

BOARD OF SUPERVISORS, COUNTY OF HUMBOLDT, STATE OF CALIFORNIA

Certified copy of portion of proceedings; Meeting on September 28 2022

Resolution No. 22-123

Resolution of the Board of Supervisors of the County of Humboldt ADOPTING FINDINGS OF FACT, CERTIFYING AN ENVIRONMENTAL IMPACT REPORT FOR THE PROJECT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, DENYING THE APPEAL FOR RECORD NO. PLN-2020-16698-APPEAL AND APPROVING THE NORDIC AQUAFARMS, LLC COASTAL DEVELOPMENT PERMIT AND SPECIAL PERMIT RECORD NO. PLN-2020-16698.

WHEREAS, Nordic Aquafarms California, LLC, submitted an application and evidence in support of approving a Coastal Development Permit and Special Permit for the demolition and remediation of the former Samoa Pulp Mill infrastructure and to allow construction of a land-based aquaculture facility; and

WHEREAS, the County Planning Division reviewed the submitted application and evidence and referred the application and evidence to reviewing agencies for site inspections, comments and recommendations; and

WHEREAS, on July 28, 2022, the Planning Commission conducted a Public Hearing and received staff and applicant presentations and public comment. Public comment was closed, and the Public Hearing was continued to August 4, 2022; and

WHEREAS, on August 4, 2022, the Planning Commission adopted Resolutions which did the following:

1. Certified the Environmental Impact Report for the Nordic Aquafarms California, LLC, project, and;
2. Found that the project is consistent with the Humboldt Bay Area Plan and Zoning Ordinance, and;
3. Adopted a Mitigation Monitoring and Reporting Program, and;
4. Approved the Coastal Development Permit and Special Permit (Record Number: PLN-2020-16698) subject to the Conditions of Approval.

WHEREAS, 350Humboldt, the Redwood Regional Audubon Society Chapter, and the Humboldt Regional Fisheries Marketing Association ("Appellant") on August 18, 2022, filed an appeal in accordance with the Appeal Procedures specified in Humboldt County Code Section 312-13 et seq.; and

WHEREAS, the Board of Supervisors conducted a duly-noticed public hearing, *de-novo*, on September 28, 2022; and

Now, THEREFORE BE IT RESOLVED, that the Board of Supervisors makes all the following findings:

Project Description.

1. **FINDING**

Project Description: A Coastal Development Permit and Special Permit for demolition and remediation of the Samoa Pulp Mill facility and construction of a land-based finfish recirculating aquaculture system (RAS) facility. This includes development of five buildings totaling 766,530 square feet and installation of a 4.8 megawatt (MW) solar array mounted on

building rooftops, covering approximately 657,000 square feet. A Special Permit is required pursuant to HCC Section 313-109.1.5.2 for an exception to the loading space requirements. The height of the tallest proposed building is 60 feet. The project will be constructed in three phases: Phase 0 will involve demolition and site preparation, Phase 1 will include intake and outfall connections, hatchery building, Phase 1 grow-out modules, fish processing and administration building, central utility plant, Intake water treatment, wastewater treatment building, backup systems plant, oxygen generation plant, and utility and infrastructure installation and Phase 2 will consist of Phase 2 grow-out module construction. The aquaculture facility would produce fresh head on gutted fish and fillets for delivery to regional markets. The species produced at the facility is intended to be Atlantic Salmon, pending approval from CDFW. The Project will include ancillary support features including paved parking, fire access roads, security fencing, and stormwater management features. The Project would require approximately 2.5 million gallons per day (MGD) of freshwater and industrial water provided by the Humboldt Bay Municipal Water District, sourced from the Mad River. Existing on-site water service supplied by the Humboldt Bay Municipal Water District would be connected to the new buildings for potable use, fire sprinklers, and irrigation. The Project would require approximately 10 MGD of salt water, which will be provided by upgraded water intake infrastructure located adjacent to the NAFC Project Site, on Humboldt Bay. Treated wastewater would be discharged utilizing the existing Redwood Marine Terminal II ocean outfall pipe, which extends one and a half miles offshore. A total of 12.5 MGD would be released daily. The EIR evaluated all phases of project development.

- EVIDENCE**
- a) The project description has remained stable and can reviewed in file PLN-2020-16698.
 - b) The project description in the DEIR provides a complete description of all activities associated with site development and operation.

2. **FINDING:** **Lead Agency** - The County of Humboldt is the lead agency for preparation of the Environmental Impact Report because the County is the public agency with the greatest responsibility for supervising or approving the project as a whole consistent with CEQA Guidelines sections 15050(a) and 15051.

- EVIDENCE:**
- a) Permitting demolition and remediation of the Samoa Pulp Mill facility and construction of land-based finfish recirculating aquaculture system (RAS) facility for Nordic Aquafarms LLC (Project) is the largest component of the permitting and provides the best perspective from which to evaluate the whole of the action including the sea water intake and ocean outfall. ..
 - b) The County has permit authority of the land-based portion of the proposed project. A complete environmental analysis of all components of the project, including the environmental effects of these components, were included in the EIR with the County as the Lead Agency.

3. **FINDING:** **CEQA Compliance** - The County of Humboldt completed an Environmental Impact Report (EIR) for the Nordic Aquafarms RAS Facility Project in compliance with California Environmental Quality Act (CEQA).

- EVIDENCE:**
- a) An Initial Study/ Mitigated Negative Declaration was prepared for the proposed Coastal Development Permit and Special Permit pursuant to Section 15074 of the CEQA Guidelines. The ISMND was circulated for public review from April 23, 2021, to May 24, 2021. 325 comments were received on the IS/MND.

- b) In response to public comment and to address the potential environmental impacts of the water intake and ocean outfall being permitted by the Harbor District, it was decided to prepare an Environmental Impact Report.
- c) The County issued a Notice of Preparation (NOP) of a Draft Environmental Impact Report on May 28, 2021, and conducted two separate scoping meetings; an agency scoping meeting during the morning of June 10, 2021, and a separate public meeting on the evening of June 10, 2021. The NOP was sent to state agencies, property owners within 1,000 feet of the project site, and people who expressed an interest in the project. The County issued a press release for the NOP and it was posted with the State Clearinghouse between May 28, 2021 and June 28, 2021.
- d) The June 10, 2021 public scoping meeting generated comments related to GHG emissions, energy use, Sea Level Rise, alternative transportation, cumulative impact analysis, impacts to coastal access, impacts to water quality, improvements for water intake, and source of fish eggs.
- e) The June 10, 2021, agency meeting was attended by 5 agencies including the California Coastal Commission, California Department of Fish & Wildlife, National Marine Fisheries Service, Regional Water Quality Control Board, and the Air Quality Management District, as well as the County Department of Environmental Health. Comments focused on emissions from the facility, landfill gas, water outfall monitoring and improvements for the intake.
- f) The NOP elicited 12 comment letters identifying areas of concern involving: project alternatives, energy use, effluent discharge, species selection, greenhouse gas emissions, traffic, quality control for pathogens, and cumulative biological impacts.
- g) In accordance with CEQA Guidelines section 15082(c) the County of Humboldt consulted with the California Department of Fish and Wildlife, Regional Water Quality Control Board, California Coastal Commission and National Marine Fisheries Service to more accurately define and address agency concerns in preparing the DEIR. These meetings were separate from the scoping meeting and were conducted as a series of meetings.
- h) The Draft Environmental Impact Report (DEIR) (State Clearinghouse #2021040532) was prepared and circulated for a 60-day public review and comment period from December 20, 2021, to February 18, 2022. The Notice of Completion was also filed with the State Clearinghouse on December 20, 2021.
- i) The Notice of Availability for the DEIR identified it was available for review at the Planning and Building Department Website, Planning and Building Department, County Clerk-Recorder's office, Humboldt State University Library, Humboldt County Library and the Humboldt Bay Harbor, Recreation and Conservation District Office.
- j) The Environmental Impact Report (EIR) includes 18 mitigation measures which have been incorporated into a Mitigation Monitoring and Reporting Plan (MMRP) and is adopted as part of the project.
- k) In accordance with CEQA Guidelines section 15091(a)(1) and 15091(d) all project changes required to avoid significant effects on the environment have been incorporated into the project and/or are made conditions of approval. A Mitigation Monitoring and Reporting Plan has been prepared in accordance with CEQA Guidelines Section 15097 and is designed to ensure compliance during project implementation and is has been adopted in conjunction with project approval. The applicant must enter, an "Agreement to Implement a Mitigation Monitoring and Reporting Plan" as a condition of project approval (Condition of Approval No. 5).

- l) The Draft EIR elicited 242 public comments: 12 from local, state, and federal agencies; 19 from non-governmental organizations; 79 from individuals; and 132 letters of support from both individuals and non-government organizations.
- m) Each of the comments on the DEIR were identified, considered, and evaluated to determine if any comments present new information or raise issues needing to be addressed. No new issues were raised, but each comment was responded to providing clarification of the information available.
- n) To better address frequently made comments, eleven (11) Master Responses were prepared which addressed specific topics including: (1) Truck Traffic and Road Safety, (2) Greenhouse Gas and Energy, (3) Fish Escape, (4) Fish Health and Biosecurity, (5) Marine Outfall, (6) Statements Unrelated to Environmental Issues as Defined Under CEQA, (7) Intake Biologic Productivity, (8) Substantial Evidence, Speculation, and Unsubstantiated Opinion, (9) Level of Detail in EIR and Responses to Comments, (10) Fish Feed, and (11) Waste Handling and Disposal.
- o) A Final EIR was prepared. The Final EIR includes an Introduction, comments and responses, comments received following the close of public review period, Errata to the DEIR, References, and a list of preparers. The Total contents of the FEIR are the DEIR the FEIR document, and the Errata to the FEIR.
- p) In preparation for public hearings on the project, the County held two (2) public workshops, at the Planning Commission on April 21, 2022 (held in person at Planning Commission and via zoom) and May 19, 2022 (held in person at Planning Commission and via zoom), where the Commission and public were presented with the project and the components of the EIR.
- q) The FEIR was made available for review by Board of Supervisors, the Planning Commission, public and agencies who commented on the DEIR on July 1, 2022 (27 days before the public hearing at the Planning Commission) consistent with CEQA Guidelines Section 15089. The EIR was made available by sending notices providing information on how to access the FEIR. The FEIR was only provided electronically with the ability to either view it, or to copy and download it.
- r) An Errata to the FEIR was produced on July 15, 2022. One comment had not been responded to and there were several minor typographical corrections where words were omitted. The Errata was provided to everybody who received instructions of how to obtain the FEIR.
- s) Public Notice was given for the Public Hearing at both the Planning Commission and Board of Supervisors describing the Project including consideration of certification of the EIR prepared for the project in accordance with CEQA Guidelines 15202(e).
- t) The Humboldt County Planning and Building Department, located at 3015 H Street, Eureka, CA 95501 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to certify the EIR is based.

4. FINDING

The County completed government to government consultation under AB 52 (CEQA 21080.3.1) to determine if there was the potential for tribal cultural resources associated with the Site. No Tribal Cultural Resources were identified.

EVIDENCE

- a) On November 2020, as part of the preparation of a Negative Declaration, the County invited tribes with traditional affiliation associated with the site to engage in government to government consultation relative to the potential for Tribal Cultural Resources associated with the site.
- b) On November 24, 2020, the Blue Lake Rancheria declined government to government consultation.

- c) On December 9, 2020, the County met with the Bear River Band of the Rohnerville Rancheria. No Tribal Cultural concerns were identified. Some project related questions were asked. On February 9, 2021, the County provided follow up information for the Tribe.
- d) On March 2, 2021, the County conducted government to government consultation with the Yurok Tribe. No expression of Tribal Cultural Resources related to the site were identified.
- e) On June 4, 2021, the County as part of preparation of the EIR sent out invitations to the Tribes in the County (Wiyot, Blue Lake Rancheria, Bear River Band of the Rohnerville Rancheria, and Yurok) to engage in government-to-government consultation related to Tribal Cultural Resources. On July 21, 2021, the County sent out a letter stating there had been no response to the June 4, 2021, invitation and the offer to consult would be closed as of July 23, 2021, unless a request for consultation was received.
- f) After the closing of AB52 consultation, continued coordination ensued between the County and local Tribes.
- g) On August 21, 2021, the County had a second meeting with the Bear River Band of the Rohnerville Rancheria to discuss the project and answer questions.
- h) On October 21, 2021, the County met again with the Wiyot Tribe to discuss the project and answer questions.
- i) On May 23, 2022, the Bear River Band submitted a letter identifying components of the project that pleased the Tribe and requested the standard inadvertent discovery protocol condition be applied to the project.
- j) On June 6, 2022, the County received a letter from the Blue Lake Rancheria identifying content with the environmental document and the support of the sustainable aquaculture proposed.

5. FINDING

EVIDENCE

- AREAS OF NO IMPACT.** Based upon the findings of the Initial Study/Mitigated Negative Declaration, and as discussed in section 5 of the DEIR, Agriculture and Forestry, mineral extraction and mining, Land Use, Public Services, and Recreation were determined to not have any environmental impact and were not further evaluated in the EIR.
- a) The project site does not include any farmland, forest land, or timberland, or land zoned for these uses; thus, there could be no impact.
 - b) There are no known mineral resources or mining operations in the area, and, thus, there is no impact.
 - c) The site is an existing Brownfield site, supporting the remains of an old pulp mill with a land use and zoning designation of Coastal Dependent Industrial. Aquaculture is a principal use in the Coastal Dependent Industrial zone and is completely consistent with the intent of this zone and there is no impact to land use.
 - d) The project would not create the need for additional public service or governmental facilities, nor would it result in increased response times thus there is no impact to public services.
 - e) The project would not interfere with any existing recreational facility nor create the need for additional recreational facilities; thus, there is no impact to recreation.

6. FINDING

ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT:

The EIR determined that there would be No Impact or a Less Than Significant impact to the following potential areas of impact: Aesthetics; Biology-ocean discharge, Biology- sensitive communities for the terrestrial development, ocean discharge and water intake, Biology- migration of species for terrestrial development, ocean discharge and water intake, Biology- conflict with regulations to protect resources, Biology- conflict with

EVIDENCE

- conservation plan, Biology- cumulative impacts; Cultural Resources- historic resources, Cultural Resources- cumulative impacts; Energy; Greenhouse Gas, Hydrology – groundwater supplies, drainage, flood flows and cumulative impacts; Noise; Population and Housing; Transportation; Utilities; and Wildfire. These impact determinations were addressed using the criteria taken from Appendix G of the CEQA Guidelines.
- a) The impact on aesthetic resources is less than significant because the project area is not associated with a scenic vista, is not in a location identified as a scenic resource, and the project will not damage the visual character of a site characterized by remnants of a prior industrial use and will not create substantial light or glare.
 - b) The impact on biology related to effects on riparian or other sensitive natural communities is less than significant because there are not riparian habitat or other sensitive natural communities in the location of the wastewater discharge or intake.
 - c) The impact on biology related to adverse effects on wetlands is less than significant for the ocean discharge, water intakes, and compensation work because there will not be water or fill material taken from or added to wetlands associated with these activities.
 - d) The impact on biology related to the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors or the use of native wildlife nursery sites is less than significant because the project will not interfere with any known migration route or nursery site.
 - e) The project will not conflict with any local policies or ordinances for the protection biological resources or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP, so the biological impact is deemed less than significant.
 - f) There are no known historical resources located on the site and so the impact is less than significant. The buildings to be removed on site are not important architecturally or historically and so their removal is a less than significant impact. The removal of the piers for the compensatory restoration is less than significant only because the pier piles represent past activity of the location, but they represent no historical value.
 - g) The project will not result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation nor will it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The Project will use a significant amount of power for operation of pumps and filters, but the applicant proposes to purchase renewable or non-carbon power in accordance with Redwood Coast Energy Authority objectives. This is consistent with state and local objectives to minimize greenhouse gas emission through use of carbon-less and renewable power production. The impact is less than significant.
 - h) The Project would not directly or indirectly cause strong seismic ground shaking or cause seismic-related ground failure, including liquefaction, landslides, or otherwise unstable soils, does not include soils incapable of supporting septic tanks, will not destroy paleontological resources or geologic features and will not contribute to a significant impact to geology or soils and thus the impact will be less than significant.
 - i) Based upon the CalEEmod modeling completed, the project will not generate greenhouse gas (GHG) emissions, either directly or indirectly, and will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The CalEEmod modeling considered the GHG impacts associated with power production, operation

of the plant and transportation related impacts. The primary source of GHG emissions would be production of electricity, but the applicant has proposed to purchase power from renewable or non-carbon sources and thus the impact is less than significant.

- j) The Project would not create a significant hazard to the public or the environment from the routine transport, use, handling, or disposal of hazardous materials, or hazardous emissions, is not located within an airport land use plan, will not result in a safety hazard or excessive noise for the people residing or working in the area, and will not interfere with an adopted emergency response plan or emergency evacuation plan and thus the impact related to Hazards and Hazardous materials is less than significant.
- k) The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, alter existing drainage patterns of the site or the area, redirect flood flows, conflict with will water quality control plans or sustainable ground water management plans or. The site will not use ground water and the source of water is the bay for salt water and the Humboldt Bay Municipal Water District Mad River water allocation. There are not any drainage features on site that will be impacted and thus the impact is less than significant.
- l) The Project would not result in generation of a substantial temporary or permanent increase in ambient noise, result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. The Impact will be less than significant.
- m) The project will not result in new roadways so will not increase hazards due to geometric design features, will not require trip lengths beyond the average for the county and will not compromise emergency access and so the impact related to transportation is less than significant.
- n) The project does not require extending, or significant upgrading, of existing utility infrastructure. There are sufficient water supplies to serve the project. The proposed wastewater treatment plant has been designed to accommodate the development of this site. Solid waste generated by the site will be reused or composted to the extent feasible, consistent with statewide waste reduction targets.
- o) The proposed project is in an area served by the fire protection district which has the capacity to serve this project, and the project is not in a location subject to wildfire to there will be a less than significant impact related to wildfire risk.

7. FINDING

ENVIRONMENTAL IMPACTS MITIGATED TO LESS THAN SIGNIFICANT – The EIR identified potentially significant impacts to air quality, biological impacts related to dark eyed gilia, trapping animals during construction, bats, special status amphibians, replacement of osprey nests, avian nesting, marine mammals, long fin smelt and coastal habitat, cultural resources, geology and soils, that could result from the project and provides mitigation measures to reduce these impacts to a less than significant level. (CEQA Guidelines Section 15091(a)(1))

EVIDENCE

- a) **Air Quality:** Activities associated with demolition of existing pulp mill infrastructure and construction of the aquaculture facility have the potential to impact air quality. The primary concerns are related to dust and release of asbestos during demolition. Mitigation Measures establish performance standards to address these potential impacts. With the

implementation of these mitigation measures the potential impact is reduced to less than significant.

- b) **Biological Resources:** Potentially significant impacts on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service will be mitigated to a less than significant level with the implementation of the following mitigation measures:
- i. Loss of dark-eyed gilia shall be replaced at a ratio of 3:1
 - ii. Steep-sided excavations capable of trapping mammals shall be ramped or covered if left overnight.
 - iii. Bats shall be protected by following the schedule for demolition
 - iv. Special status amphibians shall be protected by determining possible presence through a pre-construction survey and if present shall be relocated or addressed in consultation with CDFW.
 - v. Any new Osprey nests established within the Project Site that require relocation will be removed (after nesting has occurred) and replaced at a 1:1 ratio in consultation with CDFW
 - vi. Ground disturbing activities shall be conducted outside of avian nesting season to protect special status avian species.
 - vii. Soil Densification shall only occur during certain tidal elevations to avoid Impacts to Marine Mammals
 - viii. For Special Status plant species around the piling removal a habitat survey will be conducted, and areas of special status plant species shall be avoided.
 - ix. For the protection of Longfin Smelt, Mitigation Measure BIO 6a states that The Humboldt Bay Harbor District shall mitigate for the potential loss of Longfin Smelt larvae due to entrainment by the intakes. Mitigation consists of Habitat creation or enhancement to provide Longfin Smelt spawning, rearing, or nursery habitat capable of producing the number of Longfin Smelt larvae lost to entrainment.
 - x. Sensitive communities shall be replaced through compensatory Mitigation for Coastal Brambles and Dune Mat.

With these mitigation measures the impact will be less than significant.

- c) **Cultural Resource** No cultural resources are identified on the site, however in the event that resources are inadvertently found a cultural monitor will be on site during earth disturbing activity and inadvertent discovery protocols will be implemented. Based on this the potential impact is less than significant.
- d) **Geology and Soils.** The project site is in a location of geologic activity and there is the potential for liquefaction at lower levels. These impacts are mitigated by implementation of the geotechnical requirements as dictated by the geotechnical report prepared for this project, which includes seismic guidelines to be incorporated into building plans. In addition, anytime there is grading there is the potential for soil erosion and sedimentation. Mitigation has been provided with performance standards to minimize potential impacts from erosion. With these mitigation measures, potential impacts to geological resources are less than significant.
- e) **Hazards and Hazardous Materials** the cleanup of the site will involve the removal of potentially hazardous materials. In order to address this, an Interim Measures Work Plan has been developed to guide testing, assessment and removal of materials. There is also mitigation for the removal of asbestos, and control of runoff from the site. With these mitigation measures in place, the potential impact is less than significant.
- f) **Hydrology and Water Quality** The primary impacts to water quality associated with the site result from sedimentation during construction

activities. Mitigation Measures are proposed that include performance criteria to minimize the potential for sediment to be transported off site or to surface waters. With these mitigation measures the impact to hydrology and water quality is less than significant.

8. **FINDING**

Pursuant to CEQA Guidelines Section 15130 the DEIR addresses Cumulative impacts. The EIR did not identify an incremental effect that is "cumulatively considerable" and thus there are no significant adverse cumulative impacts associated with the project.

EVIDENCE

- a) Cumulative Impacts as defined by CEQA Guidelines Section 15355 are addressed in each of the environmental resource sections.
- b) There is a list of relevant projects that are included in Table 3-1 of the DEIR. these are the projects used to analyze cumulative impacts
- c) The project will not contribute to impacts to a scenic resource or contribute to a change in the night sky as all the lighting will be shielded and down cast. The cumulative impact to aesthetics is less than significant.
- d) Air Quality impacts are predominantly cumulative impacts and compliance with an air quality compliance plan addresses the cumulative impacts for air quality. the project would result in a cumulatively considerable net increase of a nonattainment criteria pollutant through generate of fugitive dust during construction. However, implementation of Mitigation Measure AQ-1 would reduce these impacts to less than significant. Therefore, the Project would not result in a cumulatively considerable impact for attainment plan consistency or cumulatively considerable emissions of nonattainment criteria pollutants after incorporation of Mitigation Measure AQ-1.
- e) The cumulative impact to biological resources is less than significant because the primary impacts are construction related and of short duration. There is no loss of habitat associated with the proposed project.
- f) The absence of known cultural resources on the site indicates no impact and thus will not result in a cumulative impact. The potential impact is less than significant.
- g) All power usage associated with the project is for necessary equipment, there is no wasteful use of power. The project does not result in a cumulative significant adverse impact to energy resources due to the applicant's commitment to using power from a non-carbon or renewable source. The location is in close proximity to residential areas minimizing vehicle miles traveled for employees.
- h) The only cumulative impacts related to Geology and Soils would be sedimentation and erosion. Mitigation has been instituted to address these potential impacts so any cumulative impact would be less than significant.
- i) Greenhouse gas emissions will not exceed the EPA's Greenhouse Gas Reporting Program reporting threshold for 'large' industrial sources, or the BAAQMD and SCAQMD's threshold for industrial sources of 10,000 MT CO₂e/year. the Project would be consistent with the CARB's adopted Scoping Plan and would not impede the state in meeting Assembly Bill 32 (AB 32) greenhouse gas reduction goals. The Project's contribution to cumulative greenhouse gas impacts will be less than significant.
- j) Compliance with existing regulations will address the use and transportation of hazardous materials associated with this site and other similar hazardous materials applications. Mitigation measures will adequately mitigation existing hazardous materials on the site which will be removed as part of this project. The project will not obstruct any emergency response plan and is not in a location subject to wildfire risk, thus this project will not result in a cumulative impact relative to hazards or hazardous materials.
- k) Constituents in the Project discharge would not combine with constituents in the Fairhaven Power and the Samoa wastewater treatment facility discharges to result in any undesirable chemical reactions. All other projects

identified in Table 3-1, including the proposed Project, would not include in-water construction or operations and would not otherwise involve Humboldt Bay. The potential cumulative impact to Humboldt Bay water quality resulting from both construction and operation would thus be less than significant.

- l) The Terrestrial Development and Humboldt Bay Intakes components would both generate construction noise. There are no sensitive noise receptors within the vicinity of the Project Site and operational noise would be limited to primarily vehicular noise and is not considered impactful. The Project's contribution to cumulative construction noise impacts will not be cumulatively considerable, and therefore will be less than significant.
- m) The project has no impacts on Population and Housing and will not have any cumulative impact. Any impact would be less than significant.
- n) The project will not interfere with any existing or proposed transportation facility, and the Vehicle Miles Traveled associated with the project constitutes a less than significant impact. The project will have a less than significant cumulative impact on transportation.
- o) The Project would not result in an impact or a need to expand utilities or service systems, including water, wastewater, electrical power, or telecommunications. Electric power upgrades to the existing system and installation of solar power would ensure the Project can operate without new or expanded utility infrastructure. Relative to utilities, the project will not result in cumulative impact and therefore has been deemed less than significant.
- p) The Project would have a less-than-significant impact associated with the exacerbation of wildfire risks. However, given the moderate fire risk at the Project Site, a grassland fire could occur at the Project Site. The other terrestrial-based projects identified in Table 3-1 could potentially similarly result in a grassland fire during construction or operation given the use of heavy machinery, construction equipment and presence of grassland and other vegetation in the vicinity. Cumulative projects would be subject to compliance with applicable regulations, including federal, state, and local regulations. The Project and the cumulative projects would be served by the PCSD or equivalent Fire Department in the event of a grassland fire. The Project's contribution to cumulative impacts related to the exacerbation of wildfire risks would not be cumulatively considerable, and therefore less than significant.

9. FINDING

The Final EIR reflects the County of Humboldt's independent judgment and analysis. The Planning Commission and Board of Supervisors considered the information presented in the FEIR in its entirety and considered the public comment on the FEIR prior to rendering its decision.

- a) The Planning Commission and Board of Supervisors received a copy of the DEIR on December 20, 2021 and FEIR on July 1, 2022. The EIR was presented to the Planning Commission and Board of Supervisors in its entirety and the Planning Commission and Board of Supervisors reviewed and considered it before approving the Project.
- b) At the Planning Commission meeting on July 28, 2022, the staff presentation included a thorough presentation of the FEIR. The Planning Commission then received presentations from the Co-applicants, Nordic Aquafarms, and the Harbor District.
- c) After the applicant's presentation the Planning Commission received public comment where 64 members of the public addressed the commission, not including the applicant team. Of those who spoke 36 spoke in favor of the project citing the need for jobs, and the benefit this project would bring to the community. The remainder of the comments expressed concerns related to the large electrical use, concerns with climate change and

greenhouse gas emissions, volume of water use and discharge into the ocean, concern that studies were incomplete, the source of fish feed, the impact to local fishermen, location in a location subject to earthquakes and tsunamis, that the site should be remediated to residential standards and the size of the project. The Planning Commission finished receiving public comment, closed public comment and continued the item to the meeting of August 4, 2022.

During the course of discussion, the applicant agreed to begin monitoring water from the outfall as soon as the project became operational that resulted in a modified condition to reflect that change. The commission explored some of the comments made by the public but did not make any other changes to the conditions. The commission expressed that overall, this is a good project and voted unanimously to approve (6-0, Mitchell absent). The Planning Commission found that the EIR had been prepared in conformance with the California Environmental Quality Act and voted to certify the EIR.

The Board of Supervisors considered the information presented to the Planning Commission and the information presented in the Appeal and finds that the EIR has been prepared in compliance with CEQA.

10. FINDING

RECIRCULATION OF THE DEIR IS NOT REQUIRED. While new information was included in FEIR, there is not new information in the FEIR which would trigger the thresholds for recirculation contained in CEQA Guidelines Section 15088.5. The new information has not changed the impact identification or mitigation measures in such a way that the public has been deprived of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate such effect. No new information has been added that identifies a new significant environmental impact not previously disclosed, no substantial increase in the severity of the identified environmental impacts would result from implementation of the approved project or implementation of the mitigation measures, no feasible project alternative or mitigation measures considerably different from those analyzed in the DEIR have been identified and the DEIR is adequate, allowing meaningful public review and comment. The new information added in the FEIR merely clarifies and amplifies and did not make significant modifications to an adequate DEIR (CEQA Guidelines 15088.5).

EVIDENCE

- a) Chapter 4 of the FEIR (Errata) included minor technical corrections that did not present new information or have the potential to impact determinations; so, these changes do not have the potential to deprive the public of the ability to participate, particularly since the FEIR was released 27 days before the public hearing. The corrections are as follows:

1. Project Description

Section 4.1.1 – Corrected distance of Water Pipeline

Section 2.1.6 – Correction to Longfin Smelt Listing Status (Not Federally Listed, State Listing is correct)

Section 2.2.1 – Switchyard Upgrades – reservation of capacity for Harbor District

Section 2.2.1 – Tenant Relocation and tenant improvements

Section 2.2.3 – Tenant Relocation During Phase 0

Section 2.2.4 – Project Operations / Facility Parking calculations

Section 2.2.4 – Project Operations / Daily Facility Truck Traffic

Section 2.2.4 – Project Operations / Access Roads

Section 2.2.4 – Project Operations / Intake and Discharge Water – Specify Nordic will use treated water, others do not.

Section 2.3 – Ocean Discharge specify port exit velocity

Section 2.4.4 – Intake Design Considerations – Nordic uses treated water

Section 2.5.4 – Project Construction – Sediment removal

Section 2.5.7 – Off-Site Compensatory Restoration – removal of creosote piles

2. Biological Resources

Section 3.3.6 – Water Quality Related to Special Status Marine Life – specify number of diffuser ports.

Section 3.3.6 – Critical Habitat for the Humpback Whale and Southern Resident Killer Whale supports analysis in DEIR

Section 3.3.6 – Number of Piles to be Removed Section 3.3.6 – Osprey Mitigation Reduced piles from 1,007 to 998

3. Energy Resources

Section 3.5.2 – Setting –Specify RCEA's goals

Section 3.5.2 – Setting/Nordic Energy Mix Commitments – Nordic provided more specific information on commitment to use renewable and or non-carbon-based energy.

Section 3.5.7 – Cumulative Impacts – specify RCEA's goals

4. Greenhouse Gasses

Section 3.7.6 – Impacts and Mitigation Measures year reference changed from 2030 to 2025.

Section 3.7.6 – Impacts and Mitigation Measures – Delete section on comparison of current fish imports.

5. Transportation

Section 3.12.2 – Setting / Roadways – description of roadway speeds

Section 3.12.2 – Setting / Pedestrian and Bicycle Facilities – description of shoulder widths

Section 3.12.2 – Setting / Transportation Management Plan – Applicant added a transportation management plan to the project description.

Section 3.12.3 – Regulatory Framework / Bicycle Plan –Identification of bicycle routes.

Section 3.12.6 – Impacts and Mitigation Measures / Impact TR-c – Discussion of Truck distribution and historical collision data supporting conclusions in DEIR.

6. Alternatives

Table 4-2 Draft EIR – Additional information added to address Atlantic Salmon.

7. Appendices

Section Appendix D – Marine Resources Biological Evaluation – Change to List of Preparers

Section Appendix M – NOP Scoping and Comment Letters – Change to recipients of NOP.

- b) The modification to the project description to affirm the commitment to use the RCEA energy mix is not a change to the project, it is a clarification of a commitment. This is not new mitigation and does not create a new impact not previously identified.

The modification to the project description to add a transportation management plan is not a change to the project it is a management activity to further reduce vehicle miles traveled. This is not new mitigation and does not create a new impact not previously identified.

- c) REVISED MITIGATION MEASURE.

The DEIR included Mitigation Measure BIO-6a: Protection of Longfin Smelt (LFS), requiring the Humboldt Bay Harbor District to mitigate for the potential loss of Longfin Smelt larvae due to entrainment by the intakes via removing Kramer Dock pilings from the Bay. The strategy behind pile removal as an appropriate mitigation measure is removal of creosote pilings from Kramer Dock would

remove toxins from the bay leading to improved Bay health and improved habitat, water quality improvements, resulting in the proliferation of marine species particularly Long Fin Smelt. Benefitting adult LFS would benefit the species overall population. A letter from CDFW expressed concerns that this mitigation did not address the appropriate life stage impacted for Longfin Smelt. Impacts from the intake would be to larval LFS, and therefore pile removal in open water may not fully mitigate for LFS Larvae due to juvenile LFS known habitat being in brackish waters. CDFW recommended that the County implement habitat creation for juvenile LFS in the form of spawning and rearing habitat within fresh/brackish waters of Humboldt Bay. This mitigation measure is an equivalent or more effective mitigation for potential significant effects. The impact determination remains the same with this revised mitigation measure. The creation of new spawning, rearing, or nursery habitat does not create a new adverse impact not previously identified. The revised mitigation measure is consistent with 15074.1 of CEQA Guidelines. Recirculation is not required consistent with 15088.5(b) of CEQA Guidelines

11. FINDING

An equivalent and more effective mitigation measure has been substituted for mitigation Bio 6a consistent with CEQA Guidelines section 15074.1. Initial mitigation within the DEIR sought to mitigate the potential entrainment of LFS larvae through removal of pilings in the bay. The FEIR proposed the revised mitigation measure requires providing LFS larval habitat creation at a 1:1 ratio for the compensation of every individual of the species impacted. Habitat creation will consist of creation or enhancement of LFS spawning, rearing and nursery habitat in Humboldt Bay.

EVIDENCE

- a) Comments from CDFW expressed concern that compensatory habitat correlate to the life stage impacted, in this case, LFS larvae. Habitat creation in the form of spawning, rearing and nursery habitat adequately addresses these concerns.
- b) Impacts to Long Fin Smelt will not involve the loss of habitat. The creation of spawning, rearing, and nursery habitat will benefit the listed species Longfin Smelt. No impacts are associated with habitat loss to mitigate for the loss of individuals of larval LFS. This is consistent with sections 15074.1 and 15088.5 of CEQA Guidelines. Longfin Smelt is a Threatened Species under the California Endangered Species Act. As such the EIR treated the potential loss of individual fish as a potentially significant impact.

12. FINDING

The biological productivity of the bay and criteria of Area of Productivity Forgone being adequately addressed as part of the permitting for the overall Nordic project. The studies completed for the EIR are complete and adequate for public disclosure and development of mitigation measures there are no necessary studies or mitigation being deferred.

EVIDENCE

- a) The Harbor District has filed a Coastal Development Permit to the California Coastal Commission for the upgrade of the water intakes.
- b) Biological productivity and criteria of Area of Productivity Forgone is a Coastal Commission measure for implementing Coastal Act Section 30231 requiring protection of biological productivity associated with a water intake in marine waters.
- c) Biological productivity and criteria of Area of Productivity Forgone are not environmental resource considerations in CEQA Appendix G which is the significance criteria used for preparation of the EIR. The impact of the water intake within Humboldt Bay was considered and determined to not be a potentially significant impact to species other than Long Fin Smelt.
- d) CEQA Guidelines Section 15091(a)(2), stipulates that *no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant*

effects, accompanied by a brief explanation of the rationale for each finding. A finding is Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

- e) The Coastal Commission will address any impacts to the Biological Productivity of the Bay as part of the Coastal Development Permit submitted by the Harbor District.

13. FINDING

ENVIRONMENTAL IMPACTS LESS THAN SIGNIFICANT The proposed Project would not result in significant and unavoidable impacts. All potential environmental impacts will be mitigated to a less than significant level with incorporation of mitigation measures.

EVIDENCE

- a) The DEIR used Appendix G from the CEQA Guidelines for determining the potential significance of impacts. The DEIR identified that there were 18 potentially significant environmental effects, but each of these could be mitigated to a level of less than significant. See Finding 6 for a summary of the impacts and mitigation measures.

14. FINDING

ALTERNATIVES TO THE PROPOSED PROJECT – In compliance with CEQA Guidelines section 15126.6, the DEIR considered a range of reasonable alternatives to the Project that could feasibly accomplish most of the basic project objectives. The EIR considered the alternatives described below which are more fully described in the DEIR. There were also a range of alternative considered but rejected as explained in the EIR. None of the Alternatives reduced any impact more than the proposed mitigation measures and are thus not as effective at reducing impacts than the proposed project with mitigation. The No Project alternative would have the least environmental impact but is not consistent with the project objectives and would not result in the removal of existing visual blight or removal of hazardous materials.

EVIDENCE

- a) The EIR included the following as project objectives:
 1. To establish a world-class land-based finfish RAS aquaculture facility on the Samoa Peninsula
 2. To provide a fresh local food source, produced in the region where it is consumed, to mitigate the damaging environmental impacts associated with long-distance air shipment of seafood
 3. To produce nutritious seafood for the West Coast market free of antibiotics and avoidance of GMOs
 4. To construct and operate a fresh water-efficient aquaculture facility with a minimal environmental impact
 5. To provide approximately 150 fulltime jobs, including engineers, biologists, administration staff, maintenance staff, fish processing, and other operations staff
 6. To remediate existing environmental contamination at the Project Site associated with a former industrial site (brownfield) encountered during demolition and re-development of the site
 7. Redevelop an existing underutilized industrial site absent residential neighbors to minimize environmental impacts as much as possible, remediating existing environmental contamination that may be present to meet the standards of food production and safety.
 8. To support local industry and innovation by selling nutrient-rich aquaculture coproducts to local businesses for beneficial uses.

As discussed in section 4.2.3 of the DEIR, a series of offsite locations around Humboldt Bay were considered and rejected primarily because of lack of access to water and or the ability to dispose of water.

b) Alternative 1- No Project Alternative

A No Project Alternative assumes the proposed Project on the RMT II site would not be developed, leaving the RMT II site, as owned by the HBDA, in its present condition. The No Project Alternative would be the environmentally superior alternative, as potential impacts related to all resource categories except aesthetic resources, hazards, and hydrology and water quality would not occur. Construction, biological, noise, water quality, soil disturbance, and other related impacts would be avoided. The aesthetic impact would be greater, as the existing industrial blight, including the smokestack, 12 story boiler building, black liquor tanks, black liquor recovery pit, and other partially demolished buildings would remain indefinitely on the Project Site. Additionally, the remnant contamination from the former pulp mill would also remain on the Project Site, resulting in a greater environmental impact related to hazards and hazardous materials, especially in the event of a major Cascadia event. Similarly, compensatory off-site restoration to remove creosote piles and up to one acre of *Spartina* in Humboldt Bay would not occur. A No Project Alternative would entirely fail to meet any of the goals and objectives of the Project.

c) Alternative 2 – Off-Site Location

An Off-site location was defined. The RMT I parcel locationally worked, but alone was infeasible due to its extended shape. The RMT I (APN 401-031-040) parcel was combined with two adjacent parcels to the west owned by Samoa Pacific Group LLC (Danco) (APN 401-031-055 and APN 401-031-070, see Figure 4-2 – Alternatives Analysis: Redwood Marine Terminal I and Danco Property). All three parcels are appropriately zoned Coastal Dependent Industrial and are generally vacant and/or underutilized. These parcels are also presently proposed to be encumbered by the Harbor District as part of a future Renewable Energy Port. While this alternative is feasible, it does not reduce any impact finding, does not remove existing dilapidated buildings, and would require extension of water intake lines, water discharge lines and power lines. It does not completely achieve the project objectives and does not lessen any impacts, but actually requires installation of more infrastructure.

d) Alternative 3 – Water Source (DEIR 4.3.3)

Three alternate water sources include:

Water Source Alternative 1 – Slant Well

A slant well (or number of slant wells) drilled to withdraw brackish or saltwater from beneath the ground surface. The saltwater is extracted from the ground via pumping. Based upon testing conducted by the Harbor District approximately 40 slant wells would be required to achieve an equivalent volume of water to the proposed intakes. Its unlikely 40 slant wells could be located on the Project Site. Given the historic soil and potential for groundwater contamination on the site any risk of encountering contaminated would be too great for a food production system. This alternative is not technically feasible.

Water Source Alternative 2 – Oceanic Seawater Intake

Oceanic seawater intake pipes directionally drilled under adjacent properties, New Navy Base Road, and the surf zone, "daylighting" in the Pacific on the ocean floor. An oceanic seawater intake would require substantial in-water construction. The location of the oceanic seawater intake would need to be sufficiently offshore to avoid the wave energy and shifting sands associated with the surf zone. The pipes would need to be attached to a screened intake system installed from the ocean surface, connected to the

directionally drilled pipes, and sufficiently anchored to the seafloor. The screens would require intermittent cleaning to maintain intake screen approach velocities and functionality. The screens would need to be lifted to the surface periodically to be inspected and clean. Piping would have to be constructed through surf, potential ESHA for the land-based portion of piping, and maintenance of the oceanic intake would complicate the standard procedural monitoring and cleanings of the intake screens. Impacts associated with an intake, such as entrainment and impingement, are still risks associated with an ocean water intake. This alternative results in additional improvements in areas that currently do not have development and thus this would not reduce environmental effects.

Water Source Alternative 3 – Humboldt Bay Seawater Wells

Humboldt Bay seawater wells would require extensive in-water construction. Environmental impacts associated with this construction have not been analyzed. Humboldt Bay seawater intake pipe wells would be drilled beneath the seafloor of Humboldt Bay to extract salt water. Salt water would be brought to the Project Site via piping. The pipe would need to be attached to a screened intake system installed on the Humboldt Bay seafloor, connected to the directionally drilled pipe, and sufficiently anchored to the Humboldt Bay seafloor. The screens would require intermittent cleaning to maintain intake screen approach velocities and functionality. The screens would also need to be lifted to the surface periodically to inspect and clean. More than one Humboldt Bay Sea water well would be required to meet the water requirements of the Project. This alternative water source would require substantial in-water construction. This alternative results in additional improvements in areas that currently do not have development and thus this would not reduce environmental effects.

e) Alternative 3-Fish Species (DEIR 4.3.3)

- i. Steelhead in seawater, Rainbow Trout in freshwater, and Yellowtail Kingfish were identified as potential alternatives.
- ii. Rainbow trout would use a large amount of freshwater and does not replace existing imports resulting in a higher CO2 emission. There would also be an increase in nutrient discharge from this species.
- iii. Steelhead would also have no imports to replace resulting in higher CO2 emission and a higher nutrient discharge.
- iv. Yellowtail kingfish require three times the water use of Atlantic salmon, have a higher marine protein content in their feed, and would have a higher energy use as a result of needing cooler water.
- v. Egg supply is also seasonal for these three species.

Atlantic salmon has a lower nutrient discharge, lower net water use, has consistent egg supply, and would be replacing 1/3 of the CO2 footprint as a result of reducing import fresh fish from south America or Europe. As a result, this is the most environmentally feasible option.

FINDINGS FOR COASTAL DEVELOPMENT PERMIT: CONFORMANCE WITH THE LOCAL COASTAL PLAN (HBAP)

15. FINDING:

The proposed development is in conformance with the land use designation of Humboldt Bay Area Plan (HBAP) designating the site for Coastal Dependent (MC) and Industrial, General - Coastal Areas (MG) which allows Aquaculture as a permitted use when it meets the Coastal Dependent Industrial regulations.

- EVIDENCE:**
- a) The Project Site is designated Industrial, Coastal Dependent (MC) and Industrial, General - Coastal Areas (MG) under the HBAP. All development will occur within the MC designation.
 - b) Aquaculture and aquaculture support facilities are principally permitted uses under both the MC and MG land use designations.
 - c) Section 3.13 and 3.25 Coastal-Dependent Industrial -30255; of the Humboldt Bay Area Plan states that Aquaculture is a coastal-dependent use, and coastal dependent uses shall have priority over other developments near the shoreline, shall not be sited in a wetland which this facility is not located in a wetland.
 - d) The proposed project is a land-based aquaculture facility farming Atlantic Salmon. This use is a coastal dependent use due to the operational need for saltwater.

16. FINDING: The project is consistent with Section 3.14 and 3.26, 30250(a) of HBAP, requiring new industrial development to be located within, contiguous with, or in close proximity to existing industrial areas able to accommodate the proposed use without an impact on coastal resources.

- EVIDENCE:**
- a) The project is proposed on an existing Industrial Brownfield Site previously used by a Freshwater Tissue Pulp Mill. No significant impacts to coastal resources will result from this development.

17. FINDING: The project site is equipped with sufficient power to support the use, and there is both fresh potable water infrastructure and fresh industrial water available to serve the site.

- a) PG&E service is delivered to the Project Area via the existing energy infrastructure located on the Samoa Peninsula. The Project will be served by an existing 60-kilovolt (KV), 20 Megawatt (MW) electrical switchyard located on site.
- b) NAFC will be taking over the existing meter and expanding the total capacity of the switchyard to 30-35 MW to be utilized by NAFC and HBHRCD RMT II operations. Additional onsite power will be generated by an approximate 4.8 MW rooftop solar installation.
- c) The facility will utilize onsite dual-fuel emergency backup generators to power all critical functions of the facility in the event of grid power disruption. The emergency backup generators would have a combined capacity of approximately 20 MW.
- d) Will-serve letter on-file dated August 14, 2021, states that Humboldt Bay Municipal Water District has the ability to provide 502,000 gallons of domestic potable water per day and 2 million gallons of non-potable industrial water per day using existing HBMWD waterline infrastructure. This exceeds/meets the required amount for facility operations. The Humboldt Bay Municipal Water District has stated that this will-serve is as a result of project demand and that the District is capable of providing more water, though not required for the project.

18. FINDING: The wastewater discharge while not being permitted by the County is consistent with 3.14 HBAP section 13142.5 requiring wastewater discharge be treated to protect beneficial uses of receiving waters; not significantly alter overall ecological balance of receiving area; and be supported by independent baseline studies of the existing marine system should be conducted in the area that could be affected by a new or expanded industrial facility using seawater prior to development and where feasible should be made available to supplement existing surface and groundwater supplies.

- a) A wastewater treatment facility is a component of the proposed project, treating all effluent prior to discharge in the ocean outfall. The wastewater

treatment facility will include a multistage process consisting of the following: anoxic /bioreactor system for nitrogen reduction, phosphorous removal, Ultrafiltration Membrane Bioreactor systems (MBR), Ultra violate dosing, and treatment of filtrate period to recycling.

The wastewater treatment results in effluent with a 99 percent reduction of total suspended solids, BOD, and phosphorus, and a 90± percent reduction of nitrogen. Ammonium nitrogen release is modelled at .004 mg/L which conforms to the Nitrate Ocean Plan standard of .6mg/L.

- b) Discharge is regulated under a National Pollution Discharge Elimination System (NPDES) order No. R1- 2021-0026 administered by the RWQCB, which would require ongoing operational monitoring and reporting to ensure compliance.
- c) To ensure RWQCB/Clean Water Act regulatory objectives are met, an independent baseline Dilution Study was prepared by GHD (2020), which examined the modeled effluent for the various mixing zones near the diffuser finding conformance with the Ocean Plan and Thermal Plan (quality control plans established by the State Water Resources Control Board).

The project proponent has proposed and is conditioned to conduct baseline sampling at the outfall and to conduct sampling at the outfall location until phase 2 has been in operation for two years. This information can be used by the RWQCB to refine the NPDES permit.

- d) The Dilution Study found with 64 open ports the predicted mixing zone (i.e., marine toxicity and physiological stress to biotic receptors) is met within 5 ft of the diffuser on the basis of the near-field modelling achieving conformance per Ocean Plan implemented by the RWQCB's NPDES Permit. The marine toxicity is temperature and low salinity.
- e) The Project's effluent discharge would not discharge into a coastal wetland or area of special biological significance, marine reserves, or kelp beds. The ecological balance of the receiving area would not be significantly impacted. There have not been areas of special biological significance identified by CDFW or RWQCB. The outfall is existing and currently utilized by other users along Samoa Peninsula. There are no marine reserves within the subject area. The Dilution Study identifies receiving waters regulatory targets met consistent with the RWQCB and the Clean Waters Act. Ongoing annual monitoring of receiving waters is a Condition of Approval (COA#21).

19. FINDING:

The seawater intake, while not being permitted by the County is consistent with 3.14 HBAP section 13142.5, requiring the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life and Independent baseline studies of the existing marine system be conducted in the area that could be affected by a new industrial facility using seawater in advance of the carrying out of the development . The intake is regulated and permitted separately by the California Coastal Commission and the process being followed achieves compliance with these LCP Policies.

EVIDENCE:

- a) The California Coastal Commission will evaluate impacts to biological productivity as part of the Coastal Development Permit. The Harbor District, as part of their CDP application to the Coastal Commission has sampled the bay for biological constituency and a model is being prepared to predict impacts to biological productivity. These potential impacts will be compensated for through the Coastal Development Permit.
- b)

- c) The EIR identifies potential impacts to larval Longfin Smelt at the seawater intake location due to potential entrainment. Longfin Smelt is a Threatened Species under the California Endangered Species Act. As such the EIR treated the potential loss of individual fish as a potentially significant impact.
- d) LFS is being mitigated on the basis of the area necessary to support reproducing females producing larvae equivalent to the number of larvae potentially lost due to entrapment. The mitigation would require creation of spawning/rearing habitat within Humboldt Bay and its tributaries.
- e) National Marine Fisheries Service (NMFS) requires 1.75mm (0.07 in.) or less slot opening for screening water intakes to prevent impingement or entrainment. The proposed intake screen slot size openings for both two screens are 1.0 mm (0.04 inch).
- f) Both federal and state regulations require a maximum through-screen velocity of 0.5 feet per second (fps) to meet compliance standards for minimizing impacts due to impingement. Intake screen slot size is designed to result in low approach velocities of 0.2 fps (6 cm per second) or less.
- g) Compensatory restoration will be required for any reduction in biological productivity and would include pile removal and spartina removal, implemented by the California Coastal Commission through a Coastal Development Permit for ocean water intake upgrades.
- h) Pile removal would include up to 988 piles and 151 crossbeams from the Kramer Dock in Humboldt Bay. The creosote piles are toxic and their removal will expand habitat area within the bay for many marine organisms thus increasing the productivity of the bay.
- i) Spartina removal would include up to one (1) acre and would be conducted under existing permits issued to the Harbor District (Harbor District Permit 14- 05 and Coastal Development Permit 1-14-0249).

20. FINDING:

The proposed project is consistent with 3.14 HBAP section 30232, requiring protection against spillage of petroleum products, or hazardous substances.

EVIDENCE:

- a) Removal of piles and Spartina would occur in and near wetted environments in tidal settings and has the potential to impact water quality primarily increases in turbidity due to ground disturbance. Potential impacts and mitigation measures for the removal of Spartina were evaluated in the 2013 Spartina PEIR (H.T. Harvey & Associates and GHD 2013) which included mitigation for Fuel or Petroleum Spills (WQ-3). Compliance with this Mitigation measure will adequately implement this policy.
- b) Fueling operations or storage of petroleum products associated with the operation of the site shall be done in accordance with a spill prevention and management plan.

21. FINDING:

The project is consistent with 3.17 and 3.29 HBAP section 30253(1), requiring new development to minimize risk to life and property in areas of high geologic, flood, or fire hazard and to assure structural stability and integrity.

EVIDENCE:

- a) Geologic Safety: The property is located in an area of low to moderate geologic instability. A Geotechnical Investigation by SHN in 2020 outlines natural hazards associated with the site and recommends that the project be designed with seismic and foundation design criteria, as well as site preparation and grading criteria per California Building Code and the American Society of Civil Engineers (ASCE) 7-16 Minimum Design Loads for Buildings and Other Structures. Adherence to the recommendations in the Geotechnical Report are required for the project in Mitigation measure GEO-1 of the EIR. The geotechnical recommendations will be incorporated into the final plans and specifications for the Project and will

be implemented during construction. Therefore, the Project is consistent with Seismic and Public Safety Elements of Volume 1 the General Plan, which is referenced as applicable criteria within the HBAP.

- b) Flooding: All development is outside of the 100-year flood plain.: Sea Level Rise, Hydrodynamic Modeling, and Inundation Vulnerability Mapping prepared by Northern Hydrology and Engineering (2015) provides evidence that the risk of inundation is low compared to surrounding sites along the Humboldt Bay.
- c) Tsunami: The project involves ocean intake, outfall, and land-based development allowable for new development within the 100-year tsunami run up elevation outlined in the HBAP. The parcel is within a tsunami hazard area. Deep foundations and ground densification grade will be constructed as recommended by the Project's geotechnical evaluation and site-specific tsunami inundation analysis (Martin & Chock, Inc., 2020), to protect structural integrity in the event of a tsunami and associated potential wave scouring. Backup generators will be elevated above the predicted tsunami wave height to avoid potential for release of pollutants in the event of a tsunami. Diesel fuel storage would be underground in two 25,000-gallon tanks vented, anchored, and armored to prevent release. Building designs for the hatchery would require tanks to be developed to withstand a 2,500-year event. Adherence to Mitigation Measures GEO-1 and HAZ-1 are identified in the EIR.
- d) Fire Hazard: A portion of the parcel is rated moderate fire hazard severity. The parcel is served by the Peninsula Community Services District (CSD), who responds to structural fires and emergencies. The project site is developed with impervious surfaces. Circulation within the campus would allow traffic to flow unobstructed, and a 20-foot-wide fire road is proposed on the south side of Building 2 to ensure fire access is supported throughout the facility. The site is served by industrial water supply via Humboldt Bay Municipal Water District and emergency water sources exist on-site. The Peninsula CSD has recommended approval of the Project and confirmed serviceability and that the fire road is sufficient for emergency vehicle access.
- e) Structural designs/construction plans, including site densification, will ensure of structural integrity in the rare event of a natural disaster and is designed that no significant erosion, geologic instability, or site alterations would occur to natural landforms.

22. FINDING:

The project is consistent with Section 3.30 Natural Resource Protection Policies and Standards.

EVIDENCE:

- a) Section 3.30 – 30240(a), (b) Environmentally Sensitive Habitat Areas (ESHA): The project has been designed to preserve Environmentally Sensitive Habitat in place, with an appropriate setback for the type of plant community. Biological studies identified high quality dune mat (ESHA) along the southern property line of the site. The project has been redesigned to preserve this area of ESHA with development setbacks of 35-feet. Within the setback is a 20-foot-wide fire road. The road will only be used for emergency access. Construction fencing is required along the edge of the buffer, to prevent vehicles, equipment, or materials from entering the ESHA. The grading plans for the project site shall design finished pad grades to not result in grade changes at the edge of the buffer or fire road within the ESHA buffer. The ESHA protection measures are described as Mitigation Measure BIO-7 of the EIR. Other areas where dune mat habitat was identified was anthropogenically modified or contained such a high percentage of non-native species that it did not qualify as ESHA.

- b) Section 3.30 – 30233 Diking, Filling, or Dredging of Open Coastal Waters, Wetlands, and Estuaries (a): There will not be water or fill material taken from or added to wetlands associated with the project.
- c) Section 3.30 Wetland Buffer – Section 6(d): A wetland delineation was completed for the Project Site as part of the Special Status Plant Survey and Vegetation Community Mapping/ESHA/Wetland Baseline Evaluation, Rev. 1 prepared by GHD dated February 16, 2021. Delineated wetlands are classified as one-parameter coastal willow thickets (*Salix hookeriana*) and were not found to contain hydric soils. A total of 0.27-acres of coastal willow thickets are mapped within the project area and would not be impacted as a result of construction. Due to the size and poor quality of wetlands, the Project establishes a 100-foot wetland buffer, consistent with HBAP wetlands setback. Development within the buffer is allowable provided no more than 25% of the developed surface is effectively impervious, stormwater runoff does not detrimentally affect the wetland, areas of temporary disturbance are restored and promptly replanted, and erosion impacts related to construction are minimized with BMPs. Development within the buffer would be limited to site grading and would not result in extensive new impervious surface. Following construction, graded surfaces would be reseeded and/or replanted as identified in the Project's landscaping plan. The Project's stormwater drainage system would route stormwater away from the one-parameter wetlands, avoiding any potential impact related to stormwater. Erosion control BMPs are included in Mitigation Measure GEO-2 of the EIR and would be implemented to protect wetlands during construction.
- d) Section 3.30 – 30230 Coastal Streams, Riparian Vegetation and Marine Resources: Marine resources will be maintained. This policy is applicable to both the wastewater discharge, the ocean outfall and construction related impacts. A Marine Resources Biological Evaluation Report, Rev. 3 was prepared by GHD on February 1, 2021 modeling the effluent discharge from the project with respect to applicable water quality regulations. As summarized in Section 3.3 - Biological Resources of the EIR, the treated wastewater would not be detrimental to the health of the marine resources that occur near the diffuser of the ocean outfall pipe. The applicant has also agreed to do baseline sampling prior to the discharge and to conduct operational sampling until sampling has been conducted for two years into phase 2. This will be information available to the Regional Water Quality Control Board as the NPDES permit is reviewed and renewed every 5 years.

As addressed above in Finding 19, impact of seawater extraction and the impact the Biological Productivity of the Bay is being addressed as part of the Coastal Development Permit issued by the Coastal Commission.

Potential impacts from construction noise on marine life are addressed in Mitigation Measure BIO-6 requiring soil densification to only occur when the tidal surface water elevation is below the 330-foot radius where Level B injury could occur. Final construction plans are required to show the tidal elevation that corresponds with the 330-foot radius shown in Figure 2 of the Project's Hydroacoustic, Noise, and Vibration Assessment (Illingworth and Rodkin 2020, Appendix J of the EIR).

The Project Site does not include a stream, tributary, or other waterway with riparian habitat. Riparian habitat is not present within development footprint and appropriate setbacks are in place for ESHA/wetlands on the parcel. Therefore, there would be no impact to riparian habitat and associated species resulting from the Project.

23. FINDING:

The Project is consistent with section 3.40 Visual Resource Protection of the HBAP, protecting scenic and visual qualities of coastal resources

EVIDENCE:

- a) Project Site currently has low visual quality, low visual sensitivity, and poor visual character. Removal of existing abandoned and dilapidated industrial infrastructure, including the former pulp mills 270-foot-tall smokestack, which are the dominant views of the proposed Terrestrial Development and surrounding area will have a beneficial visual impact upon the area. The existing smokestack is visible from as far north as Arcata, as well as the communities of Eureka, and Humboldt Hill. The smokestack and 12-story Reboiler Building are also visible from Samoa Beach and surrounding dunes by the recreating public.
- b) The maximum height of the new facility would be approximately 60 feet, a reduction in comparison to existing conditions. There would be views of the buildings visible between the dunes via New Navy Base Road. Façade colors and patterns have been chosen to integrate the buildings into the natural setting and visually integrate into surrounding scenic resources absent negative visual effects on the Coastal Scenic Area west of New Navy Base Road. Distant views would exist from the City of Eureka shoreline.
- c) The HBAP does not identify this location as having unique or important scenic value and thus development of an industrial facility on Coastal Dependent Industrial Land will not detract from any scenic vista or visual protection policies.

FINDINGS FOR COASTAL DEVELOPMENT PERMIT AND SPECIAL PERMIT: CONSISTENCY WITH THE ZONING ORDINANCE.**24. FINDING:**

The proposed development is consistent with the purposes of the MC zone, meets applicable development standards within the MC zone.

EVIDENCE:

- a) Coastal-Dependent Industrial (MC) Zone is intended to protect and reserve parcels on or near the sea for industrial uses dependent on the harbor or the sea. The proposed aquaculture use is reliant upon existing infrastructure along Humboldt Bay and in the Pacific Ocean. Aquaculture is a principally permitted Coastal Dependent use.
- b) The 76-acre lot exceeds 10,000 square feet lot minimum. No lot changes are proposed.
- c) The subject parcel meets applicable setbacks within MC zone and combining zones (no setbacks).
- d) The tallest building is 60 feet of the 75-foot maximum allowed in the MC zone. Front yard setbacks exceed 100+ feet to justify building height.
- e) Lot coverage is approximately 48% (36-acre development/76-acre parcel).

25. FINDING:

The proposed development is consistent with the purposes of the Archaeological Resource Area Outside of Shelter Cove (A) Combining Zone.

EVIDENCE:

- a) Historical Resource Investigation Report prepared by Roscoe and Associates, September 2020 (on-file), finding no culturally or historically significant resources within the Project's development site. The investigation report recommends following Mitigation Measures CR-1 through CR-3, which are implemented as Mitigation Measures for the project.
- b) During ground disturbing activities the applicant shall implement Mitigation Measure CR-1: Implementation of Protocols for Cultural Monitoring During Ground Disturbance,
- c) In the event that culturally or historically sensitive resources are discovered, the applicant shall implement Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols.

- d) In the event that Archeological resources or human remains are encountered the applicant shall implement Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources and Human Remains if Encountered.

26. FINDING:

The Project is consistent with section 314.3 of the Industrial Development Policies set forth in the HBAP, requiring an alternative site analysis. There is no alternative site found to better suit the project/aquaculture needs. Additionally, the project is found to be consistent with Supplemental Coastal Zone Industrial Use Type Findings within section 312-35.1 that the proposed use be located on a site with the lowest numeric priority.

EVIDENCE:

- a) Consultation between the County, HBHRCD, CCC, and USACE identified that there were no alternative locations for the proposed project. Only Priority 4 sites, which lack essential outfall infrastructure. These sites lacked essential infrastructure needed for project operation. New construction of water pipelines and intakes require installation of additional infrastructure, increase cost and cause additional environmental impacts. The selected site is the only site within the County with the necessary infrastructure required for project operation.
- b) The site is classified as a Priority 2 Site, a site that requires new construction of facilities without conversions of wetlands. This is the second lowest numerical site prioritization. Priority 1 would require utilization of existing facilities. The existing facilities on site are not reusable and require demolition.
- c) The selected site has existing infrastructure necessary for the Project's coastal dependent industrial use and would involve the upgrade of public use infrastructure (ocean water intake) which has the potential to serve future project sites for the coastal dependent industrial zoned properties along the North Spit of the Samoa Peninsula.

27. FINDING:

The Project includes an approved parking exception request under section 313-109.1.4.4 Industrial Uses. The exception request is appropriate because sufficient parking is provided to meet the parking demand of the operation of the aquaculture facility. The proposal will not be detrimental to public welfare consistent with the Supplemental Coastal Zone Findings for Granting an Exception in Section 312-41.1.2

EVIDENCE:

- a) The proposed facility contains 6,400 s.f. of management office area and 20 office employees, the resulting office-related number of required parking spaces is 41 ((6,400 s.f./300 s.f.) + 20 office employees). The requirement to provide 41 spaces to meet the parking needs of 20 office workers is excessive, even when factoring in the need for visitor parking.
- b) The regulatory standard presented is one space per 1,500 s.f. of gross floor space. If this standard were applied to the project, it would require an overly excessive amount of parking for what would be utilized by staff: 437 spaces (655,859 s.f./1,500 s.f.) to serve the 90 employees present on the largest shift.
- c) The applicant has proposed to provide off-street parking per the following:
Office Staff and Visitors: 30 spaces (one space per employee + 10 visitor spaces)
Production Staff: 90 spaces (one space per employee on the largest shift)
Total: 120 Spaces (Amount shown on current site plan on-file). Of these 120 spaces, five (5) ADA parking spaces would be established, satisfying the ADA requirements prescribed in Section 313-109.1.3.8.
- d) There will be no impact to environmentally sensitive communities as the loading and unloading exemption is not located in an environmentally sensitive area and is proposing less loading space designed on a need basis.

- 28. FINDING:** The project also includes a reduction in loading space requirements from 29 to seven (7) which is found to be appropriate given the design and function of the facility. The seven proposed loading docks would appropriately meet the needs of the operation without impacts to public health, safety, and welfare.
- EVIDENCE**
- a) The regulatory standard is one loading space per 20,000 square feet of gross floor area, requiring 29 loading spaces for the project.
 - b) The regulatory intent of the loading space requirements is to prevent unsafe situations resulting from freight or delivery trucks blocking roadways, a process is provided where appropriate to reduce the number of loading spaces when it can be demonstrated.
 - c) Operation will involve regular loading and unloading of material such as fish feed, waste, and finished product. To accomplish this, the facility proposes seven loading docks and bays.
 - d) The Project is in a geographical location capable of handling all necessary freight traffic including ingress, egress, queuing, loading, and unloading. The type, number, and design of the proposed docks/bays will meet the facility's needs in a way that does not block or impede internal or external circulation.
 - e) The level of anticipated use of incoming and outgoing truck traffic has been accurately estimated through detailed operational planning and existing comparable facilities. Daily truck percentage on these roadways increases by at most 0.5% with the project operational at full build out (Section 3.12 Transportation and Errata of the EIR).
 - f) The Project facility is not a shipping warehouse requiring significant space devoted to moving materials in and out of the buildings. The number of loading spaces are appropriate for the number of trucks entering and leaving the site on a daily basis.
- 29. FINDING:** The parcel was created in compliance with all applicable state and local subdivision regulations.
- EVIDENCE:**
- a) Lot Line Adjustment: LLA-10-02/CDP-10-06; Notice of Lot Line Adjustment and Certificate of Subdivision Compliance (document number 2009-2423); memorialized in Book 69 of Surveys, Page 106-107.
- 30. FINDING:** As conditioned, the project is consistent with standards for the operation of industrial development applied to all industrial use types in Humboldt County sections 313-103.1.4, Standards for Non-residentially Impacted Industrial Development
- EVIDENCE:**
- a) The project site is zoned coastal dependent industrial (MC) and is surrounded by other industrially planned and zoned properties, therefore the project location is considered non-residential.
 - b) Vibrations will not impact adjacent lands/land use as they would not be a result from facility operations consistent with section 103.1.4.4
 - c) As designed and consistent with operations plans, the facility will not interfere with radio or television reception consistent with 103.1.4.5
 - d) All operational activities for the facility at full build out will take place within fully enclosed buildings consistent with section 313-103.1.4.6. and noise generating by industrial operations shall not exceed 70dB(A) anywhere off the site as a result of enclosed activities consistent with 103.1.4.4
- 31. FINDING:** The project is designed and will be operated with mitigation measures that address the following:
- 45.1.7.1 Adverse environmental effects will be mitigated to the maximum extent feasible and will conform to the applicable provisions of the Special Area Combining Zone Regulations, and the other resource protection regulations of this Division;

45.1.7.2 Maximum feasible and legally permissible multi-company use shall occur;

45.1.7.3 The total volume of oil spilled shall be minimized;

45.1.7.4 Approved facilities shall have ready access to the most effective feasible containment and recovery equipment for spills;

45.1.7.5 Approved facilities shall have onshore deballasting facilities to receive fouled ballast water from tankers where operationally or legally required; (

45.1.7.6 New development or expansion of marine petroleum transfer facilities will not increase the risk of an oil spill to Humboldt Bay;

45.1.7.7 Where expansion of existing marine petroleum transfer facilities or construction of new facilities may result in an increased risk of spill associated with the expanded facility, such risk will be mitigated through alteration of existing operations. .

- EVIDENCE:**
- a) An EIR has been prepared for this project which identified potentially significant impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, that could result from the Project and provides mitigation measures to reduce these impacts to a less than significant level. (CEQA Guidelines Section 15091(a)(1))
 - b) The applicant is required to implement the Mitigation Monitoring and Reporting Program, containing 18 mitigation measures and complete all Conditions of Approval for the project prior to and during operation.
 - c) Findings related to petroleum transfer facilities are not applicable as this project does not include any such facilities.

32. FINDING:

The project as approved with Mitigation Measures and Conditions of Approval will not be operated or maintained in a manner that will be detrimental to the public health, safety, or welfare or materially injurious to properties or improvements in the vicinity.

- EVIDENCE:**
- a) After EPA grant funding was issued and used, the Project site cleanup was still incomplete. Site cleanup would likely not occur without the redevelopment of the site through private funding. The applicant is responsible for the complete remediation of the project site with removal of all hazardous materials subject to all applicable Conditions of Approval and Mitigations within the Mitigation Monitoring and Reporting Program which will be beneficial to public health, safety, and welfare.
 - b) No project would result in no Brownfield cleanup and no adaptive reuse of the site and associated public infrastructure (intake and outfall). No Brownfield clean up could result in harm to the public's welfare and safety, and to the environment, as hazardous materials remain onsite. As latent hazardous materials sit, they pose environmental risk as they potentially leach further into groundwater. This poses a significant risk to water quality and bay ecosystems as sea level rise grows closer to the groundwater table in coming years. This can be avoided with project implementation.
 - c) Concerns of Harmful Algal Blooms as a result of the project's use of an existing operational ocean outfall. The DEIR evaluates toxic algae (Harmful Algal Blooms [HAB]) in Section 3.3 (Biological Resources, page 3.3-29) and Section 3.9 (Hydrology and Water Quality, page 3.9). HABs are driven by large-scale oceanic processes. Receiving waters will be monitored annually as a Condition of Approval (COA#21).

- d) Concerns for pedestrian/bicyclist safety as a result of the facility's operational traffic were made. Truck traffic will increase an estimated 0.5% (3.12 Transportation and Errata of the EIR). Additionally, State Route 255 has sufficient shoulder width to safely accommodate pedestrians and bicyclist travel, where most existing shoulder widths vary between approximately six feet and eight feet. The Samoa Bridge Structures have shoulder width of roughly four to five feet wide and are identified as shared facilities by Caltrans.
- e) Concerns over energy use were addressed by Condition of Approval (COA#22) requiring NAFC to commit to non-carbon and renewable energy-based sources to off-set emissions.
- f) Concerns of fish health are addressed by the biosecurity program for the aquaculture facility. The biosecurity program for the quarantine area includes ultrafiltration and UV disinfection for inflow and effluent water treatment, ventilation control, restrictions on staff and visitors, as well as strict control on intake of feed, other consumables, equipment, potential vectors, and disposal of fish mortalities. Third party audits for biosecurity in the quarantine would occur twice per year through veterinary visits to the farm.
- g) The project will not result in effluent from the facility which is harmful to fish or wildlife and the operation of the facility will continuously be monitored through the NPDES process to ensure the effluent is safe.
- h) Prior to issuance of any construction permits for phase 2, phase 1 of the project must be operating in compliance with the County CDP, RWQCB NPDES Permit, and any other local, state, or federal permit issued to Nordic or their successor. This shall be to the satisfaction of the Director of Planning and Building.
(COA#24)
- i) Nordic Aquafarms shall provide an annual Sustainability Report initiated within one year of operation, describing efforts to decarbonize trucking activities, GHG impacts associated with fish feed and other relevant issues. Nordic shall host a summit by invitation for the local NGOs, Community Leaders, Academia, Tribal Government Leadership and members of the public. In addition to reviewing Nordics Annual Sustainability Report, a forum is created where issues and solutions are discussed by all. Agreed upon elements can be incorporated into Nordic's sustainability goals in the following years. These collaborative solutions are not exclusive to Nordic, leaving opportunity for development of community wide initiatives and creating a cycle of sustainability improvements that can be adopted over the years. Sponsorship of these initiatives can be borne by Nordic up to an annual limit and can be combined with matching funds and sponsorships from various sources. At a minimum Nordic will provide \$25,000 annually to an appropriate community project.
(COA#25)

33. FINDING:

EVIDENCE:

- The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law.
- (a) The parcel was not included in the housing inventory of Humboldt County's 2019 Housing Element but does have the potential to support one housing unit in the form of a caretaker's unit. The approval of an aquaculture facility on this parcel will not conflict with the ability for a residence to be constructed on this parcel.

FINDINGS FOR DENIAL OF THE PLN-2020-16698-APPEAL

34. FINDING

The Humboldt County Code requires an appeal to state specifically why the decision of the Planning Commission is not in accord with the standards and regulations of the zoning ordinances, or why it is believed that there was an error or an abuse of discretion. The appellant's claim is unsubstantiated that the FEIR erroneously identifies the severity of the project's impacts including greenhouse gas emissions and energy impacts, impacts to existing commercial fisheries, impacts to coastal and bay ecosystems, and impacts to native salmonoids, is incorrect. The EIR has not understated impacts, but has appropriately disclosed impacts, has disclosed changes the applicant has made to the project to address impacts and identified appropriate mitigation

EVIDENCE

- a) Of the 16 issues raised, no new information or substantial evidence have been provided to support the assertions made.
- b) An effect on the environment shall not be considered significant in the absence of substantial evidence (CEQA Statute Section 21082.2(c), Guidelines Section 15384(b) and 15604 (f)(5)).
- c) Argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence (CEQA Statute Section 21082.2(c), Guidelines Section 15384(a) and 15604 (f)(5)).
- d) The impacts associated with greenhouse gas have been disclosed and evaluated. The appellant is asking for a life cycle analysis of Greenhouse Gas emissions which would include analysis of other locations who provide material and goods to the project. This is not a requirement of CEQA and is discussed in more detail below.
- e) The impacts to energy have been thoroughly disclosed. The amount of power 22.5 mw is disclosed in the EIR. The concern with being able to convert to non-carbon power sources is discussed in the EIR and the applicant has agreed to use power sources which are non-carbon based.
- f) Impacts to coastal and bay ecosystems and impacts to native salmonoids have been disclosed and discussed in the EIR. The EIR identifies that the impact from the wastewater outfall to be very minor, and this will continue to be monitored under a permit from the Regional Water Quality Control Board. The primary constituents of concern with the outfall are low salinity and temperature. This will not be detectible outside of five feet from the outfall. The impacts of the intake will not destroy habitat or reduce any species below self-sustaining levels. There could be take of a listed Long Fin Smelt and mitigation is included which will fully mitigate for this potential impact.

35. FINDING

The appellants incorrectly claim that the FEIR erroneously states that emissions from fish feed do not need to be counted under CEQA. This is asking for a level of analysis that is inconsistent with CEQA.

EVIDENCE

- a) CEQA Guidelines 15358 define "Effects" and "impacts" synonymously as:
 - (a) Effects include:
 - (1) *Direct or primary effects which are caused by the project and occur at the same time and place.*
 - (2) *Indirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-*

inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

(b) Effects analyzed under CEQA must be related to a physical change.

- b) Greenhouse gas (GHG) emissions from the production of fish feed at a yet-to-be determined non-Project facility are beyond the scope of the required analysis under CEQA. CEQA requires an agency to analyze the direct and reasonably foreseeable indirect impacts of a Project. (CEQA Guidelines Section 15064.) Where an impact is speculative, it is not reasonably foreseeable and should not be considered as part of the Project analysis.
- c) There are multiple approaches to developing an emissions inventory. Approaches vary in the breadth of their scope in terms of what processes and inputs are included and excluded in the inventory. Emissions from the production of feed were not included in the estimate used in the EIR because:
- In 2017 The Association of Environmental Professionals (AEP) California Chapter Climate Change Committee identified the methodology that was appropriate for evaluating industrial projects (such as NAFC's) under CEQA. The methodology identified does not include embedded or lifecycle emissions in goods and services consumed by the Project (such as feed in the case of NAFC). AEP's conclusions were published in a white paper in 2017 (AEP 2017).
 - California Natural Resources Agency (CNRA) indicated in 2009 that requiring a lifecycle analysis may not be consistent with CEQA, stating: As a general matter, the term could refer to emissions beyond those that could be considered "indirect effects" of a project as that term is defined in section 15358 of the State CEQA Guidelines (CNRA 2009).
 - The State inventory does not include lifecycle emission from goods and services from outside the state that are used or consumed within the state.
- d) This issue was addressed in section 2-16 of the FEIR where the preceding information was presented.
- e) As identified in DEIR Section 3.7 (Greenhouse Gas Emissions) starting on page 3.7-1, the DEIR's regulatory context for GHG is the State of California. The quantitative numeric thresholds of significance, qualitative plan-consistency threshold of significance applied, and evaluation of the Project's potential to conflict with the State's adopted Scoping Plan are all derived from or relate to California's statewide emission reduction goals and planning activities. The inventory methodology for the Project's analysis should be consistent with the inventory methodology used by State emission reduction plans (Scoping Plan). As stated in the AEP Whitepaper (AEP 2017): ... in order to compare a project-level GHG inventory to a threshold derived from a statewide reduction target based on the statewide inventory, the GHG emissions included in the Project inventory must be accounted for in a similar manner to the way the state accounts for GHG emissions. If a project-level emissions inventory included emission sources or approaches that are not included in the state inventory, then the Project's inventory would no longer be comparable to thresholds derived from statewide reduction targets.

36. FINDING

The appellants incorrectly claim that the FEIR erroneously states that the project will emit zero emissions from its electricity consumption. The DEIR evaluated a non-zero carbon intensity factor for the power source. As part of the FEIR and conditions of approval it was affirmed that NAHC is committed to 100%

renewable and carbon free energy. It is not inappropriate to say that the analysis should be for carbon free power.

- EVIDENCE**
- a) The EIR's conclusions regarding energy consumption are accurate and supported by substantial evidence in the record. The DEIR's emissions estimate of GHG associated with energy consumption were overly conservative (in other words, if anything the emissions were overstated) by applying a non-zero carbon intensity factor.
 - b) The non-zero carbon intensity factor applied was the most current third party-verified carbon intensity factor for Pacific Gas & Electric Company (PG&E) available at the time of analysis – the 2019 PG&E carbon intensity factor of 2.68 pounds per megawatt hour (lbs./MWh). For 2019 emissions reporting, PG&E used the California Energy Commission's (CEC) Power Source Disclosure program methodology to calculate the carbon dioxide (CO2) emission rate associated with the electricity delivered to retail customers.
 - c) NAFC has voluntarily agreed to purchase 100% renewable and or carbon free energy for this project. This is made enforced by Condition of Approval 19. The applicant will be required to meet RCEA and the State of California's goals of utilizing non-carbon-based energy sources implemented in the following ways:
 - Purchase renewable and/or non-carbon energy through RCEA, relying on its available portfolio; or
 - Purchase a 100% non-carbon and/or renewable portfolio from one of the other Energy Service Providers (ESPs) in California.
 - Baseline would be the ESP's component of non-carbon/renewable + purchase of credits to ensure a 100% non-carbon and/or renewable portfolio.
 - In addition, as technically and commercially feasible, NAFC would enter into Power Purchase Agreements (PPAs) with the proposed offshore wind project and /or other non-carbon, renewable electricity sources located in Humboldt County.
 - d) As a result of AB 1110, Power Content Labels prepared under the CEC's PSD program identify carbon intensity factors for each energy provider's electricity portfolio starting with year 2020. The CEC specifies that the regulatory updates are substantial and represent a significantly modified methodology. Consequently, program data for years prior to 2019 may not be comparable to data under the updated program. As shown in the PG&E's Power Content Labels starting in year 2020. PG&E provides the following two non-carbon, 100% renewable electricity portfolios:
 - 100% Solar Choice portfolio
 - Greensaver Portfolio
 - e) Based on the information presented above both potential energy providers (RCEA and PG&E) have demonstrated the ability to deliver 100% renewable and/or non-carbon energy. All power purchased will need to be from these sources.

37. FINDING

The appellants incorrectly claim that greenhouse gas emissions from refrigerants require further analysis in the FEIR. It is accepted that refrigerants have a high global warming potential, but this is only true if refrigerants are emitted into the atmosphere. No evidence has been presented that a brand-new facility constructed in compliances with current standards will emit refrigerants at a level to cause a potentially significant impact. In fact, current regulations adequately address this issue.

- EVIDENCE**
- a) Refrigerants will be contained within closed cooling systems and a full-time maintenance staff will monitor the systems, repairing and reporting any issues with the systems including leaks.

- b) As described on page 2-17 of the FEIR:

The GHGs normally associated with the Project are listed on DEIR page 3.7-2 through 3.7-3 and includes a list of potential refrigerants. DEIR Subsection 3.7.3 (Regulatory Framework) discusses in detail all applicable GHG regulations. The Project would utilize multiple systems, including icemaking and two different chiller systems. The Project will be subject to regulations and programs within the California Significant New Alternatives Policy (SNAP), founded on SB 1013 and the California Air Resources Board (CARB) Hydrofluorocarbon (HFC) regulations. Specifically, the chillers will be subject to CARB's HFC Regulation and refrigerators will be subject to CARB's Refrigerant Management Program (RMP). Under the RMP, leak detection and monitoring requirements are based on system sizing.

- c) Regulations specific to refrigerants are specifically addressed on DEIR page 3.7-6, including the requirements for leak detection maintenance programs and maximum global warming potential of refrigerants:
- Starting in 2022, the Refrigerant Management Program (RMP) requires facilities with refrigeration systems containing more than 50 pounds of high-GWP refrigerant to conduct and report periodic leak inspections, promptly repair leaks; and keep service records on site.
 - Additionally, newly adopted regulations by CARB require new stationary refrigeration installations to use refrigerants with a global warming potential of 150 or less.
- d) Estimates of leakage rates for older systems in previous years (before 2022) are not accurate indications of potential leaks in the future due to new regulatory requirements for leak inspection, prompt repair, and reporting implemented in 2022.
- e) The appellant's citation of an EPA study of average supermarket emissions, is cited from 2011 and assumes the use of R-404A refrigerant (global warming potential of 3,921.6) with an annual leak rate of 25% per year (EPA 2011). Under the CARB's SNAP and RMP, use of high global warming potential (GWP) refrigerants, including R-404A, is prohibited for new refrigeration systems.

38. FINDING

The applicant incorrectly claims that the FEIR uses inappropriate methods to calculate GHG impacts related to vehicle miles traveled by trucks. The background studies supporting the EIR appropriately relied on an accepted software and methodologies supported by a team of traffic engineers for purposes of analyzing transportation impacts and associated GHG emissions.

EVIDENCE

- a) As described on pages 2-18 through 2-20 of the FEIR:

The Project's emissions generated by on-road mobile activity were estimated using CalEEMod v. 2020.4.0, as described in DEIR Section 3.2 (Air Quality) on page 3.2-6 and Section 3.7 (Greenhouse Gas Emissions) on page 3.7-10. The criteria pollutant and GHG estimates for mobile activity are based on annual mobile activity and compared against annual thresholds of significance. For the purposes of modeling, inputs were adjusted in order to achieve the Project's estimated annual vehicle miles travelled (VMT) for each of the following mobile sources:

- Employee Activity
- Hauling within the NCUACMD's Jurisdiction (short hauling)
- Hauling outside of the NCUAQMD's Jurisdiction (long-hauling)

- b) Emissions for mobile activity were estimated separately from other sources of operational GHG emissions (such as energy consumption or emergency

backup generator use). For clarity, and because of how CalEEMod utilizes fleet mix, trip type, trip purpose, and other parameters of mobile activity, separate CalEEMod runs were prepared for each of the mobile sources listed above. As an example, the CalEEMod run for operational employee trips contains the parameters necessary to appropriately assess annual emissions from employee trips alone and includes parameters to estimate emissions from energy consumption, backup generator use, hauling, or other sources of operational GHGs. Emissions from nonmobile emissions sources were estimated in separate CalEEMod modeling scenarios, which are provided in DEIR Appendix B (CalEEMod Modeling Results).

- c) CalEEMod contains assumptions for trip length based on the type of trip (trip type), distribution of trip types, and trip purpose. Each of these components is used to generate total VMT estimates, which then feed into the GHG emission calculations. The trip types, trip lengths, distribution and trip purpose distribution are detailed in the CalEEMod output, which is included in Appendix B of the DEIR.
- d) The annual VMT for short-hauling and long-hauling were provided by the applicant and developed using the Humboldt County Travel Demand Model (the model adopted by the Humboldt County Association of Governments and Caltrans to forecast vehicle travel), and the data entry for daily trip rates and lengths were modified to support the Project-specific annual VMT.
- e) CalEEMod is the emissions estimation model recommended by BAAQMD and other air districts throughout California. CalEEMod was prepared for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the South Coast Air Quality Management District and other California Air Districts. CalEEMod uses the EMFAC2017 emission factors for vehicles, which is CARB-developed and EPA-approved for use in estimating on-road mobile emissions in California.
- f) SmartWay is not the EPA-recommended model for assessing on-road mobile emissions – the Motor Vehicle Emissions Simulator (MOVES) is EPA's emission modeling system for mobile sources. However, MOVES is not appropriate emissions model to use for projects located in California – CARB's EMFAC is the appropriate emissions model.
- g) *The MOVES defaults do not capture all the details of California emission standards and control programs. Instead, California uses California-specific models for modeling mobile sources. (EPA 2021)*

39. FINDING

The appellant incorrectly claims that the FEIR erroneously concludes that the no-project alternative would not result in any significant unmitigable impacts or eliminate any significant unmitigable impacts. The EIR concluded, based on substantial evidence and exhaustive technical analysis, that the Project will have no significant and unavoidable impacts. The DEIR incorporated extensive environmental impact analysis including detailed technical evaluations of the Project and the alternatives to support decision makers in assessing the environmental consequences of the Project. The No Project Alternative was appropriately identified as the Environmentally Superior Alternative, but it did not meet the project objectives.

EVIDENCE

- a) The project is consistent with section 15151 of CEQA Guidelines in that:
 - 1) The EIR was prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.
 - 2) An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.
 - 3) Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts.

- 4) The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at disclosure.
- b) The County has provided substantive analysis to both disclose potential environmental effects resulting from the whole of the Project to the public and to inform the Planning Commission and Board of Supervisors as to the potential environmental consequences of the Project. Substantial evidence supports this analysis, including the analysis of the No Project Alternative.
- c) No project would result in no Brownfield cleanup and no adaptive reuse of the site and associated public infrastructure (intake and outfall). No Brownfield clean up could result in harm to the public's welfare and safety, and to the environment, as hazardous materials remain onsite. As latent hazardous materials sit, they pose environmental risk as they potentially leach further into groundwater. This poses a significant risk to water quality and bay ecosystems as sea level rise grows closer to the groundwater table in coming years. This can be avoided with project implementation.
- d) As Stated in Section 4.4 of the DEIR:

Only the No Project Alternative (Alternative 1) would be less impactful to the environmental; however, the goals and objectives of the Project would not be achieved, and the current degraded brownfield site would remain as is with its current negative impacts and hazards.

40. FINDING

The appellants incorrectly claim that the FEIR did not consider alternatives of a small project or multi-phase modular build-out. It is not clear what impact or issue the appellant raises in this criticism, the Alternatives Analysis did provide a reasonable range of alternatives that have the potential to reduce significant environmental effects and are consistent with the project objectives. It is not clear how a smaller project alternative better addresses significant effects when there are no significant adverse effects identified in the EIR.

EVIDENCE

- a) CEQA requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." (CEQA Guidelines 15126.6.) An EIR need not consider every conceivable alternative. (As described in section 4. Alternatives Description and Analysis.) The Project EIR complied with this requirement.
- b) Confidential information provided to the County provides insight on financial feasibility for a smaller project alternative. Given the amount of money involved in remediation, construction of facilities, and environmental review processes, NAFC is unable to consider a smaller project alternative. This was reviewed and accepted by the County and is the reason that a smaller project alternative was not included in the EIR. The comments from the applicant came after the EIR was prepared so there was not the ability to include this in the EIR.
- c) The EIR proposes 18 mitigation measures that effectively reduce the potential impacts to a less than significant level. No information has been submitted to indicate how a smaller project alternative would better mitigate any of these impacts.
- d) The project will undergo monitoring from multiple agencies (CCC, RWQCB, the County) as remediation and construction activities ensue. A phased build out is proposed. Monitoring of mitigations and conditions applied to the project must be followed. To continue buildout and obtain other permits associated with the project, the applicant must demonstrate compliance.
- e) A smaller project alternative would result in less remediation of the site. Portions of the site would no longer require screening and excavation of hazardous materials due to a decrease in development footprint. As described in finding 6(d), this would result in potential risk to water quality and

bay ecosystems in the years to come. This can be avoided with project implementation as proposed.

41. FINDING

The appellants incorrectly claim that the FEIR makes conclusions regarding threatened species prior to completing formal consultation on project effects to those species. Formal Endangered Species Act (ESA) consultation prior to issuance of the EIR is not a correct understanding of the purpose of the CEQA process. The purpose of an EIR is to disclose potential environmental effects, and to mitigate those potential effects to the extent feasible (CEQA Guidelines 15002). The EIR accomplishes this and identifies additional permitting required from State and Federal Agencies.

EVIDENCE

- a) CEQA Guidelines section 15050 states that "the agency which will act first on the project in question will normally be the lead agency." Humboldt County Planning and Building is the lead agency for CEQA review since the County has the principal responsibility for approving the Project (CEQA Guidelines §15367).
- b) Page 10 of the Marine Resources Biological Evaluation, Appendix D, agency coordination included pre-project meetings held with the U.S. Army Corps of Engineers, North Coast Regional Board Water Quality Control Board, Humboldt Bay Harbor, Recreation, and Conservation District, California Coastal Commission (Coastal Commission), Humboldt County Planning Department, National Marine Fisheries Service (NMFS), State Lands Commission, and California Department of Fish and Wildlife.
- c) The DEIR examines impacts to listed marine life. The Appendix D Marine Resources Biological Evaluation provides a comprehensive list of fish that may be impacted by the Project and what those impacts may be. Table 5.1 - Marine Species Potential to Occur in the Project Area lists green sturgeon on page 19, Coho salmon on page 21, and Chinook salmon, steelhead and eulachon on page 22. Further, starting on page 29 analysis of Special Status Fish begins with green sturgeon, followed by Coho salmon, then Chinook salmon and steelhead on the following page. On page 38, effects to designated critical habitat of green sturgeon is analyzed. Less than significant impacts to marine resources are expected as a result of the Project's discharge via the RMT II ocean outfall, as modeled by GHD (2020), no avoidance or minimization measures for marine resources are proposed.
- d) Regarding potential take of federally listed species, the statement that the formal Endangered Species Act (ESA) consultation will include reasonable and prudent alternatives or reasonable and prudent measures is incorrect. If the NMFS determines in their ESA Section 7 consultation Biological Opinion that the action is likely to jeopardize the continued existence of any listed species or destroy or adversely modify critical habitat, the Project may not go forward unless NMFS provides a "reasonable and prudent alternative" that would avoid jeopardy and destruction or adverse modification. However, if NMFS concludes, in their opinion, that the Project is not likely to jeopardize the continued existence of any listed species or destroy or adversely modify critical habitat, they will include terms and conditions to minimize and monitor impacts to listed species and exclude a reasonable and prudent alternative.
- e) LFS is the only (CA) listed species identified as potentially impacted and will be mitigated for the life stage impacted to a 1:1 ratio in the form of spawning and rearing nursery habitat creation within brackish water of Humboldt Bay. Mitigates for the loss of every individual LFS larvae.

42. FINDING

The appellants incorrectly claim that the FEIR fails to fully evaluate the potential adverse environmental effects of using up to 10 million gallons per day (MGD) of saltwater sources from an as yet unpermitted intake diversion. The EIR identifies the amount of water to be used and the potential impacts of the water intake.

- EVIDENCE**
- a) The DEIR analyzes the effects of seawater intake entrainment on essential fish habitat and specific fish species, including Pacific herring and northern anchovy starting on page 3.3-50. The DEIR analyzes the Project's effect on other commercial and recreational fish species on page 3.3-53. As part of the Coastal Commission's CDP, the Area of Production Foregone calculation is used to determine appropriate compensation for impacts to organisms such as phytoplankton and zooplankton potentially subject to entrainment, even though they may not have been included in the sampling.
 - b) As described in the FEIR on page 2-49 through 2-51:
The effects on smaller phytoplankton and zooplankton are typically not studied because their large abundances, wide distributions, and short generation times make them less susceptible to the effects of entrainment, especially at an intake with a volume that represents only 0.0304% of the Bay volume at mean sea level. On top of the volume of water that is in the Bay at mean sea level, nearly 68 billion gallons of water is exchanged in Humboldt Bay in each 24-hour period through tidal flow. In other words, 17 billion gallons of water enters the Bay in the transition from low tide to high tide and then 17 billion gallons of water leaves the Bay in the transition from high tide to low tide. This cycle repeats twice each day. Accordingly, the proposed amount of water to be withdrawn is a minor fraction of the volume of water in the dynamic Humboldt Bay system (SHN 2022).
 - c) The Water Board's Ocean Plan establishes the procedures for analyzing the ETM / APF for Phytoplankton and zooplankton biomass.
 - d) The results of the ETM analyses of the organisms selected for study are used to calculate an estimate of the habitat area necessary to compensate for the entrainment losses or the Area of Production Foregone (APF). The estimates of APF for the various organisms are typically averaged to provide an integrated estimate of the habitat area required to compensate for the losses to both the organisms analyzed and other organisms potentially subject to entrainment. Therefore, one of the goals of the final estimate of APF is to determine appropriate compensation for impacts to organisms such as phytoplankton and zooplankton potentially subject to entrainment even though they may not have been included in the sampling. This will be addressed as part of the Coastal Commission Coastal Development Permit review, the mitigation for which is evaluated in the EIR (Pile removal/Spartina eradication.)

43. FINDING

The appellants incorrectly claim that the FEIR uses a "piecemeal" approach to permitting the saltwater intake. The EIR analyzes the whole of the project, even though there are different responsible agencies issuing permits for components of the project. This is entirely consistent with CEQA.

EVIDENCE

- a) The EIR addresses all project components which include the land-based development, the intakes, and the outfall.
- b) Piecemealing occurs when a component of the project has not been analyzed in one complete document. All components of the project have been analyzed within the EIR.
- c) Multiple permits associated with development does not imply piecemeal. The entirety of the project has been environmentally assessed. Receiving permits after certification of an environmental document will provide evidence for the issuance of associated permits. This is standard practice.

44. FINDING

The appellants incorrectly claim that the FEIR fails to conduct a serious and rigorous alternatives analysis for the saltwater intake. The EIR analyzed multiple alternatives for the seawater intakes, including the relative environmental impacts. These alternatives were either not feasible or provided no environmental benefit to the project analyzed.

- EVIDENCE**
- a) Three alternatives are outlined in the EIR which include: slant wells, oceanic seawater intake, and Humboldt Bay seawater wells. Details evaluations of these alternatives can be found on pages 4-16 through 4-17 of the DEIR.
 - b) A new offshore intake may lead to more environmental impacts not yet studied. Using existing infrastructure is least intensive. Piping would have to be constructed through surf, potential ESHA for the land-based portion of piping, and maintenance of the oceanic intake would complicate the standard procedural checks and cleanings of the intake screens. An intake could not be added to current outfall piping as it would jeopardize existing and future users by limiting the available capacity of the piping system. See section 4.0 - Alternatives Description and Analysis, in the DEIR regarding other species selection and site/infrastructure alternatives.
 - c) The claim that NOAA recommends that intakes be located offshore, when possible, to minimize fish contact, is misleading. This is applied to new construction. The current intakes are existing. Impacts associated with the intakes in operation have been mitigated to a level of less than significant.
 - d) EIR Appendix R reflects a 12-page summation of NMFS guidance applied to the project.

45. FINDING

The appellants incorrectly claim that the FEIR fails to identify or quantify the amount of ocean sources of fish food that will be utilized in the production of 25,000 metric tons of Atlantic salmon is not a component of the proposed project.

EVIDENCE

- a) NAFC will not be producing fish feed as a part of this project, nor will they be harvesting wild fish or manufacturing feed at any of its facilities.
- b) As discussed in the FEIR on pages 2-57 through 59:

As stated on page 2-38 of the DEIR, NAFC has not yet made a final decision on a feed supplier for the Project. It is too early in the process to do so because the sources of ingredients making up these diets are changing as the aquaculture industry continuously strives for improvement in the sustainability ranking of those ingredients. A feed formulation that may be the best available today may not be the best four to five years in the future when operations are planned to commence. For instance, there is increasing production of new raw materials such as microalgae, single cell proteins and insect meal as alternatives to traditional marine sourced ingredients. As an example, Nordic Aquafarms' facilities in Fredrikstad, Norway, have now started using microalgae as a supplement in the diet fed to the fish.

- c) As described on pages 2-38 of the DEIR, NAFC recognizes the importance of the Fish-In-Fish-Out (FIFO) score as a measure of ecological efficiency of feed and the Project will include target limits that are among the best in the industry. In fact, Nordic Aquafarms' Fredrikstad Seafoods land-based facility growing Atlantic salmon in Norway, regularly achieves a FIFO score of 0.8 meaning more fish protein would be produced by the farm than whole fish included in the feed. NAFC will target, at least, the same high standard for the Project in California with the ultimate aim of exceeding this target as the salmon diet continues to evolve and reduce its dependence on traditional marine ingredients.

- e) NAFC will be purchasing from certified feed manufacturers.

46. FINDING

The appellant's incorrectly claim that the FEIR makes arbitrary determinations of "less than significant" effects prior to obtaining data or documenting factual basis for determinations due to incomplete studies. Often studies continue after an EIR is prepared to provide more precise information to the responsible agency for determining mitigation ratios and compensation for areas impacted.

- EVIDENCE**
- a) It is common practice for agencies to approve projects while studies regarding specific project elements are pending. The mitigation and ratios for all impacts have been clearly laid out with performance metrics. All potential impacts have been reduced to less than significant after mitigation. The DEIR Section 3.9 - Hydrology and Water Quality provides clear analysis of the potential impacts to hydrology and water quality resulting from construction and operation of the Project against significance thresholds derived from applicable local, state, or federal policies, or from Appendix G of the CEQA Guidelines
 - b) It is common for projects to move forward as sampling continues and information is gathered. It is proper to defer mitigation to the future, provided that the parameters by which the efficacy of that mitigation will be measured. The ETM provided sufficient data for regulators to make an informed decision about the potential impacts of the operation of the modernized sea chests. The sampling effort will provide finer resolution to the results of the ETM. This stepwise process is what was recommended by the Coastal Commission, and is how the Project is proceeding
 - c) The mitigation and ratios for all impacts have been clearly laid out with performance metrics. All potential impacts have been reduced to less than significant after mitigation. Technical evaluations and associated impact analyses were prepared. The County has provided substantive analysis to both disclose potential environmental effects resulting from the whole of the Project to the public and to inform the Planning Commission as to the potential environmental consequences of the Project, and the EIR clearly lays out how the efficacy of mitigation will be evaluated. The analysis of environmental impacts is supported by substantial evidence

47. FINDING

The Appellant's claim that the FEIR makes arbitrary determinations regarding risk to wild salmon populations, and that the "less than significant" effect determinations place wild salmonid population at risk of viral exposure from waste effluent water discharges is incorrect. The EIR's conclusion that there is a less-than-significant risk to wild salmon populations is based on substantial evidence in the record.

- EVIDENCE**
- a) The EIR's analysis of biological impacts demonstrates that the EIR's impact determination is based upon a comprehensive analysis of potential effects. The EIR concluded, based on substantial evidence, that impacts to wild salmon populations would be less than significant
 - b) As depicted on page 2-25 of the Project Description, all water from the facilities operations is routed to the wastewater treatment plant for full treatment. Line G shows all processing wastewater going in to the first step at the wastewater treatment plant. Solids are largely removed in this first step. The following steps further remove materials with the final step being a 0.04-micron ultrafiltration followed by a 300 mJ/cm² UV. As stated in the DEIR on page 3.3-25, all water captured by floor drains is sent to the wastewater treatment plant for the same treatment as production water
 - c) Section 2-41 of the DEIR describes that the proposed effluent treatment is designed to remove 99% of total suspended solids (TSS), biological oxygen demand (BOD) as well as 90% of total nitrogen (TN). As designed, the Project's effluent treatment includes ultrafiltration, biofiltration and UV treatment. The level of ultrafiltration used by itself (without use of UV) is suitable biocontainment for bacteria, parasites, fungus, and most salmonid viruses of regulatory concern
 - d) Any viruses that might pass filtration are subject to high dose UV disinfection (300 mJ/cm²). This dose is sufficient to mitigate the threat of any salmonid viruses of concern. Upon initiating operation of the UV equipment, NAFC would be required to demonstrate compliance with the UV dose requirement to the NCRWQCB. Further conditions of the NPDES permit require NAFC to

maintain a program for routine inspection and maintenance of the UV equipment. UV is highly effective against pathogens as demonstrated in Table 2.9 on page 2-32 of the FEIR. The table identifies that the UV dose applied to water filtration exceeds the dosage needed to kill pathogens that impact salmonoids and other species.

48. FINDING

EVIDENCE

- The Appellant's incorrectly claim that the FEIR fails to adequately address domoic acid proliferation that may result from the Project.
- a) Master Response 5 on Marine Outfall between pages 2-37 and 2-47 in the FEIR addresses how localized warming, currents, tidal flux and upwelling will contribute to domoic acid proliferation. There will not be a continued risk of domoic acid events because toxic blooms require a certain set of environmental conditions. Project activities will not create an environment that supports toxic Harmful Algae Blooms (HABs).
 - b) The DEIR evaluates toxic algae (Harmful Algal Blooms [HAB]) in Section 3.3 (Biological Resources, page 3.3-29) and Section 3.9 (Hydrology and Water Quality, page 3.9). HABs are driven by large-scale oceanic processes. Numerical modeling (DEIR Appendix E) demonstrated that elevated levels of nutrients from the Marine Outfall are limited and unlikely to contribute to a HAB in the coastal waters potentially affected by the Project. There is minimal risk of nutrients entering Humboldt Bay because the effluent 1) enters the Pacific Ocean at the location of the diffuser array, and 2) is dispersed at fast enough rates that regardless of oceanographic forces, effluent would not recirculate nor reenter into Humboldt Bay. The Project's potential contribution to a HAB is unfounded
 - c) The FEIR also addresses the potential for localized upwelling and warming contributing to HABs. This is explained in the discussion of how nutrient loading from the Project will not drive toxic blooms. Project activities (i.e., localized nutrient loading and increased temperature) will not result in significant changes in water quality.
 - d) The Outfall will be monitored in order to confirm that the project will not contribute to HAB. This monitoring is more rigorous than regulatory requirements and includes monitoring as requested by commenters. As a result, there is a negligible risk for localized and regional HAB events that would impact fisheries and marine resources. Since Project activities will not contribute to increased toxic HAB events, marine fisheries will not be impacted by the Project.

49. FINDING

- The appellants claim that the FIER fails to address impacts associated with entrainment at the saltwater intake is incorrect.
- a) Pacific Sand Lance is not a listed species under the Endangered Species Acts (CESA/ESA).
 - b) There is no evidence that would reflect a significant impact to Sand Lance or impacts related to this population as a food source.
 - c) An effect on the environment shall not be considered significant in the absence of substantial evidence (CEQA Statute Section 21082.2(c), Guidelines Section 15384(b) and 15604 (f)(5)).
 - d) There is no provided evidence showing that the operation of the saltwater intakes would have an impact on Sand Lance, or the food web associated with fish, bird, and marine species identified in the appellants claim.
 - e) The results of the ETM analyses of the organisms selected for study are used to calculate an estimate of the habitat area necessary to compensate for the entrainment losses or the Area of Production Foregone (APF). The estimates of APF for the various organisms are typically averaged to provide an integrated estimate of the habitat area required to compensate for the losses to both the

organisms analyzed and other organisms potentially subject to entrainment. Therefore, one of the goals of the final estimate of APF is to determine appropriate compensation for impacts to organisms subject to entrainment even though they may not have been included in the sampling. This will be addressed as part of the Coastal Commission Coastal Development Permit review, the mitigation for which is evaluated in the EIR (Pile removal/Spartina eradication.)

NOW, THEREFORE, based on the above findings and evidence, the Humboldt County Board of Supervisors does hereby:

1. Certifies the Environmental Impact Report prepared for the Nordic Aquafarms California, LLC, the project has been prepared in compliance with CEQA pursuant to Section 15090 and 15091 of the State CEQA Guidelines; and
2. Finds that the proposed Coastal Development Permit and Special Permit is consistent with the Humboldt Bay Area Plan and Zoning Ordinance; and
3. Finds that that there are no grounds to support the appeal; and
4. Denies the Appeal submitted by Humboldt 350, Audubon Society and Commercial Fisherman's Association; and
5. Adopts the Mitigation and Monitoring Program; and
6. Approves the Coastal Development Permit and Special Permit.

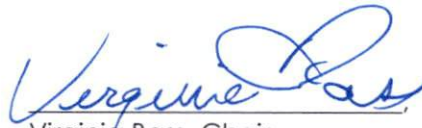
The foregoing Resolution is hereby passed and adopted by the Board of Supervisors on September 28, 2022, by the following vote:

Adopted on motion by Supervisor Bohn, seconded by Supervisor Wilson and the following vote:

AYES: Supervisors: Wilson, Bohn, Bushnell, Bass

NOES: Supervisors: Madrone

ABSENT: Supervisors:


Virginia Bass, Chair
Humboldt County Board of
Supervisors

STATE OF CALIFORNIA)) SS. County of Humboldt

I, Kathy Hayes, Clerk of the Board of Supervisors of the County of Humboldt, State of California do hereby certify the foregoing to be a full, true, and correct copy of the original made in the above-titled matter by said Board of Supervisors at a meeting held in Eureka, California as the same now appears of record in my office.

In Witness Whereof, I have hereunto set my hand and affixed the Seal of said Board of Supervisors.

KATHY HAYES Clerk of the Board of Supervisors of the County of Humboldt, State of California

By: KATHY HAYES

Date: September 28, 2022

By  Deputy

EXHIBIT 1

REVISED CONDITIONS OF APPROVAL

APPROVAL OF THE COASTAL DEVELOPMENT PERMIT AND SPECIAL PERMIT IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS.

A. General Conditions

1. The applicant shall submit a check to the Planning Division payable to the Humboldt County Clerk/Recorder in the amount of \$3,539.25. Pursuant to Section 711.4 of the Fish and Game Code, the amount includes the CDFW fee plus the \$50 document handling fee to the Clerk. This fee is effective through December 31, 2022, at such time the fee will be adjusted pursuant to Section 713 of the Fish and Game Code.
2. All components of project shall be developed, operated, and maintained in conformance with the Project Description, the approved Site Plan, Mitigation Monitoring and Reporting Program, and these conditions of approval. Changes shall require modification of this permit except where consistent with Humboldt County Code Section 312-11.1, Minor Deviations to Approved Plot Plan.
3. The applicant is responsible for obtaining all necessary County and State permits and licenses, and for meeting all requirements set forth by other regulatory agencies.
4. The applicant is required to pay for permit processing on a time and material basis as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors. The Planning and Building Department will provide a bill to the applicant after the decision. Any and all outstanding planning fees to cover the processing of the application to decision by the Hearing Officer shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka.
5. The Applicant is responsible for costs for post-approval review for determining project conformance with conditions. A deposit is collected to cover this staff review. Permit conformance with conditions must be demonstrated prior to release of building permit or initiation of use and at time of annual inspection. A conformance review deposit as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently \$750) shall be paid within sixty (60) days of the effective date of the permit or upon filing of the Compliance Agreement (where applicable), whichever occurs first. Payment shall be made to the Humboldt County Planning Division, 3015 "H" Street, Eureka.
6. The applicant is responsible for completing and implementing all mitigation measures outlined within the MMRP which shall be completed as required within the MMRP and the applicant/developer/responsible party shall provide all reporting as required in the MMRP.
7. An annual report shall be submitted outlining conformance with ongoing conditions and identifying conditions completed within the given year due January 1 of each year. This condition shall be implemented for the life of the project.
8. The approved building plans shall meet all applicable fire codes, including fire suppression infrastructure requirements deemed necessary for the project by the Building Inspection Division. Sign-off on the Occupancy Permit by the Building Division shall satisfy this requirement.
9. Prior to issuance of a demolition permit, the applicant shall obtain a permit for demolition activities from the North Coast Unified Air Quality Management District (NCUAQMD). A letter or similar communication from the NCUAQMD verifying that all their requirements have been met will satisfy this condition.

10. Prior to Phase 1 operation, the applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) permit for the use of the existing outfall pipe infrastructure to discharge the proposed treated wastewater associated with Project operations from the RWQCB. A letter or similar communication from the State Water Board verifying that all their requirements have been met will satisfy this condition.
11. Prior to demolition or earth moving activity the applicant shall provide a copy of the Storm Water Pollution Prevention Plan submitted to the RWQCB.
12. Before the import of any Construction and Demolition and Inert debris (CDI) not generated by the demolition or construction on any parcel subject to this project, the applicant will consult with DEH Solid Waste Local Enforcement Agency (LEA) program staff for regulatory parameters.
13. Prior to issuance of construction permits for Phase 1, the applicant shall obtain a permit for the use of the existing Onsite Wastewater Treatment System (OWTS) with the Division of Environmental Health (DEH).
14. Prior to approval of any permits for Phase 2 and prior to commencement of any work on the system, the applicant shall receive from DEH approval of an OWTS Destruction Permit for abandonment of the existing Onsite Wastewater Treatment System (OWTS) .
15. Prior to approval of any construction permits or commencement of any work, the applicant/developer shall complete the recommendations within the Landfill Gas Workplan (SHN January 2021) to verify that there is no hazard associated with landfill gasses generated at the Samoa Ash Disposal site. If landfill gasses are observed in exceedance of regulatory thresholds, a landfill gas collection and management system will be required.
16. The applicant shall comply with the California Health and Safety Code, Division 20, Chapter 6.95, Article 1, Health and Safety Code, Division 20, Chapter 6.5, Health and Safety Code, Division 20, Chapter 6.95, Article 2, Health and Safety Code, Division 20, Chapter 6.7, Health and Safety Code, Division 20, Chapter 6.67, Sections 25270-25270.13, and California Code of Regulations, Title 27, Division 2, Chapter 4.5. Implementation of these requirements shall be coordinated through the County of Humboldt's Certified Unified Program Agency (CUPA).
17. Prior to any construction activities an engineer's report shall be submitted to the Building Inspection Division certifying that the abatement and demolition activity has been completed in accordance with the issued Demolition Permit and other applicable permits.
18. As part of the application for a Building Permit, the applicant shall submit a landscaping plan for the off-street parking facility as described by Humboldt County Code Section 313-109.1.6.2 Landscaping. The landscaping material shall be appropriately placed within off-street parking areas that are equivalent to not less than two percent (2%) of the total area devoted to off-street parking including associated drives or aisles. The plan shall incorporate the use of native species to the extent practicable. The landscaping plan shall be reviewed and approved by the Planning Department prior to issuance of Building Permits. All landscaping shall be installed prior to occupancy. The landscaping shall be maintained in a healthy and clean condition for the life of the project.
19. Prior to Phase 1 Occupancy, the Applicant shall prepare and receive approval from the Planning and Building Department of a Transportation Management Plan designed to reduce the number of single-occupant commute vehicles traveling to the site each day. The plan shall provide measures to reduce the number of single occupant employee vehicles traveling to the site. The Transportation Management Plan may utilize various mechanisms to achieve this including but not limited to:

- a. Encourage ride-sharing and carpooling vanpooling. The operator of the facility should design and implement carpooling and ride-sharing incentive program for employees. For this to be considered effective, there must be incentives provided.
- b. Encourage employees to remain on-site during meal breaks by providing a break room with kitchen, catering options, or cafeteria.
- c. Work with the local transit authority to extend bus service to the site. The current bus transit stop is approximately 2-miles away. Installation of a transit stop in proximity to the project can be used to satisfy the condition.
- d. Install shower facilities and places for employees to dress for those who commute via bicycle.

An annual report detailing the measures implemented as part of the Transportation Management Plan shall be submitted to the Planning and Building Department by January 1 of each year.

20. The applicant shall obtain an encroachment permit from the Humboldt County Department of Public Works – Land Use Division for any signage located in the County right of way. Construction staging signage shall conform to the standards of the California Manual on Uniform Traffic Control Devices (CA MUTCD).

21. The applicant shall conduct the following monitoring activities as described in section 2.3.2 of the DEIR.

- a. Baseline monitoring prior to operation of the outfall. This monitoring shall commence once Phase 1 demolition is initiated.
- b. Post-discharge receiving water monitoring shall commence at discharge from Phase 1 and continue for three years following completion of Phase 2 operations (full facility discharge) following the same methodology as the baseline monitoring. The post-discharge monitoring would provide “before-after-control-impact” or “before-after-gradient” design for the biological monitoring program

The monitoring program would be conducted during the summer/fall period of upwelling “relaxation,” when conditions are least energetic, and dilution of the discharge would thus be lowest and would include baseline, pre-discharge monitoring. Two annual surveys would occur during the summer/fall period, ideally in August or September, separated by at least two weeks.

The monitoring shall

- i. Gather coastal oceanographic data with an acoustic doppler current profiler (ACDP) to measure current velocities (deployment and retrieval during the first and second surveys of each year, respectively), and the use of a conductivity, temperature, and depth (CTD) profiler to characterize spatial patterns of temperature and salinity of the ambient waters and any effects in proximity to the discharge. CTD profiles would be collected at approximately 100 to 300 feet (near diffuser) to approximately 500 to 1,000 feet (distant from diffuser), and reference profiles shall be collected greater than one mile from the diffuser. The deployment of the ADCP shall be within 0.5 mile of the diffuser at a similar depth.
- ii. Identify Water quality parameters including monitoring of nutrients (NH_x, NO_x, TN), suspended solids and turbidity, and chlorophyll. Sampling shall include near surface (~1-3 ft below surface and near seabed (approximately 5 feet above bottom) grab samples shall be collected at half of the profiling stations (proportionally by near the diffuser, far from the diffuser, and reference profiles) and analyzed by an appropriately accredited laboratory.

- iii. In addition to the biological sampling required under the NPDES permit, supplemental biological sampling shall be conducted to determine if effluent discharge is having a significant effect on biota in the Ocean Discharge Study Area, defined as the proximal marine waters as modelled in Appendix E to the DEIR. Supplemental biological sampling would occur concurrently with water quality monitoring. The study approach would utilize visual methods, either a remotely operated vehicle (ROV) and/or a drop camera with laser lights for scale. Transects and point surveys shall be conducted at a height of two to five feet above the bottom. Surveys shall be conducted outside of the zone of influence estimated in Appendix E of the DEIR for this time period (e.g., reference sites), and within the zone of influence, and along the discharge pipe, at approximately the 82 feet (25 meter) isobath.

The results of the monitoring shall be readily shared with Project stakeholders. Reporting shall be completed following each post-discharge monitoring event by a qualified consultant and shared with the County and stakeholders thereafter once each year.

22. The applicant/operator shall meet its energy needs in one of the following ways:
 - a. Purchase renewable and/or non-carbon energy through RCEA, relying on its available portfolio, or
 - b. Purchase a 100% non-carbon/renewable portfolio from one of the other Energy Service Providers (ESPs) in California.
 - i. Can be satisfied with the ESP's component of non-carbon/renewable and purchase of credits to ensure a 100% non-carbon/renewable portfolio.
 - ii. As technically and commercially feasible, Nordic will enter into Power Purchase Agreements (PPAs) with the proposed offshore wind project and/or other non-carbon, renewable electricity sources located in Humboldt County provided to increase the total cost of energy is not more than 10% above what Nordic could buy in the market of 100% renewable/non-carbon energy
23. The applicant shall submit a Tsunami Safety Plan to the Planning and Building Department for review and approval. The Plan shall consider evacuation routes, signage, and education trainings to inform employees and guests of the potential for tsunami inundation and identify active protective measures. Once approved, the Plan shall be made available at the NAFC Facility to members of the public and employees of the facility.
24. **Prior to issuance of any construction permits for phase 2, phase 1 of the project must be operating in compliance with the County CDP, RWQCB NPDES Permit, and any other local, state, or federal permit issued to Nordic or their successor. This shall be to the satisfaction of the Director of Planning and Building.**
25. **Nordic Aquafarms shall provide an annual Sustainability Report initiated within one year of operation, describing efforts to decarbonize trucking activities, GHG impacts associated with fish feed and other relevant issues. Nordic shall host a summit by invitation for the local NGOs, Community Leaders, Academia, Tribal Government Leadership and members of the public. In addition to reviewing Nordics Annual Sustainability Report, a forum is created where issues and solutions are discussed by all. Agreed upon elements can be incorporated into Nordic's sustainability goals in the following years. These collaborative solutions are not exclusive to Nordic, leaving opportunity for development of community wide initiatives and creating a cycle of sustainability improvements that can be adopted over the years. Sponsorship of these initiatives can be borne by Nordic up to an annual limit and can be combined with matching funds and sponsorships from various sources. At a minimum Nordic will provide \$25,000 annually to an appropriate community project.**

B. Ongoing Requirements/Development Restrictions Which Must be Satisfied for the Life of the Project:

1. For the life of the project, the applicant shall adhere to the Mitigation and Monitoring Reporting Program adopted for the project. Annual monitoring reports shall be made available to the Planning Department at the time of the annual inspection.
2. Lighting shall be shielded and down casted to preclude illumination of the night sky or light spillover onto adjacent properties.
3. The applicant shall adhere to the requirements of the NPDES Permit for the life of the project.
4. The applicant shall adhere to the requirements of the submitted SWPPP for the life of the project.
5. Ensure all generators be located on stable surfaces with a minimum 200 feet buffer from all waterways measured horizontally from the outer edge of the riparian drip zone, per CDFW referral comments received January 4, 2018.
6. All refuse shall be contained in wildlife proof storage containers and disposed of at an authorized waste management facility.

The emergency backup generators shall only be used during required testing (as outlined in the NCUAQMD's permit requirements) and power outages. Typical run time for testing would be approximately 10 hrs and would be no more than 50 hours per year.

7. The use of anticoagulant rodenticide is prohibited.
8. Inspections. The permit holder and subject property owner are to permit the County or representative(s) or designee(s) to make inspections at any reasonable time deemed necessary to assure that the activities being performed under the authority of this permit are in accordance with the terms and conditions prescribed herein.

EXHIBIT 2

HUMBOLDT COUNTY PLANNING & BUILDING DEPARTMENT MITIGATION MONITORING & REPORT PROGRAM

For the Nordic Aquafarms California, LLC Coastal Development Permit and Special Permit

Assessor Parcel Number: 401-112-021; Record Number: PLN-2020-16698

Mitigation measures were incorporated into conditions of project approval for the above referenced project. The following is a list of these measures and a verification form that the conditions have been met. For conditions that require on-going monitoring, attach the Monitoring Form for Continuing Requirements for subsequent verifications.

Agency Acronyms:

HCP&BD -Humboldt County Planning and Building Department

CDFW -California Department of Fish and Wildlife

CCC -California Coastal Commission

RWQCB -Regional Water Quality Control Board

NCUAQMD -North Coast Unified Air Quality Management District

USFWS -United States Fish and Wildlife Service

NMFS -National Marine Fisheries Service

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
	SECTION 3.2 - AIR QUALITY							
AQ-1	<u>Best Management Practices to Reduce Air Pollution:</u> The contractor shall implement the following BMPs during construction; the BMPs shall be included as notes on final construction plans: - Equipment and activity must not emit dust that is visible crossing the property line, except for short-term activities related to explosive demolition of the boiler building and smokestack. - All exposed surfaces (e.g., parking areas, staging areas, soil piles, active graded areas, excavations, and unpaved access roads) shall be watered two times per day in areas of active construction or as necessary in conjecture with other dust suppression methods (such as gravel application) to appropriately control dust. The County or NCUAQMD may require additional treatment in periods of high wind or other circumstances causing visible dust to be generated by the construction site. - All vehicle speeds on unpaved roads shall be limited to 15 mph, unless the unpaved road surface has been treated for dust suppression with water, rock, wood chip mulch, or other dust prevention measures. - All haul trucks transporting soil, sand, or other loose material off-site shall clean all side boards and headboards of material and be adequately wetted and covered. - Use of mud rumbler mats will be required to reduce off-site tracking of mud and dirt. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day, as necessary. The use of dry power sweeping is prohibited. - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. Clear signage shall be provided for construction workers at all access points. - All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. - Materials screening, transfer points on a belt conveyor, and crushers must have dust control measures such that: • No screening operation, or transfer point on a belt conveyor discharge into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour which are 50% as dark or darker in shade as that designated as number one on the Ringelmann Chart, or 10% opacity. • No crusher discharges into the air any visible emissions other than uncombined water vapor, for a period aggregating more than three minutes in any one hour which are 75% as dark or darker in shade as that designated as number one on the Ringelmann Chart, or 15% opacity. • Control measures may include installation and operation of spray bars on all conveyors; installation of shrouds at all drop points; or any other measure(s) deemed as effective as the prior listed measures.	Project Contractor	During Project construction	HCP&BD and NCUAQMD	A note detailing the BMPs shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			
AQ-2	<u>Best Management Practices to Reduce Asbestos Emissions During Demolition:</u> The contractor shall implement the following BMPs during abatement and demolition; the BMPs shall be included as notes on final demolition plans:	Project Contractor	During abatement	HCP&BD and NCUAQMD	A note shall be placed on all demolition and/or			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	- Work impacting material containing less than 1% asbestos (unclassified work) shall be performed in accordance with Class II asbestos work protocols as outlined in in 8 CCR 1529. - All interior asbestos abatement work impacting asbestos, including Class II and unclassified work, shall be performed within sealed negative-pressure containments. - Negative-pressure containments established at the interior of a structure shall be constructed and vented to the exterior in accordance with 8 CCR 1529. If additional suspect asbestos material is discovered during site work, then work in that area shall stop, the material wetted, and access to the area restricted until an appropriate asbestos characterization can be made.		and demolition		improvement plans. Adherence to BMPs shall be documented on a daily basis			
SECTION 3.3 – BIOLOGICAL RESOURCES								
BIO-1	<u>Implementation of Compensatory Mitigation for Loss of Dark-eyed Gilia:</u> Loss of dark-eyed gilia habitat shall be mitigated through compensatory mitigation at a ratio of no less than 3:1 (area). Prior to issuance of any construction related permits, a Restoration and Monitoring Plan (RMP) shall be submitted for review and approval by the Planning and Building Department after consultation with CDFW. The RMP shall be in substantial conformance with the RMP dated August 4, 2021, prepared by GHD. Both on-site and off-site methods, success criteria, monitoring requirements, and reporting requirements for mitigation shall be conducted as followed: - Pre-construction (non-native removal) surveys for rare plants, including dark-eyed gilia, shall occur at both on-site and off-site mitigation areas identified in the RMP. - Sensitive dark-eyed gilia habitats will be marked with flagging and signage prior to replanting designated on-site restoration areas to avoid disturbing the rare plant population. - The location of the off-site mitigation shall be identified, and all proposed work shall be specific to that location(s). - The established dark-eyed gilia population to be preserved on-site and translocation macroplots shall be searched for dark-eyed gilia during the blooming period. Macroplots measuring approximately 100 square meters (m2) are to be established at the time of translocation in the best available habitat and these will be marked by GPS in the field. - Successful mitigation of impacts to dark-eyed gilia is defined by protecting the remaining rare plant habitat along the southern boundary and translocating the population from the project footprint to suitable restored off-site habitat. - Annual success is defined by a total population estimate for dark-eyed gilia at restoration sites equivalent to the baseline population estimate within the project footprint, to be established by pre-project surveys in May 2022, as detailed in the RMP. - Monitoring shall be implemented for a minimum 5-year period with annual	Project Applicant/ Qualified Biologist	Pre-construction surveys prior to construction. Monitoring shall be implemented for a minimum of 5 years	HCP&BD and CDFW	Prior to issuance of any construction related permits			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	reports provided to the Planning and Building Department. Each report shall identify the expected success criteria, whether the criteria has been satisfied, and remedial actions needed to achieve the success criteria. Monitoring, reporting and corrective actions shall continue until the success criteria has been achieved for two consecutive years starting in year 4. Year 1: After density-based population sampling to obtain baseline population estimates, dark-eyed gilia seeds will be collected from the Project footprint and broadcast at designated restoration macroplots. The remaining population outside of the footprint will be preserved. Year 2-5: Dark-eyed gilia shall be counted and/or systematically sampled at restoration sites. Establishment of total population numbers equal to or greater than the 90 percent confidence interval for the baseline population estimate shall indicate success. Annual monitoring will begin by navigating by GPS to the established macroplots. Transects spaced every 3m will be carefully walked to search for and count dark-eyed gilia plants where they are sparse. If plants become too numerous to reliably count, a systematic sampling scheme comparable to baseline monitoring may be implemented to obtain a good population estimate. The assessment of population health and adaptive management recommendations for additional reseeding shall be included in annual reports submitted to the Planning and Building Department for approval.							
BIO-2	<u>Protect Special Status Terrestrial Mammals</u> : The construction plans will specify that steep-sided excavations capable of trapping mammals shall be ramped or covered if left overnight. No pets (i.e., dogs) shall be allowed on the Project Site during construction. Trash receptacles shall be covered and removed from site at least weekly. Trash shall be managed so that it is not a nuisance, fire hazard, or attract animals. No poisons (including anticoagulant rodenticides) or other potentially injurious materials attractive to mammals shall be utilized or left unattended during construction or operation activities	Project Applicant	During Project construction and operation	HCP&BD	A Note to be placed on all construction plans			
BIO-3	<u>Protect Special Status Bats</u> : Buildings on-site will be demolished in the following two-phase sequence. 1. The following buildings will be removed as part of the first phase of demolition during daylight hours only (following naming in Appendix C2; WRA 2021a, Table 2, page 4-5). Phase 1 buildings listed below may be removed in any order. a. Machine Building b. Warehouse c. Existing Offices d. Brick Silos (all) e. Structure (concrete) f. Structure 2 (concrete) g. 3-Story Boiler Building h. 2-Story Building Near Smokestack i. Elevated Water Tanks j. Smokestack	Project Contractor	During demolition	HCP&BD	Prior to issuance of demolition permit, building removal phasing, including proposed times and dates of removal shall be submitted to HCP&BD			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	k. 12-Story Boiler Building and Attached Structure l. Foundations & Structures, Footings 2. Following removal of the Phase 1 buildings listed above, Phase 2 buildings will be removed in any order and include the Pump House, Sub Fl. 2, and Filter/Softener Tank Building during daylight hours only.							
BIO-4	<u>Protect Special Status Amphibians:</u> - No more than one week prior to commencement of ground disturbance within 50 feet of the anthropogenic rectangular concrete pool, a qualified biologist shall perform a pre-construction survey for NRLF and shall relocate any individuals or egg masses that occur within the work-impact zone to nearby suitable habitat. - If any NRLF are observed during the pre-construction survey, CDFW shall be consulted to determine the best way to avoid impacts to NRLF. Ground-disturbing activities should be conducted during the dry season (May 15-October 15) to minimize take of NRLF. If construction activities are conducted within the dry season (May 15-October 15), exclusion fencing shall be installed around the work area prior to October 15 to prevent NRLF from migrating into work areas. The fencing material and design shall be reviewed and approved by the Planning and Building Department in consultation with CDFW before installation. - In the event a NRLF is encountered on-site during construction, all construction activities will cease until the animal has left the Project area on its own and is no longer in danger of harm. The project construction manager or project biologist will report the sighting to CDFW within 24 hours. No one other than a CDFW-approved biologist is permitted to handle or capture NRLF, and NRLF will not be taken or harassed. - An Environmental Awareness Training will be provided to the construction crew prior to commencement of construction activities. This "tailgate" training is intended to enable the construction crew to be able to identify NRLF and to safely relocate them outside of the Project Site.	Project Applicant/ Qualified Biologist	Prior to Project construction	HCP&BD and CDFW	7 days prior to ground disturbance. Results of Survey shall be provided to HCP&BD. Surveys shall be approved by staff prior to issuance of permit authorizing ground disturbance within designated area.			
BIO-5	<u>Protect Special Status, Migratory, and Nesting Birds:</u> In order to mitigate potential impacts to special status migratory and nesting birds, one of the following measures shall be implemented: 1. If ground disturbance (i.e., ground densification and building demolition) or vegetation clearing is conducted outside the avian nesting season (March 15 – August 15) the applicant, contractor or responsible individual for the construction shall submit a construction timeline indicating dates of work to be implemented to the Planning and Building Department prior to construction or demolition permits and/or commencing of densification, ground disturbance, and/or vegetation clearing. Any deviation from this approved timeline shall require prior approval from the Planning and Building Department. Or 2. If ground disturbance occurs during the nesting season, a qualified ornithologist shall conduct preconstruction surveys within the vicinity of the Project Site to check for nesting activity of native birds and to	Project Applicant/ Qualified Biologist/ Qualified Ornithologist	Prior to and during Project construction	HCP&BD, CDFW, and USFWS	Construction timeline to be submitted prior to any permits issued related to ground disturbance. Surveys shall be completed no more than 7 days prior to ground disturbance according to submitted schedule.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	evaluate the site for presence of raptors and special status bird species in the buildings subject for demolition. The ornithologist shall conduct at minimum a one-day preconstruction survey within the 7-day period prior to vegetation removal, demolition, and ground-disturbing activities. If ground disturbance, demolition, or vegetation removal work lapses for seven days or longer during the breeding season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated. The report from the ornithologist shall be submitted to the Planning and Building Department prior to issuance of a Notice to Proceed before commencing demolition or construction activity. If active nests are detected within the construction footprint or up to 500 feet from construction activities, the ornithologist shall flag a buffer around each nest (assuming property access). A plan showing the buffer shall be submitted to the Planning and Building Department prior to commencement of construction activities. Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged, or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers will be implemented as needed (buffer size dependent on species). Buffer sizes for common species would be determined on a case-by-case basis in consultation with CDFW and, if applicable, with USFWS. Buffer sizes will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds. If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, separating trucks in queue to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors. Upon completion of the survey, a memo will be provided to the Planning and Building Department that will describe the methods and results of the survey and				Surveys must be approved by staff prior to the issuance of any permits related to ground disturbance.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
	any related recommendations. All requirements and recommendations of the ornithologist shall be conditions of the Coastal Development Permit and shall be incorporated into the construction plans.							
BIO-5a	<u>Protection of Osprey</u> : Any new Osprey nests established within the Project Site that require relocation will be removed (after nesting has occurred) and replaced at a 1:1 ratio in consultation with CDFW. The Harbor District shall develop an Osprey Management Plan for current and future osprey nests. The Osprey Management Plan shall include performance criteria such as no-net-loss of osprey breeding territories with sufficient alternative nest sites within the Project area, and that any created nest sites are of equal or higher quality than nests removed.	Project Applicant/ Qualified Biologist	Prior to and during Project construction and operation	HCP&BD and CDFW	Prior to ground disturbance, if identified by Ornithologist within 7 days of construction schedule pursuant to MM 5.			
BIO-6	<u>Limits on Soil Densification Construction to Avoid Impacts to Marine Mammals</u> : When soil densification construction occurs within the Phase 2 Grow-Out Module footprint as shown in Image 4-7 above (Appendix J, Illingworth and Rodkin 2021), soil densification shall only occur when the tidal surface water elevation is below the 330-foot (100 meter) radius where Level B injury could occur. Final construction plans shall show the tidal elevation that corresponds with the 330-foot radius shown in Figure 2 of the Project's Hydroacoustic, Noise, and Vibration Assessment (Appendix J, Illingworth and Rodkin 2021). In addition, final construction plans shall also show the explicit portion of the Phase 2 Grow-Out Module required to adhere to soil densification construction during low tide conditions.	Project Applicant/ Project Contractor	Prior to construction of Phase 2 Grow-Out Module	HCP&BD	A note shall be placed on Final Construction Plans.			
BIO-6a	<u>Protection of Longfin Smelt</u>: The Humboldt Bay Harbor District shall mitigate for the potential loss of Longfin Smelt larvae due to entrainment by the intakes. The number of larvae that could potentially be entrained by the intakes is currently estimated to be approximately 24,000. A more precise number will be confirmed when monthly larval surveys are completed in December 2022 followed by entrainment modeling. Mitigation shall consist of the following: 1. Habitat creation or enhancement to provide Longfin Smelt spawning, rearing, or nursery habitat capable of producing the number of Longfin Smelt larvae lost to entrainment. Habitat creation or enhancement shall be within tributaries of Humboldt Bay in areas of fresh and/or brackish water and shall create habitat suitable for spawning and may include debris (e.g., pile) removal. 2. The area of habitat to be provided will be based on the area needed to support the number of spawning female Longfin Smelt needed to provide the target number of larvae. The mitigation will be based on an estimate that a single female Longfin Smelt requires 43 square feet (4 square meters) for spawning. 3. For this mitigation measure, the number of larvae produced per female is 1,000. 4. The total mitigation area will be calculated on a 1:1 basis. The equation to determine mitigation area will be: $([\text{larvae entrained}]/[1,000 \text{ larvae per female}]) * (43 \text{ square feet})$. Based on current sampling and calculations	Project Applicant/ Qualified Biologist	Prior to operation of Phase 1 of the facility	HCP&BD and CDFW	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance																						
						Initials	Date	Comments																				
	the mitigation area would be $(24,000/1,000)*43 = 1,032$ square feet of habitat replacement area. Habitat restoration to mitigate for Longfin Smelt entrainment shall be completed prior to operation of Phase 1 of the facility.																											
BIO-7a	<u>Implement Compensatory Mitigation for Sensitive Natural Communities:</u> Loss of Sensitive Natural Communities shall be mitigated through compensatory mitigation based on the ratios (acreages) stated below. Mitigation shall include removal of invasive European beachgrass, yellow bush lupine scrub, and other non-natives on- and off-site in locations where restoration planting is being conducted. On-site restoration is preferred by jurisdictional permitting resource agencies. - Coastal Brambles: No less than 3:1, on-site only - Dune Mat: No less than 2:1, on-site and off-site (BIO-1 can be combined with this requirement in which case the mitigation ratio is 3:1) - Pre-construction surveys for rare plants shall occur at both on-site and off-site mitigation areas, as identified in the RMP - Annual success criteria shall be defined as follows in Table 3.3-3: Table 3.3-3 Annual Success Criteria <table><tr><td rowspan="5">Invasive Vegetation</td><td>1</td><td>≥50% Reduction in target invasive plant cover (absolute) at dune restoration sites.</td></tr><tr><td>2</td><td>≥65% Reduction in target invasive plant cover at dune restoration sites.</td></tr><tr><td>3</td><td>≥80% Reduction in target invasive plant cover at dune restoration sites.</td></tr><tr><td>4</td><td>≥90% Reduction in target invasive plant cover at dune restoration sites.</td></tr><tr><td>5</td><td>≥95% Reduction in target invasive plant cover at dune restoration sites.</td></tr><tr><td>Native Dune Mat</td><td>5</td><td>Dune restoration areas (at all sites) are dominated by native dune mat species (≥50% relative percent cover).</td></tr><tr><td>Native Coastal Brambles</td><td>5</td><td>Coastal brambles restoration areas are dominated by native species associated with the community (≥50% relative percent cover).</td></tr><tr><td>Maintenance</td><td>All Years</td><td>The restoration crew completed invasive plant removal on schedule.</td></tr></table>	Invasive Vegetation	1	≥50% Reduction in target invasive plant cover (absolute) at dune restoration sites.	2	≥65% Reduction in target invasive plant cover at dune restoration sites.	3	≥80% Reduction in target invasive plant cover at dune restoration sites.	4	≥90% Reduction in target invasive plant cover at dune restoration sites.	5	≥95% Reduction in target invasive plant cover at dune restoration sites.	Native Dune Mat	5	Dune restoration areas (at all sites) are dominated by native dune mat species (≥50% relative percent cover).	Native Coastal Brambles	5	Coastal brambles restoration areas are dominated by native species associated with the community (≥50% relative percent cover).	Maintenance	All Years	The restoration crew completed invasive plant removal on schedule.	Project Applicant/ Qualified Biologist		HCP&BD and CDFW	Prior to occupancy of Phase 1			
Invasive Vegetation	1		≥50% Reduction in target invasive plant cover (absolute) at dune restoration sites.																									
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Native Coastal Brambles	5	Coastal brambles restoration areas are dominated by native species associated with the community (≥50% relative percent cover).																										
Maintenance	All Years	The restoration crew completed invasive plant removal on schedule.																										
BIO-7b	<u>Construction Protocol for Protection of ESHA:</u> Prior to issuance of any permits, orange net or other appropriate fencing shall be placed around the 35-foot ESHA setback or at the limit of the Fire Road encroachment. The fencing shall remain in place throughout the construction period to prevent vehicles, equipment, or materials from entering the ESHA. The grading plans for the project site shall design finished pad grades to not result in grade changes at the edge of the buffer or fire road within the ESHA buffer.	Project Contractor/ Project Engineer	Prior to issuance of any permits	HCP&BD	Prior to issuance of any permits; AQ																							
HWG-1	<u>Implement Stormwater Pollution Plan (SWPPP):</u> Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure HWQ-1: Implement Stormwater Pollution Prevention Plan (SWPPP).	Project Contractor	Prior to and during Project construction	HCP&BD	A Note shall be placed on all improvement plans																							
HWG-3	<u>Protection of Water Quality During Pile Removal:</u> Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure HWQ-3: Protection of Water Quality During Pile Removal.	Project Contractor/	During Project construction	HCP&BD,	Applicant shall submit proof that HWQ-3 has been																							

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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		Crane and Excavator Operators		Harbor District, CCC and RWQCB	complied with prior to occupancy of Phase 1			
GEO-2	<u>Construction Best Management Practices</u> : Refer to Chapter 3.2 (Geology and Soils), Impact (b), for the full text of Mitigation Measure GEO-2: Construction Best Management Practices.	Project Contractor	During Project construction	HCP&BD	A Note shall be placed on the plans			
Spartina PEIR BIO-1	<u>Minimize Effects of Mechanical Spartina Removal Methods to Special Status Fish Species</u> : On a project specific basis, a habitat analysis shall be done to determine if special status fish species have the potential to occur. If they could occur, then surveys may be done to establish that these species are absent, using protocols approved by USFWS or NMFS. If such surveys are not conducted, then the species will be assumed present. If special status fish species are present, then Spartina control methods will be selected that minimize potential impacts. To minimize erosion effects, control methods that are most likely to cause erosion (i.e., grinding, filling, disking and digging/excavating) will not occur within 15 ft of any aquatic habitat containing special status fish species, but this distance could be increased depending on site specific conditions, such as soil stability and bank slopes. Additionally, amphibious vehicles will not contact the channel substrate where special status fish species are present, and the vehicles will be operated in such a manner that they avoid causing erosion into the channels. Furthermore, no flooding will be conducted in areas where special status fish species are present. Treatments that do not involve ground disturbance, such as top mowing, crushing, and covering will be the only methods used in close proximity (e.g., within 15 ft) to special status fish species. This mitigation measure is intended to avoid take as defined by the ESA and California ESA (H.T. Harvey & Associates and GHD 2013, page 62).	Qualified Biologist	Prior to Project construction	HCP&BD, CDFW, USFWS, and NMFS	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR BIO-2	<u>Minimize Noise Effects</u> : Breeding special status birds could be present based on habitat and time of year. The breeding season is generally October through mid-August. On a project specific basis, a habitat analysis shall be done to determine if special status bird species have the potential to occur. If the habitat would support special status birds, and if eradication is planned to occur when these birds may be breeding, then surveys will be done to establish that these species are absent, using protocols approved by USFWS. If such surveys are not conducted, then the species will be assumed present. Response of birds to noise varies by species as well as site specific factors including ambient noise levels, topography and vegetation. A limit of 60 dB reaching breeding songbirds has recently been advocated for the by the California Department of Fish and Wildlife (see ICF Jones and Stokes 2009 as cited in H.T. Harvey and GHD 2013). For the purpose of this PEIR, if breeding birds are known or assumed present within close proximity to Spartina control activities than actions will be taken to ensure that ≤60 dB reaches the breeding area. Actions may include the use of sound measuring devices to determine the range of noise production and limit Spartina control methods accordingly (i.e., use quieter methods near breeding special-status birds) (From 2013 Spartina PEIR, H.T. Harvey & Associates and GHD 2013, page 63).	Qualified Biologist	Prior to Project construction	HCP&BD and CDFW	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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Spartina PEIR BIO-3	<u>Minimize Impacts to Special Status Plant Species:</u> On a site specific basis, a habitat analysis shall be done to determine if special status plant species have the potential to occur. If they could occur, then surveys may be done to establish that these species are absent, using protocols approved by CDFW. If such surveys are not conducted, then the species will be assumed present. If special status plant species are present, then Spartina control methods will be selected that avoid or minimize potential impacts. Staked locations of special status plant populations or special status plant habitat shall be recorded, and field crews on foot or in vehicles shall be instructed to avoid and protect special status plant populations or plant habitat. Impact to the endangered dune plants beach layia and Humboldt Bay wallflower will be avoided by selecting access routes that do not contain these plants. For Humboldt Bay owl's clover and Point Reyes bird's beak, avoidance is determined not to be necessary because temporary effects during Spartina control are mitigated by the explosive increase in population that has been demonstrated after Spartina control (Pickart 2012 as cited in H.T. Harvey and GHD 2013). For other annual special status plants such as Western sand spurrey, avoidance shall occur by using only treatment methods that are highly selective; for example heavy equipment will not be operated where these plants or their habitat occur. For perennial plants such as Lyngbye's sedge, a qualified botanist shall stake out locations of special status plants and provide training to control crews to ensure that they minimize impacts to these plants. If special status plant populations or habitat occur near the high tide line, wrack and large deposits of mown Spartina shall be removed during the growing season. To avoid trampling of special status plant species, in areas where frequent access will occur, paths shall be marked and used that avoid special status plant species to the maximum extent possible (H.T. Harvey & Associates and GHD 2013, page 64).	Qualified Biologist	Prior to Project construction	HCP&BD and CDFW	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR BIO-3	<u>Avoid Northern Harrier and Short-Eared Owl Nests:</u> The breeding season is March-August for northern harriers (Loughman and McLandress 1994 cited in H.T. Harvey and GHD 2013) and March-July for short-eared owls (Gill 1977 cited in H.T. Harvey and GHD 2013). If Spartina control activities are planned to occur during these periods (i.e., between March-August) then a qualified biologist will assess whether there is potential nesting habitat for northern harrier or short-eared owls. If there is potential habitat, it will be avoided, or a qualified biologist will survey the potential habitat immediately prior to Spartina control work and if nests are found then a minimum 300 ft buffer zone will be delineated. The buffer zone will be avoided by Spartina control workers and equipment (From 2013 Spartina PEIR, H.T. Harvey & Associates and GHD 2013, page 63).	Qualified Biologist	Prior to Project construction	HCP&BD and CDFW	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR BIO-5	<u>Avoid Impacts to Eelgrass:</u> - Workers removing Spartina in areas with the potential for eelgrass shall be trained to recognize eelgrass and the mudflats that are habitat for eelgrass. Training shall be conducted by a qualified biologist. Only methods that avoid physical disturbance to eelgrass plants shall be used in close proximity to eelgrass, such as top mowing and excavation. With this mitigation measure, there will be no impact to eelgrass (H.T. Harvey & Associates and GHD 2013, page 66-67).	Qualified Biologist	Prior to Project construction	HCP&BD and CDFW	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades,			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	<u>Temporary Loss of Habitat to Northern Harrier and Short-Eared Owl</u> - The northern harrier may experience temporary and limited loss of nesting and foraging habitat when Spartina infested areas are treated. Similarly, the short-eared owl may temporarily lose a limited amount of breeding habitat. Effects on these species will be short-term (up to two years but likely less). Based on the short-term nature of these impacts, effects are less than significant, and no mitigation is required (From 2013 Spartina PEIR, H.T. Harvey & Associates and GHD 2013, page 63).				documentation shall be provided to HCP&BD			
Spartina PEIR BIO-6	<u>Reduce Noise near Marine Mammals</u> : If marine mammals are present within 200 feet of Spartina control operations, then methods which cause relatively high levels of noise (i.e., brushcutters, the Marsh Master, and airboats) shall not be used. Other construction methods which do not generate a relatively high level of noise can be used (From 2013 Spartina PEIR, H.T. Harvey & Associates and GHD 2013, page 67).	Qualified Biologist	Prior to Project construction	HCP&BD, CDFW, and NMFS	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR WQ-3	<u>Minimize Fuel and Petroleum Spill Risks</u> : Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure Spartina PEIR WQ-3: Minimize Fuel and Petroleum Spill Risks.	Project Contractor	During Project construction	HCP&BD and NCRWQCB	A note detailing the spill prevention plan criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily. Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
Spartina PEIR WQ-6	<u>Designate Ingress/Egress Routes</u> : Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure Spartina PEIR WQ-6: Designate Ingress/Egress Routes.	Project Applicant/ Project Contractor	Prior to and during Project construction	HCP&BD	Prior to occupancy of Phase 1 and prior to the issuance of			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
					any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR WQ-7	<u>Removal of Wrack</u> : Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure Spartina PEIR WQ-7: Removal of Wrack.	Project Construction/ Qualified Biologist	Prior to Project construction	HCP&BD	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
Spartina PEIR HHM-2	<u>Accidents Associated with Release of Chemicals and Motor Fuel</u> : Refer to Chapter 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure Spartina PEIR HHM-2: Accidents Associated with Release of Chemicals and Motor Fuel.	Project Contractor/ Equipment Operators	Prior to and during Project construction and operation	HCP&BD and NCRWQCB	Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
SECTION 3.4 – CULTURAL RESOURCES								
CR-1	<u>Implementation of Protocols for Cultural Monitoring During Ground Disturbance</u> : NAFC shall retain a qualified cultural resource monitor who is approved by the Wiyot Tribe, Bear River Band of the Rohnerville Rancheria, and the Blue Lake Rancheria to monitor ground disturbing activities related to this Project in areas the Tribes deem culturally sensitive. The three Tribal Historic Preservation Officers or their functional equivalent shall be contacted to set up and implement a cultural monitoring contract when a construction schedule has been determined. Advanced coordination with the qualified cultural monitor is required. As landowner, the Humboldt Bay Harbor, Recreation, and Conservation District (landowner) shall be provided with written verification for compliance. NAFC shall adhere to the Standard Operating Procedures for Inadvertent Archaeological Discovery (General), as detailed in the Archaeological and Historical Resource Investigation Report prepared for the Project by Roscoe and Associates (2020).	Project Applicant/ Qualified Cultural Resource Monitor	During Project construction	HCP&BD, NAHC, and THPOs	Prior to issuance of a permit for ground-disturbing activities, agreement for cultural resource monitoring shall be provided to HCP&BD			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
CR-2	<u>Implementation of Inadvertent Discovery Protocols</u> : If cultural or historic-era resources are encountered during construction activities, the contractor onsite shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist, as well as the Tribal Historic Preservation Officers for the Bear River Band Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe shall be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided. The Humboldt Bay Harbor, Recreation, and Conservation District (landowner) shall also be notified. In the event of inadvertent discoveries, the Standard Operating Procedures as outlined by Roscoe and Associates (2020) shall be followed. NAFC shall adhere to the Standard Operating Procedures for Inadvertent Archaeological Discovery (General) and Standard Operating Procedures for Documenting Inadvertent Archaeological Discoveries, as detailed in the Archaeological and Historical Resource Investigation Report prepared for the Project by Roscoe and Associates (2020).	Project Contractor/ Qualified Archaeologist	During Project construction	HCP&BD, NAHC, and THPOs	A note shall be placed on all construction plans			
CR-3	<u>Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered</u> : If human remains are discovered during Project implementation, all work shall be halted and the Humboldt Bay Harbor, Recreation, and Conservation District (landowner) and tribal representatives shall be contacted immediately. The Humboldt Bay Harbor, Recreation, and Conservation District shall contact the County Coroner immediately and the Coroner would evaluate the find to determine the subsequent course of action, including notification of tribal representatives. In the event of inadvertent discoveries, the Standard Operating Procedures as outlined by Roscoe and Associates (2020) shall be followed, including Standard Operating Procedures for Inadvertent Discovery of Native American Remains and Grave Goods.	Project Contractor	During Project construction	HCP&BD, County Coroner, NAHC, and THPOs	A note shall be placed on all construction plans			
SECTION 3.6 – GEOLOGY AND SOILS								
GEO-1	<u>Implement Geotechnical Recommendations</u> : As part of the Project design process, NAFC has engaged a California-registered Geotechnical Engineer to conduct a design-level geotechnical study for the Project. NAFC shall ensure that the Project is designed to comply with the site-specific recommendations identified in the Project's geotechnical report prepared for the Project by SHN (2020) and any subsequent geotechnical recommendations prepared as the Project's design advances. Geotechnical recommendations require designs in accordance with the seismic and foundation design criteria, as well as site preparation and grading recommendations included in the report. The geotechnical recommendations shall be incorporated into the final plans and specifications for the Project and shall be implemented during construction.	California-Registered Geotechnical Engineer/ Project Contractor	Prior to and during Project construction	HCP&BD	Adherence to geotechnical recommendations shall be placed on all construction plans			
GEO-2	<u>Construction Best Management Practices</u> : The contractor shall implement BMPs during construction, including the following BMPs from the current California Stormwater BMP Handbook for Construction: EC-1: Scheduling; EC-2: Preservation of Existing Vegetation; NS-2: Dewatering Operations; NS-9: Vehicle Equipment and Fueling; NS-10: Vehicle & Equipment Maintenance; WM-2: Material Use; WM-4: Spill Prevention and Control. Additionally, the following conditions shall be required during construction:	Project Contractor	During Project construction	HCP&BD	A note shall be placed on all construction plans. A note detailing the BMPs shall be placed on all improvement			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	- Silt fences shall be deployed as needed at onshore construction areas to prevent any sediment from flowing into Humboldt Bay. Required silt fence and erosion control locations and specifications for installation shall be included in the final construction plan set. If the silt fences are not adequately containing sediment, construction activity shall cease until remedial measures are implemented that prevents sediment from entering the waters east of the construction area; - Construction materials and debris shall not be placed or stored where it may be allowed to enter into or washed by rainfall into Humboldt Bay; - Best Management Practices (BMPs) shall be implemented to prevent: 1) entry of stormwater runoff into Humboldt Bay during construction, 2) the entrainment of excavated contaminated materials leaving the site, and 3) the entry of polluted stormwater runoff into coastal waters during the transportation and storage of excavated materials. These BMPs will be included in the Stormwater Pollution Prevention Program (SWPPP), which is required for the Project (see Section 3.9 – Hydrology and Water Quality); • Construction Storm Water Pollution Prevention Plan (SWPPP): The SWPPP shall be required to be implemented during the demolition and construction phases of the project. The SWPPP shall be submitted to the SWRCB Stormwater Multiple Application and Report Tracking System website (SMARTS) and contain the following components: best management practices to address erosion and sediment control, monitoring and testing for site runoff, an inspection program, and site maps. The SWPPP shall be updated and documented in the annual reporting to the RWQCB during the project to reflect changes in conditions (Mitigation Measure HWQ-1). - Non-essential work vehicles and equipment shall be parked at least 100 feet away from the shoreline; - Sufficient erosion control supplies shall be maintained on-site at all times, available for prompt use in areas susceptible to erosion during rain events; - Disturbance of existing vegetation shall be minimized to only areas approved for development; - Dewatering operations shall be conducted in the event that groundwater is encountered at the work location and stored or disposed of appropriately. Any groundwater encountered during demolition and construction that requires removal would be pumped into appropriate containers, such as Baker tanks for characterization. Excavation depths for construction are not anticipated to extend to groundwater and the use of dewatering wells for the Project is not planned (SHN 2020b). Water sourced from dewatering shall not be discharged to on-site one-parameter wetlands or Humboldt Bay; - Dewatering and Discharge Plan (DDP): It is not anticipated that groundwater will be encountered during demolition or construction, but in the event that it is encountered, development of a plan for water management that includes handling, storage, testing, treatment,				plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	monitoring, and discharge shall be prepared for the project and submitted to the RWQCB for approval to complete the project. The plan shall use available groundwater testing results to identify appropriate treatment and include a monitoring program to ensure discharge parameters contained in the permit are met. The approved plan shall be submitted to the Planning and Building Department prior to water management activities; - Vehicle and equipment maintenance shall not occur within 100 feet of Humboldt Bay or wetlands; - As required in the SWPPP, contractor shall ensure that the site is prepared with BMPs prior to the onset of any storm predicted to receive 0.5 inches or more of rain over 24 hours; - All erosion and sediment control measures shall be maintained in accordance to their respective BMP fact sheet until disturbed areas are stabilized. Erosion and sediment control measures shall be explicitly included in the final construction plan set and shall be conditions of the Coastal Development Permit; and - The Stormwater Pollution Prevention Plan (SWPPP) may not cover all the situations that arise during construction due to unanticipated field conditions. Variations may be made to the SWPPP in emergency circumstances in the field subject to the approval of or at the direction of The Regional Water Quality Control Board and NAFC Project Manager or Construction Manager.							
GEO-3	<u>Inadvertent Discovery of Paleontological Resources</u>: In the event that fossils are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they would be properly curated and preserved.	Project Contractor/ Qualified Paleontologist	During Project construction	HCP&BD	A note shall be placed on all construction plans			
HWQ-1	<u>Implement Stormwater Pollution Prevention Plan (SWPPP)</u>: Refer to Section 3.9 (Hydrology and Water Quality), for the full text of Mitigation Measure HWQ-1 Implement Stormwater Pollution Prevention Plan.	Project Contractor	Prior to and during Project construction	HCP&BD	A note shall be placed on all construction plans			
Spartina PEIR GS-1/ WQ-5	<u>Erosion Control</u>: Spartina control methods which directly impact the soil (i.e., grinding, tilling, disking, digging and excavation) shall not be conducted on salt marsh areas that are within 15 ft of a salt marsh edge that is directly exposed to wave action. Other control methods can be used in these areas. This mitigation measure only applies to salt marsh edges along Humboldt Bay proper where wave	Project Operator	Prior to and during Project construction	HCP&BD	Prior to occupancy of Phase 1 and prior to the issuance of any construction			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	action is relatively high, not attached sloughs/channels nor the Eel River or Mad River estuaries.		and operation		permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			
SECTION 3.8 – HAZARDS AND HAZARDOUS MATERIALS								
HAZ-1	<u>Implement Recommendations of Interim Measures Work Plan</u>: To address historic soil and groundwater contaminants remaining at the Project Site from historic use, the Project will implement recommendations included in the Interim Measures Work Plan developed by SHN (2020b). Interim measures in the plan include the following required actions to be implemented before and or during demolition and construction activities: - Monitoring and Reporting Program (MRP): Site redevelopment has the potential to affect 18 existing monitoring wells at the site. Modifications to the existing MRP will be required to address proper closure and replacement of wells. Prior to ground disturbance, a request for modifications to the MRP shall be submitted to the RWQCB that includes a work plan for well destruction and replacement for implementation prior to initiation of site demolition work. Justification for wells to be completely removed from the MRP shall be provided in the request with supporting documentation. - Construction Storm Water Pollution Prevention Plan (SWPPP): The SWPPP shall be required to be implemented during the demolition and construction phases of the project. The SWPPP shall be submitted to the SWRCB Stormwater Multiple Application and Report Tracking System website (SMARTS) and contain the following components: best management practices to address erosion and sediment control, monitoring and testing for site runoff, an inspection program, and site maps. The SWPPP shall be updated and documented in the annual reporting to the RWQCB during the project to reflect changes in conditions (Mitigation Measure HWQ-1). - Sampling and Analysis Plan (SAP): Prior to demolition and ground disturbance, the project SAP shall be submitted to the RWQCB for approval. The SAP shall describe protocols and procedures that shall be implemented for characterization of chemical impacts associated with past operations at the site. The SAP shall address characterization of excavated soils, assessment of final in-place conditions, and testing of materials for reuse or offsite disposal. The SAP shall be the primary guide used to determine suitability of material for reuse. The use of Incremental Sampling Methodology (ISM) for characterization of soils is the preferred approach to assess suitability of reuse. The SAP shall contain the ISM program to evaluate the chemical quality of the material. The approved SAP shall be submitted to the Planning and Building Department prior to demolition and ground disturbance.	Project Applicant/ Project Contractor	Prior to and during Project demolition and construction	HCP&BD, NCRWQCB, DEH, CalRecycle, and NCUAQMD	<u>Recommendations of Interim Measures Work Plan</u> shall be placed on all construction plans			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	- Dewatering and Discharge Plan (DDP): It is not anticipated that groundwater will be encountered during demolition or construction, but in the event that it is encountered, development of a plan for water management that includes handling, storage, testing, treatment, monitoring, and discharge shall be prepared for the project and submitted to the RWQCB for approval to complete the project. The plan shall use available groundwater testing results to identify appropriate treatment and include a monitoring program to ensure discharge parameters contained in the permit are met. The approved plan shall be submitted to the Planning and Building Department prior to water management activities. - Soil Gas Monitoring Program: The planned project development will occur within 1,000 feet of the Samoa Solid Waste Disposal Site (SWDS). An evaluation of soil pore gas from the SWDS will be required, per Title 27 California Code of Regulations Section 20925. A work plan to address soil gas conditions shall be submitted to the Humboldt County Department of Environmental Health and CalRecycle for approval and implementation. The workplan shall contain installation of soil gas probes and a monitoring program to evaluate subsurface conditions and potential impacts to site development. One year of site monitoring for soil gas is anticipated to be completed as part of this assessment program. - Health and Safety Plan (HASP): Preparation of a site-specific health and safety plan shall be required for workers that may come in contact with contaminated materials. The HASP shall outline procedures, training requirements, and contain applicable monitoring programs to limit worker exposure. A hazard analysis must be performed in accordance with industry standards to determine the appropriate level of personnel protection required for completing the work. The HASP shall be submitted to Planning and Building Department for approval prior to demolition activities - Demolition Plan: Standard demolition and excavation equipment will be used to remove structures and to segregate the material for sorting and processing. A demolition plan shall be prepared for the project that describes the approach and processes to be implemented by the selected contractor. The plan shall be an overview that evaluates all structures designated for removal and shall require augmentation as it relates to specific engineering or onsite activities requiring additional planning. Special handling and disposal of building materials identified to be impacted during the site-wide hazardous materials survey will be conducted (GHD, 2020). Separate plans provided by specialized contractors to address the removal and disposal of lead, asbestos-containing material, and universal waste shall be prepared as part of the demolition permit for National Emission Standards for Hazardous Air Pollutants compliance and submitted to the North Coast Air Quality Management District. Approval of these plans will be required prior to							

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	initiation of site wide demolition activities. As structures are demolished, the material shall be segregated and stockpiled. Non-hazardous debris will be transported offsite for disposal as municipal solid waste (MSW) and metals shall be recycled. Much of the concrete, brick, and tile is considered usable material and machines will sort and downsize the material for preparation as onsite reuse or recycling. A Demolition Plan shall be submitted to the Planning and Building Department prior to issuance of a demolition permit. - Excavation of Soils: Soils excavated during demolition and construction at the site shall be screened in the field according to methods described in Section 4.3 of the IMWP and stockpiled appropriately. To evaluate whether excess soil can be reused onsite or disposed of offsite, samples of the soil shall be collected and tested, and the results compared to established screening levels. Excavated soils identified to have impacts from mill operations that require offsite disposal shall be moved for temporary stockpiling to a secure area of the site that is away from routine traffic and is high enough that water will not pond on or around the soil. The contaminated soil shall be placed on, and covered with, plastic (Visqueen®) in such a way that the soil pile is protected from water runoff and runoff. Soils that are not hazardous shall be considered for site reuse if analytical results are below the published regulatory thresholds for residential or industrial soils. See Table 1 in the Interim Measures Work Plan (Appendix G) for Regulatory Screening Thresholds for Site Reuse. - Field Screening: Field screening of debris and excavated soils shall occur through visual observation and hand-held tools that shall be outlined in the project SAP. All debris and excavated soils shall be assessed for visible discoloration or staining, and if noticeable odors are present. Use of a hand-held Niton XLp 702A x-ray fluorescence (XRF) meter for metals and a portable photoionization detector (PID) for VOCs shall be used to assist in field screening activities. The use of a pH meter for extracted water and pH strips on soil mixed with deionized water shall additionally be implemented in the field to assess levels present. Construction materials such as concrete and brick shall be tested in the field for metals using the XRF prior to being processed (crushed) for reuse onsite. Exterior surfaces of materials selected for field screening shall be analyzed using the device's "standard bulk" mode, which includes analysis for 15 elements. Records of concentrations of cadmium, chromium, lead, nickel, and zinc shall be maintained through the field screening program. Frequency of testing with the XRF and for quality control shall be developed based on the volume of material and the Area of Interest (AOI) of generation for RWQCB approval and implementation in the project SAP. All meter readings for soil samples screened in the field for metals and VOCs will be recorded on logs or daily field record sheets and kept on file. - Quality Assurance and Quality Control and Reporting: The project SAP shall outline quality assurance and control quality (QA/QC) for the field							

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	program and laboratory testing. Standard Operating Procedures shall be provided for field activities and the designated testing laboratory quality assurance manual shall be included. A frequency according to industry standards for the number of samples to be analyzed, duplicate requirements, and testing limits for COPCs shall be determined based on the volumes of material generated. Following the completion of the field and testing program, a summary of findings shall be prepared and submitted on behalf of NAFC to the RWQCB. The report shall include a description of the work performed, a summary of field screening and laboratory testing results, analytical laboratory reports, maps depicting the analytical results, and recommendations for additional work, if necessary. The report and supporting documentation shall be provided to the Planning and Building Department at the same time of submittal to the RWQCB.							
AQ-2	<u>Best Management Practices to Reduce Asbestos Emissions During Demolition</u> : Refer to Section 3.2 (Air Quality), Impact (d), for the full text of Mitigation Measure AIR-2: Best Management Practices to Reduce Asbestos Emissions During Demolition.	Project Contractor	During abatement and demolition	HCP&BD and NCUAQMD	A note shall be placed on all construction plans with conformance verified on a monthly basis during the duration of development			
GEO-2	<u>Construction Best Management Practices</u> : Refer to Section 3.2 (Geology and Soils), Impact (b), for the full text of Mitigation Measure GEO-2: Construction Best Management Practices.	Project Contractor	During Project construction	HCP&BD	A note shall be placed on all construction plans			
HWQ-1	<u>Implement Stormwater Pollution Prevention Plan (SWPPP)</u> : Refer to Section 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure HWQ-1: Implement SWPPP.	Project Contractor	Prior to and during Project construction	HCP&BD	A note shall be placed on all construction plans			
HWQ-3	<u>Protection of Water Quality During Pile Removal</u> : Refer to Section 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure HWQ-1: Implement Stormwater Pollution Protection Plan (SWPPP).	Project Contractor/ Crane and Excavator Operators	During Project construction	HCP&BD and Harbor District	A note shall be placed on all construction plans			
Spartina PEIR WQ-3	<u>Minimize Fuel and Petroleum Spill Risks</u> : Refer to Section 3.9 (Hydrology and Water Quality), Impact (a), for the full text of Mitigation Measure HWQ-1: Implement Stormwater Pollution Protection Plan (SWPPP).	Project Contractor	During Project construction	HCP&BD and NCRWQCB	A note detailing the spill prevention plan criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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HWQ-1	<u>Implement BMPs as part of Construction Permitting and Stormwater Pollution Prevention Plan (SWPPP) for Terrestrial Development:</u> The Project will implement, at a minimum, the list of Best Management Practices identified below as part of approved construction permits and as part of compliance with State Water Resources Control Board (Water Board) Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities. NAFC will include these requirements on all construction plans and submit permit registration documents (notice of intent, risk assessment, site maps, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the Water Board. The SWPPP will address pollutant sources, BMPs, and other requirements specified in the Order. The following BMPs are the minimum necessary to reduce potential impacts to a less than significant level: <u>General Construction</u> a) Construction activities shall be scheduled and sequenced to minimize the areal extent and duration of site disturbance at any time. b) Drainage from outside the construction area shall be directed away from or around the site through use of berms, ditches, or other structures to divert surface runoff. c) Install weed-free fiber rolls, straw-wattles, coir logs, silt fences, or other effective devices along locations where water drain off the construction site. d) All graded slopes shall receive slope protection measures such as fiber rolls, drainage ditches, or erosion control fabrics to minimize the potential for concentrated surface runoff to cause erosion. e) Implement wind erosion or dust control procedures consisting of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance generated by construction activities. The contractor may choose to cover small stockpiles or areas as an alternative to applying water or other dust palliatives. f) Control water application rates to prevent runoff and ponding. Repair leaks from water trucks and equipment immediately. <u>Hazardous Materials</u> a) Hazardous materials shall be stored in areas protected from rain, provide secondary containment and must be a minimum of 100 feet from any wetland or Environmentally Sensitive Habitat Area. b) Implement the following hazardous materials handling, storage, and spill response practices to reduce the possibility of adverse impacts from use or accidental spills or releases of contaminants: i. Conduct all refueling and servicing of equipment more than 100 feet from any wetland or Environmentally Sensitive Habitat Area with absorbent material or drip pans underneath to contain spilled fuel. Collect any fluid drained from machinery during servicing in leak-	Project Contractor	Prior to and during Project construction	HCP&BD	A note detailing the BMPs and SWPPP criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	proof containers and deliver to an appropriate disposal or recycling facility. ii. Prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or surface water. <u>Dewatering and Treatment Controls</u> In the event dewatering is determined to be necessary the following steps shall be taken: a) Prepare a dewatering plan prior to excavation. b) Impound dewatering discharges in sediment retention basins or other holding facilities to settle the solids and provide treatment prior to discharge to receiving waters as necessary to meet Basin Plan water quality objectives.							
HWQ-2	<u>Implement BMPs as part of Construction Permitting and Stormwater Pollution Prevention Plan (SWPPP) for the Water Intakes:</u> The Harbor District shall implement, at a minimum, the list of Best Management Practices identified below as part of approved construction permits and as part of compliance with State Water Resources Control Board (Water Board) Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities. The Harbor District will include these requirements on all construction plans and submit permit registration documents (notice of intent, risk assessment, site maps, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the Water Board. The SWPPP will address pollutant sources, BMPs, and other requirements specified in the Order. The following BMPs are the minimum necessary to reduce potential impacts to a less than significant level: <u>General Construction</u> a) Construction activities shall be scheduled and sequenced to minimize the areal extent and duration of site disturbance at any time. b) Drainage from outside the construction area shall be directed away from or around the site through use of berms, ditches, or other structures to divert surface runoff. c) Install weed-free fiber rolls, straw-wattles, coir logs, silt fences, or other effective devices along locations where water drain off the construction site. d) All graded slopes shall receive slope protection measures such as fiber rolls, drainage ditches, or erosion control fabrics to minimize the potential for concentrated surface runoff to cause erosion. e) Implement wind erosion or dust control procedures consisting of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance generated by construction activities. The contractor may choose to cover small stockpiles or areas as an alternative to applying water or other dust palliatives.	Harbor District/ Project Contractor	Prior to and during Project construction	HCP&BD and SWRCB	A note detailing the BMPs and SWPPP criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	f) Control water application rates to prevent runoff and ponding. Repair leaks from water trucks and equipment immediately. <u>Hazardous Materials</u> a) Hazardous materials shall be stored in areas protected from rain, provide secondary containment and must be a minimum of 100 feet from any wetland or Environmentally Sensitive Habitat Area. b) Implement the following hazardous materials handling, storage, and spill response practices to reduce the possibility of adverse impacts from use or accidental spills or releases of contaminants: i. Conduct all refueling and servicing of equipment more than 100 feet from any wetland or Environmentally Sensitive Habitat Area with absorbent material or drip pans underneath to contain spilled fuel. Collect any fluid drained from machinery during servicing in leakproof containers and deliver to an appropriate disposal or recycling facility. ii. Prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or surface water. <u>Dewatering and Treatment Controls</u> In the event dewatering is determined to be necessary the following steps shall be taken: a) Prepare a dewatering plan prior to excavation. b) Impound dewatering discharges in sediment retention basins or other holding facilities to settle the solids and provide treatment prior to discharge to receiving waters as necessary to meet Basin Plan water quality objectives.							
HWQ-3	<u>Protection of Water Quality During Pile Removal:</u> The following requirements shall be implemented during the removal of piles in and near the waters of Humboldt Bay. A Harbor District staff or representative will be present to ensure adherence to these requirements. - Neither the barge nor the tug will anchor during the project. The barge may attach to existing piles in order to maintain its position. - Piles will be removed during a tide of sufficient elevation to float the barge and tug boat adjacent to the piles being removed without scarring the mudflats or injuring eelgrass. - Grounding of the barge is not permitted. - A floating containment boom shall be installed and maintained around each pile being removed to collect any debris including debris floating below the surface but not sinking to the bottom, weighted plastic mesh (similar to orange construction fencing) will be attached to the boom and extended across the area surrounding the pile. If debris sinks to the bottom, then it shall be removed by a diver.	Project Contractor/ Crane and Excavator Operators	During Project construction	HCP&BD and Harbor District	A note shall be placed on all plans related to pile removal. Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades, documentation shall be provided to HCP&BD			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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	- Any equipment used shall be without leaks of any coolant, hydraulic fluid, transmission fluid, or petroleum products. All equipment shall be checked before use in order certify that there are no fluid leaks. A spill response kit, including oil absorbent pads shall be on-site to collect any petroleum product accidentally released. - Crane excavator and tug operators shall be experienced with vibratory pile removal. - The crane or excavator operator shall break the soil/pile bond prior to pulling in order to minimize pile breakage and sediment adhesion. - Piles shall be removed slowly to limit sediment disturbance. - Piles shall not be hosed off, scraped, or otherwise cleaned once they are removed from the sediment. - Piles shall be placed in a containment area on the barge to capture sediment attached to the piles. - The containment area shall include a structure around the perimeter which precludes sediment or contaminated water from reentering the bay. - Holes left in the sediment by the removed pilings will not be filled. They are expected to naturally fill. - Piles and debris shall be removed from the barge and moved to a designated site for disposal preparation in such a manner as to prevent <u>release of debris or contaminated material</u>. Prior to disposal, the piles and debris will be stored on paved areas, <u>in containers, or on impermeable material</u>. <u>Debris will be stored</u> covered with tarps and surrounded by a soil erosion boom in order to prevent potential leaching or discharge of debris or contaminated material. - All removed piles or portions of piles shall be disposed of at an authorized facility. Piles or portions of piles shall not be re-used in Humboldt Bay or along shoreline areas. - Land operations shall not be conducted in wetlands in proximity to the staging site.							
GEO-2	<u>Construction Best Management Practices</u> : Refer to Chapter 3.2 (Geology and Soils), Impact (b), for the full text of Mitigation Measure GEO-2: Construction Best Management Practices.	Project Contractor	During Project construction	HCP&BD	A note detailing the BMPs shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			

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HAZ-1	<u>Implement Recommendations of Interim Measures Work Plan:</u> Refer to Chapter 3.8 (Hazards and Hazardous Conditions), Impact HAZ-b, for the full text of Mitigation Measure HAZ-1: Implement Recommendations of Interim Measures Work Plan.	Project Applicant/ Project Contractor	Prior to and during Project demolition and construction	HCP&BD, NCRWQCB, DEH, CalRecycle, and NCUAQMD	A note detailing the Interim Measures Work Plan criteria shall be placed on all improvement plans.			
Spartina PEIR WQ-3	<u>Minimize Fuel and Petroleum Spill Risks:</u> Fueling operations or storage of petroleum products shall be maintained off-site, and a spill prevention and management plan shall be developed and implemented to contain and clean up spills. Transport vessels and vehicles, and other equipment (e.g., mowers) shall not be serviced or fueled in the field except under emergency conditions; hand-held gas-powered equipment shall be fueled in the field using precautions to minimize or avoid fuel spills within the marsh. For example, gas cans will be placed on an oil drip pan with a PIG® Oil-Only Mat Pad placed on top to prevent oil/gas contamination. Only vegetable oil-based hydraulic fluid will be used in heavy equipment and vehicles during Spartina control efforts. When feasible, biodiesel will be used instead of petroleum diesel in heavy equipment and vehicles during Spartina control efforts. Other, specific BMPs shall be specified as appropriate to comply with the Basin Plan and the other applicable Water Quality Certifications and/or NPDES requirements. This mitigation is intended to be carried out in conjunction with Mitigation HMM-2 in order to reduce potential impacts to less than significant level (H.T. Harvey & Associates and GHD 2013, page 126).	Project Contractor	During Project construction	HCP&BD and NCRWQCB	A note detailing the spill prevention plan criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily. Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
Spartina PEIR WQ-6	<u>Designate Ingress/Egress Routes:</u> Temporary ground disturbance associated with site ingress/egress, staging, stockpiling, and equipment storage areas could occur in areas outside and adjoining work areas. Where areas adjacent to staging and stockpile areas are erosion prone, the extent of staging and stockpile shall be minimized by flagging their boundaries. An erosion/sediment control plan shall be developed for erosion prone areas outside the work area where greater than 0.25 acre (0.1 hectare) of ground disturbance may occur as a result of ingress/egress, access roads, staging and stockpile areas. The erosion/sediment control plan shall be developed by a qualified professional and identify BMPs for controlling soil erosion and discharge for treatment-related contaminants. The erosion/sediment control plan shall be prepared prior to any ground disturbing activities and implemented during construction (H.T. Harvey & Associates and GHD 2013, page 128).	Project Applicant/ Project Contractor	Prior to and during Project construction	HCP&BD	A note detailing the sediment and erosion control criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily.			

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					Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
Spartina PEIR WQ-7	<u>Removal of Wrack</u> : During site specific planning, tidal circulation will be visually assessed. In areas with relatively low tidal circulation, it will either be assumed that dissolved oxygen levels are depressed, or monitoring will be conducted to determine if dissolved oxygen levels are depressed. In treatment areas located within or adjacent to waters known or expected to have depressed dissolved oxygen, if wrack is generated during the treatment process, the wrack shall be removed from the treatment area subject to tidal inundation or mulched finely and left in place (H.T. Harvey & Associates and GHD 2013, page 129).	Project Construction/ Qualified Biologist	Prior to Project construction	HCP&BD	A note shall be placed on all improvement plans, Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
Spartina PEIR HHM-2	<u>Accidents Associated with Release of Chemicals and Motor Fuel</u> : Contractors and equipment operators on site during Project activities will be required to have emergency spill cleanup kits immediately accessible. If fuel storage containers are utilized exceeding a single tank capacity of 660 gallons or cumulative storage greater than 1,320 gallons, a Hazardous Materials Spill Prevention Control and Countermeasure Plan (HMSPCCP) would be required and approved by the NCRWQCB. The HMSPCCP regulations are not applicable for chemicals other than petroleum products; therefore, the contractor shall prepare a spill prevention and response plan for the specific chemicals utilized during Project activities (H.T. Harvey & Associates and GHD 2013, page 85).	Project Contractor/ Equipment Operators	Prior to and during Project construction and operation	HCP&BD and NCRWQCB	A note detailing the Hazardous Materials Spill Prevention Control and Countermeasures criteria shall be placed on all improvement plans. On-site construction manager shall ensure staff is trained and use of BMPs is documented daily. Proof of Approval by the NCRWQCB is required prior to permit issuance for construction activities. Prior to occupancy of			

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					Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			

Mitigation Measures and Applicant Proposed Operating Restrictions: