# INITIAL STUDY AND NEGATIVE DECLARATION FOR THE CHINOOK SALMON COASTAL NET PEN PROJECT IN SANTA CRUZ HARBOR

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## The Project

The Monterey Bay Salmon and Trout Project (MBSTP) is a membership-based nonprofit 501c3 organization dedicated to the conservation and recovery of native salmon and trout populations of the Monterey Bay region. MBSTP proposes to acclimate hatchery-raised Central Valley fall-run Chinook Salmon (CV FR) in a temporary net pen within Santa Cruz Harbor in Santa Cruz, CA in the spring of 2019 and 2020. On the same day of delivery, the net pen would be towed out of the harbor and the fish released into Monterey Bay. The Project's objective is to enhance Central California's commercial and recreational salmon fishery. Released smolts will 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 clearly 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

This proposed Negative Declaration consists of the following:

- Introduction - Project Description and Background Information for the Chinook Salmon Coastal Net Pen Project in Santa Cruz Harbor
- Initial Study Appendix G Checklist with Explanations
- Exhibit A - Statement of Work
- Exhibit B - Application Response Letter
- Exhibit C – Project and Quadrants Map
- Exhibit D - CNDDB Species List

# PROJECT DESCRIPTION AND BACKGROUND INFORMATION FOR THE CHINOOK SALMON COASTAL NET PEN PROJECT IN SANTA CRUZ HARBOR

## Introduction

The Chinook Salmon Coastal Net Pen Project in Santa Cruz Harbor is a project within the meaning of the California Environmental Quality Act (CEQA) (Public Resource Code, §21000-21178). The Department of Fish and Wildlife (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 Project implementation from the Mokelumne River Hatchery (MRH) and would deliver those fish to the Santa Cruz Harbor for their acclimation and subsequent release by MBSTP.

The Commercial Salmon Trollers Advisory Committee (Salmon Stamp Committee) and CDFW support this project. The cost for raising, marking and tagging, and delivery of Central Valley fall-run Chinook Salmon (CV FR) smolts to Santa Cruz Harbor will be covered by the Commercial Salmon Trollers Enhancement and Restoration Program fund and a matching share contributed by CDFW. MBSTP will provide any additional funding needed for program operations.

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

## Project Objective

The Project's objective is to enhance Central California's commercial and recreational salmon fishery. 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 FR 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 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 even 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. But, 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 FR downstream and releases them either into the Delta or San Francisco bay net pens for acclimation, or directly into the Delta or Bay. It has been found that hatchery fish released into net pens have higher survival rates and higher recovery rates in ocean fisheries (Palmer-Zwahlen, et al., 2018, 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 MBSTP has conducted coastal net pen releases within Monterey Bay since 1992. Beginning in 2009, 100% of fish released were adipose fin-clipped and Coded Wire Tag (CWT) with a unique tag code. 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 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. 2018).

“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 steam of origin. Generally speaking, hatchery fish stray more than natural origin fish and stray rates are even higher when young hatchery salmon are released off-site from their hatchery of origin.

During the past two decades, adult CV FR have been observed straying into several streams along the Central Coast as well as many San Francisco Bay streams, although historically these streams did not support native runs of Chinook Salmon. CDFW began annual observation monitoring for straying CV FR into coastal target and non-target streams in 2014. CWT recoveries in the streams was very limited but based on live fish and redd based population estimates, it appears that straying may be relatively localized and at low numbers with most observed in Lagunitas Creek, Marin County (Neillands et al. 2018a, 2018b, 2018c and 2019).

## Project Location

**Receiving Location (2019 and 2020)**: Santa Cruz Harbor (36.964136ºN, -121.001816º W).
Santa Cruz Harbor, located in Santa Cruz County, supports recreational and commercial fishery activities. Anglers use Santa Cruz Harbor as a base for commercial and recreational angling activities. Whale watching, pleasure cruising, and sailing activities also launch from the harbor. The harbor provides 800 permanent slips.

The receiving net pen will be tied with lines to the east dock opposite the south launch ramp.

**Releasing Location (2019 and 2020)**: Monterey Bay approximate, target release site coordinates are 36.888449º, -121.974374º. This is approximately 5 miles south of the harbor mouth.

## Schedule

CDFW would deliver Mokelumne River Hatchery (MRH) CV FR smolts to Santa Cruz Harbor in mid-May 2019 and 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 the Santa Cruz Harbor and Monterey Bay. Fish would acclimate and be released within the same day, but MBSTP aims to release the fish within 1-3 hours of delivery.

## Project Description

In anticipation of fish delivery from MRH to the Santa Cruz Harbor, a temporary floating net pen would be constructed dockside in Santa Cruz Harbor near the mouth to Monterey Bay.

CDFW would transport Project fish from the MRH using one truck trip each year. All fish slated for net pen acclimation would be evaluated by a CDFW fish health specialist to be disease-free prior to leaving the hatchery. Fish would not require vaccinations prior to transfer due to the short holding duration in the net pen, nor would there be any feedings during acclimation. To reduce stress and improve trucking survival, the water in the tanks would be salted.

After arrival at the Santa Cruz Harbor, a large, gravity-fed pipe would move fish from the truck to the net pen. After 1-3 hours of acclimation, the net pen would be towed into Monterey Bay and released from the pen. After release, the net pen would be towed back to the harbor, disassembled and transported to a storage location. All operations would be staffed exclusively by volunteer effort, except for CDFW's rearing and conveyance of fish from the MRH to the Santa Cruz Harbor.

Project fish would be in the smolt life stage and ready to move out to the ocean where they would feed and grow for one to three years. One hundred percent of fish would be CWT with a unique code specific to the Project, and adipose fin-clipped. Tag retention average is 99.56% for fish from MRH (Buttars 2018). Anglers would be able to identify hatchery fish by the missing adipose fins and remove and save the heads containing the CWTs, enabling reporting to CDFW and tracking of Project fish. This helps facilitate monitoring at the appropriate scale for the net pen release program. In addition, adult fish returning to the Central Valley can be identified and quantified during regional spawning surveys and as hatchery returns. Adults straying into coastal and San Francisco Bay streams can be identified and quantified during through monitoring.

The MBSTP Chinook Salmon coastal net pen project in Santa Cruz Harbor would acclimate and release 120,000 fish in 2019 and 120,000 in 2020. The two-year total release from Santa Cruz Harbor would be 240,000 fish. The project is contingent upon CDFW approval after completion of CEQA.

## 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 Santa Cruz Harbor and surrounding areas. The Project conforms to the standard method of acclimating fish in net pens prior to release into ocean waters and complies with CDFW policies. CDFW's CNDDB was reviewed to identify potential impacts to animals identified in the nine Quadrants in the surrounding area.

## References


Bartley, D.M., G.A.E. Gall, and B. Bentley. 1980. Biochemical genetic detection of natural and artificial hybridization of Chinook and Coho Salmon in Northern California.

Buttars.B. 2018. Central Valley Salmon and Steelhead Marking/Coded-wire Tagging Program fall-run Chinook Salmon, spring-run Chinook Salmon, and Steelhead, 2018 Marking Season, Pacific States Marine Fisheries Commission Administrative Report.

Cal Fire. 2019. Wildland Hazard and Building Codes webpage, Santa Cruz County Fire Hazard Severity (FHSZ) Map.
http://www.fire.ca.gov/fire_prevention/fhsz_maps_santacruz

CDFW. 2018. CNDDB Natural Diversity Data Base, California Dept of Fish and Wildlife.
https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data

Chevassus, B. 1979. Hybridization in salmonids: results and perspectives. Aquaculture 17:113-128.

MBARD. 2012. Monterey Bay Air Resources District, 2012- 2015 Air Quality Management Plan, adopted by the Board of Directors March 15, 2017, 24580 Silver Cloud Ct. Monterey, CA 93940.
http://www.co.monterey.ca.us/home/showdocument?id=62318

CDFW. 2018. Grand Tab, California Dept of Fish and Wildlife Anadromous Assessment.

Leet, S. L., Green, R.E., and Ralph, D.1986. Pen Rearing Pacific Salmon, *Oncorhynchus spp*., in San Francisco Bay. Marine Fisheries Review, 48(1), 24-31.

Lily, N. R. 1982. Chemical communication in fish. Canadian Journal Fisheries Aquatic Science 39: 22-35.

Moyle, P.B. 2002. Inlands Fishes of California, University of California Press.

Neillands, G., J. Nelson, and E. Larson. 2018a. Annual Report 2014, Chinook Salmon Observation Monitoring Central California Coastal Streams. CDFW Bay Delta Region.

Neillands, G., J. Nelson, and E. Larson. 2018b. Annual Report 2015, Chinook Salmon Observation Monitoring Central California Coastal Streams. CDFW Bay Delta Region.

Neillands, G., J. Nelson, A. Persau, and E. Larson. 2018c. Annual Report 2016, Chinook Salmon Observation Monitoring Central California Coastal Streams. CDFW Bay Delta Region.

Neillands, G., J. Nelson, M. Michie, M. Stuhldreher, and E. Larson. 2019. Annual Report 2017, Chinook Salmon Observation Monitoring Central California Coastal Streams. CDFW Bay Delta Region.

Palmer-Zwahlen M. and Kormos.B. 2015. Recovery of Coded-Wire Tags from Chinook Salmon in California's Central Valley Escapement, Inland Harvest, and Ocean Harvest in 2012. California Department of Fish and Wildlife Fisheries Administrative Report 2015-4. November 2015.

Palmer-Zwahlen M., Gusman, V and Kormos, B. 2018. Recovery of Coded-Wire Tags from Chinook Salmon in California's Central Valley Escapement, Inland Harvest, and Ocean Harvest in 2013. California Department of Fish and Wildlife and Pacific States Marine Fisheries.

Quinn TP. 2005. The behavior and ecology of Pacific salmon and trout. American Fisheries Society, Bethesda, pp 85–104.

# Initial Study Environmental Checklist

**Project Information**

1.Project Title

Chinook Salmon Coastal Net Pen Project in Santa Cruz Harbor

2.Lead Agency Name and Address

California Department of Fish and Wildlife
Fisheries Branch
830 S Street
Sacramento, CA 95811

3.Contact Person and Number

Mary Olswang, Fisheries Branch
(916) 445-7633
mary.olswang@wildlife.ca.gov

4. Project Location

Santa Cruz County
Santa Cruz Harbor (36.964136ºN, -121.001816º)

5. Project Sponsor's Name and Address

California Department of Fish and Wildlife
Fisheries Branch
830 S Street
Sacramento, CA 95811

6. General Plan Designation

Coastal Development Permit (CDP) Waiver 3-18-0154-W
California Coast Commission Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060

7. Zoning

Coastal

8. Description of Project

CDFW's MRH would deliver 120,000 CV FR smolts to the Project net pen attached dockside in Santa Cruz Harbor in 2019 and again in 2020. MBSTP is implementing this project. CV FR smolts would acclimate to temperature, salinity, and schooling behavior within the same day of delivery to the harbor, before being towed out of the harbor and

released. CDFW would deliver Mokelumne River Hatchery (MRH) CV FR smolts to Santa Cruz Harbor in mid-May 2019 and 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 the Santa Cruz Harbor and Monterey Bay. Fish would acclimate and be released within the same day, but MBSTP aims to release the fish within 1-3 hours of delivery. The Project's objective is to enhance the commercial and recreational salmon ocean fishery.

9. Surrounding Land Uses and Setting:

Santa Cruz Harbor is located on the northern edge of Monterey Bay and is an active harbor with 800 permanent slips for commercial, recreational, and research vessels. Fishing and whale watching day trips leave from the harbor and there is a weekly sailboat regatta on Wednesdays. Housing, restaurants, and small businesses surround the harbor as well as a large recreational vehicle park adjacent to the harbor. The harbor is highly modified. Annual dredging is necessary to allow access. Acclimation and net pen assembly would occur at the south launch ramp in Santa Cruz Harbor. Arana Gulch and the San Lorenzo River flow into the harbor.

Monterey Bay is a 25-mile wide ocean inlet, which allows marine air at low levels to penetrate the interior. The Salinas Valley is a steep-sloped coastal valley that opens out on Monterey Bay and extends southeastward with mountain ranges of two to three thousand feet in elevation on either side.

The Pajaro River, Elkhorn Slough and Salinas River flow into Monterey Bay near Moss Landing, approximately 16 miles south of the Santa Cruz Harbor.

10. Approvals Needed from Other Public Agencies:

The Coastal Commission issued Coastal Development Permit waiver 3-18-0154-W on July 13, 2018 for this Project.

City of Santa Cruz Planning Department deemed the Project Categorically Exempt and not in need of any permits on April 30, 2018.

11. Tribal

Notification letters describing the Project were mailed to all federally registered tribes and tribes specifically requesting to be notified for all CEQA projects on November 15, 2018. CDFW received four responses; none requested consultation.

## Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project. This Project will not have a "Potential Significant Impact" on any of the environmental factors listed; therefore, no boxes are checked.

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forest Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology / Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards / Hazardous Materials |
| ☐ Hydrology / Water Quality | ☐ Land Use / Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population / Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities / Service Systems | ☐ Wildfire | ☐ 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 |
| Kevin Shaffer | CDFW, Fisheries Branch Chief |
| Printed Name | Agency/Title |

# Appendix G Checklist with Explanations

## Aesthetics

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **I. Aesthetics.** | | | | |
| Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☐ | ☒ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) In non-urbanized 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ☐ | ☒ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☐ | ☒ |

### Discussion

a) Have a substantial adverse effect on a scenic vista?

No impact. The net pen would be tied to the dock for a few hours on the same day as fish are delivered. After the net pens are towed out of the harbor and the fish are released, the net pen would be removed from the water and stowed.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
No impact. There would be no disturbance to trees and outcroppings during fish delivery or release.

c) In non-urbanized 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
No impact. The Project originates in a harbor adjacent to the city of Santa Cruz, and there are no conflicts with zoning or other regulations governing scenic quality. Net pens would be towed out of the harbor within the same day of delivery from the hatchery.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
No impact. Fish delivery and towing out to sea would all occur within daytime hours. No additional lighting would be required for this Project.

**Agriculture and Forest Resources**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **II. Agriculture and Forest Resources** | | | | |
| 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? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| 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))? | | | | |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

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?
No impact. The Project is not located on FMMP designated farmland.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?
No impact. The net pens would not change existing land use and no zoning conflict or impacts would occur.

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))?
No impact. The net pens would not change existing land use.

d) Result in the loss of forest land or conversion of forest land to non-forest use?
No impact. The Project would be located in the harbor and fish would be released into Monterey Bay, with no modifications or impacts to forest land.

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?
No impact. Net pen acclimation is not a terrestrial activity.

## Air Quality

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **III. Air Quality.** | | | | |
| Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. | | | | |
| Are significance criteria established by the applicable air district available to rely on for significance determinations? | ☒ Yes | | ☐ No | |
| Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| c) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☐ | ☒ |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |

### Discussion

Significance criteria is established but was not necessary to use for this determination. Per consultation on 1/29/19 with David Frisbey and Hanna Muegge of the Monterey Bay Air Resources District, Project emissions generated by the truck and boat are included in the Daily Emissions Inventory outlined on pages 20 and 21 of the 2012-2015 Air Quality Management Plan released by the Monterey Bay Air Resources District and adopted by the District Board of Directors on March 15, 2017.

a) Conflict with or obstruct implementation of the applicable air quality plan?
No impact. This is not an on-going Project and would not conflict or obstruct with implementation of the applicable air quality plan.

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?
No impact. This is not an on-going Project and would not result in a considerable net increase of any criteria pollutant.

c) Expose sensitive receptors to substantial pollutant concentrations?
No impact. Such an impact would not occur because the Project would not increase pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
No impact. The hatchery truck would emit diesel fuel odors when delivering the fish to the net pens, but this is temporary and would not adversely affect a substantial number of people.

**Biological Resources**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | 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 the U.S. Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

The Santa Cruz Harbor and Monterey Bay area quadrants examined for this study include: Año Nuevo, Davenport, Marina, Monterey, Moss Landing, Santa Cruz, Seaside, Soquel, and Watsonville West. The California Natural Diversity Database (CNDDB) Rare Find was used to report presence and status of all animals within these nine quadrants (Exhibits C and D).

a) Will the project 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 the U.S. Fish and Wildlife Service?
This impact would be less than significant.

**Fishes**

Based on a query of CNDDB 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 FR 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 DPS steelhead and SCC DPS steelhead *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 FR 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.

If CV FR adults stray into coastal streams, some competition for resources with salmonids native to the area may occur. CDFW monitoring observations show that CV FR adults strayed mainly into three coastal streams within and outside the Project area: Lagunitas Creek (Marin), Arana Gulch, and San Lorenzo River (Neillands et al. 2018a, 2018b, 2018c 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. 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 FR migrate into this stream to spawn. Additionally, CV FR adults migrate earlier than Coho Salmon or steelhead, thus CV FR 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 pers. Comm. 2019). The small releases of CV FR planned for 2019 and 2020 would likely not cause significant impacts through competition with listed anadromous stocks in coastal streams.

2. CV FR 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 Clemento 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 FR. In other words, if hybridization was occurring in the Russian or Eel Rivers, genetic samples would likely be more similar to CV FR. 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 FR, usually late November to early February and peaking in December and January. Adult CV FR 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 small releases planned for 2019 and 2020 would significantly impact listed anadromous stocks due to hybridization with CV FR in coastal streams.

3. And finally, hatchery fish have been transported and released into the San Francisco Bay for decades and more specifically, MBSTP has conducted net pen smolt acclimation in the Santa Cruz Harbor since 2010 and no out-of-basin spawning population has been observed. It is very unlikely that the small releases planned for 2019 and 2020 would establish an out-of-basin spawning population of CV FR.

The Project would result in no impacts to federally threatened Eulachon *Thaleichthys pacificus.*
In California, Eulachon are historically found in the Klamath River as well as some smaller coastal rivers including the Mad River and Redwood Creek. The CNDDB Soquel Quadrant details one Eulachon collected around 1911 near the mouth of Soquel Creek. This was a rare occasion; it is extremely unlikely for Eulachon to be present or adversely affected by the Project.

The Project would result in no impacts to federal and state protected Longfin Smelt *Spirinchus thaleichthys*.
The CNDDB finding in Moss Landing Quadrant describes specimens of this species collected offshore in 1890 and 1993. However, Longfin Smelt do not breed in this area and these specimens may have been strays 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 Año Nuevo, Davenport and Santa Cruz Quadrants are shown in the CNDBB. 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, including federally threatened, state endangered marbled murrelet *Brachyramphus marmoratus*, state threatened bank swallow *Riparia riparia*, federally threatened California black rail *Laterallus jamaicensis coturniculus,* state candidate tricolored blackbird *Eucyclogobius newberry,* and federally threatened and state species of special concern western snowy plover *Charadrius alexandrines nivosus*. Because the Project would occur within the developed Santa Cruz Harbor and as the fish are towed to sea, and given the short duration of the delivery, acclimation and towing activities, there would be no potential for the Project to disrupt nesting, feeding, or other activities of these birds. In addition, any adult CV FR straying into coastal streams 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 CNDDB 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 FR juveniles or returning adults.

The Project would result in no impacts to Steller (Northern) sea lion *Eumetopias jubatus.*

Steller sea lion was identified as occurring in the Año Nuevo Quadrant. Steller or Northern sea lions are found in coastal waters of the North Pacific from Japan to central California. Within the Año Nuevo quadrant, breeding occurs on Año Nuevo Island. The Project will not occur near this island and will not impact neither adults nor pups.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No impact. The Project involves no changes to terrestrial habitats.

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?
No impact. The Project would occur entirely within the developed Santa Cruz Harbor and as fish are towed to sea, and consequently would have no impact to any protected wetlands, riparian habitat or other sensitive areas.

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?

No impact. The project fish will not impede movement within migratory corridors or wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
No impact. The Project does not conflict with local ordinances.

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?
No impact. The Project does not conflict with adopted conservation plans.

**Cultural Resources**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **V. Cultural Resources.** | | | | |
| Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | ☐ | ☐ | ☐ | ☒ |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No impact. There is no ground disturbing work or work permanently modifying any existing structure or resource, thus no impact to historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
No impact. There is no ground disturbing work, thus no impact to archaeological resources.

c) Disturb any human remains, including those interred outside of formal cemeteries?
No impact. There is no ground disturbing work, thus no impact to paleontological resources.

**Energy**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
No impact. The Project would be complete within a day and would only use the energy sources necessary to transport fish to the Santa Cruz Harbor and to sea.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
No impact. The Project would not affect nor obstruct any state or local renewable energy plans.

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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: | | | | |
| 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 California Geological Survey Special Publication 42.) | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| 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? | | | | |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

No impact, a) through f). The Project involves fish transportation to the Santa Cruz Harbor, use of a temporary, floating pen in an existing harbor, and towing the pen to sea for release. The net pen is temporary and free floating. No ground disturbing work, permanent structural modification, or activities that could directly or indirectly increase exposure to geological hazards would occur. There would be no impacts associated with any of the criteria under this category.

**Greenhouse Gas Emissions**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Less than significant impact. The Project would emit greenhouse gases (GHG) due to the use of fuel to transport the Chinook Salmon smolts from MRH to Santa Cruz Harbor and to tow the net pen out of the harbor about five miles into Monterey Bay. Per consultation on 1/29/19 with David Frisbey and Hanna Muegge at the Monterey Bay Air Resources District, Project emissions generated by the truck and boat are included in the Daily Emissions Inventory outlined on pages 20 and 21 of the 2012-2015 Air Quality Management Plan released by the Monterey Bay Air Resources District and adopted by the District Board of Directors on March 15, 2017.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
No impact. The very low levels of GHG emissions from the Project would not conflict with GHG plans or policies.

**Hazards and Hazardous Materials**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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? | ☐ | ☐ | ☐ | ☒ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☐ | ☒ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

The Project does not involve the transport, use, or emission of any hazardous materials, and thus there is no impact associated with categories a), b) or c) above.

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?
No impact. The Project is not located on any designated hazardous materials sites.

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?
No impact. Net pens are temporary and located in the coastal zone.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
No impact. The Project would not impair any emergency response plans. Trucks used for hauling or delivery would fit into existing marked parking spaces for trucks and trailers and would not block access to the harbor, parking lot or ramp. The Project is short-term, generally would occur in the water, and would not impact roads.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?
No impact. The Project does not pose any risks to people or structures.

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **X. Hydrology and Water Quality.** | | | | |
| Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ☐ | ☒ |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☐ | ☒ |
| 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: | | | | |
| i) Result in substantial on- or offsite erosion or siltation; | ☐ | ☐ | ☐ | ☒ |
| ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☐ | ☐ | ☒ |
| 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 | ☐ | ☐ | ☐ | ☒ |
| iv) Impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
No impact. Fish are acclimated for 1-3 hours within the same day as delivery and there will not be any feedings. Therefore, the fecal matter produced by the smolts for this short period of time will not pose significant water quality standard issues. Furthermore, tidal flows and current of the outer harbor would help refresh the water at the net pen site.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
No impact. The Project would not be using groundwater.

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:

i) Result in substantial on- or offsite erosion or siltation;
No impact. The Project would largely occur within the Harbor and Monterey Bay and would make no surface modifications.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
No impact. The Project would largely occur within the Harbor and Monterey Bay and would make no surface modifications.

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;
No impact. The Project would largely occur within the Harbor and Monterey Bay and would make no surface modifications.
or

iv) Impede or redirect flood flows?
No impact. The Project would largely occur within the Harbor and Monterey Bay and would make no surface modifications.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
No impact. There would be no pollutants.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
No impact. The Project is dockside and not obstructing any other water plans.

**Land Use and Planning**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XI. Land Use and Planning.** | | | | |
| Would the project: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Physically divide an established community?
No impact. The net pens would be installed dockside for a few hours and would be disassembled and removed after use.

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?
No impact. The acclimation of juvenile fall run Chinook Salmon with the use of net pens is consistent with the coastal zone practices and would make no changes to existing land uses.

**Mineral Resources**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XII. Mineral Resources.** | | | | |
| Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
No impact. The Project would make no changes to existing land use or mineral resource availability.

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?
No impact. The Project would make no changes to existing land use or mineral resource availability.

**Noise**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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 in other applicable local, state, or federal standards? | | | | |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

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 in other applicable local, state, or federal standards?
No impact. Santa Cruz Harbor is a busy harbor within the city and the noise of the delivery truck or noise associated with the small boat's use is not expected to be significant above ambient noise levels.

b) Generation of excessive groundborne vibration or groundborne noise levels?
No impact. The Project would largely occur on the water and would not generate groundborne noises or vibrations.

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?
No impact. The Project would largely occur on the water and would not expose residence or local workers to excessive noise levels.

**Population and Housing**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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)? | | | | |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

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)?
No impact. The Project does not involve any construction or activity that would directly or indirectly induce population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
No impact. The Project would make no changes to existing land uses.

**Public Services**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. Public Services.** | | | | |
| Would the project: | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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: | | | | |
| Fire protection? | ☐ | ☐ | ☐ | ☒ |
| Police protection? | ☐ | ☐ | ☒ | ☐ |
| Schools? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| Parks? | ☐ | ☐ | ☐ | ☒ |
| Other public facilities? | ☐ | ☐ | ☒ | ☐ |

**Discussion**

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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: Fire protection, Police protection, Schools, Parks, Other public facilities?

Less than significant. In 2012 and 2013, adult Chinook salmon reared in net pens by MBSTP during previous projects returned to the harbor as adults in large numbers. This was an unusual occurrence, but still a reason for concern. Fishing in the Harbor is prohibited. But, for those two years, the Santa Cruz Port District accommodated anglers during this unusual occurrence by allowing fishing near the culverts draining from Arana Gulch. Port District staff received several complaints from residents and other slip licensees, RV guests and other harbor users about noise, sanitation, damage to harbor facilities and illegal fishing methods.

These recent events indicate that there may be some indirect impacts to public safety services within the Harbor due to illegal fishing from of the docks, piers, and jetties, of Project fish that return to the Harbor. In response, MBSTP imposed changes to the 2017 release that reduced the acclimation time to 1-3 hours since shorter acclimation time would likely reduce homing to the harbor. In addition, the number of Project fish was also reduced to 120,000. To date, none of these fish have been observed returning to the harbor.

Given the information above, it appears unlike that significant numbers of CV FR adults would home to the Santa Cruz Harbor and lead to fishing in the area, and if some fish do return, their numbers would be less than significant. No new or physically altered governmental facilities are anticipated to be necessary as a result of the Project.

## Recreation

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. Recreation.** | | | | |
| Would the project: | | | | |
| a) 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? | ☐ | ☐ | ☐ | ☒ |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

### Discussion

a) 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?

No impact. As noted above under the Public Services discussion, in past years there has been an increase in recreational fishing in the Harbor, which led to some temporary problems in the Harbor were reported due to illegal fishing, sanitation, and noise. However, given changes to acclimation procedures since that time, it is unlikely that significant numbers of CV FR adults would home to the Santa Cruz Harbor and lead to fishing in the area as a result of implementation of the Project. No substantial physical deterioration of recreational facilities is anticipated to be necessary as a result of the Project.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No impact. The Project does not require new or physically expanded recreational facilities. As under criterion a), given changes to acclimation procedures since that time, it is unlikely that significant numbers of CV FR adults would home to the Santa Cruz Harbor and lead to fishing in the area as a result of implementation of the Project.

## Transportation

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | ☐ | ☐ | ☐ | ☒ |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☒ |
| d) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |

### Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
No impact. This Project involves no land use or transportation system modifications.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?
No impact. The low number of vehicle miles associated with the truck transport of fish from the MRH to the Santa Cruz Harbor would not be appreciable in terms of impacts to vehicle or non-motorized transportation.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
No impact. This Project involves no land use or transportation system modifications.

d) Result in inadequate emergency access?
No impact. This Project involves no land use or transportation system modifications.

## Tribal Cultural Resources

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVIII. Tribal Cultural Resources.** | | | | |
| Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)? | ☐ Yes | | ☒ No | |
| Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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: | | | | |
| a) 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)? | ☐ | ☐ | ☐ | ☒ |
| b) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | ☐ | ☐ | ☐ | ☒ |

### Discussion

**Please note**: Notification letters describing the Project were mailed to all federally recognized tribes in the California, and California tribes specifically requesting to be notified for all CEQA projects on November 15, 2018. CDFW received four responses; none requested consultation.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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:

a) 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)?
No impact.

b) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?
No impact.

**Utilities and Service Systems**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIX. Utilities and Service Systems.** | | | | |
| Would the project: | | | | |
| a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a determination by the wastewater treatment provider that 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? | ☐ | ☐ | ☐ | ☒ |

| | | | | |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?
No impact. This Project would not rely on existing or new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
No impact. This Project requires no new water supplies.

c) Result in a determination by the wastewater treatment provider that 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?
No impact. This Project would not use any wastewater treatment systems.

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?
No impact. This Project would generate no solid waste.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?
No impact. This Project would generate no solid waste.

## Wildfire

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XX. Wildfire.** | | | | |
| Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones? | ☒ Yes | | ☐ No | |
| 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| c) Require the installation 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? | ☐ | ☐ | ☐ | ☒ |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ☒ |

### Discussion

Cal Fire designated the City of Santa Cruz as a Local Responsibility Area (LRA) within the Fire Hazard Severity Zone (FHSZ). The rural areas surrounding the city are part of the State Responsibility Area (SRA) and are rated as moderate, high, and extra high. The Cal Fire map can be viewed at: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santacruz

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?
No impact. The Project will not impair emergency response or evacuation plans.

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?
No impact. The Project would not exacerbate wildfire risks.

c) Require the installation 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?
No impact. The Project uses existing infrastructure to deliver the fish and does not require the installation of additional infrastructure.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?
No impact. The Project would no expose people or structures to risks.

**Mandatory Findings of Significance**

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☐ | ☐ | ☒ |
| 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.) | | | | |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☐ | ☒ |

**Discussion**

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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?
No impact. Project fish would grow into harvestable adults in the near ocean environment where they would be available for harvest by the commercial and recreational fishery. Unharvested adults may stray into coastal streams or return to MRH, but this would not reduce the habitat of native species or cause populations to drop below self-sustaining levels, nor restrict the range of endangered, rare, or threatened species.

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.)
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 observed. 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.

Based on the available data, there will be no cumulative impacts.

a) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?
No impacts. The Project would not have environmental effects that would impact human beings, 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, Monterey Bay Salmon and Trout Project (MBSTP) would fulfill the following:

1. MBSTP is responsible for acclimating 120,000 Chinook Salmon smolts provided by the Mokelumne River Fish Hatchery in 2019 and 120,000 in 2020. The CDFW would deliver fish to the dockside net pen within Santa Cruz Harbor. Fish would acclimate in the net pens within the same day of delivery, then towed out of the harbor and released into Monterey Bay. MBSTP anticipates the holding period to not exceed 3 hours.

One dockside net pen would be trailered to the water's edge, placed into the water and attached to a floating dock adjacent to the boat ramp prior to hatchery fish delivery. The project would be utilizing the South boat launch ramp and main parking area. One hatchery truck would deliver the fish.

The Santa Cruz Harbor Commissioners agreed to make a large portion of the parking area available for the hatchery truck, and to accommodate for the offloading of fish. This access has been clearing stated within the permit. For future reference, the Monterey Harbormaster agreed to a similar arrangement that includes use of the small lot above the fuel dock (Monterey Boatworks) for the hatchery trucks to offload.

2. MBSTP understands the availability of salmon for this project may be reduced based on availability. CDFW would mark and tag the fish with a coded-wire tag (CWT) and adipose fin clip. Salmon would be healthy and disease free when delivered to the net pen.

All fish would be delivered, acclimated, and released within the same day. Fish are scheduled to be delivered mid-May.

3. MBSTP agrees to provide a final to CDFW and the Salmon Stamp Committee report by August 15, 2019 for the 2019 release, and August 15, 2020 for the 2020 release. The report would include the following information:

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

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

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

6. MBSTP 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 MBSTP Chinook Salmon Coastal Net Pen Project in Santa Cruz Harbor, 2019 and 2020.

# Exhibit B
# Application Response Letter

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Fisheries Branch
830 "S" Street
Sacramento, CA 95811
(916) 327-8840
www.wildlife.ca.gov

*EDMUND G. BROWN JR., Governor*
*CHARLTON H. BONHAM, Director*

December 13, 2017

Mr. Benjamin Harris
101 Cooper Street, # 256
Santa Cruz, CA 95060

We are pleased to inform you that the following grant application for Commercial Salmon Trollers Enhancement and Restoration Program funding was partially approved:

Application Number: 00211

Project Title: MBSTP Chinook Salmon Net Pen Release Program (Santa Cruz)

Your project was approved to release 120, 000 smolts in Santa Cruz for 2019 and 2020. The implementation of your project is still contingent upon an environmental review, which the Department is currently conducting, and the availability of Fall-run Chinook from the hatchery.

The Department will update you throughout the environmental review process, as well as the number of fish available for your project. If you have questions or concerns, please contact Ryon Kurth (916) 445-3181 or by email at Ryon.Kurth@wildlife.ca.gov

Sincerely,

Kevin Shaffer, Chief
Fisheries Branch

Ec: Commercial Salmon Trollers Advisory Committee
Mike Ricketts
Jimmy Anderson
Stan Carpenter

Department of Fish and Wildlife
Eric Larson
George Neilands
Kevin Thomas
Jay Rowan

*Conserving California's Wildlife Since 1870*

# Exhibit C
# Project Location and Quadrants Identification Map

# Exhibit D
# CNDDB Animals

# 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 |
|---|---|---|---|---|---|---|
| **bank swallow**<br>*Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **black swift**<br>*Cypseloides niger* | ABNUA01010 | None | None | G4 | S2 | SSC |
| **California black rail**<br>*Laterallus jamaicensis coturniculus* | ABNME03041 | None | Threatened | G3G4T1 | S1 | FP |
| **California giant salamander**<br>*Dicamptodon ensatus* | AAAAH01020 | None | None | G3 | S2S3 | SSC |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **coho salmon - central California coast ESU**<br>*Oncorhynchus kisutch pop. 4* | AFCHA02034 | Endangered | Endangered | G4 | S2? | |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **marbled murrelet**<br>*Brachyramphus marmoratus* | ABNNN06010 | Threatened | Endangered | G3G4 | S1 | |
| **San Francisco gartersnake**<br>*Thamnophis sirtalis tetrataenia* | ARADB3613B | Endangered | Endangered | G5T2Q | S2 | FP |
| **sandy beach tiger beetle**<br>*Cicindela hirticollis gravida* | IICOL02101 | None | None | G5T2 | S2 | |
| **Santa Cruz black salamander**<br>*Aneides flavipunctatus niger* | AAAAD01070 | None | None | G3 | S3 | SSC |
| **steelhead - central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 8* | AFCHA0209G | Threatened | None | G5T2T3Q | S2S3 | |
| **Steller (=northern) sea-lion**<br>*Eumetopias jubatus* | AMAJC03010 | Delisted | None | G3 | S2 | |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pearlshell**<br>*Margaritifera falcata* | IMBIV27020 | None | None | G4G5 | S1S2 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |

**Record Count: 19**

# 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 |
|---|---|---|---|---|---|---|
| **black swift**<br>*Cypseloides niger* | ABNUA01010 | None | None | G4 | S2 | SSC |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California giant salamander**<br>*Dicamptodon ensatus* | AAAAH01020 | None | None | G3 | S2S3 | SSC |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **coho salmon - central California coast ESU**<br>*Oncorhynchus kisutch pop. 4* | AFCHA02034 | Endangered | Endangered | G4 | S2? | |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **marbled murrelet**<br>*Brachyramphus marmoratus* | ABNNN06010 | Threatened | Endangered | G3G4 | S1 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **saltmarsh common yellowthroat**<br>*Geothlypis trichas sinuosa* | ABPBX1201A | None | None | G5T3 | S3 | SSC |
| **San Francisco dusky-footed woodrat**<br>*Neotoma fuscipes annectens* | AMAFF08082 | None | None | G5T2T3 | S2S3 | SSC |
| **Santa Cruz black salamander**<br>*Aneides flavipunctatus niger* | AAAAD01070 | None | None | G3 | S3 | SSC |
| **Santa Cruz kangaroo rat**<br>*Dipodomys venustus venustus* | AMAFD03042 | None | None | G4T1 | S1 | |
| **steelhead - central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 8* | AFCHA0209G | Threatened | None | G5T2T3Q | S2S3 | |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **Townsend's big-eared bat**<br>*Corynorhinus townsendii* | AMACC08010 | None | None | G3G4 | S2 | SSC |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |
| **yellow rail**<br>*Coturnicops noveboracensis* | ABNME01010 | None | None | G4 | S1S2 | SSC |
| **Zayante band-winged grasshopper**<br>*Trimerotropis infantilis* | IIORT36030 | Endangered | None | G1 | S1 | |

**Record Count: 20**

Marina

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Marina (3612167))<br /> AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Marina

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **American badger** *Taxidea taxus* | AMAJF04010 | None | None | G5 | S3 | SSC |
| **bank swallow** *Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **burrowing owl** *Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California horned lark** *Eremophila alpestris actia* | ABPAT02011 | None | None | G5T4Q | S4 | WL |
| **California linderiella** *Linderiella occidentalis* | ICBRA06010 | None | None | G2G3 | S2S3 | |
| **California red-legged frog** *Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **California tiger salamander** *Ambystoma californiense* | AAAAA01180 | Threatened | Threatened | G2G3 | S2S3 | WL |
| **coast horned lizard** *Phrynosoma blainvillii* | ARACF12100 | None | None | G3G4 | S3S4 | SSC |
| **ferruginous hawk** *Buteo regalis* | ABNKC19120 | None | None | G4 | S3S4 | WL |
| **northern California legless lizard** *Anniella pulchra* | ARACC01020 | None | None | G3 | S3 | SSC |
| **Salinas harvest mouse** *Reithrodontomys megalotis distichlis* | AMAFF02032 | None | None | G5T1 | S1 | |
| **Smith's blue butterfly** *Euphilotes enoptes smithi* | IILEPG2026 | Endangered | None | G5T1T2 | S1S2 | |
| **tidewater goby** *Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **tricolored blackbird** *Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee** *Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle** *Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover** *Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |

**Record Count: 17**

Monterey

# 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 |
|---|---|---|---|---|---|---|
| **black swift**<br>*Cypseloides niger* | ABNUA01010 | None | None | G4 | S2 | SSC |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California black rail**<br>*Laterallus jamaicensis coturniculus* | ABNME03041 | None | Threatened | G3G4T1 | S1 | FP |
| **California brown pelican**<br>*Pelecanus occidentalis californicus* | ABNFC01021 | Delisted | Delisted | G4T3T4 | S3 | FP |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **California tiger salamander**<br>*Ambystoma californiense* | AAAAA01180 | Threatened | Threatened | G2G3 | S2S3 | WL |
| **Coast Range newt**<br>*Taricha torosa* | AAAAF02032 | None | None | G4 | S4 | SSC |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **globose dune beetle**<br>*Coelus globosus* | IICOL4A010 | None | None | G1G2 | S1S2 | |
| **hoary bat**<br>*Lasiurus cinereus* | AMACC05030 | None | None | G5 | S4 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **northern California legless lizard**<br>*Anniella pulchra* | ARACC01020 | None | None | G3 | S3 | SSC |
| **obscure bumble bee**<br>*Bombus caliginosus* | IIHYM24380 | None | None | G4? | S1S2 | |
| **Smith's blue butterfly**<br>*Euphilotes enoptes smithi* | IILEPG2026 | Endangered | None | G5T1T2 | S1S2 | |
| **steelhead - south-central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 9* | AFCHA0209H | Threatened | None | G5T2Q | S2 | |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |
| **yellow rail**<br>*Coturnicops noveboracensis* | ABNME01010 | None | None | G4 | S1S2 | SSC |

**Record Count: 19**

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **American peregrine falcon**<br>*Falco peregrinus anatum* | ABNKD06071 | Delisted | Delisted | G4T4 | S3S4 | FP |
| **bank swallow**<br>*Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **California Ridgway's rail**<br>*Rallus obsoletus obsoletus* | ABNME05011 | Endangered | Endangered | G5T1 | S1 | FP |
| **California tiger salamander**<br>*Ambystoma californiense* | AAAAA01180 | Threatened | Threatened | G2G3 | S2S3 | WL |
| **globose dune beetle**<br>*Coelus globosus* | IICOL4A010 | None | None | G1G2 | S1S2 | |
| **longfin smelt**<br>*Spirinchus thaleichthys* | AFCHB03010 | Candidate | Threatened | G5 | S1 | SSC |
| **mimic tryonia (=California brackishwater snail)**<br>*Tryonia imitator* | IMGASJ7040 | None | None | G2 | S2 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **northern California legless lizard**<br>*Anniella pulchra* | ARACC01020 | None | None | G3 | S3 | SSC |
| **obscure bumble bee**<br>*Bombus caliginosus* | IIHYM24380 | None | None | G4? | S1S2 | |
| **Salinas harvest mouse**<br>*Reithrodontomys megalotis distichlis* | AMAFF02032 | None | None | G5T1 | S1 | |
| **Santa Cruz long-toed salamander**<br>*Ambystoma macrodactylum croceum* | AAAAA01082 | Endangered | Endangered | G5T1T2 | S1S2 | FP |
| **short-eared owl**<br>*Asio flammeus* | ABNSB13040 | None | None | G5 | S3 | SSC |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |

**Record Count: 20**

Santa Cruz

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Santa Cruz (3612281))<br /> AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Santa Cruz

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **American badger**<br>*Taxidea taxus* | AMAJF04010 | None | None | G5 | S3 | SSC |
| **bank swallow**<br>*Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **black swift**<br>*Cypseloides niger* | ABNUA01010 | None | None | G4 | S2 | SSC |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California black rail**<br>*Laterallus jamaicensis coturniculus* | ABNME03041 | None | Threatened | G3G4T1 | S1 | FP |
| **California giant salamander**<br>*Dicamptodon ensatus* | AAAAH01020 | None | None | G3 | S2S3 | SSC |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **coho salmon - central California coast ESU**<br>*Oncorhynchus kisutch pop. 4* | AFCHA02034 | Endangered | Endangered | G4 | S2? | |
| **Dolloff Cave spider**<br>*Meta dolloff* | ILARA17010 | None | None | G1 | S1 | |
| **Empire Cave pseudoscorpion**<br>*Fissilicreagris imperialis* | ILARAE5010 | None | None | G1 | S1 | |
| **Empire Cave pseudoscorpion**<br>*Neochthonius imperialis* | ILARAD1010 | None | None | G1 | S1 | |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **globose dune beetle**<br>*Coelus globosus* | IICOL4A010 | None | None | G1G2 | S1S2 | |
| **great blue heron**<br>*Ardea herodias* | ABNGA04010 | None | None | G5 | S4 | |
| **hoary bat**<br>*Lasiurus cinereus* | AMACC05030 | None | None | G5 | S4 | |
| **Mackenzie's Cave amphipod**<br>*Stygobromus mackenziei* | ICMAL05530 | None | None | G1 | S1 | |
| **mimic tryonia (=California brackishwater snail)**<br>*Tryonia imitator* | IMGASJ7040 | None | None | G2 | S2 | |
| **moestan blister beetle**<br>*Lytta moesta* | IICOL4C020 | None | None | G2 | S2 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |

# 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 |
|---|---|---|---|---|---|---|
| **Ohlone tiger beetle**<br>*Cicindela ohlone* | IICOL026L0 | Endangered | None | G1 | S1 | |
| **sandy beach tiger beetle**<br>*Cicindela hirticollis gravida* | IICOL02101 | None | None | G5T2 | S2 | |
| **Santa Cruz black salamander**<br>*Aneides flavipunctatus niger* | AAAAD01070 | None | None | G3 | S3 | SSC |
| **steelhead - central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 8* | AFCHA0209G | Threatened | None | G5T2T3Q | S2S3 | |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **Townsend's big-eared bat**<br>*Corynorhinus townsendii* | AMACC08010 | None | None | G3G4 | S2 | SSC |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |
| **yellow rail**<br>*Coturnicops noveboracensis* | ABNME01010 | None | None | G4 | S1S2 | SSC |
| **Zayante band-winged grasshopper**<br>*Trimerotropis infantilis* | IIORT36030 | Endangered | None | G1 | S1 | |

**Record Count: 31**

Seaside

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Seaside (3612157))<br /> AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Seaside

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **American badger**<br>*Taxidea taxus* | AMAJF04010 | None | None | G5 | S3 | SSC |
| **burrowing owl**<br>*Athene cunicularia* | ABNSB10010 | None | None | G4 | S3 | SSC |
| **California linderiella**<br>*Linderiella occidentalis* | ICBRA06010 | None | None | G2G3 | S2S3 | |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **California tiger salamander**<br>*Ambystoma californiense* | AAAAA01180 | Threatened | Threatened | G2G3 | S2S3 | WL |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **globose dune beetle**<br>*Coelus globosus* | IICOL4A010 | None | None | G1G2 | S1S2 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **northern California legless lizard**<br>*Anniella pulchra* | ARACC01020 | None | None | G3 | S3 | SSC |
| **Salinas harvest mouse**<br>*Reithrodontomys megalotis distichlis* | AMAFF02032 | None | None | G5T1 | S1 | |
| **Smith's blue butterfly**<br>*Euphilotes enoptes smithi* | IILEPG2026 | Endangered | None | G5T1T2 | S1S2 | |
| **steelhead - south-central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 9* | AFCHA0209H | Threatened | None | G5T2Q | S2 | |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |

**Record Count: 15**

Soquel

# Selected Elements by Common Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Soquel (3612188))<br /> AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Soquel

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| **California giant salamander**<br>*Dicamptodon ensatus* | AAAAH01020 | None | None | G3 | S2S3 | SSC |
| **California linderiella**<br>*Linderiella occidentalis* | ICBRA06010 | None | None | G2G3 | S2S3 | |
| **eulachon**<br>*Thaleichthys pacificus* | AFCHB04010 | Threatened | None | G5 | S3 | |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **mimic tryonia (=California brackishwater snail)**<br>*Tryonia imitator* | IMGASJ7040 | None | None | G2 | S2 | |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **obscure bumble bee**<br>*Bombus caliginosus* | IIHYM24380 | None | None | G4? | S1S2 | |
| **Ohlone tiger beetle**<br>*Cicindela ohlone* | IICOL026L0 | Endangered | None | G1 | S1 | |
| **pallid bat**<br>*Antrozous pallidus* | AMACC10010 | None | None | G5 | S3 | SSC |
| **Santa Cruz long-toed salamander**<br>*Ambystoma macrodactylum croceum* | AAAAA01082 | Endangered | Endangered | G5T1T2 | S1S2 | FP |
| **steelhead - central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 8* | AFCHA0209G | Threatened | None | G5T2T3Q | S2S3 | |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **Townsend's big-eared bat**<br>*Corynorhinus townsendii* | AMACC08010 | None | None | G3G4 | S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **yellow rail**<br>*Coturnicops noveboracensis* | ABNME01010 | None | None | G4 | S1S2 | SSC |
| **Zayante band-winged grasshopper**<br>*Trimerotropis infantilis* | IIORT36030 | Endangered | None | G1 | S1 | |

**Record Count: 17**

# 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 |
|---|---|---|---|---|---|---|
| **American badger**<br>*Taxidea taxus* | AMAJF04010 | None | None | G5 | S3 | SSC |
| **bank swallow**<br>*Riparia riparia* | ABPAU08010 | None | Threatened | G5 | S2 | |
| **California giant salamander**<br>*Dicamptodon ensatus* | AAAAH01020 | None | None | G3 | S2S3 | SSC |
| **California red-legged frog**<br>*Rana draytonii* | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| **California tiger salamander**<br>*Ambystoma californiense* | AAAAA01180 | Threatened | Threatened | G2G3 | S2S3 | WL |
| **Cooper's hawk**<br>*Accipiter cooperii* | ABNKC12040 | None | None | G5 | S4 | WL |
| **foothill yellow-legged frog**<br>*Rana boylii* | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| **monarch - California overwintering population**<br>*Danaus plexippus pop. 1* | IILEPP2012 | None | None | G4T2T3 | S2S3 | |
| **northern California legless lizard**<br>*Anniella pulchra* | ARACC01020 | None | None | G3 | S3 | SSC |
| **obscure bumble bee**<br>*Bombus caliginosus* | IIHYM24380 | None | None | G4? | S1S2 | |
| **Santa Cruz black salamander**<br>*Aneides flavipunctatus niger* | AAAAD01070 | None | None | G3 | S3 | SSC |
| **Santa Cruz long-toed salamander**<br>*Ambystoma macrodactylum croceum* | AAAAA01082 | Endangered | Endangered | G5T1T2 | S1S2 | FP |
| **steelhead - central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 8* | AFCHA0209G | Threatened | None | G5T2T3Q | S2S3 | |
| **steelhead - south-central California coast DPS**<br>*Oncorhynchus mykiss irideus pop. 9* | AFCHA0209H | Threatened | None | G5T2Q | S2 | |
| **tidewater goby**<br>*Eucyclogobius newberryi* | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| **tricolored blackbird**<br>*Agelaius tricolor* | ABPBXB0020 | None | Candidate Endangered | G2G3 | S1S2 | SSC |
| **western bumble bee**<br>*Bombus occidentalis* | IIHYM24250 | None | None | G2G3 | S1 | |
| **western pond turtle**<br>*Emys marmorata* | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| **western snowy plover**<br>*Charadrius alexandrinus nivosus* | ABNNB03031 | Threatened | None | G3T3 | S2S3 | SSC |

**Record Count: 19**