PO Box 103 Forest Knolls, CA 94933 415.342.7956



Web: riverotterecology.org Facebook.com/BayAreaOtters Instagram: @riverotterecology

February 10, 2023

Craig Kenkel, Superintendent Point Reyes National Seashore 1 Bear Valley Road Point Reyes, CA 94956

RE: Potential Environmental and Public Safety Hazards at Drakes Beach

Dear Superintendent Kenkel,

River Otter Ecology Project (ROEP) has substantial experience working in Point Reyes National Seashore, including at Drakes Beach, and advocating for the protection of park resources. Our work at Drakes Beach includes wildlife research, science education, and monitoring of habitat conditions.

We are concerned about deteriorating conditions related to post-construction impacts of the wetland restoration at Drakes Beach. We are writing to request that park management take action, as soon as practicable, to remediate potential environmental and public safety hazards at the site. These hazards are specifically related to the condition of the relict sewer pipe on the beach side of the wetland berm, as well as the active sewer line that lies more or less directly beneath the relict pipe.

As background, we brought these issues to the attention of park staff in January 2022 (Attachment 1), and the San Francisco Bay Regional Water Quality Control Board (RWQCB) in February 2022 (Attachment 2). To our knowledge, no action was ever taken to address the concerns we raised, and conditions have deteriorated markedly since then.

Our specific concerns are:

# 1. The relict sewer pipe should have been removed in the wetland construction phase, but was not. Now it is a potential hazard.

Both the Finding of No Significant Impact<sup>1</sup> (FONSI) and the Joint Aquatic Resource Permit Application<sup>2</sup> (JARPA) for the wetland construction project indicate that the relict sewer line would be removed. Because it contains asbestos, the pipe was supposed to have been disposed of at a hazardous waste facility. For reasons that remain unclear, this work was not done. By January 2022, the relict pipe had been exposed by wave action and erosion from the wetland draining through the head cut on the berm. Photos in Attachments 1 and 2 show the condition of the berm and relict pipe at that time. Figure 1 shows those conditions on January 3, 2023, just prior to the recent series of atmospheric rivers.

Figure 2 shows the berm and relict pipe as of January 24, 2023. The berm's head cut has expanded to the point where the relict pipe is completely exposed and is disconnected from its substrate. As hazardous waste, the relict pipe on a public beach is an environmental as well as health and safety hazard that must be remediated.

# 2. The current condition of the active sewer line is unknown, and represents an additional potential hazard.

In conjunction with the removal of the relict pipe, the FONSI and JARPA specify that the active sewer line would be lowered in place and encapsulated within a backfilled plastic trench<sup>3</sup>. Given that the relict pipe was not removed, we question whether that work was ever done. We can reasonably assume it was not, and that the active sewer line is subject to the same risk of erosion and ground failure as the relict pipe.

In any event, Condition 14 of the project's Section 401 Water Quality Certification and Order (Attachment 3) requires that the resiliency of the active sewer be monitored twice annually "...to ensure the encapsulated sewer line does not become exposed or its structural integrity jeopardized...", and that "beach head cover over the sewer line shall remain above the 'trigger elevation' as identified on sheet T9." Given the

- https://parkplanning.nps.gov/document.cfm?parkID=333&projectID=53489&documentID=88878 <sup>2</sup> Available at: https://www.waterboards.ca.gov/sanfranciscobay/public\_notices/401/sirfrancis/index1.html
- <sup>3</sup> JARPA Attachment 18, Sheets T8 and T9. Available at:
- https://www.waterboards.ca.gov/sanfranciscobay/public notices/401/sirfrancis/Attachment 18.pdf

<sup>&</sup>lt;sup>1</sup> Available at:

condition of the berm and relict pipe, we question whether the requirements of Condition 14 are being met.

# 3. NPS has the fundamental obligation to protect park resources.

We understand from our prior communications with park staff that park management may consider the wetland project to be the responsibility of the Federal Highway Administration (FHWA). That may be true in a bureaucratic sense, but under the Organic Act and NPS Management policies, park management has the fundamental obligation to protect park resources, and to avoid impairment of those resources. We strongly urge you to use your own authority as Superintendent to address the issues at Drakes Beach, and not rely on other agencies such as FHWA or RWQCB to take appropriate action.

We also understand that the current presence of Elephant Seals at the project site complicates the situation, and may make it infeasible to immediately address and remediate any hazardous conditions. Nonetheless, we request that you commit to addressing these issues as soon as it is practicable to do so.

Respectfully,

Migan Iradore

Megan Isadore Executive Director River Otter Ecology Project

CC: Brannon Ketch, Point Reyes National Seashore Melanie Gunn, Point Reyes National Seashore Laurie Taul, SF Bay Regional Quality Control Board Cassidy Teufel, California Coastal Commission



Figure 1. Condition of the Berm and Relict Sewer Line on January 3, 2023





Attachment 1

From: "Press, Dave T" <Dave\_Press@nps.gov Subject: Re: [EXTERNAL] Drakes Beach Wetland Issues

Date: January 20, 2022 at 5:40:57 PM PST To: Terence Carroll < terence@riverotterecology.org> Cc: "Ketcham, Brannon" <Brannon\_Ketcham@nps.gov>, "Becker, Benjamin H" <Ben\_Becker@nps.gov>, Megan Isadore <megan@riverotterecology.org>

Hi Terrence.

Yes, there are quite a few issues with the Drakes Wetland that need to be taken care.

We are closely monitoring the head cut at the outflow and there are no concerns at this point. It needs to recede quite a bit more and to a greater depth in order to expose the new line. Federal Highways is ready to act if needed. There will be some post-season follow-up work at the outflow, and other areas, that are still being worked out.

The parking lot is designed to drain into the wetlands. There is a groove (for lack of a better term) that runs S to N in the center of the parking lot that collects water from both sides and funnels it to the back of the wetlands. What hasn't happened yet (for a variety of reasons including the October rain event) is all of the seeding, planting, and additional biocontrol that is planned for the area. This work will help to capture and filter the run-off from the parking lot.

This new wetland is definitely a work in progress and will take several years to fully develop. Meanwhile, there will be continued monitoring, and maintenance as needed, per the requirements of the regulatory agencies which will help to make sure that all is on track.

Hope all that info helps.

Cheers, Dave

David Press Acting Natural Resources Program Lead Wildlife Ecologist Point Reyes National Seashore 415-464-5202 (office) 415-858-9667 (work cell)

From: Terence Carroll <<u>terence@riverotterecology.org</u>> Sent: Wednesday, January 19, 2022 9:35 PM To: Press, Dave T < Dave Press@nps.gov>

Cc: Ketcham, Brannon < Brannon Ketcham@nps.gov>; Becker, Benjamin H < Ben\_Becker@nps.gov>; Megan Isadore < megan@riverotterecology.org> Subject: [EXTERNAL] Drakes Beach Wetland Issues

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Dave –

I was out looking for river otter tracks and scat at Drakes Beach this afternoon, and I noticed a couple of troubling things. I'm sure I'm not the first to notice, but I'm letting you know anyway.

The erosion from the new wetland draining onto the beach is pretty extensive at this point, as shown in the first photo, with the large chunk of derelict concrete sticking up out of the sand. The second photo shows that the erosion has exposed the abandoned sewer line (red arrow), and if I remember correctly, the newer functional sewer line is in close proximity to the abandoned one. We're only half way through the winter, and I wonder what level of concern park staff has about the consequences of the inevitable further erosion of this area.

The third photo shows that the parking lot is draining directly into the wetland. I'm guessing from the straw wattles that park staff is trying to mitigate what appears to be a design or construction flaw. It looks like that makeshift effort isn't entirely successful.

Our preliminary look at the research data ROEP collected at Drakes Beach this past summer shows relatively severe short term impacts to wildlife and habitat as a consequence of the construction. My observations today reinforce our concern that there may be additional ongoing impacts to habitat and water quality. It would be reassuring to know that park staff shares that concern, and is actively thinking about ways to avoid such impacts.

Thanks, Terence



Terence Carroll Co-Founder and Research Director River Otter Ecology Project www.riverotterecology.org Attachment 2

From: "Fairley, Nicole@Waterboards" <Nicole.Fairley@Waterboards.ca.gov> Subject: Re: Section 401 Certification for Wetland Construction at Drakes Beach in Point Reyes National Seashore Date: February 17, 2022 at 11:58:53 AM PST To: Terence Carroll <terence@riverotterecology.org>

#### Hi Terence,

That was because their original soil material source that was meant to be used for completing the wetland area grades fell through. Covid ended up disrupting the original construction timeline earlier in the implementation phases, so they lost their chance to use that material. They have since found another suitable source so they can complete grading this summer.

Hope this clears up any confusion and I'll circle back with you soon following our site visit! Best,

Nicole Fairley, P.E. Water Resource Control Engineer SF Bay Regional Water Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 (510) 622-2424 nicole.fairley@waterboards.ca.gov

 From: Terence Carroll <terence@riverotterecology.org>

 Sent: Wednesday, February 16, 2022 11:24 AM

 To: Fairley, Nicole@Waterboards <<u>Nicole.Fairley@Waterboards.ca.gov</u>>

 Subject: Re: Section 401 Certification for Wetland Construction at Drakes Beach in Point Reyes National Seashore

EXTERNAL:

#### Hi Nicole –

Thank you for being so responsive to my questions and concerns. I really appreciate it, and it's reassuring to know that you're so closely involved in the process and ultimate success of the project. I'd be very grateful if you would keep me updated after your next visit.

One thing that has confused me is the idea that they weren't done building up the wetland area elevations before the storms came. I was doing field work at the site at least once a week from April through the beginning of December, and watched the whole project progress. By the end of June, it seemed clear that no more earth-moving was going to happen in the wetland area. The contractor had installed a concrete curb around the entire perimeter of the parking lot area, seemingly cutting off access to the wetland for heavy equipment. They had also removed the silt fence on the beach. I guess it doesn't matter at this point, but it was confusing.

Anyway, I look forward to your update after your next visit.

Thank you again, Terence

Terence Carroll Co-Founder and Research Director River Otter Ecology Project www.riverotterecology.org

"Even the upper end of the river believes in the ocean." –William Stafford



July 1<sup>st</sup> – Parking Lot Area



July 8<sup>th</sup> – Berm – Beach Silt Fence Removed



 From: "Fairley, Nicole@Waterboards." <<u>Nicole.Fairley@Waterboards.ca.gov</u>>

 Date: Tuesday, February 15, 2022 at 3:02 PM

 To: Terence Carroll <<u>terence@riverotterecology.org</u>>

 Subject: Re: Section 401 Certification for Wetland Construction at Drakes Beach in Point Reyes National Seashore

#### Hi Terence,

We are currently in discussions with FHWA and NPS about the site conditions and are aware that plantings have not yet been implemented. They are not yet done with building up the wetland and tidal marsh elevations within the restored area and then the early storms hit and inundated the area before all the erosion control measures could be implemented. Elephant seal season is also another factor that has limited their ability to continue any work within the area. There are constraints on their access to suitable plantings, so they are monitoring water levels and salinity levels to ensure that the planting pallet is going to be successful in this dynamic environment. I've been out to the site a few times this winter (and I do remember walking primarily on erosion control fabric around the restored wetland area, so there may have been some sedimentation or loss of erosion control materials since then) and we will be going out again later this February to assess site conditions, so I will be sure to discuss the concerns you've expressed about the erosion exposing the abandoned sewer line. The concrete rubble was something that we also noted in our recent site visits and will be working with NPS and FHWA to get this addressed.

We expected that there would likely be some erosion and sedimentation issues as the wetland and beach interface equilibrates now that tidal action is restored, which is why we required monitoring of the berm elevation over the active sewer line. Unfortunately, additional work cannot be initiated until the elephant seal season is over. At that point they plan on completing the final mitigation actions including some grading, hand work, and revegetation. The project may require adaptive management over its monitoring period, so our permit includes flexibility to address issues like those ones you've raised.

Thank you for the photos and insight on the current site conditions! Happy to provide you an update on the site after our next site visit. Best.

Nicole Fairley, P.E. Water Resource Control Engineer SF Bay Regional Water Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 (510) 622- 2424 nicole, fairley@waterboards.ca.gov

From: Terence Carroll <<u>terence@riverotterecology.org</u>> Sent: Sunday, February 13, 2022 6:43 PM To: Fairley, Nicole@Waterboards <<u>Nicole.Fairley@Waterboards.ca.gov</u>> Subject. Rel Section 401 Certification for Wetland Construction at Drakes Deach in Point Reyes National Seasifier

#### EXTERNAL:

#### Hi Nicole –

Thanks for providing the document. If you don't mind, I have a couple of questions about process and oversight of post-construction conditions at the Drakes Beach wetland site.

It appears that none of the mitigations or BMPs for preventing erosion or discharges of sediment have been implemented at the site. There has been no vegetation planting, and no erosion cloth or coir mats have been installed. The berm separating the wetland from the beach area is badly eroded to the point that the abandoned sewer line is exposed. A large chuck of derelict concrete from the berm's substrate was dislodged at some point, and is now stuck in the sand on the beach. At the back of the project area, the parking lot drains directly into the new wetland. I've attached some photos I took at the site on January 19<sup>th</sup> and February 11<sup>th</sup>. I have other photos, if they would be helpful.

I asked National Park Service staff at Point Reyes about conditions at the site. Summarizing their response, they said the Federal Highway Administration was monitoring conditions, in particular the elevation of the berm relative to the active sewer line that underlies it, and would take remedial action if necessary.

I'm wondering if your agency is aware of the site conditions, either through the reporting provisions of the 401 Certification, or otherwise. I'd also be interested to know how long these degraded conditions would be allowed to persist before the permittees would be considered in violation of terms of the Certification. I understand very well that restoration takes time, and project sites don't recover until well after construction is complete. But this project appears to be badly malfunctioning and causing actual harm beyond the construction impacts.

Thank you for any information you can give me concerning my questions.

Regards, Terence

Terence Carroll Co-Founder and Research Director River Otter Ecology Project www.riverotterecology.org

"Even the upper end of the river believes in the ocean." –William Stafford





Exposed abandoned sewer line February 11th



Exposed abandoned sewer line January 19<sup>th</sup>







 From: "Fairley, Nicole@Waterboards" <<u>Nicole.Fairley@Waterboards.ca.gov</u>>

 Date: Wednesday, February 9, 2022 at 1:14 PM

 To: Terence Carroll <<u>terence@riverotterecology.org</u>>

 Subject: Re: Section 401 Certification for Wetland Construction at Drakes Beach in Point Reyes National Seashore

#### Hi Terence,

Thanks for getting in touch! I've attached the certification we issued for that project and all of my agency's specific requirements are in the conditions. Let me know if you need anything else!

Best,

Nicole Fairley, P.E. Water Resource Control Engineer SF Bay Regional Water Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 (510) 622- 2424 nicole, fairley@waterboards.ca.gov

 From: Terence Carroll <terence@riverotterecology.org>

 Sent: Friday, January 28, 2022 10:40 AM

 To: Fairley, Nicole@Waterboards <<u>Nicole.Fairley@Waterboards.ca.gov</u>>

 Subject: Section 401 Certification for Wetland Construction at Drakes Beach in Point Reyes National Seashore

EXTERNAL:

Dear Ms. Fairley -

I'm conducting a research project on some effects of the recent construction of a wetland at Drakes Beach in Point Reyes National Seashore. I'm looking for copies of the Section 401 Certification that would have been issued for the project, as well as any other permit documents or requirements related to the project.

I'm wondering if that's something you can help me with, or can at least point me in the right direction for. The wetland construction was a Federal Highway Administration project, not a National Park Service project, in case that matters.

Thanks for any help you can provide.

Regards, Terence

Terence Carroll Co-Founder and Research Director River Otter Ecology Project www.riverotterecology.org

*"Even the upper end of the river believes in the ocean." –William Stafford* 



Attachment 3





San Francisco Bay Regional Water Quality Control Board

#### CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER for:

Sir Francis Drake Boulevard Improvement Project, CA FLAP CR 109(1), Marin County

#### Effective Date: March 10, 2019 **Applicant:** Federal Highway Administration - Central Federal Lands Hwy Division Attn: Nathan Allen 12300 West Dakota Ave., Suite 380A Lakewood, CO 80228-2583 Phone: (720) 963-3668 Email: Nathan.allen@dot.gov Marin County, Department of Public Works Attn: Eric Miller 3501 Civic Center Dr., Room 404 San Rafael, CA 94913 Email: EMiller@marincounty.org National Parks Service Attn: Cicely Muldoon Point Reyes National Seashore 1 Bear Valley Rd. Point Reyes Station, CA 94956 Email: Cicely Muldoon@nps.gov Applicant's Agent: Pat Basting 707 17<sup>th</sup> St., Suite 2500 Denver, CO 80202 Phone: (303) 462-7761 Email: pat.basting@jacobs.com Water Board Staff: Nicole Fairley 1515 Clay Street, Suite 1400 Oakland, CA 94612 Phone: (510) 622-2424 Email: nicole.fairley@waterboards.ca.gov

DR. TERRY F. YOUNG, CHAIR | MICHAEL MONTGOMERY, EXECUTIVE OFFICER

# **Table of Contents**

ORDI	ER	3
I.	Project	3
II.	Impacts to Waters of the State	4
III.	Mitigation	5
IV.	California EcoAtlas	6
۷.	California Environmental Quality Act (CEQA)	6
VI.	Conditions General Conditions Mitigation Monitoring and Reporting Administrative General Compliance Standard Conditions Fees	6 7 8 12 13 13 13

## Order

This Clean Water Act (CWA) section 401 Water Quality Certification and Order (Order) is issued to Federal Highway Administration (FHWA) Central Federal Lands Highway Division, Marin County Dept. of Public Works, and National Park Service (hereinafter Permittees) for the Sir Francis Drake Boulevard Improvements Project, CA FLAP CR 109(1) (Project). We received the application for certification (Application) on June 15, 2018. On July 24, 2018, we issued a notice of incomplete application and requested additional information including clarifications on impacts, an alternatives analysis, a basis of design, a mitigation and monitoring plan, a stormwater control plan (SCP), and the application fee. We received supplemental information on November 8, 2018. On December 7, 2018, we issued a second notice of incomplete application and requested additional information including clarifications on the basis of design, the mitigation and monitoring plan, the SCP, and the application fee. We received the supplemental information needed to complete the application on January 28, 2019.

The FHWA has also applied to the U.S. Army Corps of Engineers (Corps), Regulatory Branch for an Individual Permit, pursuant to CWA Section 404 (33 USC 1344).

## I. Project

The Project seeks to restore the structural integrity of Sir Francis Drake Boulevard (SFDB) and enhance safety for all users along a 12-mile stretch between the intersection of Chimney Rock Road (37.9982, -122.9951) and Pierce Point Road (38.1105, -122.8880) within Point Reyes National Seashore (PRNS), Marin County. The Project purpose is to rehabilitate the roadway and improve drainage to reduce ongoing maintenance requirements. Within the Project area, the SFDB road surface is deteriorating at an accelerated pace and floods seasonally at several locations that cross waterways within the Schooner Creek Watershed. As a result, frequent recurring maintenance and repair projects have been required to keep the road operational. To remedy this, the following specific actions will be implemented:

#### Roadway Rehabilitation

SFDB will be widened from 1 to 6 feet to maintain a consistent 24-foot paved width. Along 10 miles of the road, the road will be repaved. Along the remaining 2 miles, the road will be fully reconstructed. Localized reconstruction and safety improvements will involve minor vertical and horizontal re-alignments, one cattle crossing replacement, pullout improvements and paving, and reconfiguration of the Drakes Beach parking lot to remove 85 parking spaces.

#### Drainage Improvements

Paved ditches between 1 and 4 feet wide with asphalt curbs will be installed in road segments adjacent to sensitive resources to minimize cut slopes and overall ground disturbance in these areas.

Along the Project length, degraded and poorly-functioning culverts will be replaced, relocated, and new culverts will be installed to decrease the road's impact on natural hydrology and minimize maintenance. To accomplish this, the Project will implement the following:

• Within the flood-prone area (STA 500+00 to STA 524+00), 7 culverts will be replaced, and 2 new culverts will be installed with high-density polyethylene (HDPE) pipes sized for the 100-year storm event to decrease flood risk and minimize contact with roadway pollutants.

- At Schooner Creek (STA 490+82), two existing corrugated metal pipe (CMP) culverts will be replaced with a single-span bridge to improve fish passage and restore natural hydrology.
- At East Schooner Creek (STA 529+37), an existing elliptical arch culvert will be replaced with a larger concrete box culvert buried at least one foot below the exiting channel bed to maintain a natural bottom and accommodate fish and wildlife passage.
- Outside of the flood-prone area listed above, 56 minor culverts will be replaced with slightly extended HDPE culverts to accommodate the wider road. All the new culverts will be sized to convey the 25-year storm event at a minimum and, with a few exceptions, will be larger diameter pipe.

Approximately 728 LF of biotechnical bank stabilization, consisting of vegetated toe rock and vegetated soil lifts, will be installed to re-establish the roadway embankment adjacent to East Schooner Creek.

## II. Impacts to Waters of the State

If effective best management practices (BMPs) are not implemented during construction, waters of the state may be impacted by increasing erosion and sedimentation, and/or discharging debris and other waste materials. After construction, 8.42 acres of impervious surfaces created and replaced by the Project may impact water quality by collecting and concentrating pollutants in stormwater runoff.

The Project will result in 2.14 acres of temporary wetland impacts from roadside ditch wetland reconfiguration and construction disturbance. The Project will result in 2.46 acres of permanent wetland impacts from roadway widening and replacing jurisdictional roadside wetlands with a curb and gutter or a small paved drainage swale.

The Project will result in 0.28 acres and 3,580 linear feet (LF) of temporary impacts to creek and riparian habitat from culvert upgrades, construction disturbances, and biotechnical bank stabilization work. The Project will result in 0.31 acres and 10,168 LF of permanent impacts to creek and riparian habitat. Of the permanent impacts, 0.03 acres and 2,068 LF are an actual loss in area attributed to roadway widening and fill. The remaining 0.28 acres and 8,100 LF is permanent degradation due to paving jurisdictional roadside drainages.

Total Project fill/excavation quantities for all impacts are summarized in Table 1. Permanent impacts are defined as those resulting in a physical loss in area or those degrading ecological condition or functions.

	Temporary Impact <sup>1</sup>		Permanent Impact			
Aquatia Pasauraa Typa			Physical Loss of		Degradation of	
Aqualic Resource Type			Area		<b>Ecological Function</b>	
	Acres	LF	Acres	LF	Acres	LF
Riparian/Stream channel	0.28	3,580	0.03	2,068	0.28	8,100
Wetland	2.14		2.46			

#### Table 1. Total Project Fill/Excavation Quantity

1 - Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or permanent degradation of ecological function.

## **III.** Mitigation

During construction, the Permittees will avoid and minimize impacts to waters of the State by implementing appropriate and effective BMPs as described in the Application and in accordance with the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, as amended, and as may be reissued).

To address potential post-construction impacts from discharge of stormwater runoff and associated pollutants from impervious surfaces, the Permittees will install low impact development (LID) facilities and drain runoff to adjacent, appropriately-sized vegetated pervious areas, avoiding direct discharge to surface waters. Stormwater BMPs will be implemented as described in the *Attachment 12: Post-Construction Stormwater Treatment*, and subsequently clarified in the Supplemental Information provided on November 8, 2018.

The Project was designed to avoid and minimize impacts to waters of the State and sensitive habitat to the maximum extent practicable. For example, much of the unavoidable permanent impact to roadside waters of the State are a result of avoiding fill and grading impacts to sensitive species and habitats. All temporary impacts associated with proposed culvert work will be compensated for through design improvements, such as larger culvert diameters and improved culvert alignments to hydrologically disconnect the road from the watershed and minimized continued maintenance impacts. The biotechnical stabilization work proposed on the bank of East Schooner Creek is a temporary impact that will result in a long-term net benefit to creek habitat by installing habitat-friendly vegetated rock and soil lifts to stop road bed material from eroding into the creek. All other temporary impacts will be compensated with full on-site, in-kind, restoration of waters of the State at a slightly adjusted location adjacent to the roadway and revegetation of any disturbed areas in accordance with the Planting Plan provided on January 14, 2019, in the *Supplemental Information - Enclosures*.

To compensate for unavoidable permanent wetland impacts, the Project shall implement the final Mitigation and Monitoring Plan (MMP), which will closely follow the draft MMP submitted November 8, 2018, but include changes required by conditions of this Certification. The draft MMP proposes to: (1) restore approximately 2 acres of estuarine wetland near Drake's Beach by removing some of the parking lot; (2) create a 0.34-acre seasonal wetland (Pond 2) and a 0.18-acre seasonal wetland (Pond 9) at Home Ranch to provide California red-legged frog (CRLF) habitat, and (3) enhance 0.63 acres of existing seasonal wetlands within the mitigation footprint by improving habitat for special status species such as CRLF. The bridge work on Schooner Creek will remove a hydraulic constriction and allow more natural sediment transport and tidal mixing, enhancing approximately 17.5 acres of tidally muted estuarine habitat upstream.

Unavoidable permanent impacts to creeks will be compensated by removing fish barriers and hydraulic constrictions on Schooner Creek and East Schooner Creek. The culvert removals and replacement bridge on Schooner Creek will restore 0.04 acres (83 LF) of creek habitat and the culvert replacement on East Schooner Creek will restore 0.02 acres (77 LF) of creek habitat that is currently filled. This work will also enhance about 4 acres (19,500 LF) of creek and riparian habitat by improving sediment transport, reducing frequency of maintenance impacts, and providing salmonids access to upstream habitat in Schooner Creek and East Schooner Creek. Compensatory mitigation totals are summarized in Table 2.

Aquatia Pasauraa Typa	Method				
Aqualic Resource Type	Restoration	Creation	Enhancement		
Estuarine Wetlands	2 acres		17.5 acres		
Seasonal Wetlands		0.52 acres	0.63 acres		
Creeks and Riparian Habitat	0.06 acres (160 LF)		4 acres (19,500 LF)		

#### Table 2. Compensatory Mitigation for Permanent Impacts

## IV. California EcoAtlas

Regional, state, and national studies have determined that tracking of mitigation/restoration projects must be improved to better assess the performance of these projects, following monitoring periods that last several years. In addition, to effectively carry out the State's Wetlands Conservation Policy of no net loss to wetlands, the State needs to closely track both wetland losses and mitigation/restoration project success. Therefore, we require that the applicant use the California Wetlands Form to provide Project information related to impacts and mitigation/restoration measures). An electronic copy of the form and instructions can be downloaded at: <a href="http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml">http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml</a>. Project information concerning impacts and mitigation/restoration will be made available at the web link: <a href="http://www.ecoatlas.org/regions/ecoregion/bay-delta/projects">http://www.ecoatlas.org/regions/ecoregion/bay-delta/projects</a>.

#### V. California Environmental Quality Act (CEQA)

On August 28, 2018, the County of Marin, as lead agency, adopted a Mitigated Negative Declaration (MND) (State Clearinghouse (SCH) No. 2015072028) for the Project and filed a Notice of Determination (NOD) at the SCH. The Water Board, as a Responsible Agency under CEQA, has reviewed the project CEQA documents and finds that the Project's significant environmental effects that are within the Water Board's purview and jurisdiction have been identified and will be mitigated to less-than-significant levels. Specifically, significant impacts pertaining to wetland and aquatic habitat and water quality will be mitigated to less-than-significant levels through implementation of mitigation measures identified in the CEQA documents and the mitigation identified above, all of which are required to be implemented and reported on by this Certification.

# VI. Conditions

The Water Board independently reviewed the Project record to analyze impacts to water quality and the environment and designated beneficial uses within the Project's watershed. In accordance with this Order, the Permittees may proceed with the Project under the following terms and conditions:

#### **General Conditions**

1. The Project shall be constructed in conformance with the Project description provided in the Application. The Permittees shall fully comply with engineering plans, specifications, and technical reports submitted in the Application or required as part of this Order. Any changes to information provided in the Application must be submitted to the Water Board and receive Executive Officer approval before the changes are implemented.

- 2. Disturbance or removal of vegetation shall be minimized. The site shall be stabilized through incorporation of appropriate BMPs, including the successful reestablishment of native vegetation to enhance wildlife habitat values, and to prevent and control erosion.
- 3. No equipment shall be operated in stream channels or other waters where there is flowing or standing water. Fueling, cleaning, or maintenance of vehicles or equipment during construction shall <u>not</u> take place within any areas where an accidental discharge to waters of the State may occur.
- 4. No unauthorized construction related materials or wastes shall be allowed to enter into or be placed where they may be washed by rainfall or runoff into waters of the State. When construction is completed, any excess material shall be removed from the work area and any areas adjacent to the work area where such material may be discharged to waters of the State.

#### Mitigation

- 5. To mitigate for 2.14 acres of temporary impacts to wetlands and 0.28 acres (3,580 LF) of temporary impacts to other waters of the State, the Permittees shall restore all areas of temporary impacts to waters of the State and all upland areas temporarily impacted that could result in a discharge to waters of the State as described in the Application and in accordance with the *Point Reyes National Seashore Planting Plan* dated September 2015 and revised April 2016 and incorporated herein by reference.
- 6. If restoration of temporary impacts to waters of the State is not completed within one year of the impacts, additional compensatory mitigation shall be required to offset temporal loss in functions of waters of the State.
- 7. To mitigate potential Project impacts from post-construction discharge or stormwater runoff and associated pollutants, the Permittees shall implement low impact development (LID) facilities and other stormwater BMPs to ensure compliance with State water quality standards in accordance with *Attachment 12: Post-Construction Stormwater Treatment*, and as subsequently clarified in the Supplemental Information provided on November 8, 2018. This includes, but is not limited to, avoiding placement of stormwater facilities in waters of the State, installing appropriately sized biostrips and bioswales, and routing stormwater flow to adjacent suitably-sized vegetated pervious areas where available.
- 8. To ensure appropriate long-term operations and maintenance (O&M) of stormwater facilities included in the Project, the Permittees responsible for O&M of stormwater facilities shall each submit an O&M Plan, acceptable to the Executive Officer, prior to Project construction. Stormwater facilities include all culverts, stilling basins, sediment basins, outfall erosion control, biostrips, bioswales, stormwater drainage ditches, and any other facilities requiring recurring maintenance to protect the Project, water quality, and sustain roadway operations.

The O&M Plan shall, at a minimum, include the following:

- A list of stormwater facilities and maintenance work that is the responsibility of the Permittees;
- A preliminary inspection and maintenance schedule for said facilities and description of appropriate long-term operations;

- Criteria that would trigger further review or maintenance and the mechanism for reporting and prioritizing those flagged sites; and
- A preliminary list of BMPs that may be implemented to ensure continued operations.

The O&M Plans shall reference CIWQS Place ID 848464 and shall be submitted via email to <u>nicole.fairley@waterboards.ca.gov</u>. Project construction shall not begin until the Permittees receive written approval of the O&M plans from the Executive Officer. Alternately, Permittees responsible for O&M of stormwater facilities may submit a preliminary scope and timeline for preparation of a Report of Waste Discharge for O&M activities in lieu of an O&M Plan prior to Project construction. A Report of Waste Discharge, that includes the information listed for the O&M Plan above, shall be submitted to the Water Board prior to January 31, 2021.

- 9. To mitigate for 2.46 acres of permanent impacts to wetlands, the Permittees shall restore 2 acres of estuarine wetland near Drake's Beach by removing some of the parking lot, and create a 0.53-acre wetland (Pond 2) and a 0.35-acre wetland (Pond 9) at Home Ranch for California red-legged frog habitat as summarized in Table 2 and in accordance with the draft MMP and the OPTION Z Drakes Beach Parking, Wetland Mitigation Site, Home Ranch Ponds 2 & 9 Project Plans dated November 8, 2018 and incorporated herein by reference.
- 10. To mitigation for 0.03 acres (2,068 LF) of permanent loss of creek area and 0.28 acres (8,100 LF) of permanent degradation of creek ecological functions, the Permittees shall create approximately 0.06 acres (160 LF) of creek habitat that is currently filled and enhance a total of 4 acres (19,500 LF) of creek by removing fish barriers and hydraulic constrictions on Schooner Creek and East Schooner Creek as summarized in Table 2 and in accordance with the Project Plans, included in the Application.

#### **Monitoring and Reporting**

- 11. The Permittees are required to use the California Wetlands Riparian Repair and Maintenance Form to provide Project information describing impacts and restoration measures within 14 days from the date of this Order. An electronic copy of the form can be downloaded at: <u>http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml</u>. The completed form shall be submitted electronically to <u>habitatdata@waterboards.ca.gov</u> or shall be submitted as a hard copy to both: (1) the Water Board (see address on the letterhead), to the attention of EcoAtlas, and (2) the San Francisco Estuary Institute, 4911 Central Avenue, Richmond, CA, 94804, to the attention of EcoAtlas.
- 12. The Permittees shall submit an Annual Project Status Report each year by January 31 commencing the calendar year after issuance of this Certification. The Report shall reference CIWQS Place ID 848464 and state whether Project construction activities have been initiated or delayed. Annual reporting shall continue until a Notice of Project Completion is received (see Condition 16 below).
- 13. The Permittees shall submit a Final MMP, acceptable to the Executive Officer, prior to Project construction. The Permittees shall include monitoring proposed for wetlands and other waters of the State disturbed by the Project and all areas within the proposed Planting Plan as described in the *Supplemental Information*, dated November 8, 2018, with the changes provided in **bold** below.

Vegetation Monitoring of temporarily impacted locations will be conducted annually for a minimum of 3 years after the disturbed area is re-planted, beginning in the first full growing season after the re-vegetation efforts. Annual monitoring methods include photographs taken from fixed locations, as well as visual estimates of absolute cover, plant species identification, and documentation of the extent of any Tier 1 invasive species. Performance Criteria for assessing plant cover are as follows:

- Year 1: 20 percent or greater absolute cover of native species; less than 5 percent absolute cover of Tier 1 invasive species;
- Year 2: 50 percent or greater absolute cover of native species; 5 percent or less absolute cover of Tier 1 invasive species;
- Year 3: 80 percent or greater absolute cover of native species; 10 percent or less absolute cover of Tier 1 invasive species;

If these performance criteria are not achieved, the Permittees shall treat non-native/invasive vegetation in accordance with Director's Order 13: Integrated Pest Management Guidelines and assess the need for additional plantings or seed distribution to facilitate vegetation growth.

Culvert Monitoring shall be conducted by a qualified professional in an applicable discipline and will consist of three levels of monitoring. Level 1 monitoring shall be performed for culverts that are cleaned, rehabilitated, or replaced in-kind. Level 2 monitoring shall be performed for new culverts and culverts replaced with a larger diameter. Level 3 monitoring shall be performed for culverts replaced with arch or box culverts or bridge with natural bottoms and any culverts extended more than 10 feet. The Final MMP shall include a full list of culverts and the bridge under each level. The three levels of monitoring requirements are as follows:

- a. <u>Level 1 Culverts</u>: Visual inspections and photo-documentation of the culvert inlets and outlets and erosion control structures below outfalls will be performed by September 30 for 3 years following the cleaning, rehabilitation, or in-kind replacement activities. For the photo-documentation, photographs will be taken of the culvert inlets and outlets, erosion control structures, and any observed signs of erosion below the outfalls. The performance criterion will be no observed signs of significant erosion or sedimentation.
- b. <u>Level 2 Culverts</u>: Annual monitoring will take place as described above for Level 1 culverts for a period of 5 years plus event-based monitoring that will use the same methods and performance criterion as above, when triggered. Event-based monitoring is triggered 30 days following one storm of a magnitude equal to or greater than the 5-year recurrence interval event and one storm of a magnitude equal to or greater than the 10-year recurrence interval event. Event-based monitoring is only required once over the course of the monitoring period if a storm event of a magnitude greater than or equal to the 10-year recurrence interval event occurs prior to a storm event of a magnitude between the 5-year and 10-year recurrence intervals. Furthermore, if event-based monitoring is triggered within the first 3 years, no additional monitoring is required beyond the first 3 years unless remedial actions are necessary. Lastly, storm event triggered monitoring is not required if it is not triggered within 10 years.
- c. <u>Level 3 Culverts</u>: Monitoring will take place as described above for Level 2 culverts, **except** monitoring shall continue for a minimum of 5 years, even if event-based monitoring is

**triggered within the first 3 years**. Additionally, baseline and subsequent monitoring of at least two cross-sections **upstream** and downstream of the replacement sites shall be conducted. Cross-section locations will be marked in the field (if practicable) and documented using geographic positioning systems or other mapping tools for future monitoring. The locations will be spaced at least 5 feet apart and extend a sufficient distance down the channel to assess downstream erosion potential and **up the channel to assess sedimentation potential**. Baseline conditions will be established immediately after culvert replacement, and then subsequent monitoring will take place for the next 6 years.

The performance criteria for assessing the culverts are no observed signs of significant erosion and/or significant sedimentation. Signs of significant erosion include piping, scarps, scour, or downcutting that threatens to flank or undermine the culvert or destabilize the creek channel. Signs of significant sedimentation include aggradation or sediment deposition that threatens to plug the culvert or destabilize the channel. If significant erosion or sedimentation is observed, the Permittees shall propose appropriate correction measures, acceptable to the Executive Officer, such as enhancing the erosion control devices, cleaning culverts, modifying culverts, or further stabilizing the channel associated with the culvert. For Level 3 culverts, the performance criterion for the cross-section assessments is a change in the cross-sections of no more than 10 percent of the baseline conditions. If performance criterion are not met, the Permittees shall perform an assessment to identify whether modifications or maintenance is needed.

# Biotechnical bank monitoring shall be added to the final MMP. The Permittees shall propose appropriate monitoring methods and performance criteria, acceptable to the Executive Officer, to be conducted annually for 5 years or may include event-based monitoring.

14. To assess the performance of the wetland mitigation sites, the Permittees shall monitor in accordance with the draft MMP, submitted November 8, 2018, and in accordance with the Supplemental Information 2, dated December 7, 2018. The final MMP shall be revised to include the changes described below in **bold** and shall be approved by the Executive Officer prior to the start of construction.

Wetland establishment shall be assessed with vegetation, hydrologic, and hydric soil monitoring and performance criteria. Permanent monitoring transects shall be established for photo points and GPS locations and elevations. A qualitative functional assessment shall also be conducted using CRAM. The following monitoring requirements apply to all three wetland mitigation sites.

Wetland vegetation monitoring shall consist of annual assessments of percent cover of native facultative or wetter species, using the line transect/intercept method. Performance criteria are as follows:

Year 1: 10 percent cover of native facultative or wetter plant species;

Year 2: 20 percent cover of native facultative or wetter plant species;

Year 3: 35 percent cover of native facultative or wetter plant species;

- Year 4: 55 percent cover of native facultative or wetter plant species;
- Year 5: 70 percent cover of native facultative or wetter plant species; and

Years 1 through 5: 5 percent cover or less of invasive plant species rated "High" by the California Invasive Plant Council.

Wetland hydrology shall be monitored in accordance with the technical guidelines in the Corps 1987 Delineation Wetland Manual and 2008 Regional Supplement. The performance criterion is soil saturation shall be present for at least 12.5 percent of the PRNS growing season in Year 5.

Hydric soil shall be monitored through documentation of soil profile development during the monitoring period to determine if wetland areas are exhibiting characteristics of hydric soils (per the most recent NRCS definitions for hydric soil) or appear to be forming. The performance criterion shall be presence of hydric soils in Year 5. Typical hydric soil indicators require long periods of time to form, therefore, if the soils in the mitigation sites lack distinctive hydric indicators, achievement of hydrologic and vegetation performance criteria in Year 5 shall also indicate achievement of the hydric soil performance criterion.

#### Drakes Beach Mitigation Site

Given the dynamic nature of restoring the interface between a back-barrier costal marsh and the open coast, the vegetation cover performance criteria at the Drakes Beach mitigation site does not include: (1) open water; (2) salt pannes; (3) sand overwash; and (4) elephant seal haul out areas. Instead, a map of these areas and photo-documentation shall be provided to confirm that unvegetated areas resulting from any of these conditions were appropriately excluded from the vegetation monitoring.

Sewer line resiliency shall also be monitored at the beach head to ensure the encapsulated sewer line does not become exposed or its structural integrity jeopardized from the beach barrier removal. Beach elevations shall be surveyed twice annually for a minimum of 5 years at three locations designated on the *Drake's Beach, Home Ranch Pond 2 & 9 Design Plans*, sheet T9. The performance criterion shall be that beach head cover over the sewer line shall remain above the "trigger elevation" as identified on sheet T9.

#### Home Ranch Ponds 2 and 9

Vegetation monitoring shall not include open water areas in Ponds 2 and 9 because the purpose of the mitigation is to establish CRLF breeding habitat.

To verify downstream impacts are avoided, the Permittees shall monitor wetland features downstream from the proposed ponds to the confluence with a separate creek or wetland. A wetland delineation shall be completed in accordance with the Corps 1987 Delineation Wetland Manual and 2008 Regional Supplement. The delineation shall be submitted to the Water Board prior to pond construction to establish baseline conditions. The Permittees shall monitor geomorphic stability and wetland area as follows:

a. Geomorphic assessments of the spillway and downstream reach shall consist of annual visual assessments by a qualified professional and photo-documentation of any observed erosion for a period of 5 years. Photographs shall also be taken of the spillway structure and the wetland swales looking upstream and downstream every 25 feet until reaching the downstream boundary established by baseline conditions. Performance criterion is no observed erosion that threatens to convert the existing swale wetland habitat to creek or upland habitat.

b. A wetland delineation of the same area delineated for baseline conditions shall be completed in accordance with the Corps 1987 Delineation Wetland Manual and 2008 Regional Supplement during Year 5. The performance criterion shall be no significant decrease in jurisdictional area.

The Final MMP shall be revised to reflect the requirements described above and submitted to the Water Board for approval. Project construction may only commence once written approval from the Executive Officer is provided.

- 15. The Permittees shall submit annual monitoring reports, acceptable to the Executive Officer, by January 31 following each monitoring year with the first monitoring year commencing the calendar year after completing the Project. Each annual report shall:
  - a. Identify whether a 5- or 10-year recurrence interval storm event occurred during the monitoring year covered by the report and triggered event-based monitoring
  - b. Summarize each year's monitoring results, including the need for, and implementation of:

     (1) further geomorphic, hydraulic, hydrologic, or biologic studies; and/or (2) remedial measures to help meet the performance criteria. The annual reports shall compare data to previous monitoring years and describe progress towards meeting final performance criteria. The Permittees shall implement all remedial measures upon receiving written acceptance by the Executive Officer, and not before.
  - c. The final monitoring report shall document if the Project (including mitigation) meets the final performance criteria. If the final criteria are not met, the Permittees shall, in consultation with the appropriate agencies, identify remedial measures to be undertaken, including extension of the monitoring and reporting period until the criteria are met. The Permittees shall implement all remedial measures identified upon receiving written acceptance by the Executive Officer and not before. Success of the mitigation program shall be determined by, and acceptable to, the Executive Officer.
  - d. Annual monitoring reports shall reference CIWQS Place ID 848464 and shall be submitted via email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports (see the address on the letterhead).
- 16. Within 30 days of the final monitoring report showing that the final performance criteria for the Project and mitigation have been met, the Permittees shall submit, acceptable to the Executive Officer, a Notice of Project Completion. The Notice shall include the date Project construction activities were completed, the date compensatory mitigation construction was completed and reference the final monitoring reports that indicate the Project is performing as intended and mitigation has been successfully established. The Notice shall include the CIWQS Place ID 848464 and be submitted via email to <u>RB2-401Reports@waterboards.ca.gov</u>, or by mail to the attention of 401 Certifications Reports.

#### Administrative

17. The Permittees shall grant Water Board staff or an authorized representative, upon presentation of credentials and other documents as may be required by law, permission to: (1) enter upon the Project site or compensatory mitigation site(s) where a regulated facility or activity is located or conducted, or where records are kept; (2) have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order; (3) inspect any facilities,

equipment, practices, or operations regulated or required under this Order; and (4) sample or monitor for the purposes of assuring Order compliance.

- 18. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittees shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
- 19. The Permittees shall provide a signed and dated notification to the Water Board of any change in ownership or interest in ownership of the Project area at least 10 days prior to the transfer of ownership. The purchaser shall also submit a written request to the Water Board to be named as the permittee in an amended order. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittees shall continue to be responsible for all requirements set forth in this Order.
- 20. The Permittees may transfer responsibility for long-term management of compensatory mitigation after final performance criteria are met. The Permittees shall submit documentation to the Water Board if responsibility for long-term management of compensatory mitigation is legally transferred at least 30 days prior to the transfer of long-term management responsibility.

#### **General Compliance**

- 21. The Permittees shall notify the Water Board of any event causing a violation of compliance with water quality standards as soon as practicable (ideally within 24 hours). Notification may be via telephone, email, delivered written notice, or other verifiable means.
- 22. Failure to implement the Project as proposed is a violation of this Order. Violation of this Order is a violation of state law and is subject to administrative civil liability pursuant to California Water Code (CWC) section 13350. Failure to meet any condition of this Order shall constitute a violation of the CWC and the CWA and may subject you to civil liability imposed by the Water Board to a maximum of \$5,000 per day of violation or \$10 for each gallon of waste discharged in violation of this Order.
- 23. In response to a suspected violation of any condition of this Order, the Water Board may require the Permittees to furnish, under penalty of perjury, any technical or monitoring reports the Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
- 24. Should new information come to our attention that indicates a water quality problem with this Project, the Water Board may issue Waste Discharge Requirements pursuant to 23 CCR section 3857.
- 25. This Order shall continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project.

#### **Standard Conditions**

26. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to CWC section 13330 and 23 CCR 3867.

27. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

#### Fees

- 28. In accordance with 23 CCR section 2200, the Permittees shall pay an annual fee to the Water Board each fiscal year (July 1 – June 30) until Project construction activities are completed and an acceptable Notice of Project Construction Completion is received by the Water Board. If monitoring is required, the Permittees shall pay an annual fee to the Water Board until monitoring activities are completed and an acceptable Notice of Project Completion is received by the Water Board.
- 29. This Order is conditioned upon total payment of the full fees, including annual fees, required in State regulations (23 CCR sections 2200(a)(3) and 3833(b)(3)) and owed by the Permittees. The Application fee for this Project, \$38,822, was paid in full on January 28, 2019, and was calculated as Category A Fill & Excavation Discharges with the dredge and fill fee calculator.

I, Michael Montgomery, Executive Officer, do hereby issue this Order certifying that any discharge from the proposed Project will comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this Order.

If you have any questions concerning this Order, please contact Nicole Fairley of my staff at (510) 622-2424 or <u>nicole.fairley@waterboards.ca.gov</u>.

for Michael Montgomery Executive Officer

Cc: SWRCB, DWQ, <u>Stateboard401@waterboards.ca.gov</u> Water Board: Victor Aelion, <u>victor.aelion@waterboards.ca.gov</u> Abigail Smith, <u>abigail.smith@waterboards.ca.gov</u> CA Coastal Commission, Larry Simon, <u>larry.simon@coastal.cal.gov</u> FHWA, <u>Timberley.belish@dot.gov</u> U.S. EPA, Region IX, Jennifer Siu, <u>siu.jennifer@epa.gov</u> Corps, SF Regulatory Branch, William Connor, <u>William.m.connor@usace.army.mil</u> NMFS, Sara Azat, <u>sara.azat@noaa.gov</u> USFWS, Leif Goude, <u>leif\_goude@fws.gov</u> NPS: Brannon Ketcham, <u>brannon\_ketcham@nps.gov</u> Jeffrey Jewhurst, <u>jeffrey\_jewhurst@nps.gov</u> Marin County, DPW: Eric Miller, <u>EMiller@marincounty.org</u> Liz Lewis, <u>LizLewis@marincounty.org</u> Jacobs Engineering Group Inc.:

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