

California Department of Fish and Wildlife
Fisheries Branch
1010 Riverside Parkway
West Sacramento, CA 95605

Negative Declaration Adoption

SCH No. 2020020358

Project Title: Chinook Salmon Coastal Release Project in Pillar Point Harbor

The Project's objective is to enhance California's commercial and recreational salmon fishery.

The Coastside Fishing Club (CFC) is a membership-based community of recreational fishermen that are conservation minded volunteers with the goal of improving California's fishery. CFC has been operating coastal net pen salmon releases since 2012. CFC proposes to release 750,000 juvenile hatchery-origin (HO) Central Valley fall-run Chinook Salmon (CV FRCS) *Oncorhynchus tshawytscha* from Pillar Point Harbor in 2020. Released smolts would feed and grow along the coast and be available for harvest as adults in one to three years.

Location and Custodian of the Negative Declaration Document:

California Department of Fish and Wildlife
Fisheries Branch
1010 Riverside Parkway
West Sacramento, CA 95605

Attention: Ryon Kurth, ryon.kurth@wildlife.ca.gov
Office: (916) 376-1723

Determination:

CDFW finds that the project would not have a significant effect on the environment.

The completed Initial Study, attached to this negative declaration, documents the bases for this finding, and CDFW's determination that significant effect on the environment would occur as a result of Project implementation. The documents show there is no substantial evidence, in light of the whole record before CDFW, that the Project may have a significant effect on the environment (see Initial Study and environmental checklist). Therefore, a Negative Declaration has been prepared pursuant to the California Environmental Quality Act, Public Resource Code Section 21080, subd. (c)(1).

The Initial Study concluded that the Project would have less than significant impacts to biological resources, greenhouse gas emissions, and public services. The Project would have no impacts to aesthetics, agriculture and forestry, air quality, cultural resources, energy, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, recreation, transportation, tribal cultural resources, utilities/service systems, and wildfire.

This Negative Declaration consists of the following:

- Introduction: Project Description and Background Information for the Chinook Salmon Coastal Net Pen Project in Pillar Point Harbor
- Initial Study Environmental Checklist
- Exhibit A: Statement of Work
- Exhibit B: California Coastal Commission Notice of Permit Waiver
- Exhibit C: Project Location and Quadrants Identification Map
- Exhibit D: CNDDDB Elements Report

Adoption Statement:

Pursuant to Section 21082.1 of the California Environmental Quality Act (CEQA), CDFW has independently reviewed and analyzed the initial study and negative declaration for the proposed project and finds these documents reflect the independent judgement of CDFW.



5/7/2020

Roger Bloom

Date

Fisheries Branch Chief (Acting)

Chinook Salmon Coastal Release in Pillar Point Harbor

CEQA: INITIAL STUDY AND NEGATIVE DECLARATION

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FISHERIES BRANCH

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INITIAL STUDY AND NEGATIVE DECLARATION FOR FALL-RUN CHINOOK SALMON COASTAL RELEASE PROJECT IN PILLAR POINT HARBOR

Introduction

The Coastside Fishing Club (CFC) is a membership-based community of recreational fishermen that are conservation minded volunteers with the goal of improving California's fishery. CFC has been operating coastal net pen salmon releases since 2012. CFC proposes to release 750,000 juvenile hatchery-origin (HO) Central Valley fall-run Chinook Salmon (CV FRCS) *Oncorhynchus tshawytscha* from Pillar Point Harbor in 2020. The 2020 release are the Project as described and evaluated in this Initial Study and Negative Declaration. Under the direction of the California Department of Fish and Wildlife (CDFW), CFC would be responsible during spring for the release of 750,000 CV FRCS smolts from the Mokelumne River Fish Hatchery. The Project's objective is to increase the number of ocean Chinook Salmon landings in California, enhancing local sport and commercial fisheries. Released smolts would feed and grow along the coast and be available for harvest as adults in one to three years.

The Findings

CDFW finds that the Project would not have a significant effect on the environment.

The completed Initial Study, attached to this negative declaration, documents the bases for this finding, and CDFW's determination that no significant effect on the environment would occur as a result of Project implementation, and there is no substantial evidence, in light of the whole record before CDFW, that the Project may have a significant effect on the environment (see Initial Study and environmental checklist). Therefore, a Negative Declaration has been prepared pursuant to the California Environmental Quality Act, Public Resource Code Section 21080, subd. (c)(1).

The Initial Study concluded that the Project would have less than significant impacts to biological resources, greenhouse gas emissions, and public services. The Project would have no impacts to aesthetics, agriculture and forestry, air quality, cultural resources, energy, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, recreation, transportation, tribal cultural resources, utilities/service systems, and wildfire.

Basis of the Findings

The proposed Negative Declaration consists of the following:

- [Project Description and Background Information for](#)
- [Initial Study Environmental Checklist](#)
- [Exhibit A: Statement of Work](#)

Exhibit B: California Coastal Commission Notice of Permit Waiver

- [Exhibit C: Project Location and Quadrants Identification Map](#)
- [Exhibit D: CNDDDB Elements Report](#)

Project Description and Background Information for Fall-Run Chinook Salmon Coastal Release Project in Pillar Point Harbor

Introduction

CFC Chinook Salmon Coastal Release Project in Pillar Point Harbor is a project within the meaning of the California Environmental Quality Act (CEQA) (Public Resource Code, § 21000 et seq). CDFW is serving as lead agency for the Project because it has discretionary approval over the Project. Specifically, CDFW would provide juvenile fish (smolts) necessary for the Project implementation from the Mokelumne River Hatchery (MOK) and would deliver those fish to the Pillar Point Harbor for their release.

The Commercial Salmon Trollers Advisory Committee (Salmon Stamp Committee) and CDFW support this project. The cost for raising, marking and tagging, and delivery of CV FRCS smolts to Pillar Point Harbor will be covered by the Commercial Salmon Trollers Enhancement and Restoration Program fund and a matching share contributed by CDFW.

This initial study and negative declaration analyze the environmental impacts that may result from the implementation of the proposed Project.

Project Objective

The Project's objective is to enhance local sport and commercial fisheries. Released smolts will feed and grow along the coast and be available for harvest as adults in one to three years.

Background

Adult returns of CV FRCS have fluctuated over the past 30 years (CDFW 2018). Record high numbers occurred between 2000 and 2003 with an estimated 872,699 returning to the Central Valley (CV) during the 2002 spawning season. In contrast, between 2003 and 2009, returns declined significantly to record low levels. During the 2007 spawning season, an estimated 97,168 adults returned to the Central Valley. Return estimates dipped further during the 2008 season to 71,291 adults. Adult return estimates increased slowly over the next few years and reached a high of 447,621 in 2013. However, California's recent drought significantly affected survival of juvenile salmon migrating to the ocean. In 2017, only 101,222 adults returned to the CV. In addition to the drought, other factors such as loss of habitat, poor ocean conditions, low river flows, water diversions, pollution, and predation contributed to the population declines.

In an effort to improve survival to adulthood by avoiding the hazards associated with migration, CDFW transports CV FRCS downstream and releases them into net pens in the Sacramento-San Joaquin Delta or San Pablo Bay for acclimation, or directly into the Bay. It has been found that hatchery fish released into coastal net pens have higher survival rates and higher recovery rates in ocean fisheries (Palmer-Zwahlen, et al., 2019, Leet, W.S. et al. 1986). Net pens provide fish the opportunity to develop schooling behavior and acclimate to local water salinity and temperature.

The first three years of CWT recovery data shows a consistent trend that Bay net pen releases have a higher recovery rate than in-basin (at the hatchery) releases, and this can mean better survival (Palmer-Zwahlen and Kormos 2015). However, net pen fish exhibited higher stray proportions than in-basin releases (Palmer-Zwahlen, et al. 2019).

“Homing” and “straying” are well-known behavioral traits in the ecology and life-history of Pacific Salmon (Quinn 2005). Homing may be defined as the instinctual ability of an adult Pacific Salmon to return to its natal stream to spawn. In contrast, straying may be defined as an adult migrating to a non-natal stream of origin. Studies have shown that salmon imprint as they migrate downstream and individuals that are released further downstream may show increased straying as compared to upriver releases (Quinn 2018, 127). Adult Chinook have been observed straying into several streams along the Central Coast as well as many San Francisco Bay streams for the past two decades, although historically these streams did have native runs of Chinook Salmon (Neillands et al. 2015). In 2014, CDFW began annual observation monitoring for straying CV FRCS into a few Central Coast streams and receiving adipose fin-clipped Chinook Salmon heads from cooperating agencies and NGOs throughout the San Francisco Bay streams. CWT fish released near Pillar Point area appear to enter in relatively small numbers into coastal streams North of the San Francisco Bay and in streams between their release point and the Sacramento-San Joaquin Delta when streams are accessible (Neillands et al. 2015, 2016, 2018 and 2019).

The CFC has conducted coastal net pen releases at Pillar Point Harbor since 2012. CFC will provide the net pen, volunteers responsible for care and maintenance of the pens and smolts post-delivery from CDFW at Johnson Pier. The CFC will also be responsible for obtaining any required permits.

Project Location

Net pen acclimation and subsequent release will take place at Pillar Point Harbor near Half Moon Bay in San Mateo County. The harbor has an inner and outer breakwater. The inner harbor will be the location for offloading smolts into a net pen tied to Johnson Pier (37.501274°, -122.482717°) and will subsequently be towed to an outer harbor mooring (37.499480°, -122.485234°) for acclimation and release. Johnson Pier has a road running the length that will allow CDFW hatchery trucks direct access to the offloading location.

Schedule

CDFW would deliver MOK CV FRCS smolts to Pillar Point Harbor in spring of 2020. Exact dates and times will be scheduled as the time draws near and are dependent on fish size, growth rates, and environmental conditions in Pillar Point Harbor. Fish will be delivered in increments of about 250,000 fish at one-week intervals.

Project Description

The CFC proposes to release 750,000 juvenile hatchery-origin Central Valley fall-run Chinook Salmon from MOK from Pillar Point Harbor in 2020. Juvenile salmon will be fractionally tagged with Coded-Wire Tags (CWT) and adipose fin-clipped at 25% of released fish, which matches requirements for mitigation and enhancement fish. The CFC, in anticipation of fish delivery from MOK to the Pillar Point Harbor, has secured necessary equipment. CFC is prepared to provide both staffing and logistical support to facilitate release of fish at Project location. This includes necessary boat vessels provided and operated by CFC to assist in floating net movement and release of smolts.

CFC will provide, assemble, and deploy a floating net pen that has an inner net to contain juvenile salmon, an outer net to exclude predators, and overall net to exclude birds, and an automated feeder. Fish will be delivered from MOK on a weekly basis in increments of approximately 250,000 fish using

CDFW hatchery trucks. Once fish are delivered to net, it will be towed by CFC volunteers to an existing mooring location in outer Pillar Point Harbor. Fish will be acclimated in floating net pen for 5 days at which point, CFC will tow the net outside of the harbor and the inner net will be removed to allow the juvenile salmon to escape into the ocean. The fish will be released in the outer harbor on an outgoing tide in order to facilitate their rapid exit to the ocean and to minimize in-harbor predation. CFC will then tow the net back to Johnson Pier for the next delivery, or if all deliveries have been completed, to the Pillar Point launch ramp for cleaning, disassembly, and storage.

CFC Chinook Salmon Coastal Release Project in Pillar Point Harbor will release 750,000 fish in 2020. This project is contingent upon CDFW approval after completion of CEQA. Project result data would be acquired from CDFW landings, carcass surveys, and monitoring programs.

Environmental Assessment

CDFW staff reviewed this project. It was determined that this project would have less than significant impact to Biological Resources, Greenhouse Gas Emissions, and Public Services at Pillar Point Harbor and surrounding areas. Due to minimal in harbor acclimation time, the Project does not anticipate adults to return to Pillar Point Harbor as has been seen in some previous coastal release projects. The Project conforms to the standard method of acclimating fish in net pens prior to release into ocean waters and complies with CDFW hatchery release policies. CDFW's California Natural Diversity Database (CNDDB) was reviewed to identify potential impacts to animals identified in the four Quadrants in the surrounding area.

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Initial Study Environmental Checklist

Project Title:

Chinook Salmon Coastal Release in Pillar Point Harbor

Lead Agency Name and Address:

California Department of Fish and Wildlife
Fisheries Branch
P.O. Box 944209
Sacramento, CA 92444-2090

Contact Person and Phone Number:

Ryon Kurth, Fisheries Branch
916-376-1723
Ryon.Kurth@wildlife.ca.gov

Project Location:

San Mateo County
Pillar Point Harbor (37.501274°, -122.482717°)

Project Sponsor's Name and Address:

California Department of Fish and Wildlife
Fisheries Branch
P.O. Box 944209
Sacramento, CA 92444-2090

General Plan Designation:

Plans are consistent with coastal zone designation

Zoning:

Coastal

Description of Project:

California Department of Fish and Wildlife's (CDFW) Mokelumne River Hatchery (MOK) would deliver 750,000 Central Valley fall-run Chinook Salmon (CV FRCS) smolts to the Project location for acclimation and subsequent release in Pillar Point Harbor or nearby open ocean in 2020. Trucks would be loaded, and fish transported according to MOK established standard operating procedures for transportation of salmon. Water in the trucks would be salted prior to adding fish at the hatchery. CDFW would deliver

MOK CV FRCS smolts to Pillar Point Harbor in spring of 2020. Exact dates and times would be scheduled as the time draws near and are dependent on fish size, growth rates, and environmental conditions in Pillar Point Harbor. Smolts would be transported in small batch increments on a weekly basis for 5-day acclimation in the pen followed by ocean release until all 750,000 smolts are released. CFC is implementing this project. CFC would provide all necessary boats for towing and servicing pen and fish as well as any other operational logistics. The Project's objective is to enhance the commercial and recreational salmon ocean fishery.

Surrounding Land Uses and Setting:

Half Moon Bay is an ocean inlet just south of San Francisco and the southern edge of the Pillar Point State Marine Conservation Area. Pillar Point Harbor run by San Mateo County Harbor District, is a protected harbor at the northern end of Half Moon Bay near the town of El Granada in San Mateo County. The net pens will be at the end of Johnson Pier for offloading and towed to the outer harbor during acclimation period. Johnson Pier is in the center of the harbor which houses wholesale fish companies, a fuel and pump out dock, and commercial berths. The pier has a road running the length which is accessible for hatchery trucks to offload.

Approvals Needed from Other Public Agencies:

The Coastal Commission issued Coastal Development Permit waiver 9-13-0498-W on August 26, 2013 for this Project.

San Francisco Regional Water Quality Control Board confirmed that the project does not meet federal definition of a Concentrated Aquatic Animal Production Facility (CAAPF) and concluded that the Project does not need regulation unless the it expands in the future, and falls within CAAPF or if operations result in impacts to water quality or beneficial uses (Sandi Potter CA Water Boards, personal communication with Marc Gorelink, May 4, 2011).

Tribal:

Notification letters describing the Project were mailed to all federally recognized California tribes and California tribes specifically requesting to be notified for all CEQA projects on December 10, 2019. CDFW received one response. No tribes requested consultation.

Initial Study (cont): Environmental Factors, Determination, Evaluation of Environmental Impacts and Explanations

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture / Forestry Resources	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Energy
<input type="checkbox"/> Geology/Soils	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards and Hazardous Materials
<input type="checkbox"/> Hydrology/Water Quality	<input type="checkbox"/> Land Use / Planning	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Population / Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation	<input type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Utilities / Service Systems	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. GREENHOUSE GAS EMISSIONS. Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. HYDROLOGY AND WATER QUALITY. Would the project:					
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) result in a substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.					
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

I. Aesthetics

a. – d. : No impact

Discussion: Any additional equipment or lighting that may be used for this project (i.e. net barge, vessels) will be temporary and removed after use. There would be no other changes to scenic or urban landscapes. Pillar Point Harbor anticipates no impact to facilities or harbor at the time of the event or in following years (James Pruett, General Manager of San Mateo County Harbor District, personal communication, February 10, 2020).

II. Agriculture and Forestry Resources

a. – e. : No impact

Discussion: Activities proposed by the Project would not occur in any FMMP designated farmland, or area zoned for agricultural use, nor would the Project affect other resources related to agriculture, farmland or forest land.

III. Air Quality

a. – d. : No impact

Discussion: Potential of air quality affects would be from hatchery trucks and boats used for offloading the smolts. This is not an ongoing project and would not conflict with or obstruct implementation of any air quality control plan. Any diesel fuel odors when delivering fish would be temporary and would not adversely affect a substantial number of people. Project emissions generated by hatchery trucks and boats were evaluated using Bay Area Air Quality Management District California Environmental Quality Act Air Quality Guidelines. The quantities expected for the hatchery truck deliveries and boats for moving net pens are expected to be below listed thresholds for significant impacts.

IV. Biological Resources

a. Less Than Significant Impact

Discussion: The Pillar Point Harbor and Half Moon Bay area quadrants examined for this study include: Montara Mountain, Half Moon Bay, San Gregorio, and Pigeon Point. The California Natural Diversity Database (CNDDDB) Rare Find was used to report presence and status of all animals within these four quadrants ([Exhibit C: Project Location and Quadrants Identification Map](#), Attachment 2, [Exhibit D: CNDDDB Elements Report](#)).

This Project would have less than significant impact on species identified as candidate, sensitive, or special status species.

Fishes

Based on a query of CNDDDB Rare Find, this analysis considers whether any fish species that is documented to have occurred in the vicinity of the Project could be adversely affected by the presence of hatchery origin CV FRCS juveniles or returning adults.

The Project would result in less than significant impacts to California and federally endangered Central California Coast Evolutionarily Significant Unit Coho Salmon *Oncorhynchus kisutch* (CC Coho ESU), federally threatened Central California Coast Distinct Population Segment Steelhead (CCC Steelhead DPS) and South-Central Coast Steelhead (SCC Steelhead DPS) *Oncorhynchus mykiss*, and California Coastal Chinook Salmon (CC Chinook ESU) *Oncorhynchus tshawytscha*. Possible impacts to these species include: 1) competition for resources with CC Coho ESU, CCC and SCC steelhead DPSs *Oncorhynchus mykiss*, and California Coastal Chinook Salmon (CC Chinook

ESU) *Oncorhynchus tshawytscha*, 2) stock hybridization with CC Chinook ESU and CC Coho ESU, or 3) the establishment of an out-of-basin spawning population for CV FRCS in coastal streams where the species does not naturally occur. It is unlikely that these three concerns would result in any significant effects, either directly or indirectly. The three potential impacts above are addressed in turn, below.

1. If CV FRCS adults stray into coastal streams, some competition for resources with salmonids native to the area may occur. CDFW monitoring observations show that CV FRCS adults have strayed mainly into three coastal streams within and outside the Project area: Lagunitas Creek (Marin), Arana Gulch, and San Lorenzo River (Neillands et al. 2015, 2016, 2018 and 2019). Of these observations, only three CWT marked fish were recovered in Lagunitas Creek and later identified as returns from a Half Moon Bay net pen release. The remainder of the observations consisted of adipose fin-clipped live fish, carcasses, and redd counts that cannot be attributed to a particular release location. The mouth of Lagunitas Creek is open all year when the mouths of most coastal streams are blocked by sediment until fall rains begin and high flows flush open the mouth. This may be a reason more CV FRCS migrate into this stream to spawn. CV FRCS adults migrate earlier than Coho Salmon or steelhead, thus CV FRCS do not likely compete directly with adult Coho Salmon and steelhead for spawning habitat. Furthermore, expert opinion suggests that Lagunitas Creek is not reliable habitat for Chinook Salmon (E. Ettinger personal communication, 2019). The releases of CV FRCS planned for 2020 would likely not cause significant impacts through competition with listed anadromous stocks in coastal streams.
2. CV FRCS are genetically different from CC Chinook ESU but the two are of the same species and genetic hybridization is possible. What keeps different populations genetically distinct is the tendency to migrate back to their natal streams (spatial), and the timing of those migrations (temporal). The genetic distinctiveness illustrated in Clemente et al. (2014) strongly suggests that Russian River and Eel River Chinook Salmon, both in the southern most range of CC Chinook ESU, are more similar to the CC Chinook ESU than the CV FRCS. In other words, if hybridization was occurring in the Russian or Eel Rivers, genetic samples would likely be more similar to CV FRCS. Video monitoring at Mirabel Dam on the Russian River has reported low numbers of adipose fin-clipped fish entering the basin, and due to proximity, it is more likely these fish originated from the SF Bay hatchery releases.

Hybridization with Coho Salmon has been documented although it is extremely rare (Chevassus 1979 (cited in Bartley et al 1990)). It is very unlikely for this to occur in or near the Project area due to the difference in timing of the two migrations. CC Coho ESU return to spawn later than CV FRCS, usually late November to early February and peaking in December and January. Adult CV FRCS migrate late-summer, early-fall and spawn almost immediately (Moyle 2002). Recognition of the same species through olfactory senses is also thought to be an important mechanism maintaining reproductive isolation in salmonids (Lily 1982). It is very unlikely that the releases planned for 2020 would significantly impact listed anadromous

stocks due to hybridization with CV FRCS in coastal streams.

3. Hatchery fish have been transported and released into the San Francisco Bay for decades and more specifically, net pen smolt acclimations have occurred since 2010 and no out-of-basin spawning population has been observed. It is very unlikely that the releases planned for 2020 would establish an out-of-basin spawning population of CV FRCS.

The Project would result in no impacts to federal and state protected Longfin Smelt *Spirinchus thaleichthys*. The CNDDDB finding in Montara Mountain was from CDFW Bay Study samples which are internal to the bay and not on the ocean side near Pillar Point. The CNDDDB finding in San Gregorio was one individual in 1893 and was likely a stray from the San Francisco Bay-Delta population. It is extremely unlikely for Longfin Smelt to be present or adversely affected by the Project.

The Project would result in no impacts to federally endangered Tidewater Goby *Eucyclogobius newberryi*. Tidewater Goby is a small fish endemic to the California coast. Multiple occurrences in San Gregorio Quadrant and one occurrence in Pigeon Point are shown in the CNDDDB. However, Tidewater Goby is found in shallow lagoons, brackish marshes and lower stream reaches. This is not the habitat used by returning adult salmon, and thus would not be adversely affected by the Project.

Birds, Amphibians, Reptiles, and Insects

Several special status birds occur in the Project area, Alameda song sparrow *Melospiza melodia pusillula*, bank swallow *Riparia riparia*, burrowing owl *Athene cunicularia*, California Ridgway's rail *Rallus obsoletus obsoletus*, great blue heron *Ardea Herodias*, marbled murrelet *Brachyramphus marmoratus*, merlin *Falco columbarius*, saltmarsh common yellowthroat *Geothlypis trichas sinuosa*, and western snowy plover *Charadrius alexandrinus nivosus*. Because the Project would occur within the developed Pillar Point Harbor and given the short duration of the delivery and acclimation time there would be no potential for the Project to disrupt nesting, feeding, or other activities of these birds. In addition, any adult CV FRCS straying into coastal streams would be minimal and would not significantly affect these species.

Similarly, special status amphibians, reptiles, and insects have been documented to occur within the quadrants analyzed for this review, but the Project would not significantly impact these species.

Marine Mammals

Based on a query of CNDDDB Rare Find, this analysis considers whether any marine mammal that is documented to have occurred in the vicinity of the Project could be adversely affected by the presence of hatchery origin CV FRCS juveniles or returning adults. No listed marine mammals were listed in the CNDDDB for the quadrants selected.

- b. – f. : No impact

Discussion: The Project involves no changes to terrestrial habitats or wetlands, and involves no activities that would impede movement within migratory corridors, or conflict with local ordinances or adopted conservation plans.

V. Cultural Resources

- a. – c. : No impact

Discussion: Project does not include usage of historical or archaeological resources, nor does it include any ground modifying activity.

VI. Energy

- a. – b. : No impact

Discussion: The Project would be complete in a short amount of time and does not require local energy use or impact local energy plans. The extent of energy resources used would be hatchery trucks and boat fuel use covered in previous sections.

VII. Geology and Soils

- a. – f. : No impact

Discussion: The Project does not include any ground disturbing work.

VIII. Greenhouse Gas Emissions

- a. : Less Than Significant Impact

Discussion: The Project would emit greenhouse gases (GHG) due to the use of fuel to transport the Chinook Salmon smolts from MOK to Pillar Point Harbor and the use of an on the water boat to assist in the acclimation and release of the smolts. Any diesel fuel odors when delivering fish would be temporary and would not adversely affect a substantial number of people. Project emissions generated by hatchery trucks and boats were evaluated using Bay Area Air Quality Management District California Environmental Quality Act Air Quality Guidelines. The quantities expected for the hatchery truck deliveries and boats for moving net pens are expected to be below listed thresholds for significant impacts.

- b. : No impact

Discussion: The very low levels of GHG emissions from the Project will not conflict with plans for reducing GHG.

IX. Hazards and Hazardous Materials

- a. – g. : No impact

Discussion: The Project will not be transporting, located in areas with, or blocking hazards or hazardous materials.

X. Hydrology and Water Quality

- a. – c. : No impact

Discussion: Fish will be acclimated to saltwater in hatchery trucks and although they will be fed on site, the acclimation time is minimal. Any fecal matter produced on site will also be minimal. No local groundwater, existing drainage, tidal or river flow, or alteration of management plans would be affected or changed due to this Project and no pollutants will be released.

XI. Land Use and Planning

- a. – b. : No impact

Discussion: There is no land use anticipated for this Project and net pens used will be removed after use.

XII. Mineral Resources

- a. – b. : No impact

Discussion: No mineral resources will be used in the Project.

XIII. Noise

- a. – c. : No impact

Discussion: The Project will not produce substantial temporary or permanent increase in ambient noise levels and hatchery trucks and boats are within expected noise levels for Pillar Point Harbor and nearby communities.

XIV. Population and Housing

- a. – b. : No impact

Discussion: The Project does not include any construction or alterations to local housing or population.

XV. Public Services

- a. : No impact

Discussion: Due to shorter acclimation time, adults are not expected to return to Pillar Point Harbor as has been seen in previous coastal release projects. Previous impact was seen in net pen releases when acclimation times were longer and adults returned to the release site, bringing traffic from recreational anglers. Given the changes in acclimation times, it appears unlikely that significant numbers of CV FRCS adults would home to Pillar Point Harbor and lead to fishing in the area, and if some do return, their numbers would be less than significant. The Project does not include any construction or alterations to facilities. The project will use the public dock to build the net pen, however the dock is large enough to accommodate both this activity and normal harbor business (James Pruett, General Manager of San Mateo County Harbor District, personal communication, February 10, 2020).

XVI. Recreation

- a. – b. : No impact

Discussion: The Project would not be in a regional park area and all aspects of potential additional public use would be centralized to Johnson Pier or nearby launch ramp where public facilities are present and capable of covering traffic. Pillar Point Harbor has not observed considerable increase of salmon in the harbor from previous releases nor increased likelihood of catching fish in the harbor (James Pruett, General Manager of San Mateo County Harbor District, personal communication, February 10, 2020). No additional facilities are likely to be needed.

XVII. Transportation

- a. – d. : No impact

Discussion: The Project does not involve alterations to public transportation facilities. The low number of vehicle miles associated with the hatchery trucks from MOK to Pillar Point Harbor would not have an appreciable impact to roadways or pedestrian facilities or block any emergency access.

XVIII. Tribal Cultural Resources

- a. : No impact

Discussion: Notification letters describing the Project were mailed to all federally recognized tribes in California and California tribes specifically requesting to be notified for all CEQA projects on December 10, 2019. CDFW received one response; no tribes requested consultation.

XIX. Utilities and Service Systems

- a. – e. : No impact

Discussion: The Project would not rely on utilities or service systems nor generate liquid or solid waste processed by utilities. Small amount of solid waste produced by fish in pen is not expected to be significant or have impact due to short holding period and location in harbor.

XX. Wildfire

- a. – d. : No impact

Discussion: The Project would not block emergency vehicles or evacuations. There would be no increased wildfire or exposure to risks and the Project uses infrastructure already in existence with no additional infrastructure needed.

XXI. Mandatory Findings of Significance

- a. : No impact

Discussion: The Project would not degrade the environment or species. Project smolts would grow into harvestable adults in the near ocean environment and be available to commercial and recreational fisheries. Unharvested adults may stray or return to MOK, but this would not impact habitat of other native species or substantially reduce the number of species or restrict the range of a rare or endangered plant or animal.

- b. No impact

Discussion: No impact. Kormos and Palmer-Zwahlen (2015) explain that CWT data indicates net pen releases generally have a higher recovery rate than fish released in river, but conversely, they also exhibited higher stray rates. There are concerns that returning adult net pen fish strays may adversely affect native stocks within coastal streams, however this has yet to be shown to impact native fishes. Features of the Project serve to reduce the potential for Project fish to stray into coastal streams and minimize any impact in the event straying occurs. In addition, this Project has taken steps to reduce potential for straying through lowered acclimation times. Based on the available data, there will be no cumulative impacts.

- c. No impact

Discussion: The Project does not have environmental effects which will cause substantial adverse effects on humans either directly or indirectly.

Exhibit A: Statement of Work

Under the direction of the Grantor, the California Department of Fish and Wildlife (CDFW), and under the following conditions and terms, CFC Fishing Club (CFC) would fulfill the following:

1. CFC is responsible for acclimating and releasing 750,000 Chinook Salmon smolts provided by the Mokelumne River Fish Hatchery in 2020. CDFW would deliver fish to floating net pens for acclimation in batches of approximately 250,000 on a weekly basis. Fish will be acclimated for 5 days and subsequently released outside of the harbor.

This project has been reviewed and accepted by the California Coastal Commission and per communication with Marc Gorelnik has a mutual understanding with the San Mateo Harbor District (Marc Gorelnik, personal communication, December 27, 2019).

2. CFC understands the availability of salmon for this project may be reduced based on availability. CDFW would mark and tag 25% of the fish with a coded-wire tag (CWT) and adipose fin clip. Salmon would be healthy and disease free when delivered to Pillar Point Harbor. All fish would be delivered, acclimated, and released within five days. Fish are scheduled to be delivered mid-May depending on fish size, growth rates, and environmental conditions in Pillar Point Harbor and Half Moon Bay.

3. CFC agrees to provide a written report on all fish releases to CDFW and Commercial Salmon Trollers Advisory Committee (CSTAC) by August 15, 2020 for the 2020 release. The report will include the following information:

- Estimated number of fish, mortalities, and condition upon delivery
- Estimated number of fish mortalities and condition upon release
- Environmental conditions; water temperature, air temperature
- Estimated number and species of avian and marine predators present at release
- Location (lat/long) of release site and time
- Duration of acclimation (hours, minutes)

4. CFC would provide a hard copy and an electronic copy of the final report in MS Word or PDF format.

5. CFC would obtain permits required by the Coastal Commission, local planners, and any other permits that may be needed to implement the project.

6. CFC would acknowledge the participation of the CDFW and Commercial Salmon Stamp on any signs, flyers, or other types of written communication or notice to advertise or explain the CFC Chinook Salmon Coastal Release Project in Pillar Point Harbor.

Exhibit B: California Coastal Commission Notice of Permit Waiver

STATE OF CALIFORNIA - NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., GOVERNOR

CALIFORNIA COASTAL COMMISSION

45 PREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



NOTICE OF COASTAL DEVELOPMENT PERMIT **DE MINIMIS WAIVER**

DATE: August 26, 2013 **PERMIT NO.** 9-13-0498-W
TO: Coastal Commissioners and Interested Parties
SUBJECT: Waiver of Coastal Development Permit Requirements

Based on the plans and information submitted by the applicants for the development described below, the Executive Director of the Coastal Commission (Commission) hereby waives the requirements for a coastal development permit, pursuant to Section 30624.7 of the California Coastal Act.

Applicants: Marc Gorelnik	Fisheries Branch
Coastside Fishing Club	California Department of Fish and Game
8042 Terrace Dr.	830 S. Street
El Cerrito, CA 94530	Sacramento, CA 95811

Project Description and Background: The Coastside Fishing Club in partnership with the California Department of Fish and Wildlife (the applicants), propose to install and operate a pair of floating salmon smolt acclimation net pens in the outer harbor portion of Pillar Point Harbor. The net pens would serve as a temporary holding facility for young hatchery-reared Chinook salmon from California Department of Fish and Wildlife (DFW) fish hatcheries in the Central Valley. DFW research has shown that salmon smolts released directly from these Central Valley hatcheries into rivers experience high rates of mortality as they move downstream towards the San Francisco Bay and ocean due to poor water quality, water diversions, and predation along the route. As a result, DFW has developed a system to transport young salmon in large tanker trucks from the hatcheries directly to the ocean and San Francisco Bay for release. However, this immediate transfer of juvenile fish from fresh water to estuarine or marine waters is known to result in a variety of shocks and stressors on the fish that can also make them susceptible to high levels of predation and mortality. In response, hatchery reared smolts are typically released into temporary holding pens that provide them with a protected area in which to recover from these shocks and acclimate to a salt water environment. After one to three weeks of acclimation, the fish are released into the wild in order to enhance existing populations.

The applicants propose to install and operate two salmon acclimation net pens for use by DFW. These pens were used successfully in 2012 and 2013 under authorization by the

Commission (CDP Waiver No. E-11-022-W). The net pens would be in place for the spring and summer (March through July) of each year that fish are available. By the end of July each year, the pens would be removed from the harbor and stored offsite. The applicants propose to use the Johnson Pier in the inner Pillar Point Harbor during stocking of the net pens, an activity that would occur approximately three to seven times each year. During stocking, the net pens would be towed to the pier to receive roughly 60,000 fish from DFW transport trucks. The stocked net pens would then be towed to an existing mooring location in the outer harbor and would remain in place for roughly seven to 21 days while the smolts are fed and provided with an opportunity to acclimate. Feeding would be carried out with an automated belt-operated fish feeder and would use roughly 26 pounds of three millimeter salmonid feed per day (assuming both pens are stocked at capacity with 60,000 fish each). Coastside Fishing Club volunteers would monitor the net pens and tend to the fish feeders on a daily basis. At the end of the acclimation period, the holding net would be opened and the smolts would be released into the outer Pillar Point Harbor near the entrance to the open ocean.

The pens would include an inner nylon net with a mesh size of 1/8 inch to keep the smolts in place as well as a heavy outer net with a mesh size of four inches that would function as a physical barrier against predators. The outer net would be weighted to maintain tautness and would extend from approximately three feet above the water line to a depth of 12 feet. In addition, a two inch mesh net would be erected over the top of the entire structure to protect the smolts from avian predators. Each net pen would measure approximately 30 feet wide by 54 feet long, including net supports and an encircling walkway.

The applicants have received approval for the project from the California Department of Fish and Wildlife, State Water Quality Control Board, and San Mateo County Harbor District.

Waiver Rationale: For the following reasons, the proposed project will not have a significant adverse effect, either individually or cumulatively, on coastal resources, nor will it conflict with Chapter 3 policies of the Coastal Act:

- o The net pens will use existing mooring locations in the outer Pillar Point Harbor and would not require the placement of permanent mooring devices or anchors on the seafloor.
- o The net pens will only be in place seasonally (March through July) and would be removed from the water by the end of July each year.
- o The net pens include predator exclusion netting to minimize interactions with predators such as marine mammals and seabirds. Such netting has been shown to be effective in protecting the enclosed fish while minimizing the potential entanglement or injury of predatory animals that may be attracted to the net pens.
- o Coastside Fishing Club has developed a plan for addressing potential interactions with marine mammals and seabirds. This plan would be implemented as part of the project and it includes both daily inspections and the maintenance of a daily log as well as immediate reporting of any incidents involving marine mammals or seabirds to the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Marine Mammal Center.

Notice of Coastal Development Permit De Minimis Waiver
9-13-0498-W Page 3 of 3

- Coastside Fishing Club members would monitor the net pens on a daily basis to ensure that they are maintained in good repair and no fugitive materials are released into the marine environment.
- Feeding operations for the salmon smolts during acclimation would be limited and holding times for the fish would not exceed three weeks. At these levels, accumulation of uneaten feed and fecal materials below the net pens is expected to be minimal and not anticipated to adversely affect the water quality or benthic habitat of Pillar Point Harbor.
- The California Department of Fish and Wildlife will implement a contingency plan for the net pen operation to address any disease or parasite outbreak in the salmon population during acclimation. This plan includes daily monitoring, coordination with DFW pathologists, as well as management oversight by DFW staff during acclimation.

Important: This waiver is not effective unless the project site has been posted and until the waiver has been reported to the Coastal Commission. This waiver is proposed to be reported to the Commission at the meeting of September 11-12 in Eureka, CA. If four or more Commissioners object to this waiver, a coastal development permit will be required.

Sincerely,

CHARLES LESTER
Executive Director

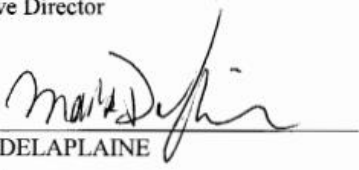
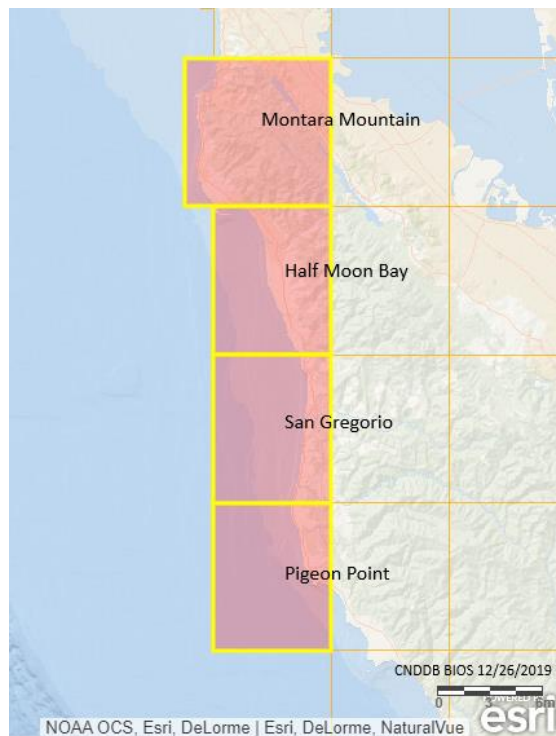
By: 
MARK DELAPLAINE
Manager

Exhibit C: Project Location and Quadrants Identification Map



Attachment 1: Pillar Point Harbor net pen location. Yellow circle indicates approximate net pen site. Release after acclimation will be in outer harbor.



Attachment 2: CNDDDB Grids included in species review.

Exhibit D: CNDDDB Elements Report



Selected Elements by Common Name California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria: Quad IS (Montara Mountain (3712254) OR Half Moon Bay (3712244) OR San Gregorio (3712234) OR Pigeon Point (3712224))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Alameda song sparrow <i>Melospiza melodia pusillula</i>	ABPBXA301S	None	None	G5T2?	S2S3	SSC
American badger <i>Taxidea taxus</i>	AMAJF0401Q	None	None	G5	S3	SSC
arcuate bush-mallow <i>Malacothamnus arcuatus</i>	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
bank swallow <i>Riparia riparia</i>	ABPAU0801Q	None	Threatened	G5	S2	
big free-tailed bat <i>Myotis myotis</i>	AMACD0402Q	None	None	G5	S3	SSC
Blasdale's bent grass <i>Agrostis blasdalei</i>	PMPDA0406Q	None	None	G2	S2	1B.2
bumblebee scarab beetle <i>Lichnanthe ursina</i>	IICOL6702Q	None	None	G2	S2	
burrowing owl <i>Athene cunicularia</i>	ABNSB1001Q	None	None	G4	S3	SSC
California giant salamander <i>Dicamptodon ensatus</i>	AAAAH0102Q	None	None	G3	S2S3	SSC
California red-legged frog <i>Rana draytoni</i>	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California Ridgway's rail <i>Rallus obsoletus obsoletus</i>	ABNME05011	Endangered	Endangered	G5T1	S1	FP
Choris' popcornflower <i>Flageobothrys chorisianus</i> var. <i>chorisianus</i>	PDBOR0V081	None	None	G3T1Q	S1	1B.2
coast yellow leptosiphon <i>Leptosiphon croceus</i>	PDPLM0917Q	None	Endangered	G1	S1	1B.1
coastal marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	PDFAB0F7B2	None	None	G2T2	S2	1B.2
coastal triquetrella <i>Triquetrella californica</i>	NBMUSTS01Q	None	None	G2	S2	1B.2
Crystal Springs lessingia <i>Lessingia arachnoidea</i>	PDAST5S0C0	None	None	G2	S2	1B.2
foothill yellow-legged frog <i>Rana boylei</i>	AAABH0105Q	None	Candidate Threatened	G3	S3	SSC
fragrant fritillary <i>Fritillaria liliacea</i>	PMLIL0V0C0	None	None	G2	S2	1B.2
Franciscan onion <i>Allium peninsulare</i> var. <i>franciscanum</i>	PMLIL021R1	None	None	G5T2	S2	1B.2



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Franciscan thistle <i>Cirsium andrewsii</i>	PDAST2E050	None	None	G3	S3	1B.2
fringed myotis <i>Myotis thysanodes</i>	AMACC01090	None	None	G4	S3	
great blue heron <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
Hickman's cinquefoil <i>Potentilla hickmanii</i>	PDR0S1B0U0	Endangered	Endangered	G1	S1	1B.1
Hillsborough chocolate lily <i>Fritularia biflora</i> var. <i>ineziana</i>	PMLIL0V031	None	None	G3G4T1	S1	1B.1
hoary bat <i>Lasiurus cinereus</i>	AMACC05030	None	None	G5	S4	
island tube lichen <i>Hypogymnia schizidiata</i>	NLT0032640	None	None	G2G3	S2	1B.3
Kellogg's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	PDR0S0W043	None	None	G4T1?	S1?	1B.1
Kings Mountain manzanita <i>Arctostaphylos regismontana</i>	PDERI041C0	None	None	G2	S2	1B.2
longfin smelt <i>Spirinchus thaleichthys</i>	AFCHB03010	Candidate	Threatened	G5	S1	
marbled murrelet <i>Brachyramphus marmoratus</i>	ABNNN06010	Threatened	Endangered	G3G4	S1	
marsh microseris <i>Microseris paludosa</i>	PDAST6E0D0	None	None	G2	S2	1B.2
merlin <i>Falco columbarius</i>	ABNKD06030	None	None	G5	S3S4	WL
mimic tryonia (=California brackishwater snail) <i>Tryonia imitator</i>	IMGASJ7040	None	None	G2	S2	
Mission blue butterfly <i>Flebejus icarioides missionensis</i>	IILEPG801A	Endangered	None	G5T1	S1	
monarch - California overwintering population <i>Danaus plexippus</i> pop. 1	IILEPP2012	None	None	G4T2T3	S2S3	
Montara manzanita <i>Arctostaphylos montaraensis</i>	PDERI042W0	None	None	G1	S1	1B.2
Myrtle's silverspot butterfly <i>Speyeria zerene myrteae</i>	IILEPJ608C	Endangered	None	G5T1	S1	
N. Central Coast Calif. Roach/Stickleback/Steelhead Stream <i>N. Central Coast Calif. Roach/Stickleback/Steelhead Stream</i>	CARA2633CA	None	None	GNR	SNR	
North Central Coast Steelhead/Sculpin Stream <i>North Central Coast Steelhead/Sculpin Stream</i>	CARA2637CA	None	None	GNR	SNR	
Northern Coastal Salt Marsh <i>Northern Coastal Salt Marsh</i>	CTTS2110CA	None	None	G3	S3.2	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	
<i>Northern Maritime Chaparral</i>						
obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus caliginosus</i>						
Oregon polemonium	PDPLM0E050	None	None	G3G4	S2	2B.2
<i>Polemonium carneum</i>						
Ornduff's meadowfoam	PDLM02039	None	None	G4T1	S1	1B.1
<i>Limnanthes douglasii</i> ssp. <i>ornduffii</i>						
pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Antrozous pallidus</i>						
pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<i>Centromadia parryi</i> ssp. <i>parryi</i>						
perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Lasthenia californica</i> ssp. <i>macrantha</i>						
Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Horkelia marinensis</i>						
rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<i>Leptosiphon rosaceus</i>						
Sacramento-San Joaquin Coastal Lagoon	CALA1360CA	None	None	GNR	SNR	
<i>Sacramento-San Joaquin Coastal Lagoon</i>						
salt marsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Geothlypis trichas sinuosa</i>						
San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T1	S1	
<i>Callophrys mossii bayensis</i>						
San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>						
San Francisco campion	PDCA00U213	None	None	G5T1	S1	1B.2
<i>Silene verecunda</i> ssp. <i>verecunda</i>						
San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Collinsia multicolor</i>						
San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Neotoma fuscipes annexens</i>						
San Francisco forktail damselfly	IIODO72010	None	None	G2	S2	
<i>Ischnura gemina</i>						
San Francisco gartersnake	ARADB3613B	Endangered	Endangered	G5T2Q	S2	FP
<i>Thamnophis sirtalis tetrataenia</i>						
San Francisco gumplant	PDAST470D3	None	None	G5T1Q	S1	3.2
<i>Grindelia hirsutula</i> var. <i>maritima</i>						
San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
<i>Triphysaria floribunda</i>						
San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1	1B.1
<i>Eriophyllum latilobum</i>						



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Scouler's catchfly <i>Silene scouleri</i> ssp. <i>scouleri</i>	PDCAR001MC	None	None	G5T4T5	S2S3	2B.2
Serpentine Bunchgrass <i>Serpentine Bunchgrass</i>	CTT42130CA	None	None	G2	S2.2	
steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 8	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered	None	G3	S3	SSC
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010	None	None	G3G4	S2	SSC
Valley Needlegrass Grassland <i>Valley Needlegrass Grassland</i>	CTT42110CA	None	None	G3	S3.1	
western bumble bee <i>Bombus occidentalis</i>	IIHYM24250	None	Candidate Endangered	G2G3	S1	
western leatherwood <i>Dirca occidentalis</i>	POTHY03010	None	None	G2	S2	1B.2
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western snowy plover <i>Charadrius alexandrinus nivosus</i>	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
white-rayed pentachaeta <i>Pentachaeta bewickiflora</i>	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
woodland woollythreads <i>Monolopia gracilis</i>	PDAST6G010	None	None	G3	S3	1B.2

Record Count: 73