sandy marine beaches has brought them into constant contact with humans using these areas for recreation.

The CNDDDB reports six occurrences of western snowy plover within the five quadrangles reviewed, the nearest of which is located approximately 4.6 miles from the Biological Study Area. Roberson (2002) reports that this species may winter at the Carmel River State Beach near the mouth of the Lagoon and individual snowy plovers were reported at the beach adjacent to Scenic Road during surveys conducted in the summer of 2012 (HTH, 2013). Suitable habitat is present within the coastal strand area of the Biological Study Area; however, although snowy plovers may utilize the beach, they have never been documented to breed within this area (Roberson, 2002; HTH, 2013).

A 2014 Report stated as follows:

<http://www.co.monterey.ca.us/planning/major/EPB%20and%20Scenic%20Road%20Protection/Carmel%20Lagoon%20Draft%20BA%204-10-14%20R.pdf>



Carmel Lagoon Ecosystem Protective Barrier (EPB), Scenic Road Protection Structure (SRPS), and Interim Sandbar Management Plan (ISMP) Project

DRAFT

BIOLOGICAL ASSESSMENT

April 2014

Summary of Findings, Conclusions, and Determinations

The following are the determinations made for each species known or assumed present within the Action Area: adversely affect western snowy plover. The Proposed Action will not affect snowy plover critical habitat.

The following are the determinations made for each species known or assumed present within the Action Area:

Western Snowy Plover

Although snowy plovers may be present within the coastal strand habitat of the Carmel River State Beach, adverse effects to this species as a result of the Proposed Action are unlikely due to their mobility. It is likely the species would move outside of construction areas if present. The species is not known to breed within or adjacent to the Action Area.

Additionally, the Action Area is not within designated critical habitat for snowy plover. The Proposed Action will affect but is not likely to

Carmel Lagoon EPB, SRPS, ISMP Project iii Biological Assessment

Not sure if there's anything that Point Blue can do at this stage? Current management practices, the responsibility of the State Parks, ignore the basic needs of the Plovers. All day the plovers are constantly disturbed having to run and leave their scrapes every couple of minutes...so it is easy for the authorities to say that the Snowy Plovers do not nest on CRSB. With current lack of protections - no fencing, not notice to users, dogs generally allowed to roam freely - people who fail to see the plovers - there is little hope for future protection. Can't anything be done...Obviously the plovers want to nest at CRSB in suitable areas...the size of which has been much reduced due to recent storms...and with no interest in their protection...their future looks dim.

It would seem that dogs are encouraged at CRSB...despite the havoc caused to the plovers...which ensures that plovers cannot nest there..which then becomes the rationale for not protecting them? Duh?

BIG SUR STATION / MULTI-AGENCY FACILITY

TEL (831) 667-2315

FAX (831) 667-2886

What beaches can I take my dog to?

Near the Monterey area, in regards to state beaches, dogs are allowed on leash at Monterey State Beach south of the Monterey Beach Hotel, Asilomar State Beach, and **Carmel River State Beach**.

We prohibit dogs from Zmudowski, Moss Landing, Salinas River, and Marina State Beaches because historically these beaches have had nesting sites for the Western Snowy Plover.

Over to you Carleton...

Best,

Freya White-Henry

<http://www.co.monterey.ca.us/planning/major/EPB%20and%20Scenic%20Road%20Protection/Carmel%20Lagoon%20Draft%20BA%204-10-14%20R.pdf>

Begin forwarded message:

From: "T.W. White-Henry" <gybeo77@gmail.com>
Subject: Snowy Plovers...
Date: January 24, 2017 at 1:51:58 PM PST
To: Carleton Eyster <ceyster@pointblue.org>

Carleton...Just a catch-up note...

Good news! Went to Carmel State River Beach this morning...Even tho' the back is thick with debris, wood etc. some 42 Snowy Plovers have returned ... So will go and check now as the wind has dropped and it is sunny...Will also go tomorrow and Thursday as the weather is improving...

More later...

Best, Freya