COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING DIVISION

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Date: August 4, 2022

To: Humboldt County Planning Commission

From: John H. Ford, Director of Planning and Building Department

Subject: **Nordic Aquafarms California, LLC,**
Coastal Development Permit and Special Permit
Record Number: PLN-2020-16698
Assessor's Parcel Number (APN): 401-112-021
364 Vance Avenue, Samoa Area

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Please contact Cade McNamara, Planner II, at (707) 268-3777 or by email at cmcnamara@co.humboldt.ca.us if you have any questions about the scheduled public hearing item.

AGENDA ITEM TRANSMITTAL

Hearing Date	Subject	Contact
August 4, 2022	Coastal Development Permit and Special Permit	Cade McNamara

Project Description: The applicant (Nordic Aquafarms California, LLC (NAFC), is requesting a Coastal Development Permit and Special Permit for the demolition and remediation of the Freshwater Tissue Samoa Pulp Mill facility and the construction of a land-based finfish recirculating aquaculture system (RAS) facility. This includes the development of five buildings totaling approximately 766,530 square feet and the installation of 4.8 megawatt (MW) solar panel array mounted on building rooftops, covering approximately 657,000 square feet. The height of the tallest proposed building is 60 feet.

The aquaculture facility would produce fresh head on gutted fish and fillets for delivery to regional markets. The species to be produced at the facility is intended to be Atlantic Salmon, pending approval from CDFW. The project will include ancillary support features such as 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 via modernized water intake (sea chest) infrastructure located adjacent to the NAFC Project Site, which will be operated by the Humboldt Bay Harbor, Recreation, and Conservation District. 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 volume of 12.5 MGD is anticipated to be released daily. Wastewater discharge is permitted by the North Coast Regional Water Quality Control Board.

The Project will be conducted in two phases and is comprised of the following activities: demolition of existing pulp mill infrastructure; soil contamination remediation; ground densification; aquaculture facility construction; decommission of an existing leach field and connection to the Samoa wastewater treatment system for Phase 2. The Project is located 1,000 feet east of the Samoa Solid Waste Disposal Site (SWDS). A Special Permit is required pursuant to Sections 313-109.3.12 and 313-109.1.5.2 for an exception to the parking and loading space requirements.

Project Location: This project is located in the Samoa area, east of Vance Avenue, approximately 2,000 feet north from the intersection of Vance Avenue and Bay Street, on the property known as 364 Vance Avenue.

Present Plan Land Use Designation: Industrial, Coastal Dependent (MC), Density: N/A; Industrial, General (IG), Density: N/A; Humboldt Bay Area Plan (HBAP), 2017 General Plan, Slope Stability: Relatively Stable (0) and Moderate Instability (2).

Present Zoning: Industrial: Coastal Dependent (MC), Archaeological Resource Area Outside Shelter Cove (A).

Record Number: PLN-2020-16698

Assessor Parcel Number: 401-112-021

Applicant	Owner	Agent
Nordic Aquafarms California, LLC C/O Brenda Chandler PO Box 1477 Eureka, CA 95502	Humboldt Bay Development Association C/O Larry Oetker P.O. Box 1030 Eureka, CA 95502	GHD C/O Andrea Hilton P.O. Box 1010 Eureka, CA 95502

Environmental Review: Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act (CEQA) Statute (Public Resources Code 21000–21189) and Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387).

State Appeal Status: Project is appealable to the California Coastal Commission.

Major Issues: Energy, Hazardous Waste, Water Quality, Water Intake and Outfall, Biological Resources, Tsunami Hazards, Parking and Transportation.

Nordic Aquafarms California, LLC
Coastal Development Permit and Special Permit
Record Number: PLN-2020-16698
Assessor's Parcel Number: (APN): 401-112-021

Recommended Planning Commission Action:

1. Open discussion for Panning Commissioners to deliberate action on the Environmental Impact Report prepared for the Project and discuss the Coastal Development Permit and Special Permit applied for; and
2. Ask questions to staff, the applicant, and the property owner as needed; and
3. Close the public hearing and adopt the resolutions to take the following actions:
   (a) Certify the Environmental Impact Report prepared for the Nordic Aquafarms California, LLC, the project has been prepared in compliance with CEQA pursuant to Section 15090 or 15092 of the State CEQA Guidelines; and
   (b) Make all required findings for approval of the Coastal Development Permit and Special Permit; and
   (c)Approve the Nordic Aquafarms California, LLC, Coastal Development Permit and Special Permit subject to the recommended conditions.

Executive Summary: Nordic Aquafarms California, LLC (NAFC), seeks a Coastal Development Permit and Special Permit to allow demolition and remediation of the existing Pulp Mill site, and construction of a land-based finfish recirculating aquaculture system (RAS) facility consisting of five buildings totaling 766,530 square feet. The facility will include installation of 4.8 megawatt (MW) solar array mounted on building rooftops, covering approximately 657,000 square feet. The subject site is a 76 -acre parcel located in the Samoa area, on both sides of Vance Avenue, approximately 2,000 feet north from the intersection of Vance Avenue and Bay Street, on the property known as 364 Vance Avenue. The proposed project is on the east side of Vance Avenue within a 36-acre lease area. The EIR has been prepared to address the entire project from construction to operation, considering the water intake and effluent from the facility. Nordic Aquafarms California, LLC (NAFC) is the applicant for the Terrestrial Development and Ocean Outfall components, and the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District) is the applicant and responsible party for the Humboldt Bay Water Intakes. The facility is estimated to employ around 90-100 employees for Phase 1, and up to 150 for full Phase 2 buildout and operation. The facility will operate 24 hours per day and seven days per week, with regular operation occurring Monday-Saturday. Employees will work in two shifts, one early morning and one late afternoon. It is estimated that the morning shift will consist of about 60 employees in Phase 1, increasing to approximately 90 in Phase 2. The evening shift will have roughly 30 employees in Phase 1, increasing to approximately 60 in Phase 2. Aside from shift arrival and departure, on-site traffic will be limited to personnel movement, deliveries, and outgoing shipments of products and coproducts. Fish movement within the site will be handled by subgrade piping and thus will not add to surface traffic.

Staff is recommending that the Planning Commission Certify the EIR and Approve the Coastal Development Permit and Special Permit for this project.

July 28, 2022; Planning Commission Meeting:

During the July 28th Public hearing, the Planning Commission received presentations from Humboldt County Planning and Building Staff, the Humboldt Bay Harbor, Recreation, and Conservation District, and the applicant (NAFC). Public comment proceeded the presentations and was closed after all speakers had an opportunity to speak. Fifty-nine (59) comments were received during this duration. The Planning Commission unanimously voted to continue the discussion and decision on the proposed project/EIR certification to the following hearing on August 8, 2022.

August 4, 2022, Planning Commission Action/Recommendation:

The Planning Commission has been provided with revised Conditions of Approval. Changes include the edit or inclusion of three (3) Conditions of Approval. These additions are as follows:

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.

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.

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

ATTACHMENT 1

RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF HUMBOLDT

Resolution Number 22-

CERTIFING COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
CASE NUMBER: PLN 2020-16698
ASSESSOR'S PARCEL NUMBER: 401-112-021

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 allow the construction of a land-based aquaculture facility; and

WHEREAS, the Humboldt County Planning Commission held a duly-noticed public hearing on **August 4, 2022,** and reviewed, considered, and discussed the CEQA document, along with the application for a Coastal Development Permit and Special Permit and reviewed and considered all evidence and testimony presented at the hearing.

Now, THEREFORE BE IT RESOLVED, that the Planning Commission makes all the following findings:

1. **FINDING**

Project Description: A Coastal Development Permit and Special Permit for the demolition and remediation of the Freshwater Tissue Samoa Pulp Mill facility and the construction of a land-based finfish recirculating aquaculture system (RAS) facility. This includes the development of five buildings totaling approximately 766,530 square feet and the installation of 4.8 megawatt (MW) solar panel array mounted on building rooftops, covering approximately 690,000 square feet. A Special Permit is required pursuant to 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 to be produced at the facility is intended to be Atlantic Salmon, pending approval from CDFW. The Project will include ancillary support features such as 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 is provides a complete description of all activities associated with site development and operation.

2. **FINDING:** **Lead Agency -** The County of Humboldt is designated as the lead agency for permitting demolition and remediation of the Freshwater Tissue Samoa Pulp Mill facility and construction of a land-based finfish recirculating aquaculture system (RAS) facility for Nordic Aquafarms LLC (Project).

EVIDENCE: a) The County has permit authority of the terrestrial portion of the proposed project. The intake and outfall permits are being permitted by the Harbor District through the California Coastal Commission and to evaluate the whole of the project the environmental effects of these components were included in the EIR with the County as the Lead Agency.

b) For purposes of CEQA, the County of Humboldt was designated as the lead agency per CEQA Guidelines sections 15050(a) and 15051, for the Project because the County is the public agency with the greatest responsibility for supervising or approving the project as a whole.

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 and 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, a decision was made to prepare an Environmental Impact Report.

c) The County issued a Notice of Preparation of a Draft Environmental Impact Report on May 28, 2021, and conducted an agency scoping meeting on June 10, 2021, and a separate public meeting the evening of June 10, 2021. The NOP was sent to state agencies, property owners within 1,000 feet of the project site, people who expressed an interest in the project and the County issued a press release for the NOP and it was posted with the State Clearinghouse between May 28, 2021, and June28, 2021.

d) The scoping meeting with the public 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. The Agency meeting was attended by 4 agencies and the comments focused on emissions from the facility, landfill gas, water outfall monitoring and improvements for the intake.

e) The NOP elicited 12 comment letters.

f) In accordance with CEQA Guidelines section 15082(c) the County of Humboldt conducted meetings with the California Department of Fish and Wildlife, Regional Water Quality Control Board, California Coastal Commission and National Marine Fisheries Service to understand how to address comments made on the IS/MND and scope the discussion and mitigation contained in the EIR.

g) The Draft Environmental Impact Report (EIR) (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 filed with the State Clearing House on December 20, 2021.

h) 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.

i) The Environmental Impact Report (EIR) includes 18 mitigation measures which have been incorporated into a Mitigation Monitoring and Reporting Plan and is being adopted as part of the project.

j) 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 Humboldt County regulations 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)

k) The Draft EIR elicited 242 public comments, 12 from local, state, and federal agencies, 19 from non-governmental organizations, 79 from individuals, and 132 letter of support.

l) Each of the comments on the DEIR were identified, considered, and evaluated with and responded to. To better address comments that were common to many commentors 8 Master Responses were prepared which addressed specific topics including: Truck Traffic and Road Safety, Greenhouse Gas and Energy, Fish Escape, Fish Health and Biosecurity, Marine Outfall, Statements Unrelated to Environmental Issues, Intake Biologic Productivity, Substantial Evidence, Speculation, and Unsubstantiated Opinion, Level of Detain in EIR and Responses to Comments, Fish Feed, and Waste Handling and Disposal.

m) A Final EIR was prepared. The Final EIR includes an Introduction, Comments and Responses, Comments Received following the close of Public Circulation, Errata to the DEIR, References, and a list of preparers in the document titles FEIR. The Total contents of the FEIR are the DEIR the FEIR document, and the Errata to the FEIR.

n) In preparation for public hearings on the project, the County held 2 public workshops, including at the Planning Commission on April 21, 2022 (online)and

May 19, 2022 (Planning Commission), where the Commission and public were presented with the project and the components of the EIR.

o) The FEIR was made available for review by the Planning Commission, public and agencies who commented on the DEIR on July 1, 2022 (27 days before the public hearing) consistent with CEQA Guidelines section15089. 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.

p) 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 were provided to everybody who received instructions of how to obtain the FEIR.

q) The EIR (DEIR/FEIR) was prepared by a consultant under contract to the applicant and administrative drafts were presented to the County staff for review and approval. The documents were not released for public review until the contents of the DEIR and FEIR reflected the independent judgement of the County.

r) Public Notice was given for the Public Hearing on the Project including the description that the Planning Commission would consider certification of the EIR prepared for the project in accordance with CEQA Guidelines 15202(e).

s) 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 has fulfilled the obligations under AB 52 (CEQA 21080.3.1) consulting with tribes to determine if there is the potential for tribal cultural resources associate 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 associate with the site to government to government consultation.

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. As of July 21, 2021, the County

sent out a letter stating there had been no response to the June 4 invitation and the offer to consult would be closed as of July 23, 2021 unless a request for consultation was received.

f) On August 21, 2021, the County met with the Bear River Band of the Rohnerville Rancheria to discuss the project and answer questions.

g) On October 21, 202,1 the County met with the Wiyot Tribe to discuss the project and answer questions.

5. **FINDING** **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 evaluated in the EIR.

EVIDENCE The project site does not include any farmland, forest land, or timberland, or land zoned for these uses thus there could be no impact.

There are no known mineral resources or mining operations in the area and thus there is no impact.

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.

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.

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** In Section 3.1 of the DEIR, the approach to addressing cumulative impacts was addressed, and the DEIR addresses Cumulative impacts.

EVIDENCE a) Cumulative Impacts 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

7. **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 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 are impact determinations are from the individual questions addressed in the DEIR take from Appendix G of the CEQA Guidelines. In this finding less than significant and no impact are combined to be differentiated from those impacts requiring mitigation.

EVIDENCE

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. The project will not individually contribute to a cumulative impact on aesthetics and visual resources.

b) The impact on biology related to adverse effects on riparian or other sensitive natural communities is less than significant for the ocean discharge and water intakes are less than significant because there is no impact on habitat area from the water intake or discharge.

c) The impact on biology related to adverse effects on wetlands is less than significant for the ocean discharge, water intakes, or compensation work are less than significant 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 h the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites is less than significant because the project will not interfere with any known migration route.

e) The project will not conflict with any local policies or ordinances 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) The cumulative impact to biological resources is less than significant because the primary impacts are construction related and of short duration.

g) There are no historical resources located on the site and so the impact is less than significant. 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.

h) 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.

i) The project will not result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation not will it conflict with or obstruction of a state or local plan for renewable energy or energy efficiency and will not result in a cumulatively significant impact to energy resources. The project will use a significant amount of power for operation of pumps and filters, but the applicant has agreed to purchase power that is renewable or non-carbon in accordance with the Redwood Coast Energy Authority objectives.

This is in line with state and local ambitions to minimize greenhouse gas emission through power production. The impact is less than significant.

j) 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.

k) The project will not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs or contribute to a cumulatively significant impact relative to GHG emissions. The primary source of GHG emissions could be production of electricity, but the applicant has agreed to purchase power produced from renewable or non-carbon sources and thuse the impact is less than significant.

l) The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, emit hazardous emissions, involve handling of hazardous materials, 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, will not interfere with an adopted emergency response plan or emergency evacuation plan and will not result in a cumulative impact relative to exposing the public to hazards, and thus the impact related to Hazards and Hazardous materials is less than significant.

m) 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 will water quality control plans or sustainable ground water management plans or individually contribute to cumulative impacts to groundwater or drainage impacts. The site will not use ground water and the source of water the bay for salt water and part of the existing Mad River water allocation. There are not any drainage features on site that will be impacted and thus the impact is less than significant.

n) 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 and thus would not contribute to a cumulative noise impact making the impact associated with noise a less than significant impact.

o) 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.

p) The project does not require extending or significant upgrading existing utility infrastructure and there is sufficient water supplies to serve the project, the planned wastewater treatment plan has been designed to accommodate development of this site, the solid waste generated by the site will be reused to

the extent feasible consistent with statewide waste reduction targets, and the project will not result in cumulative impact result in a less than significant impact related to utilities.

q) 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.

8. **FINDING** **ENVIRONMENTAL IMPACTS MITIGATED TO LESS THAN SIGNIFICANT –** The EIR identified potentially significant impacts to air quality, that could result from the project and provides mitigation measures to reduce these impacts to a less that 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. Ground disturbing activities shall be conducted outside of avian nesting season to protect special status avian species.
vi. Soil Densification shall only occur during certain tidal elevations to avoid Impacts to Marine Mammals
vii. 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.
viii. 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.
ix. Sensitive communities shall be replaced through compensatory Mitigation for Coastal Brambles and Dune Mat.

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 a 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.

9. **FINDING** The Final EIR reflects the County of Humboldt's independent judgment and analysis. The Planning Commission 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 received a copy of the DEIR on December 20,2021and FEIR on July 1, 2022. The EIR was presented to the Planning Commission in its entirety and the Planning Commission 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.

c) The Planning Commission deliberated on the information presented.

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 clarify the commitment to use the energy mix committed to by RCEA 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 requiring the Humboldt Bay Harbor District mitigate for the potential loss of Longfin Smelt larvae due to entrainment by the intakes by removing piles from the Bay. CDFW did not agree with this mitigation as adequate for the potential loss of LFS Larvae. In consultation with CDFW a revised mitigation measure was developed to establish what the actual loss of larvae is projected to be and require that suitable spawning, nursery and rearing habitat be created. This mitigation measure is an equivalent or more effective in mitigating for potential significant effects. The impact determination remains the same with this revised mitigation measure, and the creation of new spawning, rearing, or nursery habitat does not create a new adverse impact not previously identified, so recirculation is not needed for this revised mitigation measure.

10. **FINDING** An equivalent and more effective mitigation measure has been substituted for mitigation Bio 6a. This mitigation sought to provide additional habitat for Long Fin Smelt to compensate for the potential entrainment of LFS larvae through removal of piles in the bay. The new mitigation measure will require providing habitat specifically for Long Fin Smelt spawning, rearing and nursery habitat.

EVIDENCE a) The Comments from CDFW expressed concern that compensatory habitat should be at the life stage of the larvae. Creating habitat for spawning, rearing and nursery life stages fits this request.

11. **FINDING** The environmental resource consideration of Area of Productivity Forgone from the water intake from Humboldt Bay was found to be a less than significant CEQA Impact, but it is an impact that the Coastal Commission will evaluation and address as part of their Coastal Development Permit. The EIR has evaluated the impacts of providing mitigation for this compensation. In

accordance with CEQA Guidelines Section 15091(a)(2) the County will not take action on Area of Productivity Forgone.

EVIDENCE a) The Harbor District has filed a Coastal Development Permit to the California Coastal Commission for the upgrade of the water intakes.

12. **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.

13. **FINDING** **CEQA ALTERNATIVES TO THE PROPOSED PROJECT –** In compliance with CEQA Guidelines section 15126.6, the DEIR considered several alternatives to the Project. The EIR considered the alternatives described below which are more fully described in the DEIR.

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
3. environmental impacts associated with long-distance air shipment of seafood
4. To produce nutritious seafood for the West Coast market free of antibiotics and avoidance of GMOs
5. To construct and operate a fresh water-efficient aquaculture facility with a minimal environmental impact
6. To provide approximately 150 fulltime jobs, including engineers, biologists, administration staff, maintenance
7. staff, fish processing, and other operations staff
8. To remediate existing environmental contamination at the Project Site associated with a former industrial site
9. (brownfield) encountered during demolition and re-development of the site
10. Redevelop an existing underutilized industrial site absent residential neighbors to minimize environmental
11. impacts as much as possible, remediating existing environmental contamination that may be present to meet the
12. standards of food production and safety.
13. To support local industry and innovation by selling nutrient-rich aquaculture coproducts to local businesses for
14. beneficial uses.

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 not result in construction of a facility or clean up of this brownfield site and does not meet the project objectives.

c) Alternative 2 – Off-Site Location

In an effort to identify an appropriate and potentially feasible off-site location, the County's Alternative Sites Analysis was revisited (see Section 4.2.3). While the RMT I parcel alone was infeasible due to its extended shape, an off-site alternative was developed that combined RMT I (APN 401-031-040) 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 – Fish Species and Water Source

Alternative 3 evaluates the potential for alternative fish species, including Atlantic Salmon as proposed, Steelhead in seawater, Rainbow Trout in freshwater, and Yellowtail Kingfish. Alternate water sources include an oceanic seawater intake from the Pacific Ocean, a Humboldt Bay seawater intake via groundwater, and terrestrial groundwater intake via terrestrial slant wells. The Fish Species alternative and alternative sources of water all ended up with Less than significant impact and so do not reduce any impacts. As a result, this alternative is not environmentally superior.

DECISION

NOW, THEREFORE, be it resolved, determined, and ordered by the Humboldt County Planning Commission takes the following actions:

1. Certifies the Environmental Impact Report for the Nordic Aquafarms California, LLC, project;

Adopted after review and consideration of all the evidence on **August 4, 2022.**

The motion was made by Commissioner _____ and seconded by Commissioner _____.

AYES: Commissioners:
NOES: Commissioners:
ABSTAIN: Commissioners:
ABSENT: Commissioners:
DECISION:

I, John H. Ford, Secretary to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

_____
John H. Ford, Director
Planning and Building Department

ATTACHMENT 2

RESOLUTION OF THE PLANNING COMMISSION
OF THE COUNTY OF HUMBOLDT

Resolution Number: 22-

Record Number PLN-2022-16698
Assessor's Parcel Number: 401-112-021

Resolution by the Planning Commission of the County of Humboldt adopting findings to support the approval of the project, and conditionally approve the Nordic Aquafarms California, LLC, Coastal Development Permit and Special Permit request.

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 to facilitate the construction of a land-based aquaculture facility; and

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

WHEREAS, the Humboldt County Planning Commission held a duly-noticed public hearing on **August 4, 2022**, and reviewed, considered, and discussed the application for a Coastal Development Permit and Special Permit and reviewed and considered all evidence and testimony presented at the hearing.

Now, THEREFORE BE IT RESOLVED, that the Planning Commission makes all the following findings:

1. **FINDING:** **Project Description:** A Coastal Development Permit and Special Permit for the demolition and remediation of the Samoa Pulp Mill facility and the construction of a land-based finfish recirculating aquaculture system (RAS) facility, consisting of five buildings totaling 766,530 square feet and the installation of 4.8 megawatt (MW) solar panel array mounted on building rooftops, covering approximately 690,000 square feet. A Special Permit for an exception to the loading space requirements. The height of the tallest proposed building is 60 feet. The aquaculture facility would produce fresh head on gutted fish and fillets for delivery to regional markets. The species to be produced at the facility is intended to be Atlantic Salmon, pending approval from CDFW. The Project will include ancillary support features such as 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.

EVIDENCE: a) Project File: PLN-2020-16698

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

2. 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. Aquaculture and aquaculture support facilities are principally permitted uses under both the MC and MG land use designations.

b) 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.

c) 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.

3. 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.

4. 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 stating that Humboldt Bay Municipal Water District has the ability to 300,000 gallons of domestic potable water per day and 3 million gallons of non-potable industrial water per day using existing HBMWD waterline infrastructure. This exceeds the required amount for facility operations.

e) See finding #9.

5. FINDING: The project is consistent with 3.14 HBAP section 13142.5(a) development policies for Coastal Marine Environment, requiring wastewater discharge shall be treated to protect beneficial uses of receiving waters;(c) discharges into coastal areas of biological importance shall not significantly alter overall ecological balance of receiving area; and (d) 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. The Outfall is regulated separately by the California Coastal Commission and Regional Water Quality Control Board, but its use is consistent with the provisions of the Local Coastal Plan.

a) A wastewater treatment facility is a component of the proposed project, treating all effluent prior to discharge in the ocean outfall. The EIR and associated studies for the project have determined that the discharge will not have a negative effect on the environment.

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. Requirement of an NPDES Permit from RWQCB is a Condition of Approval (COA#9).

c) To ensure RWQCB/Clean Waters 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).

d) The Dilution Study found that treated effluent achieves a reduction of 99 percent of total suspended solids, BOD, and phosphorus, with 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. The preliminary concept design of 64 open ports yields a predicted mixing zone (i.e., marine toxicity and physiological stress to biotic receptors) that 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.

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 from 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#19).

6. FINDING: The project is consistent with 3.14 HBAP section 13142.5(b) development policies for Coastal Marine Environment, for each industrial installation for an industrial activity using seawater, requiring mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life. The intake is regulated separately by the California Coastal Commission but it's use is consistent with the provisions of the Local Coastal Plan.

EVIDENCE:

a) Protection of non-special status listed species would be achieved through compensatory off-site habitat restoration activities required by the Coastal Development Permit issued by the California Coastal Commission to (1) offset a small reduction in the Humboldt Bay's biological productivity as a result of entrainment of non-special status larval species, (2) compensate for the potential take of longfin smelt (LFS) larvae during the operation of the two sea water intakes

b) Mitigation Measure BIO-6a: Protection of Longfin Smelt

c) The EIR identifies potential impacts to larval Longfin Smelt at the seawater intake location due to potential entrainment.

d) LFS is being mitigated on a 1:1 basis in the form of larval habitat creation within brackish waters of Humboldt Bay known for spawning/rearing habitat explicitly for the potentially impacted LFS life-stage.

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 of the 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) Off-site compensatory restoration 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.

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).

7. FINDING: The proposed project is consistent with 3.14 HBAP section 30232, protection against spillage of crude gas, petroleum products, or hazardous substances.

EVIDENCE: a) Potential impacts can occur in the general vicinity of a petroleum spill and can be reduced to less-than significant levels by implementing Mitigation Measure PEIR WQ-3: Minimize Fuel and Petroleum Spill Risk.

b) 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.

8. FINDING: The project is consistent with 3.17 and 3.29 HBAP section 30253(1), new development shall minimize risk to life and property in areas of high geologic, flood, or fire hazard; (2) 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 an analysis of natural hazards in the County and recommends that the project require designs in accordance 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. Existing structural hazards will not impact the proposed project as existing infrastructure will be demolished and the site remediated. Adherence to the recommendations in the Geotechnical Report are required for the project and identified as 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 areas subject to development are outside of the 100-year flood plain. Sea level rise (SLR) data was examined for the site to evaluate the risks associated with inundation utilizing the Humboldt Bay: Sea Level Rise, Hydrodynamic Modeling, and Inundation Vulnerability Mapping prepared by Northern Hydrology and Engineering (2015). The modeling 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, 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.

9. FINDING: Section 3.30 Natural Resource Protection Policies and Standards: The project is consistent with this section as follows:

EVIDENCE: Section 3.30 – 30240(a), (b) Environmentally Sensitive Habitat Areas (ESHA): The Project is consistent with Section 30240 a and b of the Coastal Act. The facility footprint was redesigned and moved to the north and impacts to high quality dune mat (ESHA) have been avoided and development setbacks of 35-feet applied. Within the buffer is a 20-foot-wide fire road. The road will also act as a buffer, as it would only be used in an emergency. Construction fencing is required along the edge of the buffer, as shown on the Site Plan (setback 15 feet from the road). 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. 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.

Section 3.30 – 30233 Diking, Filling, or Dredging of Open Coastal Waters, Wetlands, and Estuaries (a): Diking, filling or dredging activities are not proposed, therefore mitigation measures are not necessary. There will not be water or fill material taken from or added to wetlands associated with the project.

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 requirements outside of the urban limit line. 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.

Section 3.30 – 30230 Coastal Streams, Riparian Vegetation and Marine Resources: Section 30230 of the Coastal Act requires marine resources to be maintained, enhanced and where feasible, restored. To evaluate the potential impacts to marine resources, a Marine Resources Biological Evaluation Report, Rev. 3 was prepared by GHD on February 1, 2021. Additionally, a Numerical Modelling Report, Rev. 1 dated February 2021 was prepared by GHD and modeled the effluent discharge from the project with respect to applicable water quality regulations and was considered in the Marine Resources Report. As summarized in Section 3.3 - Biological Resources of the EIR, both reports found that impacts from the treated wastewater would not be detrimental to the health of the marine resources that occur near the diffuser of the ocean outfall pipe. In order to mitigate the potential impacts to marine mammals which could be present in the Level B harassment zone during soil densification construction during Phase 2 build out, Mitigation Measure BIO-6 of the EIR shall be incorporated. This requires 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). 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.

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.

10. 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. Remediation and demolition activities include the removal of an 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. 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. Removal of existing infrastructure will improve overall aesthetics and benefit coastal visual resources.

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.

CONSISTENCY WITH THE ZONING ORDINANCE.

11. 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).

12. FINDING: The proposed development is consistent with the purposes of the Archaeological Resource Area Outside of Shelter Cove (A) Combing 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.

13. FINDING: Consistent with section 314.3 of the Industrial Development Policies set forth in the HBAP, it has been determined that 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, USACE, and the Long-Range Planning Division identified that there were no alternative locations for the proposed project. Only Priority 4 sites, which lack essential outfall infrastructure, were vacant and posed infeasible for the applicant.

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.

c) Alternatives sites identified would require new construction of ocean water intake and outfall discharge facilities, which has been identified as economically/environmentally unfeasible for the project applicant.

d) 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.

14. FINDING: The proposed development has an approved parking exception request with section 313-109.1.4.4 Industrial Uses, which provides a parking standard applicable to the management offices, production staff, and variable parking components of an industrial 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, which is a deintensification from the standard regulatory requirement.

e) The request was granted via Director Determination consistent with section

15. FINDING: The applicant has justified the request for a Special Permit requested pursuant to Section 313-109.1.5.2 of the HCC, to authorize a reduction in loading space requirements from 29 to seven (7) specially designed loading docks and bays.

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, as might occur in an urban environment. As such, the construction of 29 loading spaces would both harm the operation of the facility and not achieve the regulatory purpose of §109.1.5

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 specially designed loading docks and bays.

d) Facility proposal is in a geographical location site 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 seven proposed loading docks would appropriately meet the needs of the operation without impacts to public health, safety, and welfare.

16. 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.

17. 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

18. FINDING: Consistent with section 313-45.1 it has been determined that 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, USACE, and the Long-Range Planning Division identified that there were no alternative locations for the proposed project. Only Priority 4 sites, which lack essential outfall infrastructure, were vacant and posed infeasible for the applicant.

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.

c) Alternatives sites identified would require new construction of ocean water intake and outfall discharge facilities, which has been identified as economically/environmentally unfeasible for the project applicant.

d) 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.

19. FINDING: The project is consistent with section 313-45.1.7 through 313-45.1.7.1, adverse impacts are mitigated to the maximum extent feasible and conform to Special Area Combining Zone Regulations and other resource protections.

EVIDENCE: a) The EIR 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 that 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. Mitigation Measures have also been included as Conditions of Approval (COA#5).

c) Planning Commissioners have adopted Resolution No. 22—____ certifying the EIR prepared on behalf of the project

20. 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, and 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) Concerns of Harmful Algal Blooms as a result of the projects 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#19).

c) 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.

d) Concerns over energy use were addressed by Condition of Approval (COA#20) requiring NAFC to commit to non-carbon and renewable energy-based sources to off-set emissions.

e) 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.

21. FINDING: 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.

EVIDENCE: (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.

DECISION

NOW, THEREFORE, be it resolved, determined, and ordered by the Humboldt County Planning Commission takes the following actions:

1. Adopts the findings set forth in this resolution herein; and

2. Approves the Coastal Development Permit and Special Permit (Record Number: PLN-2020-16698) subject to the Conditions of Approval and the Mitigation Monitoring and Reporting Plan in Attachment 1 and Attachment 1a.

Adopted after review and consideration of all the evidence on **August 4, 2022.**

The motion was made by Commissioner_____ and seconded by Commissioner _____.

AYES: Commissioners:
NOES: Commissioners:
ABSTAIN: Commissioners:
ABSENT: Commissioners:
DECISION:

I, John H. Ford, Secretary to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

_____
John H. Ford, Director
Planning and Building Department

ATTACHMENT 2A
REVISED RECOMMENDED CONDITIONS OF APPROVAL

APPROVAL OF THE COASTAL DEVELOPMENT PERMIT AND SPECIAL PERMIT IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS ~~WHICH MUST BE SATISFIED BEFORE THE BUILDING PERMIT CAN BE ISSUED~~.

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 $3,589.25. 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 ~~shall~~ 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 demolition permit final, an~~Prior to any construction activities an engineer's report shall be submited ~~a completion letter~~ to the Building Inspection Division ~~stating~~ certifying that the abatement and demolition ~~plans~~ activity ~~meets~~ has been completed in accordance with the issued Demolition Permit and other applicable permits. ~~all requirements of the approved plans, engineering, and permit.~~

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 ~~by a minimum of ten percent~~. 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. ~~Installation of a transit stop in proximity to the project can be used to satisfy the condition.~~

    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 ~~would~~ 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 ~~continue for three years to~~ 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 (NHx, NOx, 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.

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 fort 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.

ATTACHMENT 2B

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	Best Management Practices to Reduce Air Pollution: 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	Best Management Practices to Reduce Asbestos Emissions During Demolition: 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		
						Initials	Date	Comments
	- 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		
						Initials	Date	Comments
	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	Protect Special Status Terrestrial Mammals: 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	Protect Special Status Bats: 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		
						Initials	Date	Comments
	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	Protect Special Status Amphibians: - 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	Protect Special Status, Migratory, and Nesting Birds: 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		
						Initials	Date	Comments
	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	Protection of Osprey: 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	Limits on Soil Densification Construction to Avoid Impacts to Marine Mammals: 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	Protection of Longfin Smelt: 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: ([larvae entrained]/[1,000 larvae per female])*(43 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		
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	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	Implement Compensatory Mitigation for Sensitive Natural Communities: 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*** Invasive Vegetation — 1: ≥50% Reduction in target invasive plant cover (absolute) at dune restoration sites. Invasive Vegetation — 2: ≥65% Reduction in target invasive plant cover at dune restoration sites. Invasive Vegetation — 3: ≥80% Reduction in target invasive plant cover at dune restoration sites. Invasive Vegetation — 4: ≥90% Reduction in target invasive plant cover at dune restoration sites. Invasive Vegetation — 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			
BIO-7b	Construction Protocol for Protection of ESHA: 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	Implement Stormwater Pollution Plan (SWPPP): 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	Protection of Water Quality During Pile Removal: 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	Construction Best Management Practices: 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	Minimize Effects of Mechanical Spartina Removal Methods to Special Status Fish Species: 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, tilling, 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	Minimize Noise Effects: 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		
						Initials	Date	Comments
Spartina PEIR BIO-3	Minimize Impacts to Special Status Plant Species: 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	Avoid Northern Harrier and Short-Eared Owl Nests: 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	Avoid Impacts to Eelgrass: - 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		
						Initials	Date	Comments
	Temporary Loss of Habitat to Northern Harrier and Short-Eared Owl - 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	Reduce Noise near Marine Mammals: 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	Minimize Fuel and Petroleum Spill Risks: 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	Designate Ingress/Egress Routes: 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	Removal of Wrack: 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	Accidents Associated with Release of Chemicals and Motor Fuel: 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	Implementation of Protocols for Cultural Monitoring During Ground Disturbance: 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	Implementation of Inadvertent Discovery Protocols: 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	Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered: 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	Implement Geotechnical Recommendations: 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	Construction Best Management Practices: 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		
						Initials	Date	Comments
	- - 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	Inadvertent Discovery of Paleontological Resources: 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	Implement Stormwater Pollution Prevention Plan (SWPPP): 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	Erosion Control: 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	Implement Recommendations of Interim Measures Work Plan: 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	Recommendations of Interim Measures Work Plan shall be placed on all construction plans			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
	- **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							

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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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 runon 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	Best Management Practices to Reduce Asbestos Emissions During Demolition: 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	Construction Best Management Practices: 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	Implement Stormwater Pollution Prevention Plan (SWPPP): 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	Protection of Water Quality During Pile Removal: 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	Minimize Fuel and Petroleum Spill Risks: 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		
						Initials	Date	Comments
					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.			
Humboldt Bay Repowering Project Supplemental EIR MM HHM-2	Accidents Associated with Release of Chemicals and Motor Fuel: 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/ 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 Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
	SECTION 3.9 – HYDROLOGY AND WATER QUALITY							

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
HWQ-1	Implement BMPs as part of Construction Permitting and Stormwater Pollution Prevention Plan (SWPPP) for Terrestrial Development: 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: General Construction 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. Hazardous Materials 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		
						Initials	Date	Comments
	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		
						Initials	Date	Comments
	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 accidently 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 release of debris or contaminated material. Prior to disposal, the piles and debris will be stored on paved areas, in containers, or on impermeable material. Debris will be stored 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	Construction Best Management Practices: 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.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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HAZ-1	Implement Recommendations of Interim Measures Work Plan: 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	Minimize Fuel and Petroleum Spill Risks: 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	Designate Ingress/Egress Routes: 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.			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
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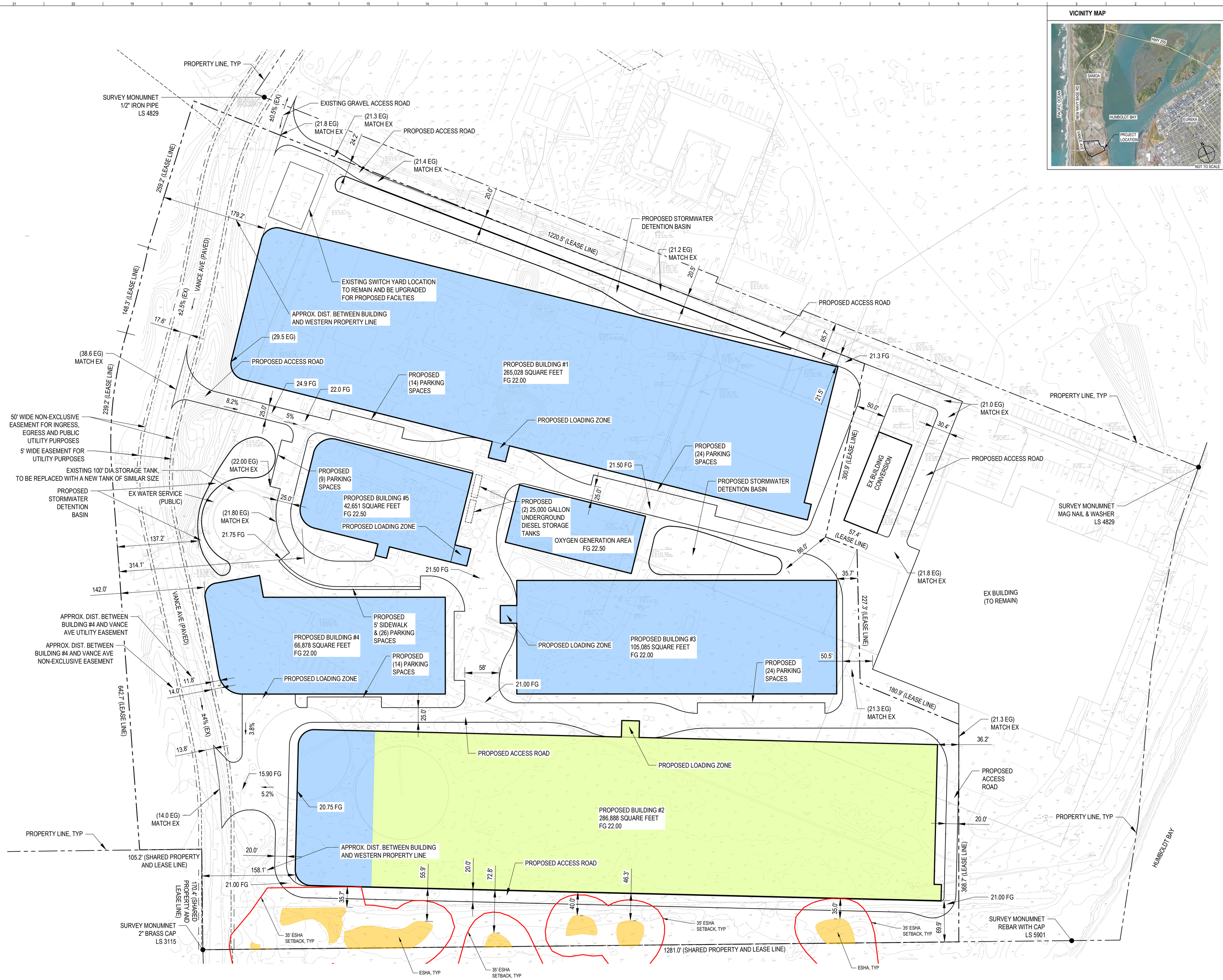
					Prior to occupancy of Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			
Spartina PEIR WQ-7	Removal of Wrack: During site specific planning, tidal circulation will be visually assessed. In areas with relatively low tidal circulation, it will either 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	Accidents Associated with Release of Chemicals and Motor Fuel: 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			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Monitoring Action	Verification of Compliance		
						Initials	Date	Comments
					Phase 1 and prior to the issuance of any construction permits related to ocean water intake upgrades.			

Mitigation Measures and Applicant Proposed Operating Restrictions:



VICINITY MAP

SITE PLAN CHECKLIST

- APN 401-112-021
  Nordic Aquafarms, Inc.
  511 Congress Street, Suite 500. Portland, ME 04101
  (207) 323 - 6733
  Site Address: 364 Vance Ave. Samoa, CA 95564
- See Vicinity Map below.
- See Site Plan for relevant parcel dimensions and the location of survey monuments.
- See north arrow and scale below.
- See Site Plan for name and width of all existing and proposed access roadways adjacent to or within the subject parcel.
- See Site Plan for location, width and type of all existing and proposed easements.
- Percent gradient has only been determined for the project's entrance and exit driveways. Preliminary finished grade elevations are shown on the Site Plan. Internal proposed percent gradients have not been determined at this stage of design.
- See Site Plan for locations of all perennial & intermittent water courses (rivers, creeks, etc.), man made or natural ponds, and/or wetland areas, and distance (setbacks) from these features, structures & property lines.
- See separate Architectural Plans for the location of all improvements, structures and buildings.
- See Site Plan for the locations of on-site water sources.
- See Site Plan for for driveways and parking areas.
- No turnouts or turnaround areas are located in the project area.
- See Site Plan for loading zones. Required ADA parking, ramps and locations have not been determined at this stage of design.
- The exact locations of curbs, sidewalks and gutters have not been determined at this stage of design.
- No trees to be removed.
- Proposed grading and fill estimates are undetermined at this preliminary stage of design.
- Proposed diesel storage tanks shown on Site Plan.
- No septic tanks or leachfields will be located within the project site.
- The site is not located within an AOB/SRA location.

ABBREVIATIONS & NOTES

EG = EXISTING GRADE
EX = EXISTING
FG = PROPOSED FINISHED GRADE

ALL DIMENSIONS AND UNITS ARE IN FEET
UNLESS OTHERWISE NOTED.

LEGEND

PHASE 1

PHASE 2

REV.	DESCRIPTION	DATE
2	BUILDING CONFIGURATION REVISIONS	4/13/2021
1	COUNTY COMMENTS	4/13/2021

CURRENT ISSUE STATUS:

PROJECT NORTH:

SMRT Architects and Engineers
75 Washington Avenue
Portland, Maine 04101
1.877.700.7678
www.smrtinc.com
Architecture • Engineering • Planning

GHD Inc.
718 Third Street
Eureka, California 95501 USA
T 1.707.443.8326 F 1.707.444.8330
www.ghd.com

NORDIC AQUAFARMS
APN 401-112-021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SITE LOCATION MAP

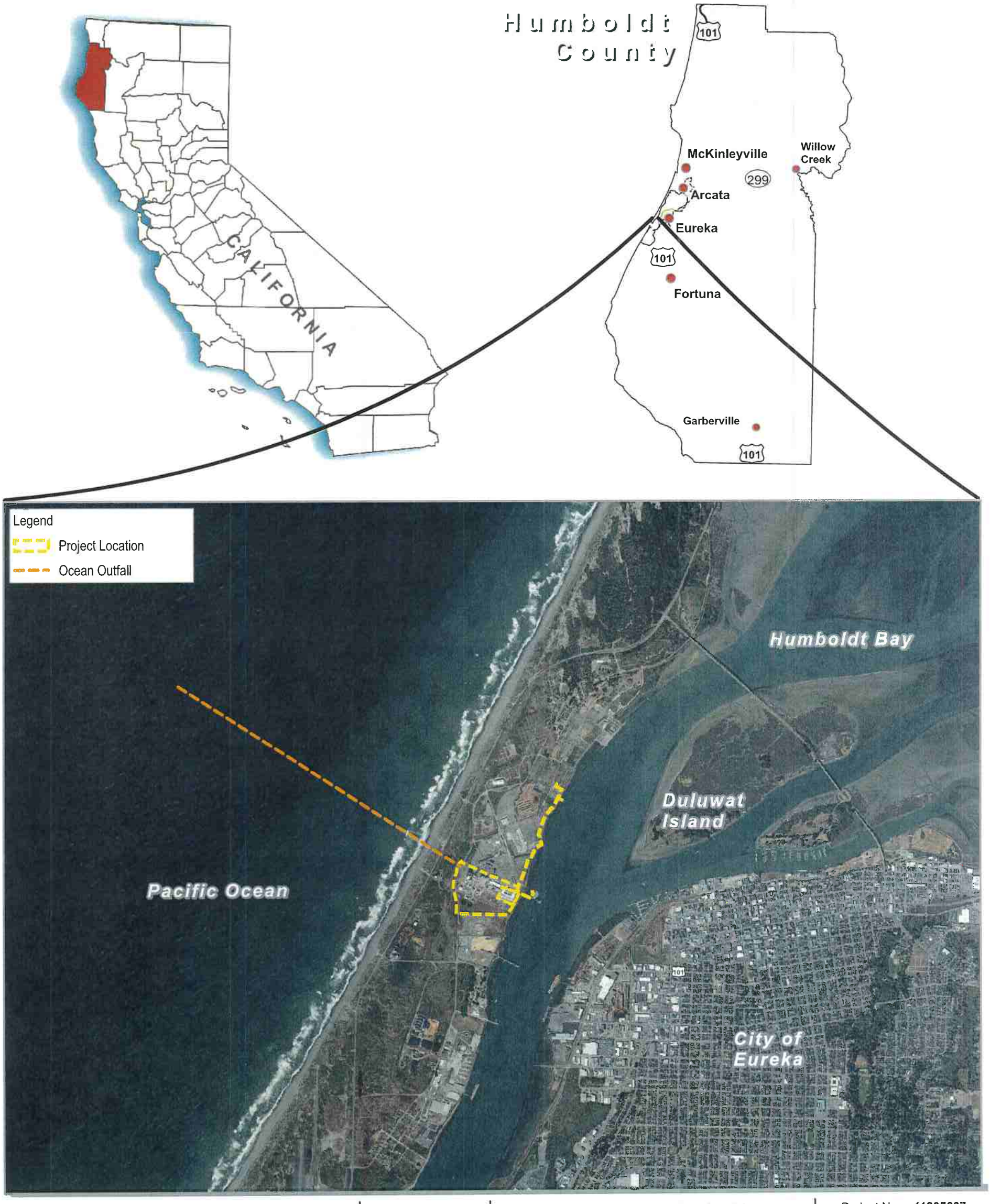
SHEET TITLE:

0 50' 100'

SCALE: AS NOTED

PROJECT MANAGER:	NS	PROJECT NO:	11207226
A/E OF RECORD:	N/A		
JOB CAPTAIN:	N/A		
DRAWN BY:	OFG		
SMRT FILE: NAF-SITE PLAN-NSITE		SHEET No.	

FIGURE 1



Paper Size ANSI A

0 890 1,780 2,670 3,560 4,450

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

Nordic Aquafarms California, LLC
Samoa Peninsula Sustainable Aquaculture Development Project
Samoa, Humboldt County, California

Project No. **11205607**
Revision No. **-**
Date **Sep 2021**

Vicinity Map

FIGURE 2-1

\\ghdnet\ghd\US\Eureka\Projects\561\11205607\GIS\Maps\Deliverables\11205607_EIR\11205607_EIR.aprx - 11205607_02-1_VicinityMap_RevA
Print date: 29 Sep 2021 - 09:33

Data source: APE, June 11, 2021; 2018 NAIP imagery; Terrain: Sources: Esri, USGS, NOAA. Created by: jlopez4

Paper Size ANSI A

0 100 200 300 400 500

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

Nordic Aquafarms California, LLC
Samoa Peninsula Sustainable
Aquaculture Development Project
Samoa, Humboldt County, California

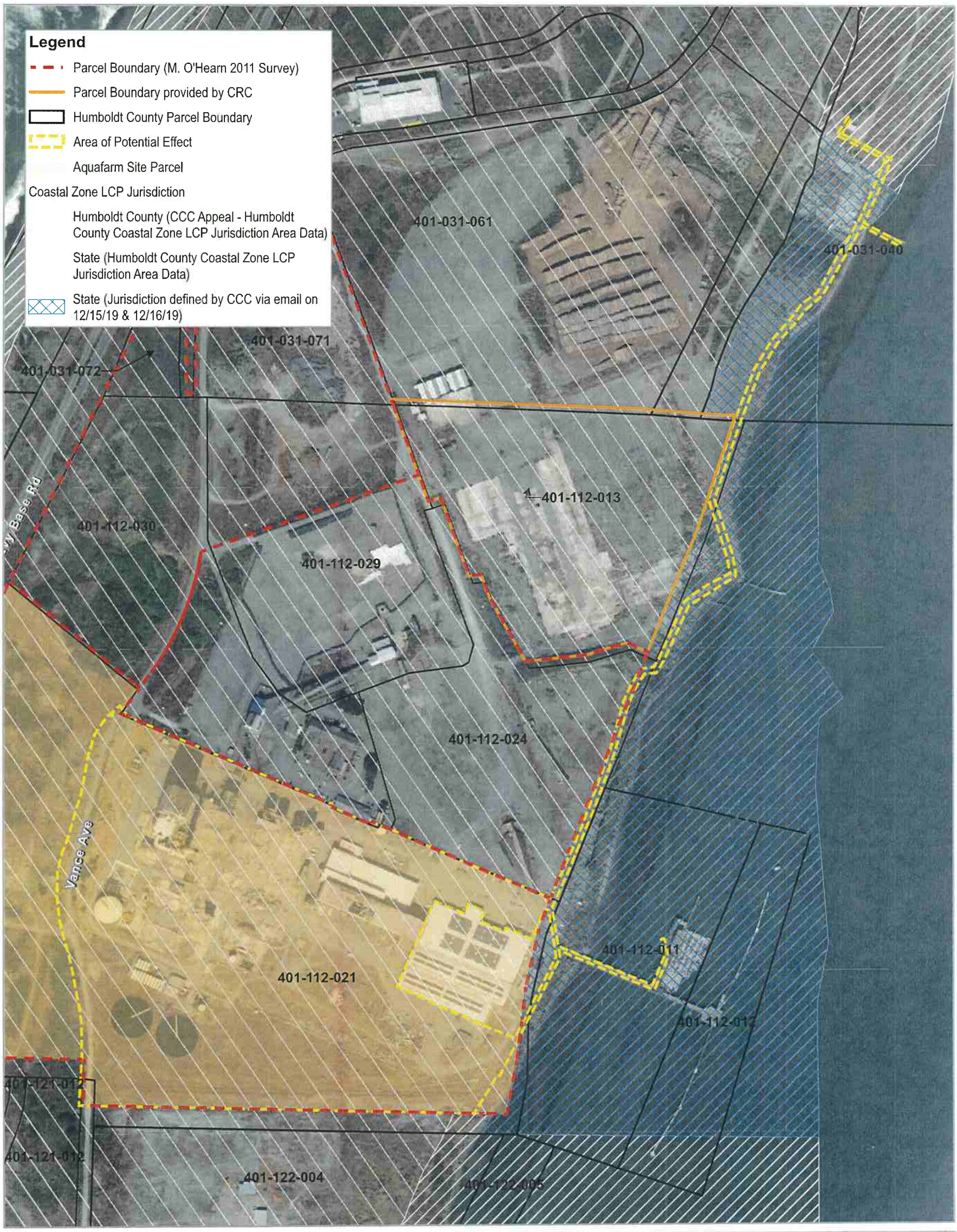
Project No. 11205607
Revision No. -
Date Sep 2021

Area of Potential Effect

FIGURE 2-2

\\ghdnet\ghd\US\Eureka\Projects\561\11205607\GIS\Maps\Deliverables\11205607_EIR\11205607_EIR.aprx - 11205607_02-2_APE_RevA
Print date: 29 Sep 2021 - 09:43

Data source: Project design elements, April 1st, 2021; APE, June 11, 2021; USDA, NAIP Imagery, 2018; Humboldt County Parcel Dataset, 2019. Created by: jlopez4



Paper Size ANSI A

0 150 300 450 600

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

Nordic Aquafarms California, LLC
Samoa Peninsula Sustainable Aquaculture Development Project
Samoa, Humboldt County, California

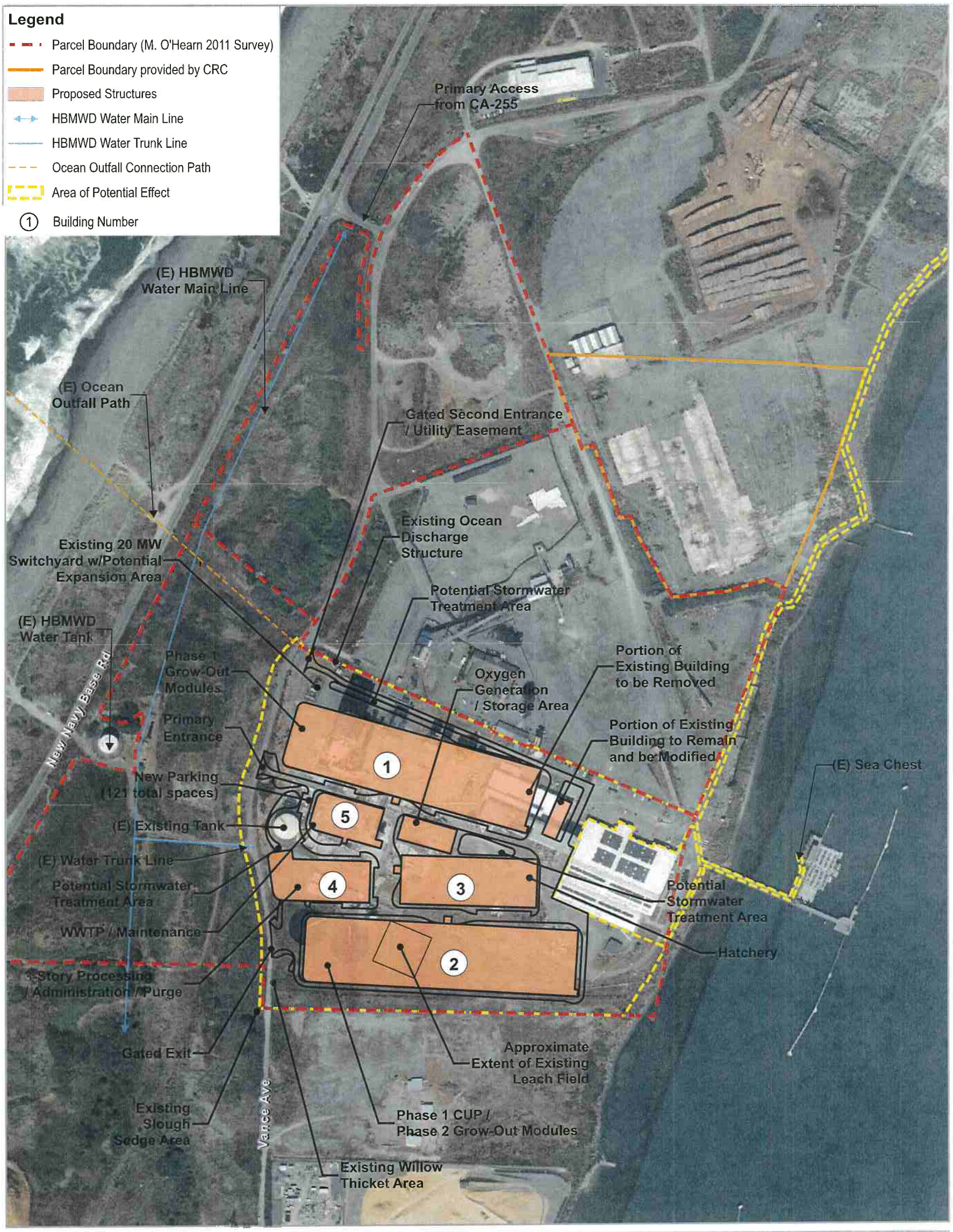
Project No. **11205607**
Revision No. **-**
Date **Jul 2021**

Jurisdictional Boundaries

FIGURE 2-3

N:\US\Eureka\Projects\561\11205607\GIS\Maps\Deliverables\11205607_EIR\11205607_EIR.aprx - 11205607_02-3_Jurisdictional_RevA
Print date: 06 Jul 2021 - 09:27

Data source: APE, June 11, 2021; USDA, NAIP Imagery, 2018; Humboldt County Parcel Dataset, 2019; Site Survey: Kelly-O'Hern Assoc., 2012; Humboldt County. Coastal Zone LCP Jurisdiction, 2017 . Created by: jclark2



Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

Nordic Aquafarms California, LLC
Samoa Peninsula Sustainable Aquaculture Development Project
Samoa, Humboldt County, California

Proposed Aquafarm Site Layout

Project No. **11205607**
Revision No. **-**
Date **Jul 2021**

FIGURE 2-4

N:\US\Eureka\Projects\561\11205607\GIS\Maps\Deliverables\11205607_EIR\11205607_EIR.aprx - 11205607_02-4_AquafarmLayout_RevA
Print date: 06 Jul 2021 - 10:21

Data source: Project design elements, April 1st, 2021; APE, June 11, 2021; USDA, NAIP Imagery, 2018; Humboldt County Parcel Dataset, 2019. Created by: jclark2

Paper Size ANSI A

0 100 200 300 400 500

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

N

GHD

Nordic Aquafarms California, LLC
Samoa Peninsula Sustainable Aquaculture Development Project
Samoa, Humboldt County, California

Project No. 11205607
Revision No. -
Date Jul 2021

Humboldt Bay Water Intakes-Sea Chests

FIGURE 2-5

N:\US\Eureka\Projects\561\11205607\GIS\Maps\Deliverables\11205607_EIR\11205607_EIR.aprx - 11205607_02-5_SeaChest_RevF
Print date: 14 Jul 2021 - 16:03

Data source: HBHD design elements, June 2021; USDA, NAIP imagery, 2018; Humboldt County Parcel Dataset, 2019. Created by: jclark2

NOTE:
ADDITIONAL EASEMENTS DISCLOSED IN THE GUARANTEE ISSUED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY DATED MAY 18TH, 2020 AT 7:30 AM AFFECT PORTIONS OF PARCEL A NOT MAPPED THIS SURVEY.

N

1"=200 FEET

FOUND 1/2" IRON PIPE WITH
PLASTIC PLUG LS 4829
SHOWN ON THE RECORD
FOR FRESHWATER TISSU
LLC, RECORDED IN BOO
SURVEYS, PAGE 106-10

CENTERLINE
50' WIDE
EASMENT

PORTION OF PARCEL A
NOT MAPPED THIS
SURVEY

50 ' WIDE NON-EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND PUBLIC UTILITY PURPOSES DISCLOSED IN THE GUARANTEE ISSUED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY DATED MAY 18TH, 2020 AT 7:30 AM.

5' WIDE EASEMENT FOR UTILITY PURPOSES LYING ADJACENT TO AND PARALLEL WITH VANCE AVENUE DISCLOSED IN THE GUARANTEE ISSUED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY DATED MAY 18TH, 2020 AT 7:30 AM.

CERTIFICATION

THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN JUNE, 2020.

Matthew T. Herman

MATTHEW T. HERMAN PLS 8335 DATE

PROFESSIONAL LAND SURVEYOR
MATTHEW T. HERMAN
Preliminary
Exp.12-31-21
8335
STATE OF CALIFORNIA

SHN	Nordic Aqua Farms Samoa, California	Figure 2-7: Boundary and Easement Plot SHN 019146
June 2020	019146-RECORD GND	Figure 2-7

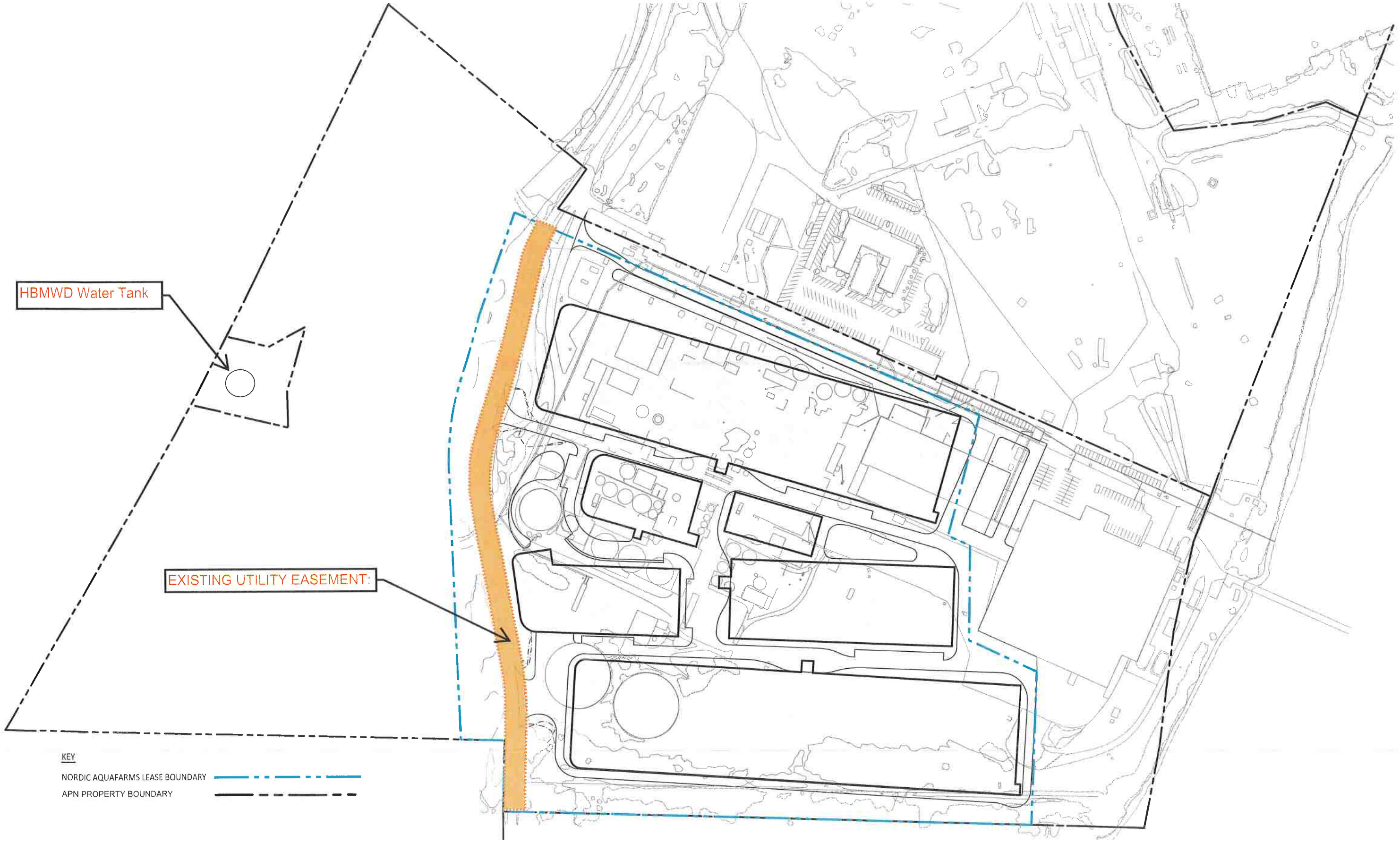


Figure 2-6: UTILITY EASEMENTS
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

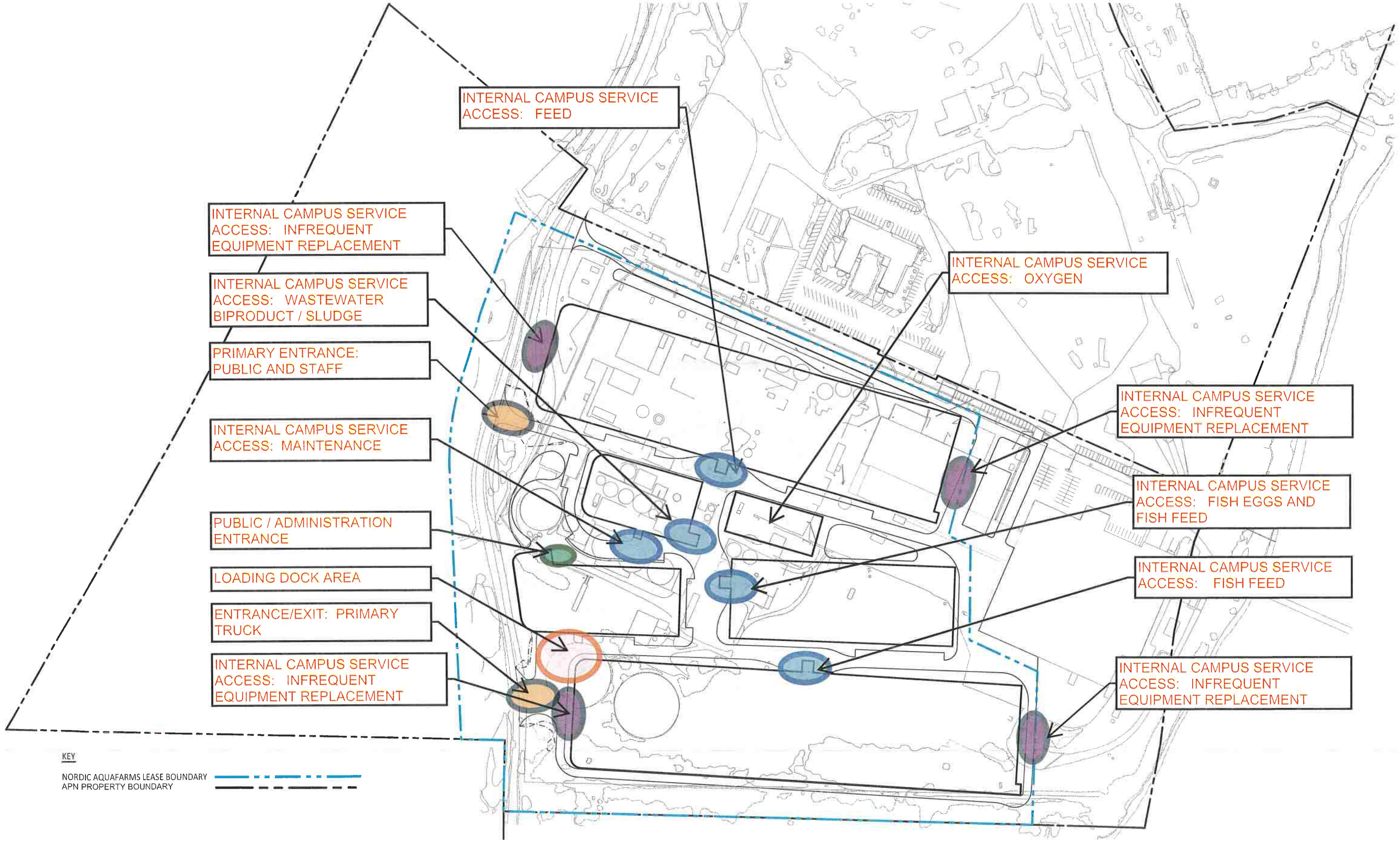


Figure 2-8: SITE LOGISTICS
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

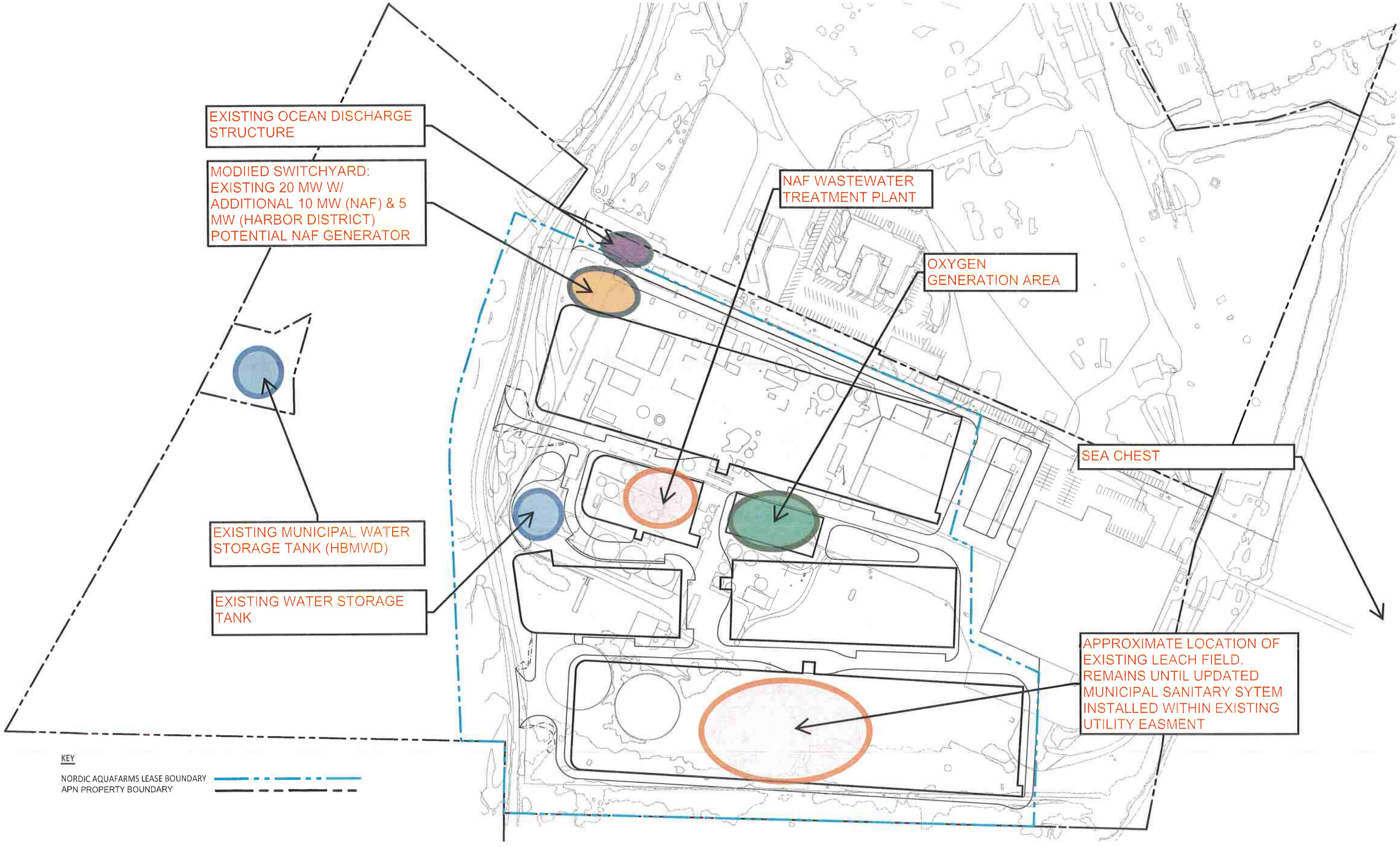


Figure 2-9: SITE INFRASTRUCTURE
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

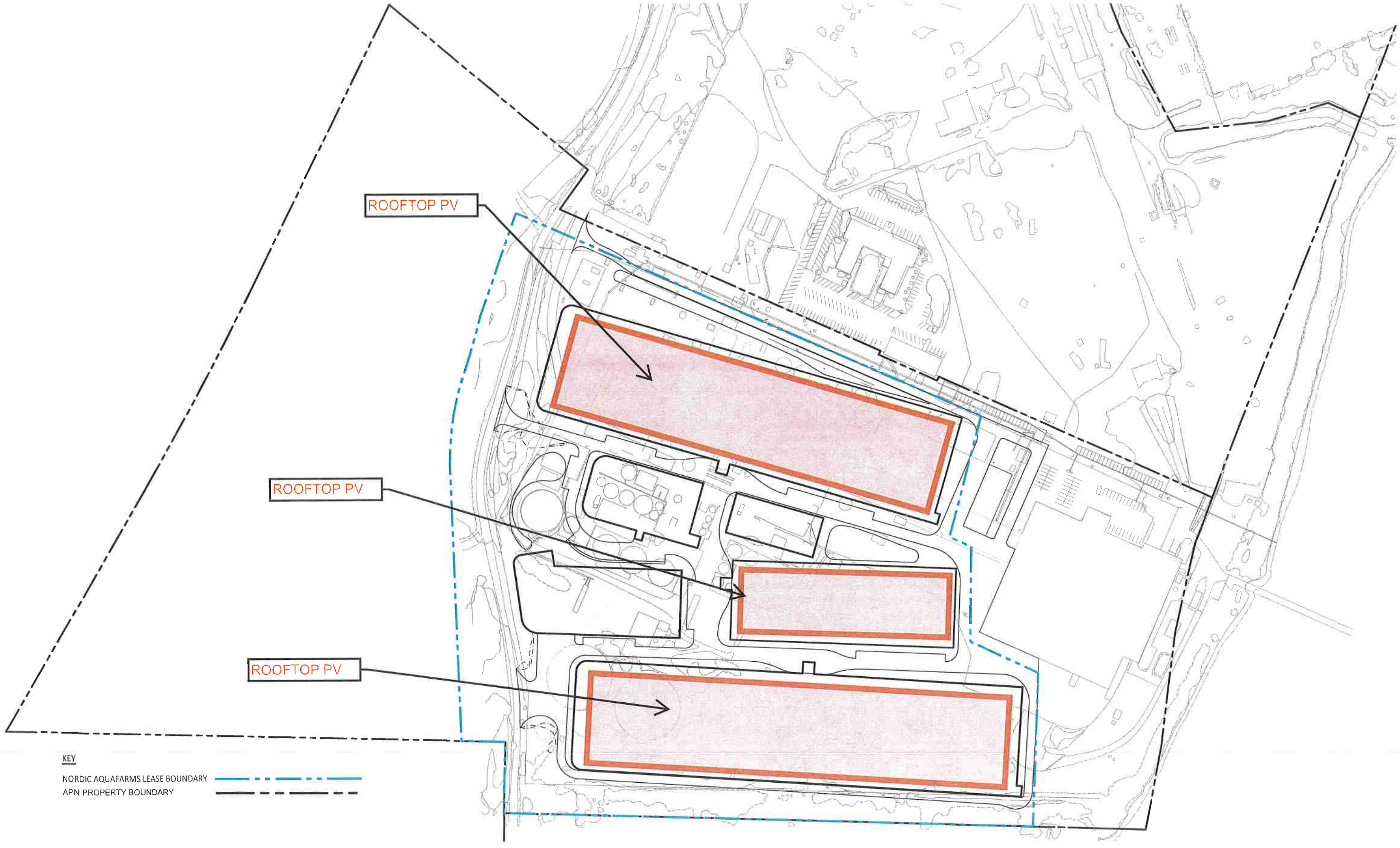


Figure 2-10: ROOFTOP PV LOCATIONS
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

PARKING SUMMARY:
121 SPACES
(6 ADA)

13 PARKING SPACES

9 PARKING SPACES

25 PARKING SPACES

13 PARKING SPACES

13 PARKING SPACES

24 PARKING SPACES

24 PARKING SPACES

KEY

NORDIC AQUAFARMS LEASE BOUNDARY

APN PROPERTY BOUNDARY

Figure 2-11: PARKING PLAN
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120

0 50' 100' 200' 300'

N

SMRT

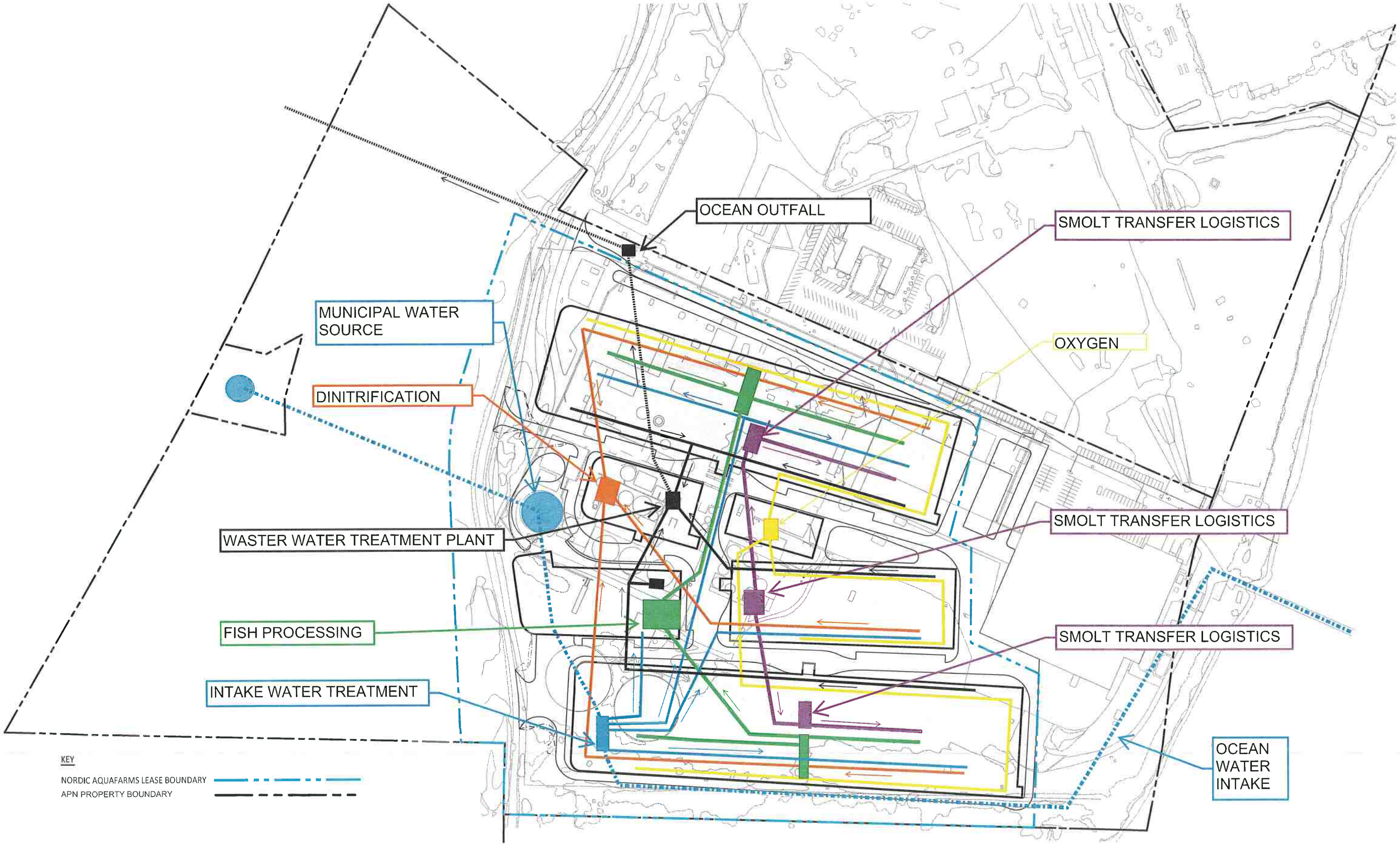


Figure 2-12: CONCEPT PIPING LAYOUT
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N
SMRT

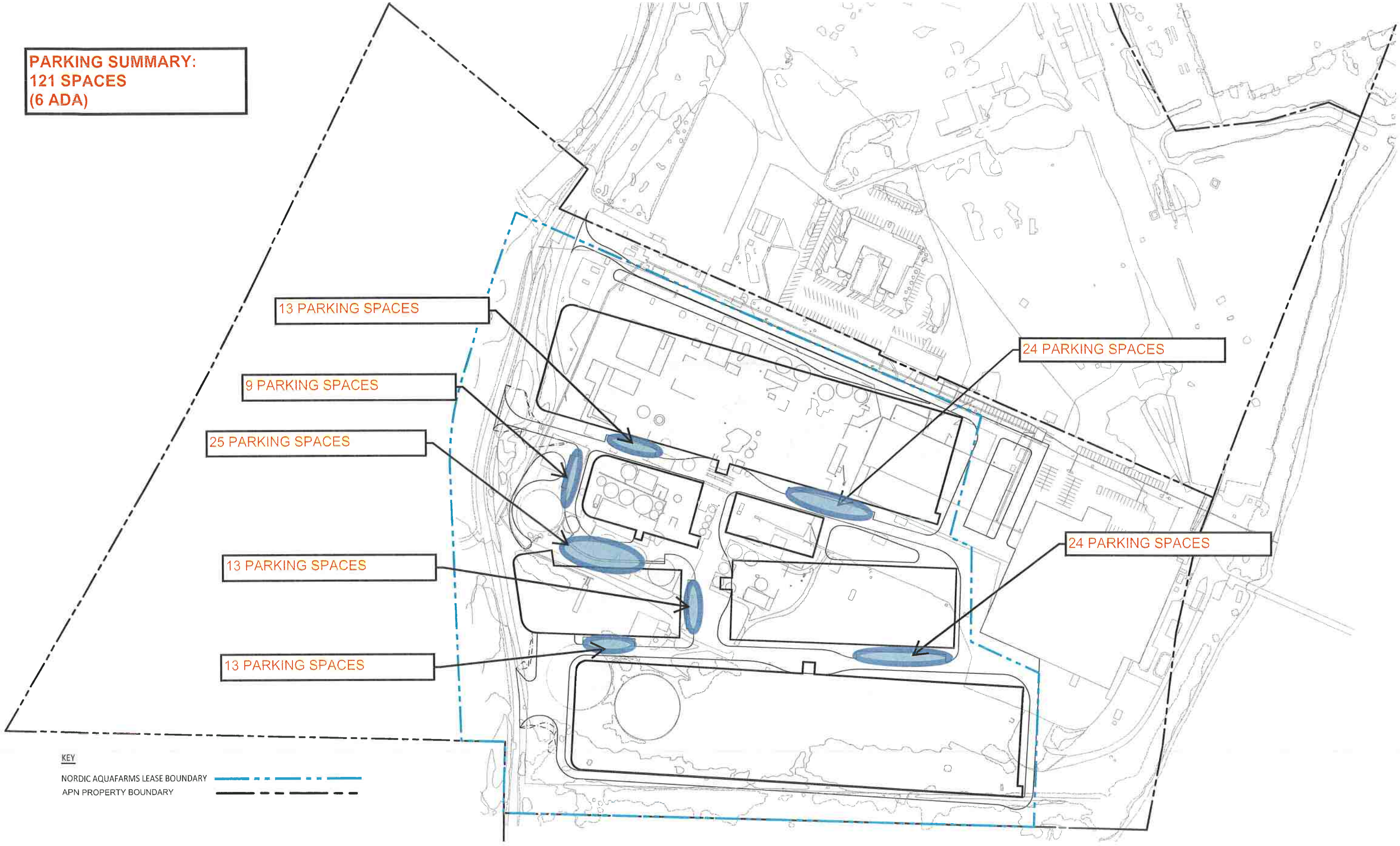


Figure 2-11: PARKING PLAN
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'

SMRT

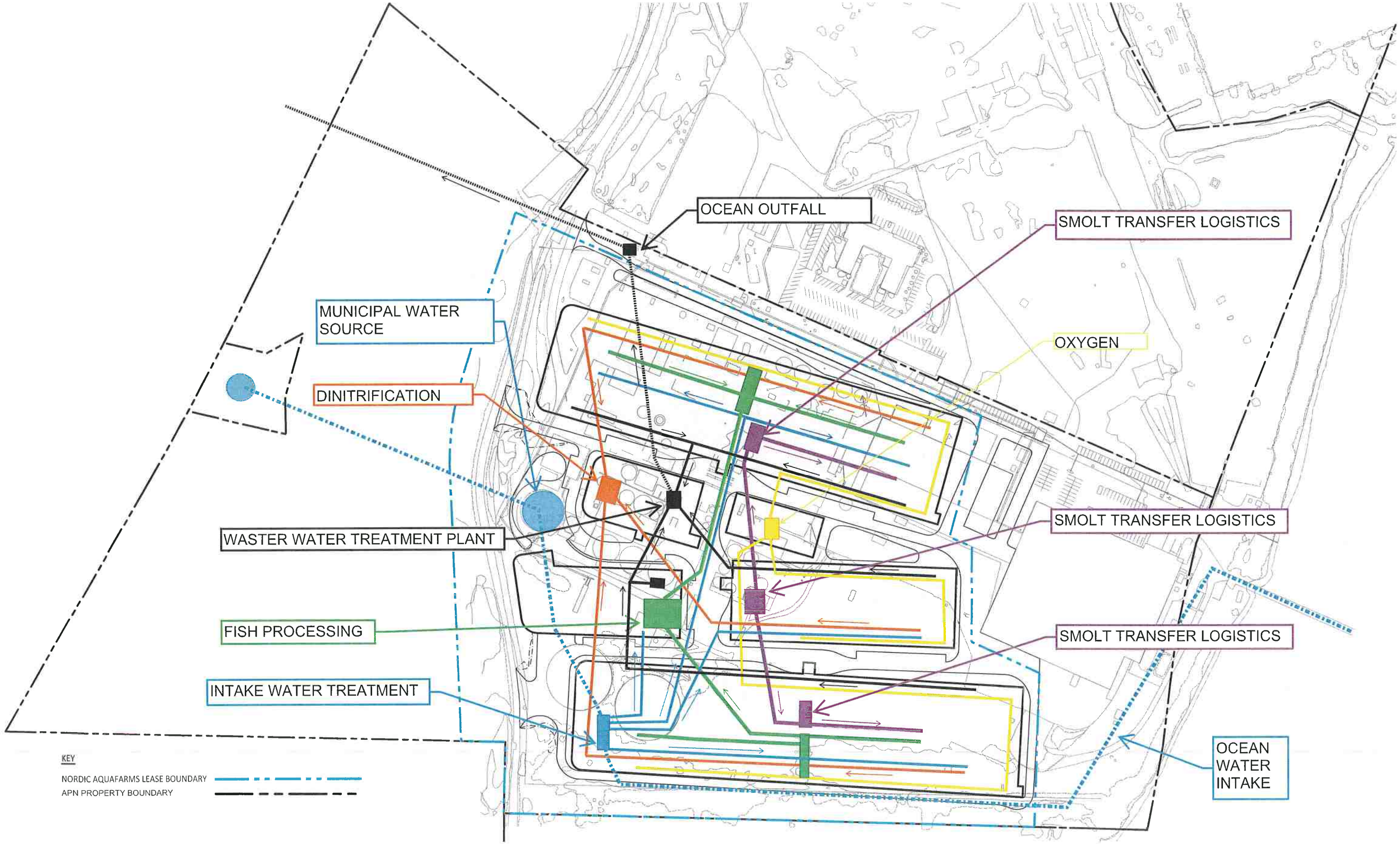


Figure 2-12: CONCEPT PIPING LAYOUT
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

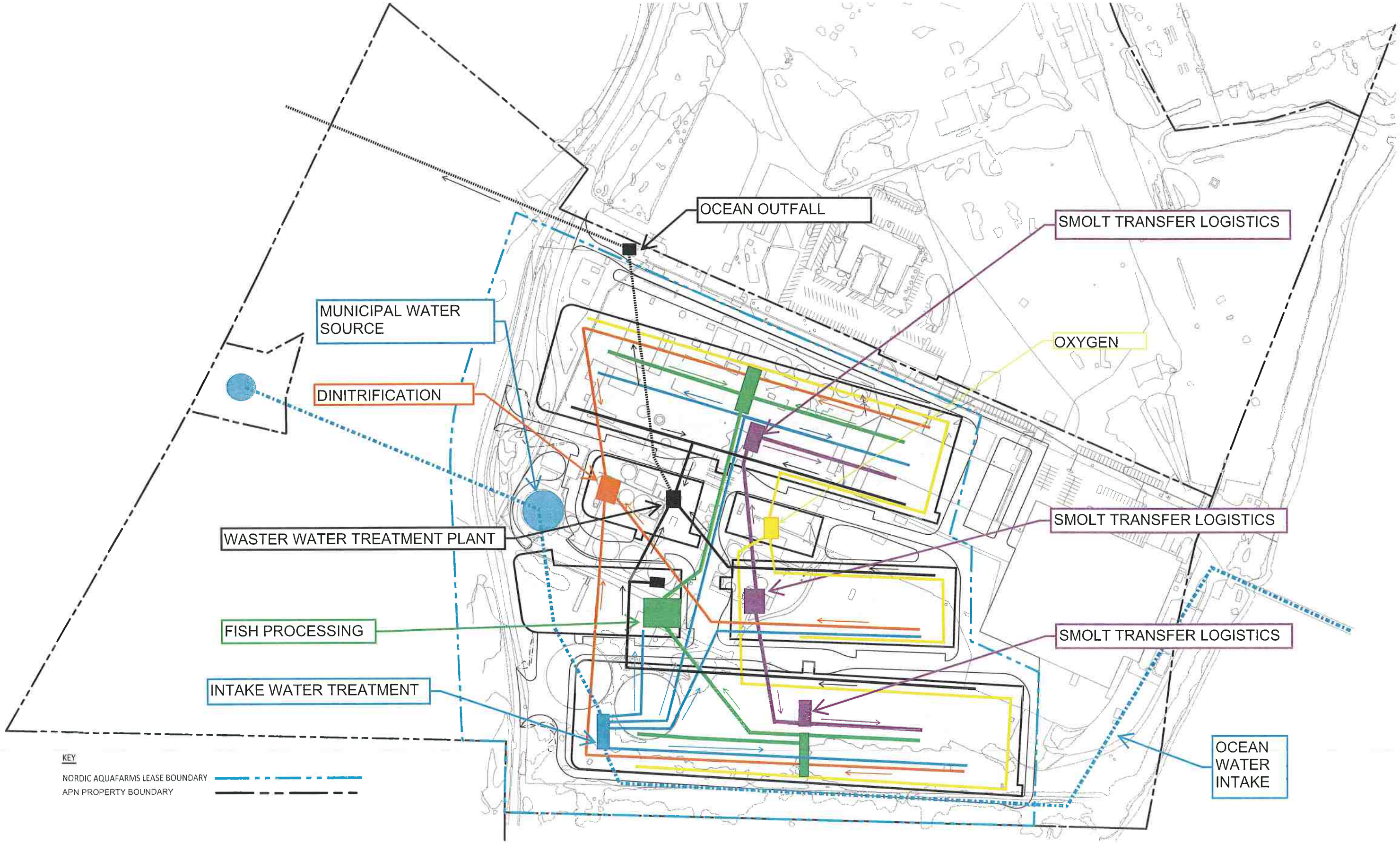


Figure 2-12: CONCEPT PIPING LAYOUT
Nordic Aqua Farms, Samoa, California
September 2021

NORDIC AQUAFARMS
SUSTAINABLE AQUACULTURE

SMRT PROJECT NO. 19120
0 50' 100' 200' 300'
N

SMRT

ATTACHMENT 2E
Nordic Aquafarms California, LLC
Coastal Development Permit and Special Permit
Record Number: PLN-2020-16698
Assessor's Parcel Number: (APN): 401-112-021

Recommended Planning Commission Action:

1. Describe the application as part of the Public Hearing Agenda.
2. Request Staff to present the project.
3. Open the public hearing and receive public testimony; and
4. Close the public hearing and adopt the resolution to take the following actions:
   (a) Certify the Environmental Impact Report prepared for the Nordic Aquafarms California, LLC, project has been prepared in compliance with CEQa pursuant to Section 15090 or 15092 of the State CEQA Guidelines;
   (b) Make all required findings for approval of the Coastal Development Permit and Special Permit; and
   (c)Approve the Nordic Aquafarms California, LLC, Coastal Development Permit and Special Permit subject to the recommended conditions.

Executive Summary: Nordic Aquafarms California, LLC (NAFC), seeks a Coastal Development Permit and Special Permit to allow demolition and remediation of the existing Pulp Mill site, and construction of a land-based finfish recirculating aquaculture system (RAS) facility consisting of five buildings totaling 766,530 square feet. The facility will include installation of 4.8 megawatt (MW) solar array mounted on building rooftops, covering approximately 657,000 square feet. The subject site is is a 76 -acre parcel located in the Samoa area, on both sides of Vance Avenue, approximately 2,000 feet north from the intersection of Vance Avenue and Bay Street, on the property known as 364 Vance Avenue. The proposedproject is on the east side of Vance Avenue within a 36-acre lease area. The EIR has been prepared to address the entire project from construction, to operation and considering the water intake and effluent from the facility Nordic Aquafarms California, LLC (NAFC) is the applicant for the Terrestrial Development and Ocean Outfall components, and the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District) is the applicant and responsible party for the Humboldt Bay Water Intakes. The facility is estimated to employ around 90-100 employees for Phase 1, and up to 150 for full Phase 2 buildout. The facility will operate 24 hours per day and seven days per week, with regular operation occurring Monday-Saturday. Employees will work in two shifts, one early morning and one late afternoon. It is estimated that the morning shift will consist of about 60 employees in Phase 1, increasing to approximately 90 in Phase 2, and the evening shift will have about 30 employees in Phase 1, increasing to approximately 60 in Phase 2. Aside from shift arrival and departure, on-site traffic will be mainly limited to personnel movement, deliveries, and outgoing shipments of products and coproducts. Fish movement within the site will be handled by subgrade piping and thus will not add to surface traffic.

Staff is recommending that the Planning Commission Certify the EIR and Approve the Coastal Development Permit and Special Permit for this project.

Background:

The Site is a former pulp mill site that historically supported industrial timber and pulp mill operations since the 1960s and is known as Redwood Maine Terminal II (RMT II). The Parcel is an active Brownfield site (Regional Water Quality Control Board case no. 1NHU892) that received grant funding from the U.S. Environmental Protection Agency (EPA) for cleanup and assessment activities.

Starting in the late 1990s, the site has been evaluated for contaminiation of soil, groundwater, soil gas, and construction materials. . The North Coast Regional Water Quality Control Board (NCRWQCB) is the lead agency for the investigation and cleanup of contamination associatedwith former pulp mill operations and oversees the current groundwater monitoring program in place for the site. Remediation

activities commenced in 1994 and have continued as recently as 2019. Past remediation activities were implemented by former project site owners, including Louisiana Pacific Corporation and the Harbor District. Asbestos material removal (abatement) at select structures was conducted by the Freshwater Tissue Company (FTC) subcontractors between 2011 and 2013. Between 2011 and 2013, many pulp mill structures were demolished, including the pulp mill Recovery Boiler, Bleach Plant, re-causticizing area, and liquor storage tanks. Due to the intensive historic use of the project site, the site is comprised of unique infrastructure present to support large water use and energy demands. Existing infrastructure that would be utilized by the Project include the ocean outfall for discharge of treated effluent (northwest portion of pulp mill site); Piping and intake structure for intake of salt water (East of pulp mill site); and a 60-KV, 20 MW electrical switchyard (northwest portion of the pulp mill site). The eastern portion of the parcel supports ongoing coastal-dependent industry within the RMT II that would not be disturbed by the project.

In August 2013, ownership of the former pulp mill site was transferred from FTC to the Harbor District. Today, the Site consists of remnant pulp mill infrastructure and concrete foundations associated with the former Freshwater Tissue Culture (FTC) Pulp Mill, which was decommissioned in 2009. In 2015, improvements to water, wastewater, electrical and fire suppression systems were constructed (CDP-15-043). If approved, NAFC would be responsible for the demolition and remediation of the existing site conditions to be able to redevelop and safely reuse the site for the proposed RAS facility.

Infrastructure on the project site available for NAFC's use include:

a) Ocean outfall for discharge of treated effluent (northwest portion of pulp mill site);
b) Piping and intake structure for intake of salt water (East of pulp mill site); and
c) a 60-KV, 20 MW electrical switchyard (northwest portion of the pulp mill site).

The eastern portion of the parcel supports ongoing coastal-dependent industry within the RMT II that would not be disturbed by the project. There are currently seven tenants leasing areas within the proposed Site under an Interim Non-Coastal Dependent Industrial lease with HBHRCD. Interim uses allow for greater use of underutilized MC lands while at the same time avoiding impacts to their long term coastal-dependent industrial use and other priority uses conditionally permitted on MC designated lands. Occupants will be relocated with the assistance of HBHRCD in compliance with the California Relocation Assistance and Real Property Acquisition Guidelines. Current tenants will be permitted to remain on the property prior to demolition activities,then relocated into the remaining RMT-II building.

<u>Project Permitting</u>

The project will require issuance of Coastal Development Permits for terrestrial (land-based) development from the County of Humboldt. Ocean water intake upgrades will requirea Coastal Devepment Permit from the California Coastal Commission. Use of the ocean outfall will require aThe Demolition, and redevelopment of the site is under the jurisdiction of the County. The upgrade of two existing sea water intakes within Humboldt Bay and associated water line upgrades is under the permitting authority of the Coastal Commission. The Ocean Outfall is related to the discharge of treated wastewater from the aquaculture facility through the existing Redwood Marine Terminal II Ocean Outfall and is subject to the permitting authority of the California Coastal Commission (CCC) and NCRWQCB.

The EIR has been prepared to address the entire project from construction, to operation and considering the water intake and effluent from the facility Nordic Aquafarms California, LLC (NAFC) is the applicant for the Terrestrial Development and Ocean Outfall components, and the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District) is the applicant and responsible party for the Humboldt Bay Water Intakes.

Permitting responsibility is as follows:

Aquaculture Facility	-	Coastal Development Permit	- County of Humboldt
	-	Special Permit	- County of Humboldt

Sea Chest Upgrades	-	Coastal Development Permit	- Coastal Commission
	-	Intake	- NMFS, USACE, Harbor District
Wastewater	-	Coastal Development Permit	- Coastal Commission
	-	NPDES	- RWQCB
Aquacuture, Fish Species, Egg importation			- CDFW

Project Phasing

The Project is anticipated to be built out in two primary phases, with preliminary site preparation (Phase 0):

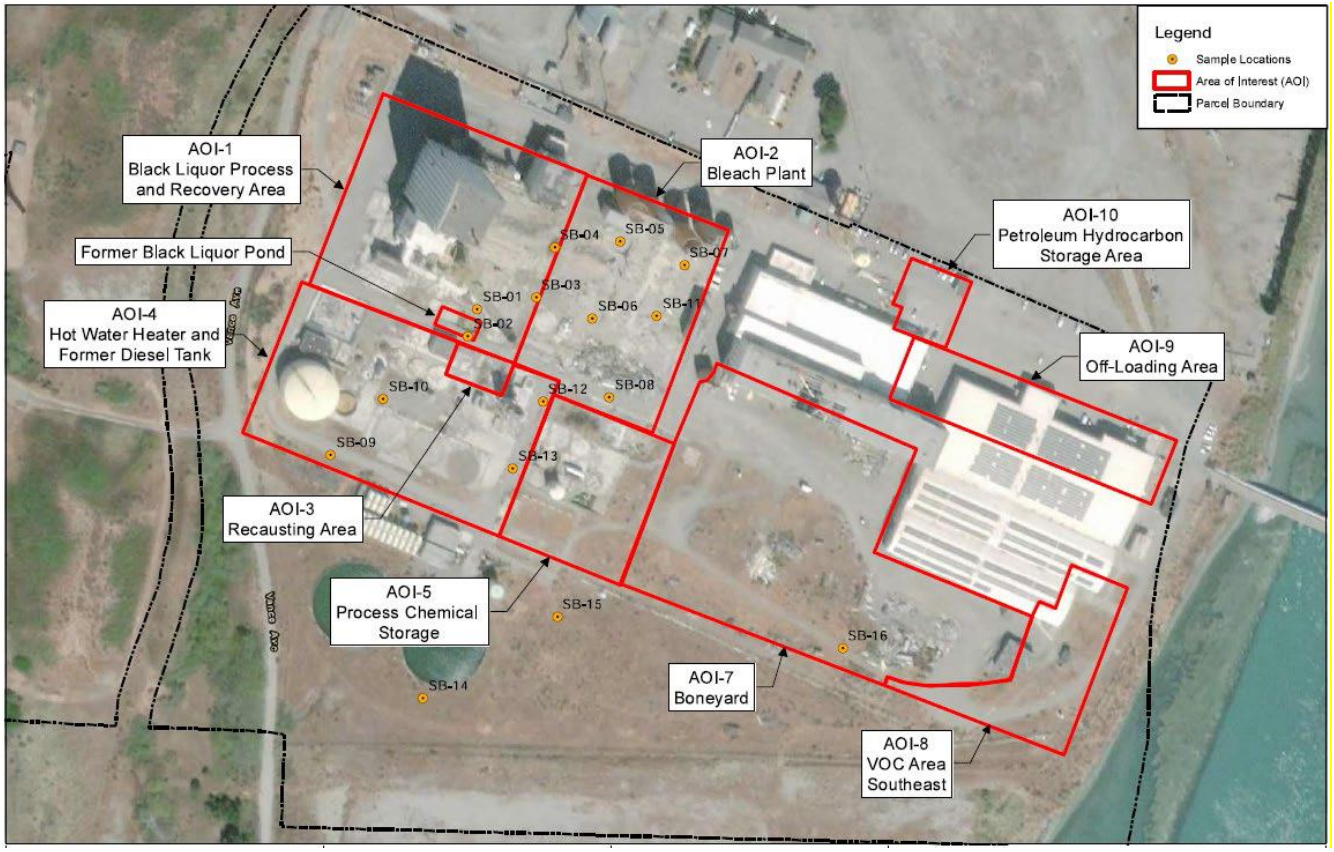
1. Phase 0 – Brownfield Redevelopment: asbestos and lead abatement; structure demolition; soil remediation; waste stream characterization, transportation, and disposal.

2. Phase 1 – Brownfield Redevelopment and Aquaculture Facility Stage 1: Intake and outfall connections; ground densification to prepare construction of building foundations; construction of Phase 1 grow out module (Building 1), Hatchery (Building 3), Fish Processing Plant/Administrative (Building 4), Wastewater Treatment and Backup Power (Building 5); Oxygen generation storage; stormwater systems; onsite and offsite biological mitigation.

3. Phase 2 – Aquaculture Facility Stage 2: Ground densification; Phase 2 grow out module (Building 2); soil remediation; expansion of utilities; existing leach field decommissioning.

Existing Site Conditions:

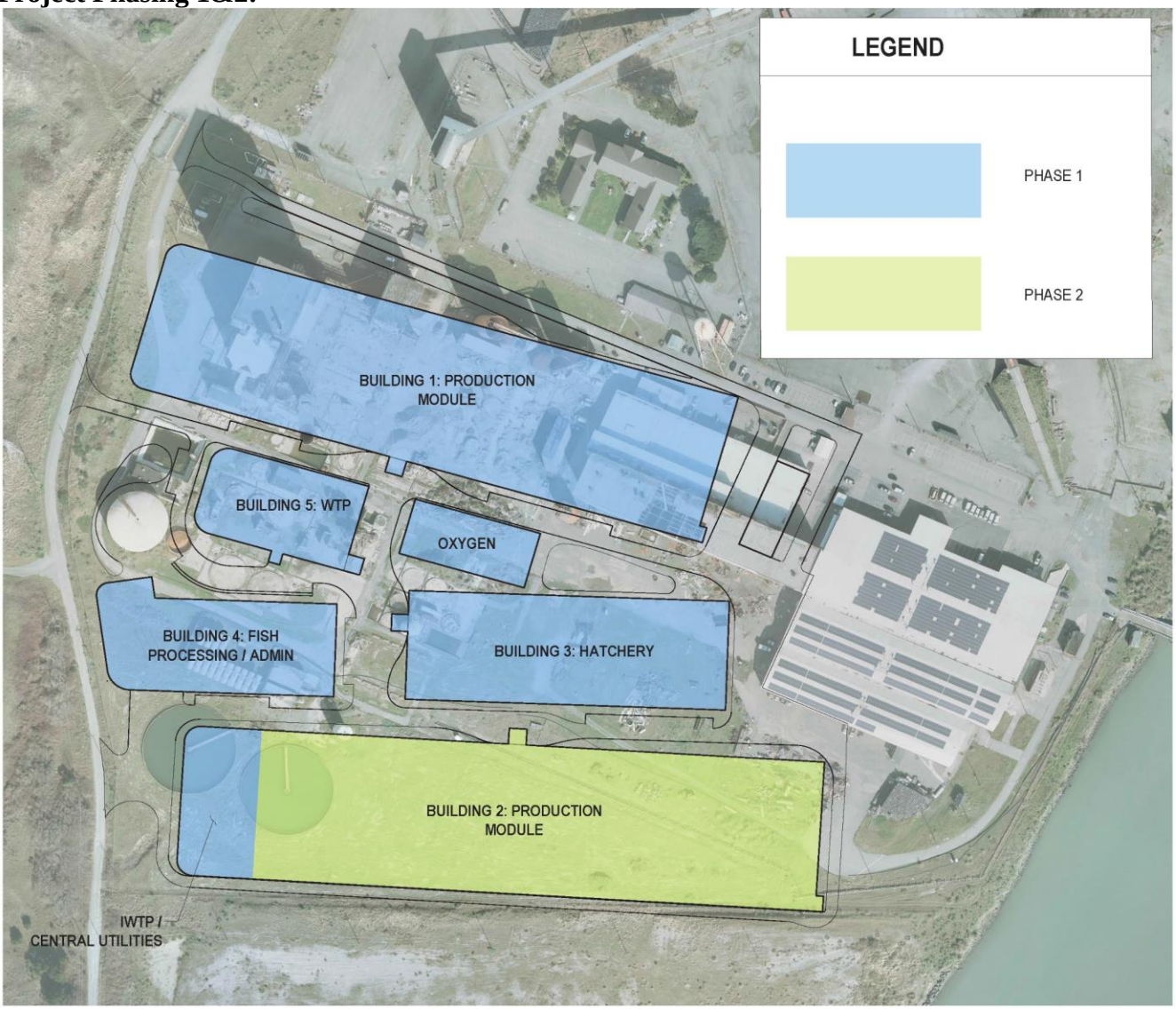
Phase 0:



Facility Operations

The facility is estimated to employ around 90-100 employees for Phase 1, and up to 150 for full Phase 2 buildout. The facility will operate 24 hours per day and seven days per week, with regular operation occurring Monday-Saturday. Employees will work in two shifts, one early morning and one late afternoon. It is estimated that the morning shift will consist of about 60 employees in Phase 1, increasing to approximately 90 in Phase 2, and the evening shift will have about 30 employees in Phase 1, increasing to approximately 60 in Phase 2. Aside from shift arrival and departure, on-site traffic will be mainly limited to personnel movement, deliveries, and outgoing shipments of products and coproducts. Fish movement within the site will be handled by subgrade piping and thus will not add to surface traffic.

Project Phasing 1&2:



1. Building 1 (Grow-out Module 1): 265,028 square feet; 55-feet-tall; 1 story
2. Building 2 (Grow-out Module 2): 286,888 square feet; 55-feet-tall; 1 story
3. Building 3 (Hatchery): 105,085 square feet; 55-feet-tall; 1story
4. Building 4 (Fish Processing and Administration): 66,878 square feet; 60-feet-tall; 3 stories
5. Building 5 (Wastewater Treatment and Backup Power): 42,651 square feet; 40-feet-tall with 40-foot backup; generator exhaust stack; 2 stories.

Land Use Analysis:

Local Coastal Plan (HBAP) Policy Analysis:

The project site is located within the Coastal Zone, specifically within locally maintained jurisdiction of the Humboldt County Planning Department, appealable by the Californial Coastal Commission. Project location falls under the Local Coastal Plan the Humboldt Bay Area Plan. The proposed developmnent is in conformance with the applicable policies set forth in the HBAP as the site is designated Industrial, Coastal Dependent (MC) and Industrial, General - Coastal Areas (MG) under the HBAP. All development will occur within the MC designation. Aquaculture and aquaculture support facilities are principally permitted coastal dependent industrial uses under both the MC and MG land use designations.

Aquaculture is a coastal-dependent use, and coastal dependent uses shall have priority over other developments near the shoreline, except they shall not be sited in a wetland (3.13 -30255). The project is sited directly adjacent to Humboldt Bay to the east. The project development will not be sited in/on a wetland. One-parameter wetlands do exist on-site and will not be impacted as a result of the project.

The project site is located within a historically industrial area, planned and zoned for coastal dependent industrial use. The project location has a history of heavy industrial use, previously by occupied by the Freshwater Tissue Pulp Mill. The pulp mill utilized existing public infrastructure (ocean intake and outfall), and the proposed aquaculture facility would utilize that same infrastructure to accomodate facility needs, and is considered a deintensification in use compared to the threshold previously utilized by the pulp mill (3.14-30250).

The project will utilize existing sea chest infrastructure at the Red Tank Dock and RMT II dock. Existing ocean intake public infrastructure will be upgraded. Improvements to the sea chest are required to undergo environmental review and have been addressed in the Environmental Impact Report for the project. Sea water intake upgrades will require an additonal CDP from the California Coastal Commission. The intake water treatment system will be designed to ensure that sediment, bacteria, and pathogens do not enter the facility.

Policy requires wastewater discharges to be treated to protect present and future beneficial uses, and where feasible, to restore past beneficial uses of the receiving waters (3.14-13412.5). A wastewater treatment plant will be implemented in the facility design, and water will be treated on-site prior to discharge off-site. Wastewater discharge permitting, monitoring, and reporting will be conducted under the NPDES permit authorized by the NCRWQCB. The applicant is required to provide the County with evidence of an issued NPDES permit prior to project operations. Compliance with the permit is a Condition of Approval. Additionally, the applicant is required to undergo annual monitoring for project as a voluntary commitment made by the applicant in the FEIR. This commitment to monitor receiving waters is a Condition of Approval (COA#19).

The wastewater effluent entering the Pacific Ocean via the existing RMT II outfall pipe will not significantly alter the ecological balance of the receiving waters, as determined by the Dilution Study prepared by GHD (2020). The study examined the modeled effluent for the various mixing zones near the diffuser. 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. The NPDES permit will set standards for the discharged effluent. Treated effluent achieves a reduction of 99 percent of total suspended solids, BOD, and phosphorus, with 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. The preliminary concept design of 64 open ports yields a predicted mixing zone (i.e., marine toxicity and physiological stress to biotic receptors) that 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.

Geologic Safety: The property is located in an area of low to moderate geologic instability. A Geotechnical Investigation by SHN in 2020 outlines an analysis of natural hazards in the County and recommends that the project require designs in accordance 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. Existing structural hazards will not impact the proposed project as existing infrastructure will be demolished and the site remediated. Adherence to the recommendations in the Geotechnical Report are required for the project and identified as 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 the General Plan. 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.

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.

Commitment to Renewable Energy: The project will not result in wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation not will it conflict with or obstruction of a state or local plan for renewable energy or energy efficiency and will not result in a cumulatively significant impact to energy resources. The project will use a significant amount of power for operation of pumps and filters, but the applicant has agreed to purchase power that is renewable or non-carbon in accordance with the Redwood Coast Energy Authority objectives. This is in line with state and local ambitions to minimize greenhouse gas emission through power production. The impact is less than significant.

Protection of Environmentally Sensitive Habitat Area (ESHA): The Project is consistent with Section 30240 a and b of the Coastal Act. High quality dune mat located on the project site will be protected by an established requirement of a minimum 35-foot buffer. Within the buffer is a 20-foot-wide fire road. The road will also act as a buffer, as it would only be used in an emergency. To prevent trampling and disturbance of the ESHA, construction fencing is required along the edge of the buffer, as shown on the Site Plan (setback 15 feet from the road). 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. The ESHA protection measures are described as Mitigation Measure BIO-7a of the EIR. Additionally, the project was redesigned to ensure setback protections for ESHA during construction and operation of the facility. 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.

Wetlands: 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 requirements outside of the urban limit line. 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.

Offsite Compensatory Restoration: The project is consistent with 3.14 HBAP section 13142.5(b) development policies for Coastal Marine Environment, for each industrial installation for an industrial activity using seawater, requiring mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life. Compensatory off-site habitat restoration activities required by the Coastal Development Permit issued by the California Coastal Commission to (1) offset a small reduction in the Humboldt Bay's biological productivity as a result of entrainment of non-special status larval species, and (2) compensate for the potential take of longfin smelt (LFS) larvae during the operation of the two sea water intakes.

Visual Resource Protection: Project Site currently has low visual quality, low visual sensitivity, and poor visual character. Remediation and demolition activities include the removal of an 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. 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. Removal of existing infrastructure will improve overall aesthetics and benefit coastal visual resources. 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.

Additionally, the EIR identifies potential impacts to larval Longfin Smelt at the seawater intake location due to potential entrainment. LFS is being mitigated on a 1:1 basis in the form of larval habitat creation within brackish waters of Humboldt Bay known for spawning/rearing habitat explicitly for the potentially impacted LFS life-stage. Off-site compensatory restoration would include pile removal and spartina removal. Pile removal would include up to 988 piles and 151 crossbeams from the Kramer Dock in Humboldt Bay, and 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). Implementation of these measures will be a requirement of the Coastal Development Permit required by the California Coastal Commission.

Zoning:

As described by Humboldt County Code (HCC), the Parcel is zoned Industrial Coastal Dependent (MC) with the combining zone Archaeological Resource Area Outside Shelter Cove (A) and the lands west of Vance Avenue are zoned Industrial General (MG). The aquaculture facility will be constructed on the MC-zoned portion of the parcel. The proposed use of "aquaculture" is principally permitted in the MC zone. Principally permitted uses are are explicitly allowed within a given zone district. Coastal dependent industrial uses include but are not limited to the following: fish processing for human consumption, ocean intake, outfall and discharge pipelines, and aquaculture and aquaculture support facilities. Industrial zones involve onsite production of goods by methods that are not agricultural or extractive in nature as defined in Humboldt County Code (HCC Section 313-175). Aquaculture is a principlally permitted use

and is explicitly allowable in both the MC and MG zoning designations applicable to the Parcel.

The A combining zone is applied to parcels that may contain archaeological and paleontological value as identified by the State Historic Preservation Office. A Cultural Resources Study (CRS) was conducted for the project by a qualified archeological professional. Field investigations did not find evidence of cultural resources on the site (see Appendix 3 – Environmental Impact Report – Cultural Resources for further discussion). Given that the area is archaeologically sensitive, the EIR has required that a cultural monitor be present on site during ground disturbing activities and that normal inadvertent discovery protocol be followed if any resources are encountered. Based upon these precautions the project is consistent with the requirements of the A combining zone.

The parcel is accessed from Vance Avenue via New Navy Base Road and LP Drive, and is served by a 50-foot-wide non-exclusive easement for ingress and egress on Vance Avenue. Repair, resurfacing, and striping upgrades of Vance Avenue and LP Drive is expected to support site access, construction, and operation. Significant expansion of the paved surface of Vance Ave is not expected through the repair and resurfacing process. Temporary signage along Vance Avenue will be provided as needed during construction activities then permanent signage installed as appropriate for operations. Temporary construction and staging signage to New Navy Base Road will require an encroachment permit from the Public Works – Land Use Division.

Facility Parking

Parking will be located throughout the central campus corridor between Building 1 and Building 2. The facility will include a three-truck loading docks, seven-truck unloading / loading areas,115 standard light vehicle parking spots, and 6 ADA-accessible light vehicle parking spots. At full production there would be approximately 90 employees at the facility at any given time, comprised of 20 employees in the approximatly 6,400-square-foot office/management area of Building 4 and approximately 70 employees spread throughout the rest of the facility.

A Special Permit (SP) has been applied for concurrently with the CDP for an exception to the parking and loading space requirements pursuant to HCC Sections 313-109.1.3.12 and 313-109.1.5.2 *Exceptions.* Humboldt County Code Section 313-109.1.3.12 allows for a reduction in the required parking spaces due to geographic location of site and levels of anticipated use. As stated in the *Parking and Loading Nordic Aquafarms Memorandum* prepared by GHD dated November 24, 2020, the applicant is requesting a reduction in required parking spaces to 12, and requesting an exception to the loading zone requirements to reduce the number of loading zones required to 7 loading zones (see Attachment 4). The applicant states the operation of the proposed facility will involve regular loading and unloading of material such as fish feed, waste, and finished product. To accomplish this, the facility proposes seven specially designed loading docks and bays. The justification for the reduction is as follows:

1. Geographic Location of the Site. The proposed facility is located on a large industrial site 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.

2. Levels of Anticipated Use. The proposed facility is highly specialized in its design and function. The anticipated number of staff and the amount of incoming and outgoing truck traffic has been accurately estimated through detailed operational planning and existing comparable facilities. Because of this, the appropriate number (seven) and function of the loading docks is understood and well justified.

Based on the parking demand analysis above and justification described by *Parking and Loading Nordic Aquafarms Memorandum* prepared by GHD dated November 24, 2020, there is justification for approval of the SP.

Facility Truck Traffic

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).Facility operations will include regular shipments from and deliveries to the facility. Shipments would include finished product to market and waste streams to secondary use processing sites. While the final distribution strategy for the facility is still in development, initial estimates have been made based on knowledge of existing West Coast markets in relative proximity to the Project Site. At full production it is currently estimated that there will be 40 outgoing product delivery trucks per week with approximately 30% going to the Seattle area, approximately 30% going to the Los Angeles area, and approximately 40% going to the San Francisco Bay Area. It is expected at full production there will be 32 outgoing trucks weekly carrying waste streams to various secondary use processing sites within 150 miles of the facility. Deliveries to the facility include fish feed, shipping materials, and process chemicals. The final feed vendor will be selected at a later date. Deliveries of shipping materials and process chemicals will consist of three trucks per week likely originating in the Redding or San Francisco Bay area.

Solar and Energy Utilities

Pacific Gas and Electric Company (PG&E) provides electricity to the project site. The estimated normal daily electricity usage is 21.4 megawatts (MW). A portion of this usage will be offset by the 3-5 MW rooftop solar installation which will cover approximately 657,000 square feet of facility rooftops. Normal operation of the facility will use exclusively electricity. In the event of an emergency, the applicant proposes several dual fuel (natural gas or diesel) generators with a combined capacity of approximately 20 MW needed to supply emergency power to the fully developed facility. Regular testing and maintenance of the backup energy system will make use of small amounts of natural gas and diesel fuel. Diesel fuel would be supplied by two new 25,000 gallon double walled fiberglass underground storage tanks (UST), which will be located underground east of Building 5. Modernization and upgrade of the existing 60-kilovolt (KV), 20 megawatt (MW) electrical switchyard is planned to expand the total capacity of the switchyard to 30-35 MW to be utilized by NAFC and HBHRCD RMT II operations.

Sewer

The property is developed with an existing septic system and leach field which will be used temporarily during construction and operation of Phase 1. The septic system use will be discontinued once construction begins on Phase 2 production modules. The second production module building is proposed over the existing leach field. Prior to the site being disconnected from the septic system, the Project Site will be connected to the Peninsula Community Services District (PCSD) sewer line that will be constructed west of the Project Site.

Saltwater Intake

Salt water for NAFC will be provided by the co-applicant, the Humboldt Bay Harbor Recreation and Conservation District. The HBHRCD own two existing sea chests (water intake structures) at the nearby RMT II and Red Tank Docks which they will modernize and operate. Saltwater usage is estimated at a maximum of 10 MGD. The HBHRCD is in the process of permitting upgrades to the sea chests that will increase water withdrawal capacity and add features that reduce environmental impacts, including upgraded intake screens that enhance the protection of juvenile fish/lavae. The RMT II Dock screen will be 36-inch diameter with a maximum intake flow rate of 5,500 gpm, and the Red Tank Dock screen will be 24-inch diameter with a maximum intake flow rate of 2,750 gpm. Screens are comprised of woven stainless-steel material with approximately 1.0mm spacing between bars (smaller than the standard requirement of 1.75mm). Committing to smaller screens on the intakes is intended to prevent entrainment and impingement of aquatic organisms. No fish are anticipated to be entrained. The sea chest pumps operated by HBHRCD would supply seawater through piping affixed to the existing docks. The piping infrastructure would extend onshore underground at least 50 feet from the RMT II dock terminus. The aquaculture facility would tie into the sea chest piping at the southeast corner of the RMT II building.

Freshwater

Freshwater is provided to the Project Site by an existing one-million-gallon (1-MG) water storage tank operated by Humboldt Bay Municipal Water District. The existing onsite water service would be connected to the new buildings for potable use, fire suppression, and possibly irrigation. Water service to the buildings would connect to an underground water line running from the 1-MG tank to the Project Site. The HBMWD provided a will-serve letter on March 12, 2021, confirming the District has the capacity to serve NAFC facilities with three (3) million gallons of industrial water per day, and 300,000 gallons of domestic, potable water per day sourced from the Mad River. Service capacity exceeds the anticipated maximum usage of 2.5 MGD of industrial fresh water.

Wastewater Treatment and Discharge

Process Wastewater from the aquaculture facility will be treated on-site prior to discharge into the Pacific Ocean via the existing ocean outfall pipe that extends approximately 1.55 miles offshore. An advanced wastewater treatment plant will be developed to treat wastewater, including a Moving Bed Biofilm Reactor (MBBR), an ultrafiltration membrane bioreactor (MBR), and 300 millijoules per square centimeter (mJ/cm) UV-C disinfection system. Total water volume discharged at full operational capacity is estimated at a maximum of 12.5 million gallons per day (MGD). Previous discharge from the former mill operations was 20 MGD.

Current outfall users, DG Fairhaven and Samoa Wastewater Treatment Plant, are permitted under the National Pollutant Discharge and Elimination System permit program to discharge 350, 000 gallons per day and 53,000 gallons per day, respectively. The total hydraulic discharge capacity for the outfall is estimated at 40MGD. The discharge effluent is regulated by the North Coast Regional Water Quality Control Board (NCRWQCB). The NRWQCB draft permit No. CA1000003 would authorize a maximum of 12.5 MGD of treated effluent to be discharged by NAFC. The draft permit prohibits the following: the discharge of waste to Humboldt Bay; the discharge of domestic waste, treated or untreated, to surface waters; and discharge in excess of 12.5 MDG. Additional prohibitions are cited in the draft permit document. The National Pollutant Discharge Elimination System (NPDES) program requires monitoring of effluent constituents, with samples requirements ranging from daily to monthly collection samples. The Monitoring and Reporting Program (MRP) is outlined in attachments of the draft NPDES permit document. The applicant is required to provide the County with evidence of final permit issuance from the RWQCB prior to project operations. Compliance with the requirements of the final NPDES is an on-going requirement for the life of the Project. Water quality parameters of pre-treated effluent discharge were evaluated and conform to the applicable water quality parameters established in both the Ocean Plan and Thermal Plan.

EIR Process, Findings, and Important Issues:

An Initial Study and Mitigated Negative Declaration was initially prepared for the project pursuant Section 15074 of CEQA Guidelines. The draft Initial Study and Mitigated Negative Declaration was circulated for public review from July 17, 2020, to August 17, 2020 . After circulation of the IS/MND and due to substantial comments received expressing concerns related to energy usage, effluent discharge and related monitoring, transportation and traffic, alternative fish species, and potential biological impacts related to the water intake, the applicant and County determined an Environmental Impact Report (EIR) should be prepared for the proposed project.

The County prepared and circulated a Notice of Preparation on 6/03/21 to notify Responsible Agencies, Trustee Agencies, the Office of Planning and Research, involved Federal Agencies, and the Public that the County planned to prepare an EIR for this project. The County held two (2) separate scoping meetings, one for the public on 6/10/21 at 6pm, and one for Responsible and Trustee Agencies on 6/10/21 at 11am, to identify significant environmental issue and reasonable alternatives and mitigation measures to be explored.

The Draft EIR was circulated for 60 days, from December 20, 2021, to February 18, 2022, to allow interested individuals and public agencies to review and comment on the document. The document was

available for review at Humboldt County Planning and Building Department, Humboldt County Library, Humboldt County Clerk-Recorder, Humboldt Bay Harbor, Recreation, and Conservation District, and Humboldt State University Library. Document files were also be made available upon request at https://humboldtgov.org/3218/Nordic-Aquafarms-Project. Comments were submitted in writing via the United States Postal Service or via email. Written comments on the Draft EIR were accepted until February 18, 2022.

A total of 243 comments were reviewed as a result of circulation. The FEIR responds to all of the comments made on the DEIR. For comments that required more explanation or were brought up in many letters Master Responses were prepared. The Master Responses do a very good job of addressing the public comments that are most common.

The EIR addresses all components of the project and so the whole project is evaluated in its entirety. The EIR evaluated the Nordic Facility and the water intake and outfall which are facilities operated by the Harbor District.

The FEIR does include on revised Mitigation Measure, (BIO-6A) which was prepared to address discussions with CDFW. The mitigation was modified to focus on the stage of life of Long Fin Smelt Larvae, rather than just benefiting Long Fin Smelt in general. The FEIR (DEIR) explains that Long Fin Smelt are a protected species and that any loss of individuals (larvae) is a significant impact. The mitigation reduces this to a less than significant impact.

The net finding of the EiR is that there are no significant unavoidable impacts associated with the project. All impacts can be mitigated to a less than significant level. The resolution prepared for the certification of the EIR goes into detail all of the rationale behind the findings within the document.

The FEIR was posted at the State Clearingouse on July 1, 2022, 27 days prior to this hearing. From a process perspective the public review times of the DEIR and FEIR have been ample.

Recommendation:

This is a principle use within the Coastal Dependent Industrial Zone, and all potential environmental impacts have been mitigated to a less than significant level. The project will clean up an existing brownfield site. The project is in line with the policy guidance of the Humboldt Bay Area Plan. Based upon these factors staff recommends that the project be approved.

ALTERNATIVES: The Planning Commission could elect not to approve the project, or to require the applicant to submit further evidence, or modify the project. Modifications may cause potentially significant impacts, additional CEQA analysis and findings may be required. These alternatives could be implemented if the Commission is unable to make all of the required findings. Planning Division staff has stated that the required findings in support of the proposal have been made. Consequently, Planning staff does not recommend further consideration of either alternative.

ATTACHMENT 2F

REFERRAL AGENCY COMMENTS AND RECOMMENDATIONS

The project was referred to the following referral agencies for review and comment. Those agencies that provided written comments are checked off.

Referral Agency	Response	Recommendation	Location
Building Inspection Division	✓	Approval	Attached
Public Works - Land Use Division	✓	Approval	Attached
Public Works – Natural Resources Division		No response	
Division Environmental Health	✓	Conditional approval	Attached
County Counsel		No response	
HBHRCD	✓	Conditional approval	Attached
Humboldt Bay Municipal Water District	✓	Approval	Attached
Samoa Peninsula FPD	✓	Approval	Attached
CA Department of Fish & Wildlife – Northern Region	✓	Comments	Located in FEIR
CA Department of Fish & Wildlife – State Aquaculture Program	✓	Comments	Located in FEIR
CA Division of Water Resources		No response	
Cal-EPA		No response	
CA Coastal Commission	✓	Comment	Located in FEIR
RWQCB	✓	Comment	On file with planning
NWIC	✓	Further Study	On file and confidential
Bear River Band of Rohnerville Rancheria	✓	Conditional approval	On file and confidential
Wiyot Tribe	✓	Conditional approval	On file and confidential
Blue Lake Rancheria	✓	Conditional approval	On file and confidential
USFWS		No response	
BLM		No response	
Army Corps of Engineers		No response	
EPA		No response	
Coast Guard		No response	
National Marine Fisheries Service (NOAA)		Comments	Located in FEIR

COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING
3015 H STREET, EUREKA, CA 95501 ~ PHONE (707) 445-7245

3/18/2021

Project Referred To The Following Agencies:

Blue Lake Rancheria, County Counsel, Environmental Health, PW Land Use, PW Natural Resources, Building Inspections, USFWS, EPA, NMFS, Corps of Engineers, Bureau of Land Management, FPD: Samoa, RWQCB, Humboldt Bay Municipal Water District, Cal Coastal Commission, Cal Fish & Wildlife, CA Dept of Toxic Subs, Division of Water Resources, CalFire, Cal-OSHA, Cal-EPA, Bear River Band, NWIC, Trinidad Rancheria, Wiyot Tribe, Other: NOAA, Other: Bay Keeper, Other: Surfrider, Other: Humboldt Fisherman's Marketing Assoc.

Applicant Name Nordic Aquafarms California, LLC **Key Parcel Number** 401-112-021-000

Application (APPS#) PLN-2020-16698 **Assigned Planner** Alyssa Suarez 707-268-3703

Please review the above project and provide comments with any recommended conditions of approval. To help us log your response accurately, please include a copy of this form with your correspondence.

Questions concerning this project may be directed to the assigned planner for this project between 8:30am and 5:30pm Monday through Friday.

County Zoning Ordinance allows up to 15 calendar days for a response. If no response or extension request is received by the response date, processing will proceed as proposed.

☐ If this box is checked, please return large format maps with your response.

Return Response No Later Than: 4/2/2021

Planning Clerk
County of Humboldt Planning and Building Department
3015 H Street
Eureka, CA 95501
Email: PlanningClerk@co.humboldt.ca.us **Fax**: (707) 268 - 3792

We have reviewed the above application and recommend the following (please check one):

☒ Recommend Approval. The department has no comment at this time.

☐ Recommend Conditional Approval. Suggested conditions attached.

☐ Applicant needs to submit additional information. List of items attached.

☐ Recommend Denial. Attach reasons for recommended denial.

Other Comments: Please see attached comments

DATE: 3-18-2021 PRINT NAME: Keith Ingersoll

Aqua Farms Building Referral Comments

DATE: 3/17/2021
APPS#: PLN-2020-16698
APPLICANT NAME: Nordic Aquafarms California LLC - CDP/SP
OWNER: Humboldt Bay Development Association Inc
PARCEL NUMBER: 401-112-021-000

Nordic Aquafarms California, LLC (NAFC) proposes a redevelopment of Redwood Marine Terminal II (RMT II), an industrial brownfield, to include demolition of decommissioned pulp mill infrastructure and remediation of impacted soil, in order to construct and operate a land-based finfish recirculating aquaculture system (RAS).

This report details the Humboldt County Building Divisions requirements for this development. Important GIS Layers specifies the jurisdictions, hazards, and natural resources that are influencing this projects design. Submittal Documents will provide a list of building documents that will be required prior to permit issuance. Building Code will give a rough idea of what building code requirements the design will need to conform with. Inspection Schedule will describe when an inspection is required, what code sections will be relevant, and what Special Inspections will be required.

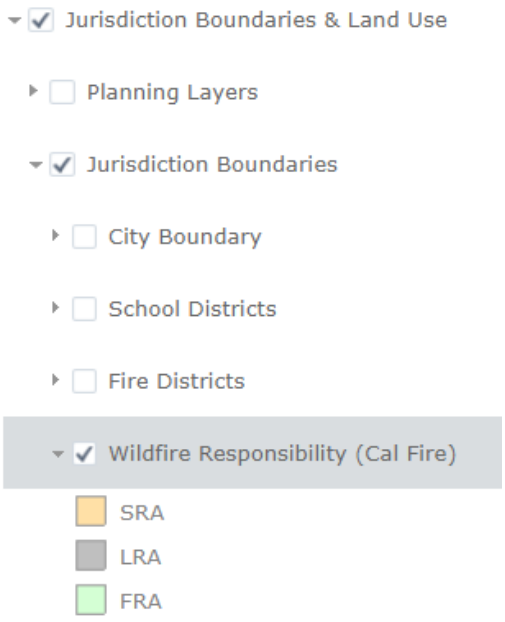
Contents

The Humboldt County Geographical Information System (GIS) is used by the building division to determine the jurisdictions, hazards, natural resources, and other geologic features associated with the proposed building site. Below are some important jurisdictional and geologic features that have a significant effect on what submittal documents you will need for the proposed RAS. To learn more about how to use the GIS, read the Web GIS Guide.

Jurisdictions

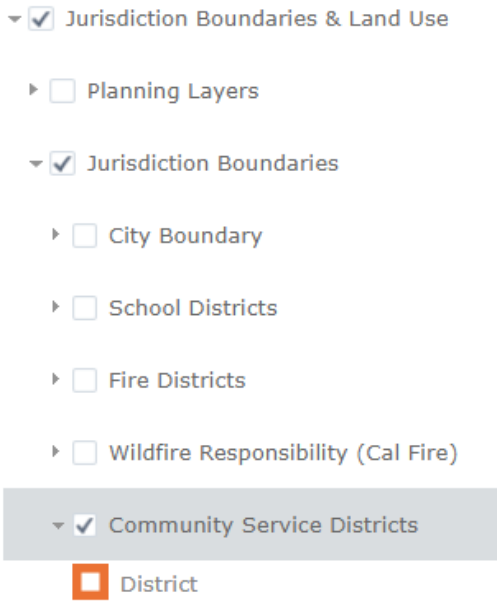
Local Responsibility Area

This project exists within the Local Responsibility Area (LRA). The applicant will need to contact the Samoa Peninsula VFD to get approval from the Chief, Dale Unea. They are located at 1982 Gass Street, Fairhaven CA. Their phone number is (707) 443-9042. The Samoa Peninsula VFD may impose their own requirements and will be required to provide approval on all fire protections systems. To access the Wildfire Responsibility layer, check the following GIS layer list boxes to the right



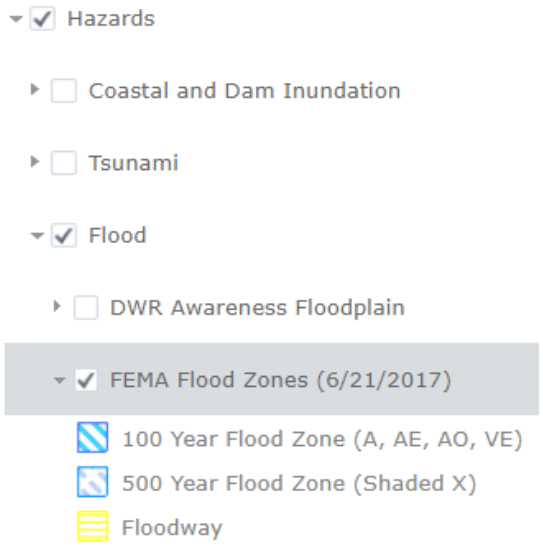
Community Services District

This project exists within the Peninsula Community Services District. The applicant will need to contact this agency to ensure their utility plan is in accordance with the services provided. To access the Community Services District layer, check the following GIS layer list boxes to the right.



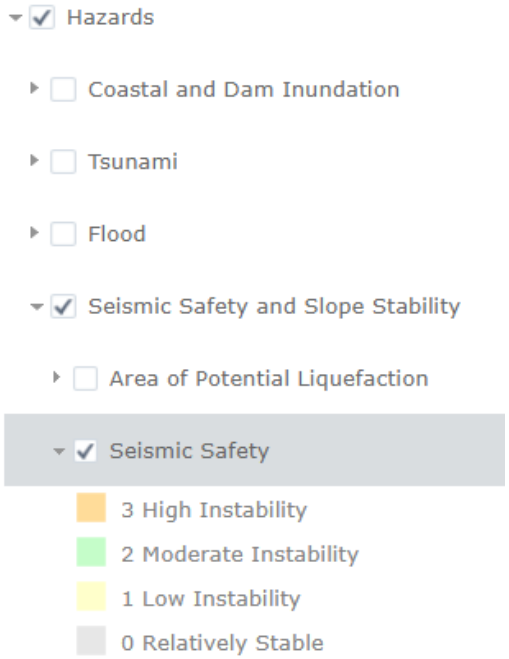
FEMA Flood Zones

The FEMA Flood Zone layer shows the flood zone and floodway. The parcel being developed appears to be slightly in the flood zone at the west and east ends of the parcel, however, it does not appear any construction is proposed in these areas. Special attention shall be made to ensure no development activity occurs in this area. If development does occur in this area it will have to comply with the FEMA Technical Bulletin 3-93, the Flood Damage Prevention chapter of the county ordinance, and Flood Resistant Construction (Appendix G) of the California Building Code (other requirements may apply). To access the FEMA Flood Zone layer, check the following GIS layer list boxes to the right



Seismic Safety

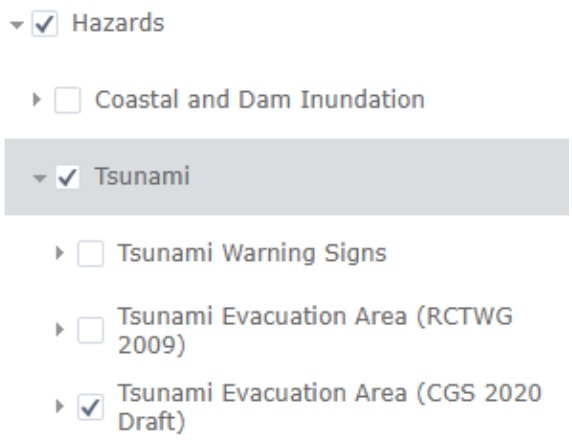
The seismic safety layer shows relative stability of your construction site. The project being developed is within Seismic Safety Zone 1 and 2, although, most of the development occurs in Zone 2. Based on this zone and the complexity of this project the Building Division is requiring an R1 Soils Report to be submitted prior to permit issuance. Furthermore, a site-specific sediment and erosion control plan will be required. To access the Seismic Safety layer, check the following GIS layer list boxes to the right.



Hazards

Tsunami Hazard Area

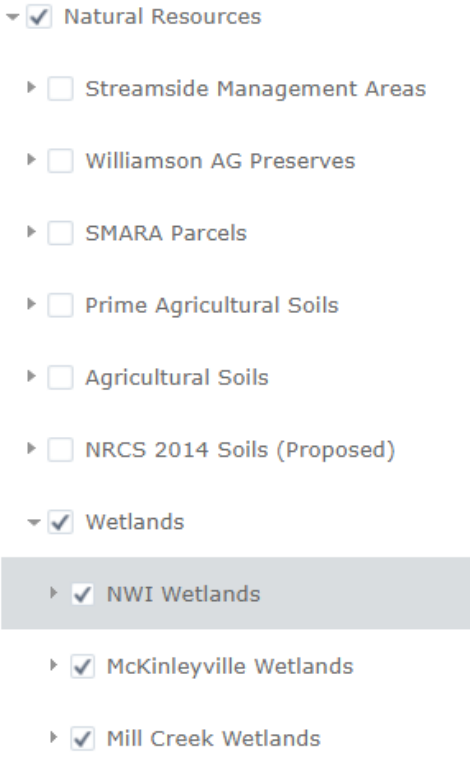
The proposed development occurs within a tsunami evacuation area. A Site-Specific Tsunami Inundation Analysis in accordance with chapter 6 of ASCE 7-16 shall be submitted and the design shall conform with Appendix M of the California Building Code. Special inspections will be required to ensure proper installation of hazard mitigating elements. To access the Tsunami layer, check the following GIS layer list boxes to the right.



Natural Resources

Wetlands

The parcel being developed appears to have freshwater emergent and forested/shrub wetlands on the west end of the parcel and an estuarine and marine wetland on the east end, however it appears that no development is proposed in those areas. Special attention shall be made to ensure no development activity occurs within this area during construction. If it does it will need to comply with the Streamside Management and Wetland Areas Ordinance of the county code and will require a special permit from the planning department. To access the SMA layer, check the following layer GIS list boxes to the right.



Submittal Documents | Nordic Aqua Farms

Submittal documents are construction drawings, engineered calculations, forms, installation manuals, and any other documents which will describe the construction of the proposed recirculating aquaculture system (RAS). Below is a list of all the submittal documents you could be required to provide.

Required Submittals

- *Construction Plans*
    - Cover Sheet – The cover sheet should provide general building project information such as assessor parcel number (APN), address, directions to site, signature/stamp of design professional, use of structure, referenced building codes, occupancy, occupant load, type of construction, stories, height, floor area, etc. The owners name, APN, address, and north directional arrow shall also be included on all pages of the construction plans. All plans must be prepared by a California licensed engineer or architect.
    - Demolition Plan – The demolition plan will include a letter from North Coast Unified Air Quality Management District, verification from the service district ensuring water/sewer lines are capped, a letter stating what will be done with the debris after demolition, a letter from PG&E, and current photos of the exterior of existing structures. It shall incorporate all state agency requirements and hazmat requirements.
    - Plot/Site Plan – The plot plan shows the entire parcel including all proposed structures, existing structures, setbacks from property lines, SRA areas, vegetation management area and more. Refer to the plot plan checklist to see what information a plot plan has.
    - Sediment and Erosion Control Plan (LID Plan) - The purpose of an erosion and sediment control plan is to prevent sedimentation or damage to onsite and offsite property. The drainage erosion management control plans must be prepared by a California licensed engineer.
    - Utility Plan – A utility plan shows all connections from the proposed structure to community services like water and sewer. These plans must be prepared by a California licensed engineer.
    - Accessibility Plans – Accessibility plans show accessible routes and other building code requirements described in Chapter 11B of the California Building Code. These plans must be prepared by a California licensed engineer or architect.
    - Floor Plan - The floor plan is a birds-eye view showing the dimensions and use of each room in a structure including windows, doors, and egress windows and doors.
    - Elevations Plans – Elevation plans show the height of the proposed structure, details on the exterior walls, required building code notes, and cross section details.

- Foundation Plan – The foundation plan shows footing details, hold downs, shear wall schedule, required building code notes, and more. These plans must be prepared by a California licensed engineer.

- Floor Framing Plan – The floor framing plan shows size, type, and spacing of joists, girders, required building code notes, and mechanical fasteners. These plans must be prepared by a California licensed engineer.

- Roof Framing Plan – Roof framing drawings show critical connections in the roof framing and detail framing members, fastener type/size, required building code notes, and mechanical fastener type and size. These plans must be prepared by a California licensed engineer.

- Electrical Plans – Electrical plans detail required building code notes and electrical switches, outlets, and fixtures with their configuration overlaid on a floor plan. These plans must be prepared by a California licensed electrical engineer.

- One-Line Diagram – A one-line diagram describes the size and type of the enclosures, conduit, sheathing, and conductors with a focus on connections over how the circuits overlay on the floor plan. These plans must be prepared by a California licensed electrical engineer.

- Mechanical Plans – Mechanical plans or heating, ventilation, and air-conditioning (HVAC) plans detail what appliances will be used and includes notes about relevant building code requirements. The mechanical plans must be prepared by a California licensed mechanical engineer.

- Plumbing Plans – The plumbing plans will provide a layout of plumbing, show all, materials and appliances used and will include notes on related building code. These plans must be prepared by a California licensed mechanical engineer.

- General Notes – The general notes page will detail California Green Building Standard requirements and will further detail electrical, mechanical, plumbing, sprinkler, and energy code requirements.

- Photovoltaic Plans – PV plans detail the size and layout of the proposed photovoltaic system. These plans must be prepared by a California licensed electrical engineer.

- Grading Plan – The grading plan will detail the cut, fill, stability, etc. of all soil moved as well as finished grades. The grading plan must be prepared by a California licensed civil engineer.

- Sprinkler Plans – The sprinkler plans will describe your sprinkler system and include hydraulic calculations. The sprinkler plans must be prepared by a California licensed fire engineer.

- *Engineering*
    - Energy Calculations - Energy calculations ensure your building will be well insulated and energy efficient. They require such things as quality insulation, windows, appliances, photovoltaic systems, title 24 energy report, and special inspections. Required building code notes from the California Green Building Standards and California Energy code should be included. This document must be created by a qualified energy engineer and all pertinent details from the energy calculations shall be transferred to relative sections of the building plans.
    - R1 Soils Report – An R1 soils report describes the seismic activity of the area, details soils stability, prescribes footing and foundation requirements, and much more. An R1 soils report shall be submitted by a qualified soils engineer per 336-5(a) of the Humboldt County Code. All pertinent details from the soils engineering report shall be transferred to the foundation plans.
    - Tsunami Inundation Analysis – A site-specific tsunami inundation analysis shall be conducted in accordance with the requirements of Chapter 6, Tsunami Loads and Effects of ASCE 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures. Tsunami design shall be incorporated into the structural plan.
    - Structural Calculations – Structural calculations detail the required size, type, and material of structural members. Structural calculations shall be prepared by a California licensed structural engineer. All pertinent details from the structural calculations shall be transferred to the structural plans.

- *Forms*
    - Building Application - A building application is used to gather personal information about the applicant and a project description. This must be filled out by the owner or agent.

The following regulations pertain to the Humboldt County Building Division and Fire Department requirements for the permit application, plan review, approval, and inspection of the Nordic Aqua Farms proposed recirculating aquaculture system (RAS).

General Requirements

The code requirements listed below are intended to assist the applicant with some of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of building code requirements for plan approval or permit issuance.

1. A building permit is required to verify occupancy even if no improvements or modifications to the property are proposed. The building permit application must meet the Counties general building permit submittal requirements.
2. Construction plans, calculations and related documentation supporting the building permit application are required per the *California Building Code* Section 105 when the owner or occupant intends to construct, enlarge, alter, remove, repair, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the Building and/or Fire Code; or to cause this work to be done. As a minimum, a site plan and floor plan of the proposed occupancy shall be submitted for all proposed projects.
3. All Building permit design and supporting documentation is required to be prepared, stamped, and signed by qualified design professionals licensed and registered by the state of California. *California Business and Professions Code (B&PC)* § 5536.1 and § 6735.
4. An application for a building permit will not be accepted without confirmation that all discretionary approvals have been obtained or a zoning clearance has been issued.
5. All construction and related work must be performed by contractors licensed by the State of California as general and/or specialty contractors for the specific discipline of work to be performed.
6. All design and construction shall be consistent with the provisions of the Humboldt County Code and the current edition of the California Building and Fire Codes as adopted by the California Building Standards Commission, and as amended by the Humboldt County Code.
7. A Humboldt County building permit application form must be completed in its entirety and included with each submittal.
8. Codes and Standards regulating construction currently adopted and/or recognized by the Humboldt County include those described in 331-11 of the Humboldt County Code.
9. A project specific submittal package is required for each individual building and building address as described in the Submittal Documents section of this document. Additional documentation may be

General Requirements

required for structural modifications and/or additions to existing building or structures. Contact the Building Department for final determination of required documentation for submittal.

10. Construction or work for which the permit is required shall be subject to inspection by the Building Division and/or Fire Department, and such construction or work shall remain accessible and exposed for inspection purposes until approved. No construction shall commence prior to the issuance of a Building permit.
11. No building or structure shall be used or occupied, and no change in the existing occupancy classification of the building or structure or portion thereof shall be made, until the Building Official has issued a certificate of occupancy. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of applicable codes and standards or the other regulations of the State of California or the County of Humboldt.
12. The owner/occupant is required to keep all County approved plans, specifications, and related documents on the premises, in an easily accessible location for County Building inspection staff for the required inspections.

Building Code

The building code requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all-inclusive listing of the CBC requirements for plan approval or permit issuance.

Building

1. The height and area of all structures shall be designed and detailed for compliance with CBC Chapter 5.
2. The Building Official shall determine the Occupancy and Construction Type of the proposed facility, and such occupancy designation shall be clearly identified by the applicant on the construction plan documents consistent with the requirements of CBC Chapter 6.
3. All fire rated elements in the space must meet the applicable requirements of CBC Chapter 7.
4. Applicable Means of Egress requirements shall be consistent with CBC Chapter 10. The design for the occupant load based on CBC Chapter 10, § 1004.
5. The minimum required exit width shall be consistent with CBC § 1005.
6. The means of egress, including the exit discharge, shall be illuminated at all times the building space is occupied in accordance with CBC § 1008.
7. Accessible means of egress is required. Accessible means of egress shall comply with CBC § 1009. Occupiable spaces shall be provided with not less than one accessible means of egress. Where CBC requires more than one means of egress from any space, each portion of the space shall be served by not less than two accessible means of egress § 1009.1 or § 1006.2. An accessible route of travel shall

be provided and maintained between multiple required exits from any space or building including cultivation areas.

8. The minimum width of stairways shall be consistent with CBC § 1005.1, but such width shall not be less than 44 inches. CBC § 1011.2

9. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign. CBC § 1013.

10. Two exits are required from all spaces when the occupant load is greater than 49 occupants and/or the *common egress path of travel* distance exceeds 75 feet, CBC § 1006.2.1.

11. Corridors shall be fire-resistance rated in accordance with CBC Table 1020.1. The corridor walls required to be fire-resistance rated shall be consistent with CBC § 708 for fire partitions.

12. All spaces within each story shall have access to the minimum number of approved independent exits as specified in CBC Table 1006.3.1 based upon the tributary occupant load of the space and story.

13. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not re-enter a building and shall provide a compliant path of travel to the Public Way. CBC § 1028.1 and CBC § 1028.5.

14. Interior finish requirements based on occupancy type of group. Interior wall and ceiling finishes shall have a flame spread index not greater than that specified in CBC Table 803.11 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of CBC § 803.1.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 or UL 723 is required. CBC § 803.13.4.

15. All materials used as interior finishes, trim and decorative materials must comply with the provisions of CBC § 803 "Wall and Ceiling Finishes" and the flame spread rating for interior finishes or covered with a thermal barrier per CBC § 2603.4. Plastic film, foam plastic insulation and the paper facing on fiberglass insulation must be rated or covered with an approved thermal barrier.

16. The ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings shall be consistent with CBC Chapter 12, "Interior Environment".

Accessibility Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

1. Accessibility requirements are based on standards outlined in CBC Chapter 11B. Access shall be provided throughout the building for individuals with disabilities.
2. Accessibility requirements apply to sites, building, structures, facilities, elements, and spaces, temporary or permanent to provide access to individuals with disabilities. This includes anyone who utilizes a space, including occupants, employees, students, spectators, participants, and visitors. Minimum scoping and technical requirements are set forth in CBC Chapter 11-B. New buildings, structures, facilities, elements, and spaces must comply in their entirety.
3. Path of Travel Requirements
    a. When alterations or additions are made to an existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided. The primary accessible path of travel shall include:
        i. A primary entrance to the building or facility,
        ii. Toilets and bathing facilities serving the area,
        iii. Public telephones serving the area, and
        iv. Signs.
    b. Interior accessible path of travel shall address all the following:
        i. Accessible routes to all functional areas.
        ii. Common use circulation paths with employee work areas.
        iii. Clear width of walking areas.
    c. Door or gate information should include:
        i. Required clear width dimensions.
        ii. Maneuvering clearances.
        iii. Level landings on each side of doors or gates.
        iv. Required threshold dimensions and geometry.
        v. Door or gate hardware should not require tight grasping, pinching, or twisting of the wrist.
        vi. Required smooth surface dimensions on push side of the door within the finish floor or ground.

d. Restroom information should include:
    i. Turning space within the room.
    ii. Door swing not in the clear space of any fixture (except for a single user).
    iii. Mirrors and accessories.
    iv. Clear floor space at fixtures.
    v. Compartment configuration side and end entry, toe clearances.
    vi. Side and rear grab bars.
    vii. Accessible lavatories (sinks), heights and knee clearances.
    viii. Restroom symbols on doors.
    ix. Shower compartments (if any) must be accessible.
    x. Drinking fountains.
e. Miscellaneous elements include:
    i. Dressing and locker rooms.
    ii. Storage.
    iii. Exit signs (tactile)
    iv. Signs.
    v. Benches.
    vi. Dining or break room tables.
    vii. Electrical switches, controls, and electrical receptacle outlets.
    viii. Kitchen and common sinks.
f. Site plan should include information on site accessibility features including:
    i. Arrival points including parking area access points and signage from the public way.
    ii. The location and number accessible parking stalls and the number of standard parking stalls.
    iii. Access aisles from parking.
    iv. The slope of the accessible parking spaces and access aisles.
    v. The identification at accessible spaces and/or lot entrances.
    vi. A clear accessible egress path of travel to the adjoining public way.

Fire Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Fire

1) All applicants will need to provide a detailed written scope of work related to all business activities, equipment and products utilized in their business model or process in compliance with the current Edition of the California Building and Fire Codes.
2) List license type(s) proposed, storage configurations, equipment type and location, and hazardous materials to be stored and utilized. Prior to finalization of Building Permit, annual operation permits will need to be secured with the Fire Department.
3) Approved automatic sprinkler systems shall be provided in the locations described in CFC § 903.2.4 and as amended by the Humboldt County Code. A change in the occupancy of the space, substantial alterations, or an expansion of square footage, may require the installation of a fire suppression system for the proposed space.
4) Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed, installed, inspected, tested, and maintained in accordance with the provisions of CFC § 904, NFPA 13, and the applicable referenced standards.
5) An approved fire alarm system installed in accordance with the provisions of the CFC and NFPA 72 shall be provided in new buildings and structures in accordance with CFC § 907.2.4 and provide occupant notification in accordance with CFC § 907.5 as well as specific requirements detailed in CFC Chapter 38.
6) Duct smoke detectors complying with UL 268A shall be installed in accordance with the CBC, CFC, CMC and NFPA 72.
    a) In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 CFM. Such detectors shall be located in a serviceable area downstream of the last duct inlet.
    b) At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system.
7) Portable fire extinguishers shall be installed in F occupancy groups per CFC § 906.1. The size and distribution of portable fire extinguishers shall be in accordance with CFC § 906.3.
8) Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the Fire Code Official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the Fire Code Official per CFC § 506.1.
9) The provisions of CFC § 407 shall be applicable where hazardous materials subject to permits under CFC § 5001.5 are used and/or stored on the premises or where required by the Fire Code Official.

10) Storage, use, and handling of compressed gases in compressed containers, cylinders, tanks, and systems shall comply with CFC Chapter 53 including those gases regulated elsewhere in the CFC and/or any applicable NFPA Standards as determined by the Fire Code Official. Partially full compressed gas container, cylinders or tanks containing residual gases shall be considered as full for purposes of the controls required.

11) Compressed gases classified as hazardous materials shall also comply with CFC Chapter 50 for general requirements and chapter addressing specific hazards, including CFC Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizer, Oxidizing Gases, and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials) and/or any applicable NFPA Standards as determined by the Fire Code Official.

12) The storage use and handling of all hazardous materials shall be in accordance with CFC Chapter 50 and California Health and Safety Code requirements. The maximum allowable quantity (MAQ) of hazardous materials per control area will be established using CFC § 5003.1. Applicant will need to contact the Fire Department for hazardous materials storage permitting and approval.

13) Hazardous Materials Inventory Statement (HMIS) per CFC § 5001.5.2. An application for building permit shall include an HMIS. The HIMS shall include the following information:

    a) Product name.

    b) Component.

    c) Chemical Abstract Service (CAS) number.

    d) Location where stored or used.

    e) Container size.

    f) Hazard classification.

    g) Amount in storage.

    h) Amount in use-closed systems.

    i) Amount in use-open systems.

    j) Safety Data Sheets (SDS) for all proposed materials

14) The business will also need to comply with electronic reporting requirements specific to the California Environmental Reporting System (CERS). Applicants will need to contact the Fire Department for direction and permitting related to hazardous materials inventory reporting amounts.

15) Fire safety during construction and demolition to comply with California Fire Code Chapter 33.

16) Per CFC 3308.1 the owner or owner's authorized agent shall be responsible for the development, implementation and maintenance of a written plan establishing a fire prevention program at the project site applicable throughout all phases of the construction, repair, alteration, or demolition work. The plan shall address the requirements of this chapter (CFC Chapter 33) and other applicable portions of this code, the duties of staff, and staff training requirements. The plan shall be made available for review by the fire code official upon request.

Fire

17) Approved vehicle access for firefighting shall be provided to all construction or demolition sites per CFC 3310.1.

18) Per CFC 3311.1 where building construction exceeds 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairway shall be extended to within one floor of the highest point of construction having secured decking or flooring.

19) An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site per CFC 3312.1. Per CFC 3313.2 where a building is being demolished and a standpipe is existing within such a building, such standpipe shall be maintained in an operable condition so as to be available for use by the fire department. Such standpipe shall be demolished with the building but shall not be demolished more than one floor below the floor being demolished.

Electrical Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Electrical

1. All electrical system design and permitting is required to be performed by licensed electrical engineers registered in the State of California.
2. All electrical system(s) installation is required to be completed by licensed electricians and licensed electrical contractors.
3. The electrical system must be sized and installed in accordance with the California Electrical Code.
4. A single line diagram of the existing and proposed electrical system, including the main electrical service shall be provided in the submittal. CEC Article 215.5.
5. Electrical services which are 400 amps or greater must be designed by licensed electrical engineers registered in the State of California.
6. All electrical equipment must be listed and labeled by an approved testing agency, CEC Article 110.3.
7. Flexible cords (extension cords) are not permitted to substitute for fixed wiring and cannot be routed through or concealed in walls, structural ceilings, suspended ceiling, dropped ceilings or floors, attached to building surfaces, be within 6'- 8" of a means of egress, or subject to physical damage CEC § 400.8.
8. All buildings that are being newly constructed will be required to install a Concrete Encased Grounding Electrode (Ufer).

Mechanical Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Mechanical

1. The provisions of the CMC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of mechanical systems.
2. A ventilation system shall be required to filter contaminants to the exterior of the building and any adjoining property. The mechanical ventilation or exhaust system shall be installed to control, capture, and remove emissions or other odors generated from product growing, processing, use or handling where required in accordance with the Building or Fire Code, or as a Condition of Discretionary Approval. The design of the system shall be such that the emissions or other odors are confined to the area in which they are generated by air currents, hoods, or enclosures and shall be exhausted by a duct system to a safe location or treated by removing contaminants. Certification of the odor control system design by a licensed engineer shall be submitted at the time of permit application.
3. Provide an exhaust system designed and constructed to capture sources of contaminants to prevent spreading of contaminants to other parts of the occupied spaces of the building (CMC Chapter 4).
4. Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used.
5. The inlet for the ventilation system shall be located in the area(s) of the highest contaminant concentration (CMC Chapter 5).
6. Every occupied space shall be ventilated by natural means in accordance with CMC § 402.2 or by mechanical means in accordance with CMC § 402.3.
7. Label information. A permanent factory-applied nameplate shall be affixed to appliances on which shall appear in legible lettering, the manufacturer's name or trademark, the model number, serial number and the seal or mark of the approved agency. A label shall also include the following:
   a) *Electrical equipment and appliances*: Electrical rating in volts, amperes, and motor phase; identification of individual electrical components in volts, amperes or watts, motor phase; Btu/h (W) output; and required clearances.
   b) *Absorption units:* Hourly rating in Btu/h (W); minimum hourly rating for units having step or automatic modulating controls; type of fuel; type of refrigerant; cooling capacity in Btu/h (W); and required clearances.
   c) *Fuel-burning units:* Hourly rating in Btu/h (W); type of fuel approved for use with the appliance; and required clearances.
   d) *Electric heating appliances*: Name and trademark of the manufacturer; the model number or equivalent; the electric rating in volts, ampacity and phase; Btu/h (W) output rating; individual marking for each electrical component in amperes or watts, volts, and phase; required clearances from combustibles; and a seal indicating approval of the appliance by an approved

Mechanical

agency CMC § 307.2.

8. The building or structure shall not be weakened by the installation of mechanical systems. Where floors, walls, ceilings or any other portion of the building or structure are required to be altered or replaced in the process of installing, replacing, or repairing any system, such alterations shall be designed by a licensed design professional such that the building or structure shall be left in a safe structural condition in accordance with the CBC, CEBC, CMC. Anchorage of any mechanical equipment greater than 400 lbs. shall be designed and detail by a licensed design professional.
9. Condensate drain systems shall be provided for equipment and appliances containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed, and installed in accordance with CMC § 310.0.
10. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy CMC § 402.3.

Plumbing Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Plumbing

1. New plumbing installations and alteration must meet requirements of the California Plumbing Code.
2. The provisions of the CPC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of plumbing systems, nonflammable medical gas, carbon dioxide extraction systems, inhalation, anesthetic, vacuum piping, nonmedical oxygen systems, sanitary and condensate systems, vacuum collection systems, fuel gas distribution piping and equipment, gas water heaters and water heater venting.
3. Plan documents must identify the locations of plumbing fixtures and fixture types.
4. Plans shall identify the locations of water heater(s), water supply and distribution, indirect and special waste, sanitary discharge, vents, traps, backflow preventers and interceptors and separators.
5. Plumbing fixtures and fixture fittings must be designed for individuals with disabilities and with the appropriate standards.
6. Installed plumbing systems regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance with CPC.

CalGreen Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

CalGreen

1. New construction shall include a non-residential CalGreen building check list demonstrating compliance with the non-residential mandatory measures.
2. All projects requiring CalGreen compliance shall include submittal of a CalGreen checklist prepared by a design professional at the time of permit application.
3. The following items shall be addressed as required by the CalGreen checklist:
   a) Storm water pollution prevention.
   b) Bicycle parking.
   c) Electric charging stations.
   d) Outdoor lighting that complies with California Energy Code requirements.
   e) Water efficiency and conservation. Indoor water use and reuse. Outdoor water use-WELO.
   f) Construction waste reduction, disposal, and recycling.
   g) Building maintenance and operation. Systems commissioning, testing, and operations training.
   h) Pollutant control.

Inspection Schedule | Nordic Aqua Farms

New commercial construction is inspected in 6 stages: foundation, floor, rough-out, insulation, drywall and final. This document provides a description of each inspection including related building code, directions on when to call for your next inspection, and descriptions of special inspections that may be required. The inspection card, all county approved documents, and any relevant installation manuals must be provided on-site for each inspection. Refer to Important GIS Layers to determine if flood and fire hazard requirements apply.

1 Foundation

- *Setbacks* – We will verify that the setbacks described on your county approved site map match your development. You must be outside the setback distance from property lines, easements, streamside management areas, and rights of way. Your forms are required to be set prior to the setback inspection. If you cannot provide definitive proof you are outside setback areas you will be required to obtain a property survey from a qualified surveyor. The Humboldt County Zoning Code will be used as a minimum requirement.

- *Footings* – We will verify that your footings match what is required on the soils report and building plans. This includes proper depth, width, quality of soil, and sediment and erosion control. A Footing Special Inspection by the engineer on record may be required. The building codes relevant to this inspection are the California Building Code (CBC), and the Humboldt Code (HC).

  Important Chapters

  - Soils and Foundations (CBC)
  - Erosion and Sediment Control (HC)

  Important Sections

  - Geotechnical Investigations (CBC)
  - Erosion Control (HC)

- *Forms* – We will verify that forms will produce a concrete foundation assembly described on the foundation plans and soils report. This includes verifying anchor bolts and hold downs are in place or at least that the forms are marked for setting the hardwire while the concrete is still wet. A UFER ground should be inspected at this stage if used. The building code relevant to this inspection are the California Building Code (CBC), and the California Electric Code (CEC).

  Important Chapters

  - Soils and Foundations (CBC)
  - Grounding and Bonding (CEC)

  Important Sections

  - Concrete-Encased Electrode 250.52(A)(3) (CEC)

1 Foundation

- *Underfloor Plumbing (Slab Only)* – We will verify that your drain-waste-venting system is assembled as per plans, wrapped where exposed to concrete, and can hold water pressure up to a 10ft head for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), and the Humboldt Code (HC).

  Important Chapters

  - General Regulations (CPC)
  - Sanitary Drainage (CPC)
  - Vents (CPC)
  - Stormwater Drainage (CPC)

  Important Sections

  - Water Test (CPC)
  - General Protection (CPC)

- *Temporary Electric (Optional)* – It is optional to install a pole mounted service panel to provide power during the initial inspection. A listed panel enclosure, a grounding electrode system, and a 20-amp GFCI protected outlet is required at minimum. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), and the Humboldt Code (HC).

  Important Chapters

  - General (CEC)
  - Wiring and Protection (CEC)
  - Wiring Methods and Materials (CEC)

  Important Sections

  - Grounding and Bonding (CEC)
  - Overcurrent Protection (CEC)
  - Services (CEC)

Once all inspections have been approved you will be ready to pour concrete and start framing your floor.

2 Floor

- *Foundation Framing* - We will verify that the floor framing matches what is described on your foundation plans. This includes everything before floor sheathing such as girders, joists, and required hardware. If you are developing new construction in the flood zone, we will require a Second Flood Certification. Code books relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

  Important Chapters

  - Wood (CBC)

  Important Sections

  - Floor Framing (CBC)

2 Floor

- *Underfloor Plumbing* – We will verify that your drain-waste-venting system is assembled as per plans and can hold water pressure up to a 10ft head for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), and the Humboldt Code (HC).

Important Chapters

- General Regulations (CPC)
- Sanitary Drainage (CPC)
- Vents (CPC)
- Stormwater Drainage (CPC)

Important Sections

- Water Test (CPC)
- General Protection (CPC)

Once approved you will be ready to install floor sheathing, walls, the roof, rough-plumbing, rough-electrical, and rough-mechanical.

3 Rough-Out

- *Rough-Framing* - We will verify that the framing matches approved framing plans, structural calculations, and truss calculations. We will review the Accessibility plans to ensure there is nailing at the correct location for accessible elements. The building official may require a structural certification at this inspection. Code books relevant to this inspection are the California Building Code (CBC).

Important Chapters

- Wood (CBC)
- Fire Protection Features (CBC)
- Public Accessibility (CBC)
- Housing Accessibility (CBC)

Important Sections

- Conventional Light-Frame Construction (CBC)

- *Shear Nail* – We will verify that the nailing pattern of your exterior and interior shear wall matches what is shown on your shear wall schedule and structural calculations. We will also verify roof sheathing material, type of fasteners, and nail pattern. Code books relevant to this inspection are the California Building Code (CBC).

Important Chapters

- Wood (CBC)

Important Sections

- Exterior Wall Sheathing (CBC)

- *Holddowns* – We will verify type and location of holddowns installed match what is shown on the shear wall schedule and structural calculations. The code book relevant to this inspection is the California Building Code (CBC).

  Important Chapters

  - Wood (CBC)

  Important Sections

  - Foundations and Footings (CBC)
  - Anchorage of Exterior Means of Egress (CBC)

- *Windows* – We will verify that windows are properly sized, insulated, and tempered per construction plans. The building codes relevant to this inspection are the California Building Code (CBC), and the Energy Code (CEnC).

  Important Chapters

  - Means of Egress (CBC)
  - Mandatory Requirements (CEnC)
  - Glass and Glazing (CBC)

  Important Sections

  - Emergency Escape and Rescue (CBC)
  - Glass and Glazing (CBC)

- *Rough Electric* – We will verify that the rough electrical matches your electrical plans. Overcurrent protection devices must be the only device connected, all electrical boxes must be mounted, the grounds must all be tied together, feeder/branch circuits must be landed in each panel enclosure, protective plates must be provided, and the grounding electrode system must be properly installed. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), the California Green Building Standards (CGB), the Energy Code (CEnC) and the Humboldt Code (HC).

  Important Chapters

  - General (CEC)
  - Wiring and Protection (CEC)
  - Wiring Methods and Materials (CEC)
  - Mandatory Requirements (CEnC)

  Important Sections

  - Requirements for Electrical Installations (CEC)
  - Grounding and Bonding (CEC)
  - Overcurrent Protection (CEC)
  - Services (CEC)

- *Initial Gas Line Test* – We will verify that the gas line will be able to hold 10 PSI or half the working pressure of the gauge used for 15 minutes. For example, if a 30lbs gauge is used then the gas lines must be pressured to 15lbs for 15 minutes. A second line test will be done after drywall. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC) and the California Plumbing Code (CPC).

  Important Chapters

  - Fuel Gas Piping (CPC)

  Important Sections

  - Fuel Line Test (CPC)

- *Rough-Plumbing (Top-Out)* – We will verify that adequate venting is provided, proper installation of the drain-waste-venting system (DWV), protective plates are provided, and that the DWV and potable water system can hold water pressure for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), and the California Plumbing Code (CPC).

  Important Chapters

  - General Regulations (CPC)
  - Water Supply and Distribution (CPC)
  - Sanitary Drainage (CPC)
  - Vents (CPC)
  - Traps and Interceptors (CPC)
  - Fuel Gas Piping (CPC)
  - Firestop Protection (CPC)

  Important Sections

  - Drain Test (CPC)
  - Potable Water Test (CPC)
  - Vents Required (CPC)
  - Drainage Piping (CPC)
  - Hot and Cold Required (CPC)
  - Traps Required (CPC)
  - Combustible Piping Installations (CPC)
  - Electrical Bonding and Grounding (CPC)

- *Rough-Sprinkler* – We will verify that the sprinkler system matches what is described on your sprinkler plans. This includes spacing, sizing, materials, pumps, and other devices. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC) and NFPA 13.

  Important Chapters

  - Fire Protection and Life Safety Systems (CBC)
  - Water Supply and Distribution (CPC)

  Important Sections

  - Automatic Fire Sprinkler Systems (CBC)

- *Rough-Mechanical* – We will verify all ducting, flues, and mechanical appliances are installed per buildings plans and manufactures specifications. The building codes relevant to this inspection are the California Building Code (CBC), and the California Mechanical Code (CMC) and the California Green Building Standards (CGB).

  Important Chapters

  - General Regulations (CMC)
  - Ventilation Air (CMC)
  - Exhaust Systems (CMC)
  - Duct Systems (CMC)
  - Chimneys and Vents (CMC)

  Important Sections

  - Bathroom Exhaust Fans (CGB)
  - Heating/Cooling Air System (CMC)
  - Central Heating Furnaces (CMC)
  - Clothes Dryers (CMC)
  - Attic Drainage Pan (CMC)

Once approved you will be ready to install insulation.

4 Insulation

- *Insulation* – We will verify that the insulation used meets the R-value required by your energy calculations. A HERS Special Inspection may be required. The building codes relevant to this inspection are the California Building Code (CBC) and the Energy Code (CEnC).

Important Chapters

- Mandatory Requirements (CEnC)

Important Sections

- Mandatory Insulation Requirements (CEnC)

Once approved you will be ready to install drywall.

5 Drywall

- *Drywall* – We will verify that the correct size of drywall is used according to required fire assemblies and that they are fastened to framing members as per plans. The California Building Code (CBC) will be used as a minimum requirement.

Important Chapters

- Interior Finishes (CBC)

Important Sections

- General (CBC)

- *Gas Service* – We will conduct another line test and will require a gas appliance is in place to be easily connected. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC) and the California Plumbing Code (CPC).

Important Chapters

- Fuel Gas Piping (CMC)

Important Sections

- Fuel Line Test (CMC)

Once approved you will be ready complete the construction through to final.

6 Final

- *Mechanical Final* – We will verify the functionality of all mechanical systems and ensure the absence of mechanical hazards. Your energy calculations may require a HERS Special Inspection at this time. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC), the California Energy Code (CEnC), and the California Green Building Standards (CGB).

  Important Chapters

  - General Regulations (CMC)
  - Installation of Specific Appliances (CMC)
  - Environmental Quality (CGB)
  - Mandatory Requirements (CEnC)

  Important Sections

  - Installation (CGB)
  - Location (CMC)
  - Exhaust System Termination (CMC)
  - Grills and Screens (CMC)

- *Plumbing Final* – We will verify functionality and efficiency of all plumbing fixtures and ensure the absence of plumbing hazards. The building codes relevant to this inspection are the California Green Building Standards (CGB), and the California Plumbing Code (CPC).

  Important Chapters

  - Plumbing Fixtures and Fixture Fittings (CPC)
  - Water Heaters (CPC)
  - Nonresidential Mandatory Measures (CGB)

  Important Sections

  - Installation (CPC)
  - Water Efficiency and Conservation (CGB)

- *Electrical Final* – We will verify functionality of the electrical system, AFCI/GFCI protection, and absence of electrical hazards. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), the California Green Building Standards (CGB), the California Energy Code (CEnC),and the Humboldt Code (HC).

  Important Chapters

  - General (CEC)
  - Wiring and Protection (CEC)
  - Nonresidential Mandatory Measures (CGB)
  - Mandatory Requirements (CEnC)

  Important Sections

  - Branch Circuits (CEC)
  - Branch Circuits, Feeder, and Service (CEC)
  - Grounding and Bonding (CEC)
  - Overcurrent Protection (CEC)

6 Final

- *Building Final* – We will verify the safety of all structural and path of travel elements and ensure the absence of hazards. Furthermore, we will verify that all special inspections have been completed and that all certification letters have been received. The building codes relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

  Important Chapters

  - Fire and Smoke Protection Features (CBC)
  - Environmental Quality (CGB)

  Important Sections

  - Fire Alarm and Detection Systems (CBC)
  - Pollutant Control (CGB)

- *Exterior* – We will verify the exterior covering is watertight and free from hazards. This includes ensuring water will be shed away from the foundation and the correct installation of plumbing and flue terminations. The building codes relevant to this inspection are the California Green Building Standards (CGB), and the California Building Code (CBC).

  Important Chapters

  - Exterior Walls (CBC)

  Important Sections

  - Exterior Combustible Material (CBC)
  - Finish Material (CBG)

- *Sprinkler System* – The fire department and the building department will verify that all escutcheon plates are installed on sprinkler heads, ensure the absence of hazards, and recheck spacing requirements. We will verify that the sprinkler system matches what is described on your sprinkler plans. This includes spacing, sizing, materials, pumps, and other devices. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), the California Fire Code (CFC), and the NFPA 13D.

  Important Chapters

  - Fire and Smoke Protection Features (CBC)
  - Water Supply and Distribution (CPC)

  Important Sections

  - Automatic Fire Sprinkler Systems (CBC)

- *Accessibility* – We will verify all accessible elements are in accordance with Chapter 11B. The building codes relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

Important Chapters	*Important Sections*
▪ Public Accessibility (CBC)	▪ 11B Scope (CBC)

Once you have passed all inspections and all applicable agencies have signed off on the project, you may contact the building department to receive your certificate of occupancy.

Special Inspections

Depending on your engineering and site hazards your project may require special inspections.

- *Property Survey* – If the property lines are difficult to discern and potentially close to the proposed development the building official may require you to provide survey markers from a qualified surveyor.
- *Footings* – An engineer will be required to inspect footings and excavations.
- *Structural Certification* – If you installed a structural assembly that does not match your building plans you will be required to have an engineer inspect and certify as-built conditions.
- *HERS* – Your energy calculations may require field verification of your cooling system, heating system, HVAC distribution system, lighting systems, and/or your domestic hot water system by a certified HERS Rater.
- *Fire Department* – The fire department having jurisdiction must inspect and provide a letter certifying fire protection systems, fire sprinkler systems, and fire alarm systems.
- *Equipment and Special Systems* – All equipment and special systems will require inspections by an engineer.

Who do I contact if I have more questions?

You can send an email to buildinginspections@co.humboldt.ca.us and we will try to get back to you ASAP.

Resources

- California Building Codes (UpCode)
- County Code
- GIS
- GIS Guide
- Brochures and Handouts
- Forms
- Resource Library
- FAQ's

COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING
3015 H STREET, EUREKA, CA 95501 ~ PHONE (707) 445-7245

3/18/2021

Project Referred To The Following Agencies:

Blue Lake Rancheria, County Counsel, Environmental Health, PW Land Use, PW Natural Resources, Building Inspections, USFWS, EPA, NMFS, Corps of Engineers, Bureau of Land Management, FPD: Samoa, RWQCB, Humboldt Bay Municipal Water District, Cal Coastal Commission, Cal Fish & Wildlife, CA Dept of Toxic Subs, Division of Water Resources, CalFire, Cal-OSHA, Cal-EPA, Bear River Band, NWIC, Trinidad Rancheria, Wiyot Tribe, Other: NOAA, Other: Bay Keeper, Other: Surfrider, Other: Humboldt Fisherman's Marketing Assoc.

Applicant Name Nordic Aquafarms California, LLC **Key Parcel Number** 401-112-021-000

Application (APPS#) PLN-2020-16698 **Assigned Planner** Alyssa Suarez 707-268-3703

Please review the above project and provide comments with any recommended conditions of approval. To help us log your response accurately, please include a copy of this form with your correspondence.

Questions concerning this project may be directed to the assigned planner for this project between 8:30am and 5:30pm Monday through Friday.

County Zoning Ordinance allows up to 15 calendar days for a response. If no response or extension request is received by the response date, processing will proceed as proposed.

☐ If this box is checked, please return large format maps with your response.

Return Response No Later Than: 4/2/2021

Planning Clerk
County of Humboldt Planning and Building Department
3015 H Street
Eureka, CA 95501
Email: PlanningClerk@co.humboldt.ca.us **Fax**: (707) 268 - 3792

We have reviewed the above application and recommend the following (please check one):

☒ Recommend Approval. The department has no comment at this time.

☐ Recommend Conditional Approval. Suggested conditions attached.

☐ Applicant needs to submit additional information. List of items attached.

☐ Recommend Denial. Attach reasons for recommended denial.

Other Comments: Please see attached comments

DATE: 3-18-2021 PRINT NAME: Keith Ingersoll

Aqua Farms Building Referral Comments

DATE: 3/17/2021
APPS#: PLN-2020-16698
APPLICANT NAME: Nordic Aquafarms California LLC - CDP/SP
OWNER: Humboldt Bay Development Association Inc
PARCEL NUMBER: 401-112-021-000

Nordic Aquafarms California, LLC (NAFC) proposes a redevelopment of Redwood Marine Terminal II (RMT II), an industrial brownfield, to include demolition of decommissioned pulp mill infrastructure and remediation of impacted soil, in order to construct and operate a land-based finfish recirculating aquaculture system (RAS).

This report details the Humboldt County Building Divisions requirements for this development. Important GIS Layers specifies the jurisdictions, hazards, and natural resources that are influencing this projects design. Submittal Documents will provide a list of building documents that will be required prior to permit issuance. Building Code will give a rough idea of what building code requirements the design will need to conform with. Inspection Schedule will describe when an inspection is required, what code sections will be relevant, and what Special Inspections will be required.

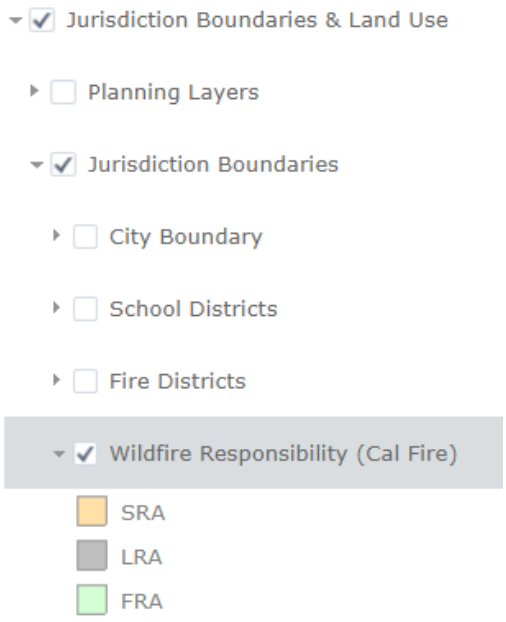
Contents

The Humboldt County Geographical Information System (GIS) is used by the building division to determine the jurisdictions, hazards, natural resources, and other geologic features associated with the proposed building site. Below are some important jurisdictional and geologic features that have a significant effect on what submittal documents you will need for the proposed RAS. To learn more about how to use the GIS, read the Web GIS Guide.

Jurisdictions

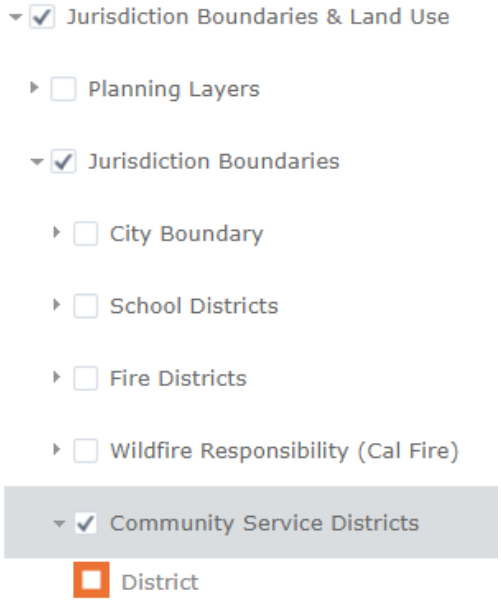
Local Responsibility Area

This project exists within the Local Responsibility Area (LRA). The applicant will need to contact the Samoa Peninsula VFD to get approval from the Chief, Dale Unea. They are located at 1982 Gass Street, Fairhaven CA. Their phone number is (707) 443-9042. The Samoa Peninsula VFD may impose their own requirements and will be required to provide approval on all fire protections systems. To access the Wildfire Responsibility layer, check the following GIS layer list boxes to the right



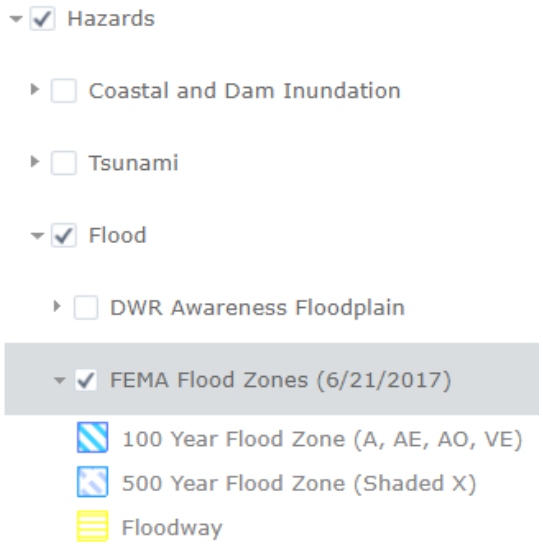
Community Services District

This project exists within the Peninsula Community Services District. The applicant will need to contact this agency to ensure their utility plan is in accordance with the services provided. To access the Community Services District layer, check the following GIS layer list boxes to the right.



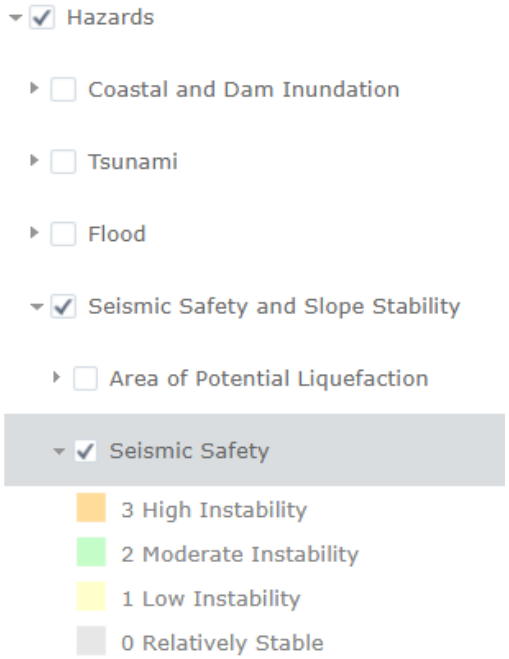
FEMA Flood Zones

The FEMA Flood Zone layer shows the flood zone and floodway. The parcel being developed appears to be slightly in the flood zone at the west and east ends of the parcel, however, it does not appear any construction is proposed in these areas. Special attention shall be made to ensure no development activity occurs in this area. If development does occur in this area it will have to comply with the FEMA Technical Bulletin 3-93, the Flood Damage Prevention chapter of the county ordinance, and Flood Resistant Construction (Appendix G) of the California Building Code (other requirements may apply). To access the FEMA Flood Zone layer, check the following GIS layer list boxes to the right



Seismic Safety

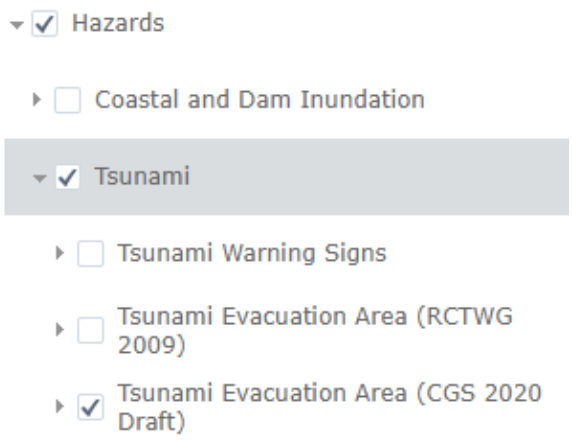
The seismic safety layer shows relative stability of your construction site. The project being developed is within Seismic Safety Zone 1 and 2, although, most of the development occurs in Zone 2. Based on this zone and the complexity of this project the Building Division is requiring an R1 Soils Report to be submitted prior to permit issuance. Furthermore, a site-specific sediment and erosion control plan will be required. To access the Seismic Safety layer, check the following GIS layer list boxes to the right.



Hazards

Tsunami Hazard Area

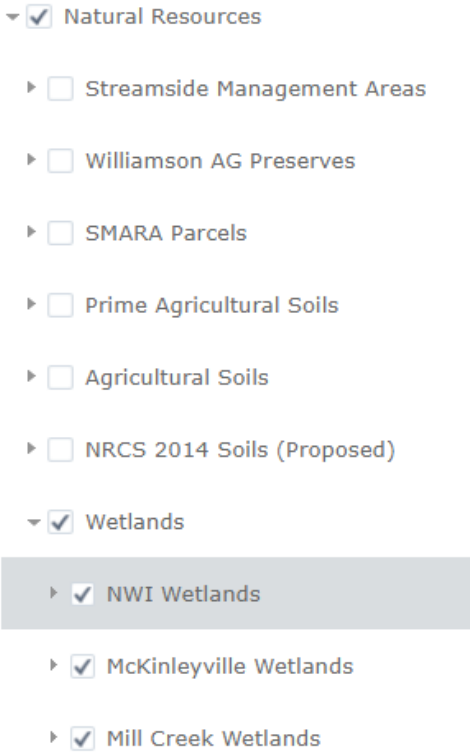
The proposed development occurs within a tsunami evacuation area. A Site-Specific Tsunami Inundation Analysis in accordance with chapter 6 of ASCE 7-16 shall be submitted and the design shall conform with Appendix M of the California Building Code. Special inspections will be required to ensure proper installation of hazard mitigating elements. To access the Tsunami layer, check the following GIS layer list boxes to the right.



Natural Resources

Wetlands

The parcel being developed appears to have freshwater emergent and forested/shrub wetlands on the west end of the parcel and an estuarine and marine wetland on the east end, however it appears that no development is proposed in those areas. Special attention shall be made to ensure no development activity occurs within this area during construction. If it does it will need to comply with the Streamside Management and Wetland Areas Ordinance of the county code and will require a special permit from the planning department. To access the SMA layer, check the following layer GIS list boxes to the right.



Submittal Documents | Nordic Aqua Farms

Submittal documents are construction drawings, engineered calculations, forms, installation manuals, and any other documents which will describe the construction of the proposed recirculating aquaculture system (RAS). Below is a list of all the submittal documents you could be required to provide.

Required Submittals

- *Construction Plans*
    - Cover Sheet – The cover sheet should provide general building project information such as assessor parcel number (APN), address, directions to site, signature/stamp of design professional, use of structure, referenced building codes, occupancy, occupant load, type of construction, stories, height, floor area, etc. The owners name, APN, address, and north directional arrow shall also be included on all pages of the construction plans. All plans must be prepared by a California licensed engineer or architect.
    - Demolition Plan – The demolition plan will include a letter from North Coast Unified Air Quality Management District, verification from the service district ensuring water/sewer lines are capped, a letter stating what will be done with the debris after demolition, a letter from PG&E, and current photos of the exterior of existing structures. It shall incorporate all state agency requirements and hazmat requirements.
    - Plot/Site Plan – The plot plan shows the entire parcel including all proposed structures, existing structures, setbacks from property lines, SRA areas, vegetation management area and more. Refer to the plot plan checklist to see what information a plot plan has.
    - Sediment and Erosion Control Plan (LID Plan) - The purpose of an erosion and sediment control plan is to prevent sedimentation or damage to onsite and offsite property. The drainage erosion management control plans must be prepared by a California licensed engineer.
    - Utility Plan – A utility plan shows all connections from the proposed structure to community services like water and sewer. These plans must be prepared by a California licensed engineer.
    - Accessibility Plans – Accessibility plans show accessible routes and other building code requirements described in Chapter 11B of the California Building Code. These plans must be prepared by a California licensed engineer or architect.
    - Floor Plan - The floor plan is a birds-eye view showing the dimensions and use of each room in a structure including windows, doors, and egress windows and doors.
    - Elevations Plans – Elevation plans show the height of the proposed structure, details on the exterior walls, required building code notes, and cross section details.

- Foundation Plan – The foundation plan shows footing details, hold downs, shear wall schedule, required building code notes, and more. These plans must be prepared by a California licensed engineer.

- Floor Framing Plan – The floor framing plan shows size, type, and spacing of joists, girders, required building code notes, and mechanical fasteners. These plans must be prepared by a California licensed engineer.

- Roof Framing Plan – Roof framing drawings show critical connections in the roof framing and detail framing members, fastener type/size, required building code notes, and mechanical fastener type and size. These plans must be prepared by a California licensed engineer.

- Electrical Plans – Electrical plans detail required building code notes and electrical switches, outlets, and fixtures with their configuration overlaid on a floor plan. These plans must be prepared by a California licensed electrical engineer.

- One-Line Diagram – A one-line diagram describes the size and type of the enclosures, conduit, sheathing, and conductors with a focus on connections over how the circuits overlay on the floor plan. These plans must be prepared by a California licensed electrical engineer.

- Mechanical Plans – Mechanical plans or heating, ventilation, and air-conditioning (HVAC) plans detail what appliances will be used and includes notes about relevant building code requirements. The mechanical plans must be prepared by a California licensed mechanical engineer.

- Plumbing Plans – The plumbing plans will provide a layout of plumbing, show all, materials and appliances used and will include notes on related building code. These plans must be prepared by a California licensed mechanical engineer.

- General Notes – The general notes page will detail California Green Building Standard requirements and will further detail electrical, mechanical, plumbing, sprinkler, and energy code requirements.

- Photovoltaic Plans – PV plans detail the size and layout of the proposed photovoltaic system. These plans must be prepared by a California licensed electrical engineer.

- Grading Plan – The grading plan will detail the cut, fill, stability, etc. of all soil moved as well as finished grades. The grading plan must be prepared by a California licensed civil engineer.

- Sprinkler Plans – The sprinkler plans will describe your sprinkler system and include hydraulic calculations. The sprinkler plans must be prepared by a California licensed fire engineer.

- *Engineering*

    - Energy Calculations - Energy calculations ensure your building will be well insulated and energy efficient. They require such things as quality insulation, windows, appliances, photovoltaic systems, title 24 energy report, and special inspections. Required building code notes from the California Green Building Standards and California Energy code should be included. This document must be created by a qualified energy engineer and all pertinent details from the energy calculations shall be transferred to relative sections of the building plans.

    - R1 Soils Report – An R1 soils report describes the seismic activity of the area, details soils stability, prescribes footing and foundation requirements, and much more. An R1 soils report shall be submitted by a qualified soils engineer per 336-5(a) of the Humboldt County Code. All pertinent details from the soils engineering report shall be transferred to the foundation plans.

    - Tsunami Inundation Analysis – A site-specific tsunami inundation analysis shall be conducted in accordance with the requirements of Chapter 6, Tsunami Loads and Effects of ASCE 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures. Tsunami design shall be incorporated into the structural plan.

    - Structural Calculations – Structural calculations detail the required size, type, and material of structural members. Structural calculations shall be prepared by a California licensed structural engineer. All pertinent details from the structural calculations shall be transferred to the structural plans.

- *Forms*

    - Building Application - A building application is used to gather personal information about the applicant and a project description. This must be filled out by the owner or agent.

The following regulations pertain to the Humboldt County Building Division and Fire Department requirements for the permit application, plan review, approval, and inspection of the Nordic Aqua Farms proposed recirculating aquaculture system (RAS).

General Requirements

The code requirements listed below are intended to assist the applicant with some of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of building code requirements for plan approval or permit issuance.

1. A building permit is required to verify occupancy even if no improvements or modifications to the property are proposed. The building permit application must meet the Counties general building permit submittal requirements.
2. Construction plans, calculations and related documentation supporting the building permit application are required per the *California Building Code* Section 105 when the owner or occupant intends to construct, enlarge, alter, remove, repair, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the Building and/or Fire Code; or to cause this work to be done. As a minimum, a site plan and floor plan of the proposed occupancy shall be submitted for all proposed projects.
3. All Building permit design and supporting documentation is required to be prepared, stamped, and signed by qualified design professionals licensed and registered by the state of California. *California Business and Professions Code (B&PC)* § 5536.1 and § 6735.
4. An application for a building permit will not be accepted without confirmation that all discretionary approvals have been obtained or a zoning clearance has been issued.
5. All construction and related work must be performed by contractors licensed by the State of California as general and/or specialty contractors for the specific discipline of work to be performed.
6. All design and construction shall be consistent with the provisions of the Humboldt County Code and the current edition of the California Building and Fire Codes as adopted by the California Building Standards Commission, and as amended by the Humboldt County Code.
7. A Humboldt County building permit application form must be completed in its entirety and included with each submittal.
8. Codes and Standards regulating construction currently adopted and/or recognized by the Humboldt County include those described in 331-11 of the Humboldt County Code.
9. A project specific submittal package is required for each individual building and building address as described in the Submittal Documents section of this document. Additional documentation may be

General Requirements

required for structural modifications and/or additions to existing building or structures. Contact the Building Department for final determination of required documentation for submittal.

10. Construction or work for which the permit is required shall be subject to inspection by the Building Division and/or Fire Department, and such construction or work shall remain accessible and exposed for inspection purposes until approved. No construction shall commence prior to the issuance of a Building permit.
11. No building or structure shall be used or occupied, and no change in the existing occupancy classification of the building or structure or portion thereof shall be made, until the Building Official has issued a certificate of occupancy. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of applicable codes and standards or the other regulations of the State of California or the County of Humboldt.
12. The owner/occupant is required to keep all County approved plans, specifications, and related documents on the premises, in an easily accessible location for County Building inspection staff for the required inspections.

Building Code

The building code requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all-inclusive listing of the CBC requirements for plan approval or permit issuance.

Building

1. The height and area of all structures shall be designed and detailed for compliance with CBC Chapter 5.
2. The Building Official shall determine the Occupancy and Construction Type of the proposed facility, and such occupancy designation shall be clearly identified by the applicant on the construction plan documents consistent with the requirements of CBC Chapter 6.
3. All fire rated elements in the space must meet the applicable requirements of CBC Chapter 7.
4. Applicable Means of Egress requirements shall be consistent with CBC Chapter 10. The design for the occupant load based on CBC Chapter 10, § 1004.
5. The minimum required exit width shall be consistent with CBC § 1005.
6. The means of egress, including the exit discharge, shall be illuminated at all times the building space is occupied in accordance with CBC § 1008.
7. Accessible means of egress is required. Accessible means of egress shall comply with CBC § 1009. Occupiable spaces shall be provided with not less than one accessible means of egress. Where CBC requires more than one means of egress from any space, each portion of the space shall be served by not less than two accessible means of egress § 1009.1 or § 1006.2. An accessible route of travel shall

be provided and maintained between multiple required exits from any space or building including cultivation areas.

8. The minimum width of stairways shall be consistent with CBC § 1005.1, but such width shall not be less than 44 inches. CBC § 1011.2

9. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign. CBC § 1013.

10. Two exits are required from all spaces when the occupant load is greater than 49 occupants and/or the *common egress path of travel* distance exceeds 75 feet, CBC § 1006.2.1.

11. Corridors shall be fire-resistance rated in accordance with CBC Table 1020.1. The corridor walls required to be fire-resistance rated shall be consistent with CBC § 708 for fire partitions.

12. All spaces within each story shall have access to the minimum number of approved independent exits as specified in CBC Table 1006.3.1 based upon the tributary occupant load of the space and story.

13. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not re-enter a building and shall provide a compliant path of travel to the Public Way. CBC § 1028.1 and CBC § 1028.5.

14. Interior finish requirements based on occupancy type of group. Interior wall and ceiling finishes shall have a flame spread index not greater than that specified in CBC Table 803.11 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of CBC § 803.1.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 or UL 723 is required. CBC § 803.13.4.

15. All materials used as interior finishes, trim and decorative materials must comply with the provisions of CBC § 803 "Wall and Ceiling Finishes" and the flame spread rating for interior finishes or covered with a thermal barrier per CBC § 2603.4. Plastic film, foam plastic insulation and the paper facing on fiberglass insulation must be rated or covered with an approved thermal barrier.

16. The ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings shall be consistent with CBC Chapter 12, "Interior Environment".

Accessibility Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

1. Accessibility requirements are based on standards outlined in CBC Chapter 11B. Access shall be provided throughout the building for individuals with disabilities.
2. Accessibility requirements apply to sites, building, structures, facilities, elements, and spaces, temporary or permanent to provide access to individuals with disabilities. This includes anyone who utilizes a space, including occupants, employees, students, spectators, participants, and visitors. Minimum scoping and technical requirements are set forth in CBC Chapter 11-B. New buildings, structures, facilities, elements, and spaces must comply in their entirety.
3. Path of Travel Requirements
    a. When alterations or additions are made to an existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided. The primary accessible path of travel shall include:
        i. A primary entrance to the building or facility,
        ii. Toilets and bathing facilities serving the area,
        iii. Public telephones serving the area, and
        iv. Signs.
    b. Interior accessible path of travel shall address all the following:
        i. Accessible routes to all functional areas.
        ii. Common use circulation paths with employee work areas.
        iii. Clear width of walking areas.
    c. Door or gate information should include:
        i. Required clear width dimensions.
        ii. Maneuvering clearances.
        iii. Level landings on each side of doors or gates.
        iv. Required threshold dimensions and geometry.
        v. Door or gate hardware should not require tight grasping, pinching, or twisting of the wrist.
        vi. Required smooth surface dimensions on push side of the door within the finish floor or ground.

d. Restroom information should include:
    i. Turning space within the room.
    ii. Door swing not in the clear space of any fixture (except for a single user).
    iii. Mirrors and accessories.
    iv. Clear floor space at fixtures.
    v. Compartment configuration side and end entry, toe clearances.
    vi. Side and rear grab bars.
    vii. Accessible lavatories (sinks), heights and knee clearances.
    viii. Restroom symbols on doors.
    ix. Shower compartments (if any) must be accessible.
    x. Drinking fountains.

e. Miscellaneous elements include:
    i. Dressing and locker rooms.
    ii. Storage.
    iii. Exit signs (tactile)
    iv. Signs.
    v. Benches.
    vi. Dining or break room tables.
    vii. Electrical switches, controls, and electrical receptacle outlets.
    viii. Kitchen and common sinks.

f. Site plan should include information on site accessibility features including:
    i. Arrival points including parking area access points and signage from the public way.
    ii. The location and number accessible parking stalls and the number of standard parking stalls.
    iii. Access aisles from parking.
    iv. The slope of the accessible parking spaces and access aisles.
    v. The identification at accessible spaces and/or lot entrances.
    vi. A clear accessible egress path of travel to the adjoining public way.

Fire Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Fire

1) All applicants will need to provide a detailed written scope of work related to all business activities, equipment and products utilized in their business model or process in compliance with the current Edition of the California Building and Fire Codes.
2) List license type(s) proposed, storage configurations, equipment type and location, and hazardous materials to be stored and utilized. Prior to finalization of Building Permit, annual operation permits will need to be secured with the Fire Department.
3) Approved automatic sprinkler systems shall be provided in the locations described in CFC § 903.2.4 and as amended by the Humboldt County Code. A change in the occupancy of the space, substantial alterations, or an expansion of square footage, may require the installation of a fire suppression system for the proposed space.
4) Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed, installed, inspected, tested, and maintained in accordance with the provisions of CFC § 904, NFPA 13, and the applicable referenced standards.
5) An approved fire alarm system installed in accordance with the provisions of the CFC and NFPA 72 shall be provided in new buildings and structures in accordance with CFC § 907.2.4 and provide occupant notification in accordance with CFC § 907.5 as well as specific requirements detailed in CFC Chapter 38.
6) Duct smoke detectors complying with UL 268A shall be installed in accordance with the CBC, CFC, CMC and NFPA 72.
    a) In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 CFM. Such detectors shall be located in a serviceable area downstream of the last duct inlet.
    b) At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system.
7) Portable fire extinguishers shall be installed in F occupancy groups per CFC § 906.1. The size and distribution of portable fire extinguishers shall be in accordance with CFC § 906.3.
8) Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the Fire Code Official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the Fire Code Official per CFC § 506.1.
9) The provisions of CFC § 407 shall be applicable where hazardous materials subject to permits under CFC § 5001.5 are used and/or stored on the premises or where required by the Fire Code Official.

10) Storage, use, and handling of compressed gases in compressed containers, cylinders, tanks, and systems shall comply with CFC Chapter 53 including those gases regulated elsewhere in the CFC and/or any applicable NFPA Standards as determined by the Fire Code Official. Partially full compressed gas container, cylinders or tanks containing residual gases shall be considered as full for purposes of the controls required.

11) Compressed gases classified as hazardous materials shall also comply with CFC Chapter 50 for general requirements and chapter addressing specific hazards, including CFC Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizer, Oxidizing Gases, and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials) and/or any applicable NFPA Standards as determined by the Fire Code Official.

12) The storage use and handling of all hazardous materials shall be in accordance with CFC Chapter 50 and California Health and Safety Code requirements. The maximum allowable quantity (MAQ) of hazardous materials per control area will be established using CFC § 5003.1. Applicant will need to contact the Fire Department for hazardous materials storage permitting and approval.

13) Hazardous Materials Inventory Statement (HMIS) per CFC § 5001.5.2. An application for building permit shall include an HMIS. The HIMS shall include the following information:

    a) Product name.

    b) Component.

    c) Chemical Abstract Service (CAS) number.

    d) Location where stored or used.

    e) Container size.

    f) Hazard classification.

    g) Amount in storage.

    h) Amount in use-closed systems.

    i) Amount in use-open systems.

    j) Safety Data Sheets (SDS) for all proposed materials

14) The business will also need to comply with electronic reporting requirements specific to the California Environmental Reporting System (CERS). Applicants will need to contact the Fire Department for direction and permitting related to hazardous materials inventory reporting amounts.

15) Fire safety during construction and demolition to comply with California Fire Code Chapter 33.

16) Per CFC 3308.1 the owner or owner's authorized agent shall be responsible for the development, implementation and maintenance of a written plan establishing a fire prevention program at the project site applicable throughout all phases of the construction, repair, alteration, or demolition work. The plan shall address the requirements of this chapter (CFC Chapter 33) and other applicable portions of this code, the duties of staff, and staff training requirements. The plan shall be made available for review by the fire code official upon request.

Fire

17) Approved vehicle access for firefighting shall be provided to all construction or demolition sites per CFC 3310.1.

18) Per CFC 3311.1 where building construction exceeds 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairway shall be extended to within one floor of the highest point of construction having secured decking or flooring.

19) An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site per CFC 3312.1. Per CFC 3313.2 where a building is being demolished and a standpipe is existing within such a building, such standpipe shall be maintained in an operable condition so as to be available for use by the fire department. Such standpipe shall be demolished with the building but shall not be demolished more than one floor below the floor being demolished.

Electrical Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Electrical

1. All electrical system design and permitting is required to be performed by licensed electrical engineers registered in the State of California.
2. All electrical system(s) installation is required to be completed by licensed electricians and licensed electrical contractors.
3. The electrical system must be sized and installed in accordance with the California Electrical Code.
4. A single line diagram of the existing and proposed electrical system, including the main electrical service shall be provided in the submittal. CEC Article 215.5.
5. Electrical services which are 400 amps or greater must be designed by licensed electrical engineers registered in the State of California.
6. All electrical equipment must be listed and labeled by an approved testing agency, CEC Article 110.3.
7. Flexible cords (extension cords) are not permitted to substitute for fixed wiring and cannot be routed through or concealed in walls, structural ceilings, suspended ceiling, dropped ceilings or floors, attached to building surfaces, be within 6'- 8" of a means of egress, or subject to physical damage CEC § 400.8.
8. All buildings that are being newly constructed will be required to install a Concrete Encased Grounding Electrode (Ufer).

Mechanical Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

1. The provisions of the CMC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of mechanical systems.
2. A ventilation system shall be required to filter contaminants to the exterior of the building and any adjoining property. The mechanical ventilation or exhaust system shall be installed to control, capture, and remove emissions or other odors generated from product growing, processing, use or handling where required in accordance with the Building or Fire Code, or as a Condition of Discretionary Approval. The design of the system shall be such that the emissions or other odors are confined to the area in which they are generated by air currents, hoods, or enclosures and shall be exhausted by a duct system to a safe location or treated by removing contaminants. Certification of the odor control system design by a licensed engineer shall be submitted at the time of permit application.
3. Provide an exhaust system designed and constructed to capture sources of contaminants to prevent spreading of contaminants to other parts of the occupied spaces of the building (CMC Chapter 4).
4. Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used.
5. The inlet for the ventilation system shall be located in the area(s) of the highest contaminant concentration (CMC Chapter 5).
6. Every occupied space shall be ventilated by natural means in accordance with CMC § 402.2 or by mechanical means in accordance with CMC § 402.3.
7. Label information. A permanent factory-applied nameplate shall be affixed to appliances on which shall appear in legible lettering, the manufacturer's name or trademark, the model number, serial number and the seal or mark of the approved agency. A label shall also include the following:
   a) *Electrical equipment and appliances*: Electrical rating in volts, amperes, and motor phase; identification of individual electrical components in volts, amperes or watts, motor phase; Btu/h (W) output; and required clearances.
   b) *Absorption units:* Hourly rating in Btu/h (W); minimum hourly rating for units having step or automatic modulating controls; type of fuel; type of refrigerant; cooling capacity in Btu/h (W); and required clearances.
   c) *Fuel-burning units:* Hourly rating in Btu/h (W); type of fuel approved for use with the appliance; and required clearances.
   d) *Electric heating appliances*: Name and trademark of the manufacturer; the model number or equivalent; the electric rating in volts, ampacity and phase; Btu/h (W) output rating; individual marking for each electrical component in amperes or watts, volts, and phase; required clearances from combustibles; and a seal indicating approval of the appliance by an approved

Mechanical

agency CMC § 307.2.

8. The building or structure shall not be weakened by the installation of mechanical systems. Where floors, walls, ceilings or any other portion of the building or structure are required to be altered or replaced in the process of installing, replacing, or repairing any system, such alterations shall be designed by a licensed design professional such that the building or structure shall be left in a safe structural condition in accordance with the CBC, CEBC, CMC. Anchorage of any mechanical equipment greater than 400 lbs. shall be designed and detail by a licensed design professional.
9. Condensate drain systems shall be provided for equipment and appliances containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed, and installed in accordance with CMC § 310.0.
10. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy CMC § 402.3.

Plumbing Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

Plumbing

1. New plumbing installations and alteration must meet requirements of the California Plumbing Code.
2. The provisions of the CPC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of plumbing systems, nonflammable medical gas, carbon dioxide extraction systems, inhalation, anesthetic, vacuum piping, nonmedical oxygen systems, sanitary and condensate systems, vacuum collection systems, fuel gas distribution piping and equipment, gas water heaters and water heater venting.
3. Plan documents must identify the locations of plumbing fixtures and fixture types.
4. Plans shall identify the locations of water heater(s), water supply and distribution, indirect and special waste, sanitary discharge, vents, traps, backflow preventers and interceptors and separators.
5. Plumbing fixtures and fixture fittings must be designed for individuals with disabilities and with the appropriate standards.
6. Installed plumbing systems regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance with CPC.

CalGreen Code

The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal and are not to be considered an all- inclusive listing of the requirements for plan approval or permit issuance.

CalGreen

1. New construction shall include a non-residential CalGreen building check list demonstrating compliance with the non-residential mandatory measures.
2. All projects requiring CalGreen compliance shall include submittal of a CalGreen checklist prepared by a design professional at the time of permit application.
3. The following items shall be addressed as required by the CalGreen checklist:
   a) Storm water pollution prevention.
   b) Bicycle parking.
   c) Electric charging stations.
   d) Outdoor lighting that complies with California Energy Code requirements.
   e) Water efficiency and conservation. Indoor water use and reuse. Outdoor water use-WELO.
   f) Construction waste reduction, disposal, and recycling.
   g) Building maintenance and operation. Systems commissioning, testing, and operations training.
   h) Pollutant control.

Inspection Schedule | Nordic Aqua Farms

New commercial construction is inspected in 6 stages: foundation, floor, rough-out, insulation, drywall and final. This document provides a description of each inspection including related building code, directions on when to call for your next inspection, and descriptions of special inspections that may be required. The inspection card, all county approved documents, and any relevant installation manuals must be provided on-site for each inspection. Refer to Important GIS Layers to determine if flood and fire hazard requirements apply.

1 Foundation

- *Setbacks* – We will verify that the setbacks described on your county approved site map match your development. You must be outside the setback distance from property lines, easements, streamside management areas, and rights of way. Your forms are required to be set prior to the setback inspection. If you cannot provide definitive proof you are outside setback areas you will be required to obtain a property survey from a qualified surveyor. The Humboldt County Zoning Code will be used as a minimum requirement.

- *Footings* – We will verify that your footings match what is required on the soils report and building plans. This includes proper depth, width, quality of soil, and sediment and erosion control. A Footing Special Inspection by the engineer on record may be required. The building codes relevant to this inspection are the California Building Code (CBC), and the Humboldt Code (HC).

  Important Chapters

  - Soils and Foundations (CBC)
  - Erosion and Sediment Control (HC)

  Important Sections

  - Geotechnical Investigations (CBC)
  - Erosion Control (HC)

- *Forms* – We will verify that forms will produce a concrete foundation assembly described on the foundation plans and soils report. This includes verifying anchor bolts and hold downs are in place or at least that the forms are marked for setting the hardwire while the concrete is still wet. A UFER ground should be inspected at this stage if used. The building code relevant to this inspection are the California Building Code (CBC), and the California Electric Code (CEC).

  Important Chapters

  - Soils and Foundations (CBC)
  - Grounding and Bonding (CEC)

  Important Sections

  - Concrete-Encased Electrode 250.52(A)(3) (CEC)

1 Foundation

- *Underfloor Plumbing (Slab Only)* – We will verify that your drain-waste-venting system is assembled as per plans, wrapped where exposed to concrete, and can hold water pressure up to a 10ft head for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), and the Humboldt Code (HC).

  Important Chapters

  - General Regulations (CPC)
  - Sanitary Drainage (CPC)
  - Vents (CPC)
  - Stormwater Drainage (CPC)

  Important Sections

  - Water Test (CPC)
  - General Protection (CPC)

- *Temporary Electric (Optional)* – It is optional to install a pole mounted service panel to provide power during the initial inspection. A listed panel enclosure, a grounding electrode system, and a 20-amp GFCI protected outlet is required at minimum. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), and the Humboldt Code (HC).

  Important Chapters

  - General (CEC)
  - Wiring and Protection (CEC)
  - Wiring Methods and Materials (CEC)

  Important Sections

  - Grounding and Bonding (CEC)
  - Overcurrent Protection (CEC)
  - Services (CEC)

Once all inspections have been approved you will be ready to pour concrete and start framing your floor.

2 Floor

- *Foundation Framing* - We will verify that the floor framing matches what is described on your foundation plans. This includes everything before floor sheathing such as girders, joists, and required hardware. If you are developing new construction in the flood zone, we will require a Second Flood Certification. Code books relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

  Important Chapters

  - Wood (CBC)

  Important Sections

  - Floor Framing (CBC)

2 Floor

- *Underfloor Plumbing* – We will verify that your drain-waste-venting system is assembled as per plans and can hold water pressure up to a 10ft head for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), and the Humboldt Code (HC).

Important Chapters

- General Regulations (CPC)
- Sanitary Drainage (CPC)
- Vents (CPC)
- Stormwater Drainage (CPC)

Important Sections

- Water Test (CPC)
- General Protection (CPC)

Once approved you will be ready to install floor sheathing, walls, the roof, rough-plumbing, rough-electrical, and rough-mechanical.

3 Rough-Out

- *Rough-Framing* - We will verify that the framing matches approved framing plans, structural calculations, and truss calculations. We will review the Accessibility plans to ensure there is nailing at the correct location for accessible elements. The building official may require a structural certification at this inspection. Code books relevant to this inspection are the California Building Code (CBC).

Important Chapters

- Wood (CBC)
- Fire Protection Features (CBC)
- Public Accessibility (CBC)
- Housing Accessibility (CBC)

Important Sections

- Conventional Light-Frame Construction (CBC)

- *Shear Nail* – We will verify that the nailing pattern of your exterior and interior shear wall matches what is shown on your shear wall schedule and structural calculations. We will also verify roof sheathing material, type of fasteners, and nail pattern. Code books relevant to this inspection are the California Building Code (CBC).

Important Chapters

- Wood (CBC)

Important Sections

- Exterior Wall Sheathing (CBC)

- *Holddowns* – We will verify type and location of holddowns installed match what is shown on the shear wall schedule and structural calculations. The code book relevant to this inspection is the California Building Code (CBC).

Important Chapters

- Wood (CBC)

Important Sections

- Foundations and Footings (CBC)
- Anchorage of Exterior Means of Egress (CBC)

- *Windows* – We will verify that windows are properly sized, insulated, and tempered per construction plans. The building codes relevant to this inspection are the California Building Code (CBC), and the Energy Code (CEnC).

Important Chapters

- Means of Egress (CBC)
- Mandatory Requirements (CEnC)
- Glass and Glazing (CBC)

Important Sections

- Emergency Escape and Rescue (CBC)
- Glass and Glazing (CBC)

- *Rough Electric* – We will verify that the rough electrical matches your electrical plans. Overcurrent protection devices must be the only device connected, all electrical boxes must be mounted, the grounds must all be tied together, feeder/branch circuits must be landed in each panel enclosure, protective plates must be provided, and the grounding electrode system must be properly installed. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), the California Green Building Standards (CGB), the Energy Code (CEnC) and the Humboldt Code (HC).

Important Chapters

- General (CEC)
- Wiring and Protection (CEC)
- Wiring Methods and Materials (CEC)
- Mandatory Requirements (CEnC)

Important Sections

- Requirements for Electrical Installations (CEC)
- Grounding and Bonding (CEC)
- Overcurrent Protection (CEC)
- Services (CEC)

- *Initial Gas Line Test* – We will verify that the gas line will be able to hold 10 PSI or half the working pressure of the gauge used for 15 minutes. For example, if a 30lbs gauge is used then the gas lines must be pressured to 15lbs for 15 minutes. A second line test will be done after drywall. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC) and the California Plumbing Code (CPC).

Important Chapters

- Fuel Gas Piping (CPC)

Important Sections

- Fuel Line Test (CPC)

- *Rough-Plumbing (Top-Out)* – We will verify that adequate venting is provided, proper installation of the drain-waste-venting system (DWV), protective plates are provided, and that the DWV and potable water system can hold water pressure for at least 15-minutes. The building codes relevant to this inspection are the California Building Code (CBC), and the California Plumbing Code (CPC).

  Important Chapters

  - General Regulations (CPC)
  - Water Supply and Distribution (CPC)
  - Sanitary Drainage (CPC)
  - Vents (CPC)
  - Traps and Interceptors (CPC)
  - Fuel Gas Piping (CPC)
  - Firestop Protection (CPC)

  Important Sections

  - Drain Test (CPC)
  - Potable Water Test (CPC)
  - Vents Required (CPC)
  - Drainage Piping (CPC)
  - Hot and Cold Required (CPC)
  - Traps Required (CPC)
  - Combustible Piping Installations (CPC)
  - Electrical Bonding and Grounding (CPC)

- *Rough-Sprinkler* – We will verify that the sprinkler system matches what is described on your sprinkler plans. This includes spacing, sizing, materials, pumps, and other devices. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC) and NFPA 13.

  Important Chapters

  - Fire Protection and Life Safety Systems (CBC)
  - Water Supply and Distribution (CPC)

  Important Sections

  - Automatic Fire Sprinkler Systems (CBC)

- *Rough-Mechanical* – We will verify all ducting, flues, and mechanical appliances are installed per buildings plans and manufactures specifications. The building codes relevant to this inspection are the California Building Code (CBC), and the California Mechanical Code (CMC) and the California Green Building Standards (CGB).

  Important Chapters

  - General Regulations (CMC)
  - Ventilation Air (CMC)
  - Exhaust Systems (CMC)
  - Duct Systems (CMC)
  - Chimneys and Vents (CMC)

  Important Sections

  - Bathroom Exhaust Fans (CGB)
  - Heating/Cooling Air System (CMC)
  - Central Heating Furnaces (CMC)
  - Clothes Dryers (CMC)
  - Attic Drainage Pan (CMC)

Once approved you will be ready to install insulation.

4 Insulation

- *Insulation* – We will verify that the insulation used meets the R-value required by your energy calculations. A HERS Special Inspection may be required. The building codes relevant to this inspection are the California Building Code (CBC) and the Energy Code (CEnC).

  Important Chapters

  - Mandatory Requirements (CEnC)

  Important Sections

  - Mandatory Insulation Requirements (CEnC)

Once approved you will be ready to install drywall.

5 Drywall

- *Drywall* – We will verify that the correct size of drywall is used according to required fire assemblies and that they are fastened to framing members as per plans. The California Building Code (CBC) will be used as a minimum requirement.

  Important Chapters

  - Interior Finishes (CBC)

  Important Sections

  - General (CBC)

- *Gas Service* – We will conduct another line test and will require a gas appliance is in place to be easily connected. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC) and the California Plumbing Code (CPC).

  Important Chapters

  - Fuel Gas Piping (CMC)

  Important Sections

  - Fuel Line Test (CMC)

Once approved you will be ready complete the construction through to final.

6 Final

- *Mechanical Final* – We will verify the functionality of all mechanical systems and ensure the absence of mechanical hazards. Your energy calculations may require a HERS Special Inspection at this time. The building codes relevant to this inspection are the California Building Code (CBC), the California Mechanical Code (CMC), the California Energy Code (CEnC), and the California Green Building Standards (CGB).

  Important Chapters

  - General Regulations (CMC)
  - Installation of Specific Appliances (CMC)
  - Environmental Quality (CGB)
  - Mandatory Requirements (CEnC)

  Important Sections

  - Installation (CGB)
  - Location (CMC)
  - Exhaust System Termination (CMC)
  - Grills and Screens (CMC)

- *Plumbing Final* – We will verify functionality and efficiency of all plumbing fixtures and ensure the absence of plumbing hazards. The building codes relevant to this inspection are the California Green Building Standards (CGB), and the California Plumbing Code (CPC).

  Important Chapters

  - Plumbing Fixtures and Fixture Fittings (CPC)
  - Water Heaters (CPC)
  - Nonresidential Mandatory Measures (CGB)

  Important Sections

  - Installation (CPC)
  - Water Efficiency and Conservation (CGB)

- *Electrical Final* – We will verify functionality of the electrical system, AFCI/GFCI protection, and absence of electrical hazards. The building codes relevant to this inspection are the California Building Code (CBC), the California Electric Code (CEC), the California Green Building Standards (CGB), the California Energy Code (CEnC),and the Humboldt Code (HC).

  Important Chapters

  - General (CEC)
  - Wiring and Protection (CEC)
  - Nonresidential Mandatory Measures (CGB)
  - Mandatory Requirements (CEnC)

  Important Sections

  - Branch Circuits (CEC)
  - Branch Circuits, Feeder, and Service (CEC)
  - Grounding and Bonding (CEC)
  - Overcurrent Protection (CEC)

6 Final

- *Building Final* – We will verify the safety of all structural and path of travel elements and ensure the absence of hazards. Furthermore, we will verify that all special inspections have been completed and that all certification letters have been received. The building codes relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

  Important Chapters

  - Fire and Smoke Protection Features (CBC)
  - Environmental Quality (CGB)

  Important Sections

  - Fire Alarm and Detection Systems (CBC)
  - Pollutant Control (CGB)

- *Exterior* – We will verify the exterior covering is watertight and free from hazards. This includes ensuring water will be shed away from the foundation and the correct installation of plumbing and flue terminations. The building codes relevant to this inspection are the California Green Building Standards (CGB), and the California Building Code (CBC).

  Important Chapters

  - Exterior Walls (CBC)

  Important Sections

  - Exterior Combustible Material (CBC)
  - Finish Material (CBG)

- *Sprinkler System* – The fire department and the building department will verify that all escutcheon plates are installed on sprinkler heads, ensure the absence of hazards, and recheck spacing requirements. We will verify that the sprinkler system matches what is described on your sprinkler plans. This includes spacing, sizing, materials, pumps, and other devices. The building codes relevant to this inspection are the California Building Code (CBC), the California Plumbing Code (CPC), the California Fire Code (CFC), and the NFPA 13D.

  Important Chapters

  - Fire and Smoke Protection Features (CBC)
  - Water Supply and Distribution (CPC)

  Important Sections

  - Automatic Fire Sprinkler Systems (CBC)

- *Accessibility* – We will verify all accessible elements are in accordance with Chapter 11B. The building codes relevant to this inspection are the California Building Code (CBC) and the Humboldt Code (HC).

  Important Chapters

  - Public Accessibility (CBC)

  Important Sections

  - 11B Scope (CBC)

Once you have passed all inspections and all applicable agencies have signed off on the project, you may contact the building department to receive your certificate of occupancy.

Special Inspections

Depending on your engineering and site hazards your project may require special inspections.

- *Property Survey* – If the property lines are difficult to discern and potentially close to the proposed development the building official may require you to provide survey markers from a qualified surveyor.
- *Footings* – An engineer will be required to inspect footings and excavations.
- *Structural Certification* – If you installed a structural assembly that does not match your building plans you will be required to have an engineer inspect and certify as-built conditions.
- *HERS* – Your energy calculations may require field verification of your cooling system, heating system, HVAC distribution system, lighting systems, and/or your domestic hot water system by a certified HERS Rater.
- *Fire Department* – The fire department having jurisdiction must inspect and provide a letter certifying fire protection systems, fire sprinkler systems, and fire alarm systems.
- *Equipment and Special Systems* – All equipment and special systems will require inspections by an engineer.

Who do I contact if I have more questions?

You can send an email to buildinginspections@co.humboldt.ca.us and we will try to get back to you ASAP.

Resources

- California Building Codes (UpCode)
- County Code
- GIS
- GIS Guide
- Brochures and Handouts
- Forms
- Resource Library
- FAQ's

COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING
3015 H STREET, EUREKA, CA 95501 ~ PHONE (707) 445-7245

12/4/2020

Project Referred To The Following Agencies:

Blue Lake Rancheria, County Counsel, Environmental Health, PW Land Use, PW Natural Resources, Building Inspections, USFWS, EPA, NMFS, Corps of Engineers, Bureau of Land Management, FPD: Samoa, RWQCB, Humboldt Bay Municipal Water District, Cal Coastal Commission, Cal Fish & Wildlife, CA Dept of Toxic Subs, Division of Water Resources, CalFire, Cal-OSHA, Cal-EPA, Bear River Band, NWIC, Trinidad Rancheria, Wiyot Tribe, Other: NOAA, Other: Bay Keeper, Other: Surfrider, Other: Humboldt Fisherman's Marketing Assoc.

Applicant Name Nordic Aquafarms California, LLC **Key Parcel Number** 401-112-021-000

Application (APPS#) PLN-2020-16698 **Assigned Planner** Alyssa Suarez 707-268-3703

Please review the above project and provide comments with any recommended conditions of approval. To help us log your response accurately, please include a copy of this form with your correspondence.

Questions concerning this project may be directed to the assigned planner for this project between 8:30am and 5:30pm Monday through Friday.

County Zoning Ordinance allows up to 15 calendar days for a response. If no response or extension request is received by the response date, processing will proceed as proposed.

☐ If this box is checked, please return large format maps with your response.

Return Response No Later Than: 12/19/2020

Planning Clerk
County of Humboldt Planning and Building Department
3015 H Street
Eureka, CA 95501
Email: PlanningClerk@co.humboldt.ca.us **Fax**: (707) 268 - 3792

We have reviewed the above application and recommend the following (please check one):

☒ Recommend Approval. The department has no comment at this time.

☐ Recommend Conditional Approval. Suggested conditions attached.

☐ Applicant needs to submit additional information. List of items attached.

☐ Recommend Denial. Attach reasons for recommended denial.

Other Comments: _____

DATE: 12-16-2020 PRINT NAME: KEN FREED

Memorandum

To: **Alyssa Suarez, Planner**

From: **Joey Whittlesey, Senior Environmental Health Specialist**

Date: **April 5, 2021**

Subject: **Nordic Aquafarms CDP (PLN-2020-16698; AP# 401-112-021)**

The Division of Environmental Health (DEH) has reviewed the activity proposed under the aforementioned development permit and recommends project approval. The following comments have been prepared and should be incorporated into ongoing work plans where applicable:

Please be advised, under California Health and Safety Code, Section 25404 et seq., any business that contains on site more than 55 gallons, 500 pounds, or 200 cubic feet of a hazardous material, or generates hazardous waste as part of their business activity, must report these activities to DEH's Hazardous Materials Program and the California Environmental Reporting System.

Completion of a Landfill Gas Workplan (SHN January 2021) must verify that there is no hazard associated with landfill gasses generated at the Samoa Ash Disposal site prior to approval of construction permits. If landfill gasses are observed in exceedance of regulatory thresholds, a landfill gas collection and management system will be required. Attached is the approval letter from the Solid Waste LEA to SHN.

Approval of proposed Phase 2 development is subject to provision of public wastewater service by Peninsula Community Services District. Proposed abandonment of the existing Onsite Wastewater Treatment System shall require submittal of an OWTS Destruction Permit Application to DEH for review prior to commencement of any work on the system.

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

828 SEVENTH STREET, PO BOX 95 • EUREKA, CALIFORNIA 95502-0095
OFFICE 707-443-5018 ESSEX 707-822-2918
FAX 707-443-5731 707-822-8245
EMAIL OFFICE@HBMWD.COM
Website: www.hbmwd.com

March 12, 2021

VIA EMAIL: asuarez@co.humboldt.ca.us
Alyssa Suarez
Planner
Humboldt County Planning Department
3015 H Street
Eureka CA 95501

Re: Project #: PLN-2020-16698
Nordic Aquafarms California, LLC
APN: 401-112-021

Dear Ms. Suarez,

I am writing regarding the above referenced project application by Nordic Aquafarms. This letter is to inform your department that a water analysis has been performed by our agency, Humboldt Bay Municipal Water District, the domestic and industrial water provider to the above referenced project parcel.

Although a specific project analysis was not conducted as part of our District's 2015 Urban Water Management Plan, as stated in our plan:

> *"Overall, water supply and demand are projected to be of low to moderate vulnerability of climate change in the north coast region in general, and even less so in the Mad River watershed. The Mad River watershed is rainfall-dominated (little to no snowpack), and annual demand on water supplies available from the watershed are typically well below 10% of mean runoff. As noted in Section 3.3.1, HBMWD has estimated that demand up to 36 MGD (compared to a current annual average usage of 10 MGD) could be met reliably, even if the unprecedented condition of continuous hydrology similar to the 1976-77 drought occurred."*

Nordic Aquafarms has informed us that their peak domestic potable water demand is 300,000 gallons per day with normal daily demand less than 200,000 gallons per day. Both of these volumes are well within our available capacity to reliably deliver domestic potable water to their project.

In addition to domestic water, Nordic Aquafarms has requested industrial (non-treated) water from our District. Nordic has informed us that their industrial water maximum demand will be 3 million gallons per day. Our industrial system is designed to deliver a maximum capacity of 75 million gallons per day and consistently delivered 65 million gallons per day while the two former pulp mills resided on the Samoa Peninsula (both of which have closed). Consequently, our District has more than sufficient capacity and ability to provide Nordic Aquaculture's project with 3 million gallons per day of industrial water. (4.6 % of previous volume supplied).

Therefore, we confirm Humboldt Bay Municipal Water District's ability to provide domestic potable water of 300,000 gallons per day and industrial non-potable water of 3 million gallons per day to the Nordic Aquafarms California, LLC project located on APN 401-112-021.

If you have any questions or need any additional information please do not hesitate to contact us.

Respectfully,

John Friedenbach
General Manager

Cc: David Noyes, Nordic
Scott Thompson, Nordic
Nathan Stevens, GHD

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

828 SEVENTH STREET, PO BOX 95 • EUREKA, CALIFORNIA 95502-0095
OFFICE 707-443-5018 ESSEX 707-822-2918
FAX 707-443-5731 707-822-8245
EMAIL OFFICE@HBMWD.COM
Website: www.hbmwd.com

August 14, 2021

VIA EMAIL: asuarez@co.humboldt.ca.us
Alyssa Suarez
Planner
Humboldt County Planning Department
3015 H Street
Eureka CA 95501

Re: Project #: Update
PLN-2020-16698
Nordic Aquafarms California, LLC
APN: 401-112-021

Dear Ms. Suarez,

I am writing regarding the above referenced project application by Nordic Aquafarms. This letter is to inform your department that an updated water analysis has been performed by our agency, Humboldt Bay Municipal Water District, the domestic and industrial water provider to the above referenced project parcel.

Although a specific project analysis was not conducted as part of our District's 2015 Urban Water Management Plan, as stated in our plan:

> *"Overall, water supply and demand are projected to be of low to moderate vulnerability of climate change in the north coast region in general, and even less so in the Mad River watershed. The Mad River watershed is rainfall-dominated (little to no snowpack), and annual demand on water supplies available from the watershed are typically well below 10% of mean runoff. As noted in Section 3.3.1, HBMWD has estimated that demand up to 36 MGD (compared to a current annual average usage of 10 MGD) could be met reliably, even if the unprecedented condition of continuous hydrology similar to the 1976-77 drought occurred."*

Nordic Aquafarms has informed us that their updated peak domestic potable water demand is ~~300,000~~ 502,000 gallons per day. This volume is within our available capacity to reliably deliver domestic potable water to their project.

In addition to domestic water, Nordic Aquafarms has requested industrial (non-treated) water from our District. Nordic has informed us that their updated industrial water maximum demand will be ~~3~~ 2 million gallons per day. Our industrial system is designed to deliver a maximum capacity of 75 million gallons per day and consistently delivered 65 million gallons per day while the two former pulp mills resided on the Samoa Peninsula (both of which have closed). Consequently, our District has sufficient capacity and ability to provide Nordic Aquaculture's project with 2 million gallons per day of industrial water. (3.1 % of previous volume supplied).

Therefore, we confirm Humboldt Bay Municipal Water District's ability to provide domestic potable water of 502,000 gallons per day and industrial non-potable water of 2 million gallons per day to the Nordic Aquafarms California, LLC project located on APN 401-112-021.

If you have any questions or need any additional information please do not hesitate to contact us.

Respectfully,

John Friedenbach
General Manager

Cc: David Noyes, Nordic
Scott Thompson, Nordic
Nathan Stevens, GHD

Paul, Gayle

From: Suarez, Alyssa
Sent: Tuesday, December 22, 2020 9:58 AM
To: Planning Clerk
Subject: FW: Harbor District Nordic Aquafarms Referral Comments PLN-2020-16698
Attachments: Memorandum of Agreement Agencies.pdf; Water Quality Control Plan for Ocean Waters of California.pdf; Humboldt Bay Intake Modeling Proposal Nov2020.pdf; Final Redwood Marine Terminal II NAF Relocation Plan 5-28-20.pdf

Please upload referral response to 16698 – Nordic.

From: Larry Oetker <loetker@humboldtbay.org>
Sent: Friday, December 18, 2020 11:40 AM
To: Suarez, Alyssa <asuarez@co.humboldt.ca.us>
Cc: Vanessa Blodgett <vanessab@planwestpartners.com>; georgew@planwestpartners.com; Adam Wagschal <awagschal@humboldtbay.org>; Chris Mikkelsen <cmikkelsen@humboldtbay.org>
Subject: Harbor District Nordic Aquafarms Referral Comments PLN-2020-16698

The Harbor District submits the following initial comments pending review of the CEQA documents and associated technical reports for the proposed Nordic Aquafarms Coastal Development Permit (PLN-2020-16698) [APN 401-112-021-00].

OTHER REGULATORY APPROVALS
A permit will be required from the Harbor District for the use of the saltwater intake systems (TABLE 2-3 Anticipated Regulatory Permits and Approvals)

AQUACULTURE USE:
The Harbor District has conducted an extensive review of the properties around Humboldt Bay that are suitable for aquaculture while ensuring that there are sufficient Coastal Dependent Industrial designated lands to support maritime shipping. The area proposed by Nordic Aquafarms meets the criteria established in the Humboldt Bay Area Plan for aquaculture uses. As specified in the HBAP Development Policies 3 a COASTAL DEPENDENT INDUSTRIAL we look forward to reviewing the initial study.

SALT WATER INTAKE
The Harbor District is designing and permitting bay water intakes at the Redwood Marine Terminal II dock and Red Tank Dock. Sea water from the intakes will be used by current and future tenants for aquaculture, including Nordic Aquafarms, and other aquaculture and coastal related uses. Staff from the regulatory agencies have indicated the need for a model that estimates mortality of fish larvae that would result from the water intakes. The model results would be used to determine mitigation requirements for the project. Tenera Environmental Consulting is uniquely qualified to conduct this work and provided the District with a proposal and contract (Attachment) . The Harbor District contract with Tenera to complete the Empirical Transport Model within 90 days. Resource Agency Staff from the Coastal Commission and Water Board have told District Staff that we need to review the project under the State Water Quality Control Plan for Ocean Water of California Chapter III Section M. Implementation Provisions for Desalination Facilities which can be found on page 40. In July 2020, an extensive list of both federal and state resource agencies sighed the attached Memorandum of Agreement regarding the coordination on desalination plant and other water intake projects. Section M 2 established the mitigation measures required based on the Empirical Transport Model (ETM). Once the mitigation measures are determined, the Harbor District will complete our consultation will Agency Staff, certify the CEQA determination and finalize our review of the Harbor District permit.

TENANT RELOCATION

The demolition of the Shops and Stores building will require tenant relocation in compliance with State Relocation laws. The Harbor District has approved the attached tenant relocation plan.

INFRASTRUCTURE:

The existing fire suppression, electrical, gas, stormwater, ocean outfall, saltwater intake, leach field and other utilities currently serve existing coastal dependent, coastal related and permitted interim uses. It is critical that as the project is under construction, these infrastructure remain connected and are able to be utilized at all times.

SEA LEVEL RISE

Harbor District would request that the County establish the design requirements for Sea Level Rise and Tsunami Inundation consistent with the recently adopted amendments to the Samoa Town Master Plan (STMP). Using consistent standards for adjacent development is essential for coordinated planning of Coastal Dependent properties.

STMP Policy 1B 11 states

storm water runoff and winter high ground water conditions, (b) e
engineer has verified that the complete waste water collection, tre
will function effectively under site conditions consistent with at le
rise, (c) evidence that the design includes sufficient surge/backup/

STMP (Hazard) Policy 2:

The best available and most recent scientific information with respect to the effec sea level rise shall be considered in the preparation of findings and recommendat geologic, geo-technical, hydrologic, and engineering investigations prepared in su development applications for development of the lands subject to the STMP-LUF nearshore sites shall analyze potential coastal hazards from erosion, flooding, wa and other conditions, for a range of potential sea level rise scenarios, from three t century. The analysis shall also consider localized uplift or subsidence, local topc bathymetry, and geologic conditions. A similar sensitivity analysis shall be perfo critical facilities, energy production and distribution infrastructure, and other dev of major community significance using a minimum rise rate of 4.5 feet per centu analyses shall be used to identify current and future site hazards, to help guide sit development location, and hazard mitigation requirements, and to identify sea lev after which limitations in the development's design and siting would cause the in become significantly less stable. For design purposes, development projects shall minimum sea level rise of three (3) feet per century and significant or critical infr development of community-wide significance, such as sewage waste treatment fa emergency response facilities, shall assume a minimum of 4.5 feet per century; g rates shall be used if development is expected to have an exceptionally long econ proposed development has few options for adaptation to sea level higher than the or if the best available scientific information at the time of review supports a high

STMP (Business Park) Policy 3: Business Park Structural Restrict

A. The final plans and designs for all structures within the bu following requirements unless a suitable vertical evacuatic earthquake and tsunami risk posed by a Cascadia Subduct is provided within the distance that can be covered by a fi

(HBAP/Ch4) Chapter 4 Page 35

Humboldt Bay Area Plan

1. The uppermost accessible floor or roof of the subject st than the tsunami inundation elevation calculated for the account for future sea level rise; and

STMP Policy 5

Prior to any conveyance of title to lands and prior to the issuance of a coastal dev development within the lands subject to the STMP-LUP, including either new de improvement of existing structures, evidence shall be submitted for the review an reviewing authority that a Deed Restriction has been recorded against the legal tit against title of lands containing the subject development, setting forth the followi

1. Disclosure that the lands situated within the STMP-LUP are subject to posed by earthquake and tsunamis, and by future sea level rise, which posed by coastal erosion, storm surge, and wave attack; and

2. Disclosure of the existence of an approved final Tsunami Safety Plan p property, including the date of the plan and how a copy may be obtain

3. Disclosure that no shoreline armoring structures are approved now, no authorized in the future for the protection of development within the S hazards that may arise due to the coastal setting of the Samoa lands, an increased sea level rise in the future, and that the present landowners h rise into consideration and have warranted that no such protective struc protect the proposed development of the STMP-LUP, and further, have possibility that no such protective structures would secure approval for

STMP: Policy 6

STMP (New Development) Policy 6:

Land divisions, including re-divisions and lot line adjustments of be permitted only if all resulting parcels can be demonstrated to b resources, and safe from flooding, erosion, and geologic hazards, sea level rise, without the future construction of shoreline armorin proposed on the resultant lots can be constructed consistent with a

Larry Oetker, Executive Director
Humboldt Bay Harbor, Recreation, and Conservation District
Email: loetker@humboldtbay.org
Phone: (707) 443-0801 Direct: (707) 443-3401

COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING
3015 H STREET, EUREKA, CA 95501 ~ PHONE (707) 445-7245

12/4/2020

Project Referred To The Following Agencies:

Blue Lake Rancheria, County Counsel, Environmental Health, PW Land Use, PW Natural Resources, Building Inspections, USFWS, EPA, NMFS, Corps of Engineers, Bureau of Land Management, FPD: Samoa, RWQCB, Humboldt Bay Municipal Water District, Cal Coastal Commission, Cal Fish & Wildlife, CA Dept of Toxic Subs, Division of Water Resources, CalFire, Cal-OSHA, Cal-EPA, Bear River Band, NWIC, Trinidad Rancheria, Wiyot Tribe, Other: NOAA, Other: Bay Keeper, Other: Surfrider, Other: Humboldt Fisherman's Marketing Assoc.

Applicant Name Nordic Aquafarms California, LLC **Key Parcel Number** 401-112-021-000

Application (APPS#) PLN-2020-16698 **Assigned Planner** Alyssa Suarez 707-268-3703

Please review the above project and provide comments with any recommended conditions of approval. To help us log your response accurately, please include a copy of this form with your correspondence.

Questions concerning this project may be directed to the assigned planner for this project between 8:30am and 5:30pm Monday through Friday.

County Zoning Ordinance allows up to 15 calendar days for a response. If no response or extension request is received by the response date, processing will proceed as proposed.

☐ If this box is checked, please return large format maps with your response.

Return Response No Later Than: 12/19/2020

Planning Clerk
County of Humboldt Planning and Building Department
3015 H Street
Eureka, CA 95501
Email: PlanningClerk@co.humboldt.ca.us **Fax**: (707) 268 - 3792

We have reviewed the above application and recommend the following (please check one):

☑ Recommend Approval. The department has no comment at this time.

☐ Recommend Conditional Approval. Suggested conditions attached.

☐ Applicant needs to submit additional information. List of items attached.

☐ Recommend Denial. Attach reasons for recommended denial.

Other Comments: I approve the 20' Fire road

DATE: 3-29-21 PRINT NAME: Dale Mora

Fire Chief
Samoa Peninsula Fire

ATTACHMENT 3

Final Environmental Impact Report

Linked below:

https://humboldtgov.org/DocumentCenter/View/108020/Nordic-Aquafarms-Final-EIR

The purpose of this Errata is to document revisions to the DEIR and FEIR that are intended to clarify project details since they were submitted to the Office of Planning and Research State Clearinghouse on December 20, 2021, and July 1, 2022, respectfully. The following Project details are addressed in this Errata, as shown in Table 1 below.

The Errata includes excerpts of text from the DEIR and FEIR that are proposed for modification and does not include the entire DEIR. Specifically, the entire subsection that contains the text proposed for modification is copied into the Errata, and newly proposed text in the Errata is **underlined and bolded**, deleted text from the original document is ~~stricken~~ with single strikethrough, and unchanged text remains in normal font. Only the subsections of the original document that are proposed for modification are copied into the Errata.

Table 1 Summary of Proposed DEIR/FEIR Text Modifications Captured in Errata

Section of Errata	Section of DEIR/FEIR and Topic of Proposed Change
1	Response to comment 677-5 was omitted on page 2-573 the FEIR
2	Mislabelled response to comment letter 701-2 on page 2-650 of the FEIR.
3	Errata Summary Table 4.1 on page 4-1 of the FEIR omitted two entries.
4	Clarification on paved shoulder width in Master Response 1 on page 2-12 of the FEIR.
5	Summary Table 1-2 on page 1-11 of the DEIR mislabeled entries.
6	Summary Table 1-2 on page 1-16 of the DEIR mislabeled one entry.
7	Omitted text in Mitigation Measure HWQ-3 on page 3.9-29 of the DEIR.

1. Response to comment 677-5 was omitted on page 2-573 the FEIR.

   Response to comment 677-5 – Unacceptable impact

   The comment states the impacts from the intake and outfall discharge are unacceptable. However, the commentor did not provide any evidence upon which to base their concern or conclusions that differed from impact analysis within the DEIR and appended technical evaluations. Please review Master Response 8 – Substantial Evidence, Speculation, and Unsubstantiated Opinion for further discussion regarding CEQA guidelines. Responses to comments 677-3 and 677-4 by this commentor address their concerns regarding the intake and discharge. A summary of impacts has been provided in Table 1-2 of the DEIR on pages 1-5 through 1-23 which allow for a quick review through all resource categories. Due to the organization of the EIR the impact of the Ocean discharge and Humboldt Bay intakes have been analyzed separately across these resource categories, and no remaining significant impact after mitigation were identified. Given the information referenced above, no further analysis or modifications to the DEIR are proposed specific to this comment.

2. Mislabeled response to comment letter 701-2 on page 2-650 of the FEIR.

   Response to Comment ~~702-1~~ 701-1 – Support

3. Errata Summary Table 4.1 on page 4-1 of the FEIR omitted two entries.

4.3	4.3.1	Section 3.5.2 – Setting
Section 3.5 Energy	4.3.2	**Section 3.5.2 – Setting / Nordic Energy Mix Commitments**
Resources	**4.3.3**	Section 3.5.7 – Cumulative Impacts

4. Clarification on paved shoulder width in Master Response 1 on page 2-12 of the FEIR.

   There are currently traffic calming measures on SR 255 through Manila with speed reduction signs and pavement markings. SR 255 through Manila, Arcata, and across the Samoa Bridge also have sufficient shoulder width to safely accommodate pedestrians and bicyclist travel, where the majority of existing shoulder widths vary between approximately six feet and eight feet in Manila, **approximately four to five feet in width on the Samoa Bridges and six to eight feet between the bridge structures,** ~~approximately six to eight feet across the Samoa Bridge,~~ and designated six-foot bike lanes in Arcata, which meet the Caltrans standard for a bicycle lane of six feet, per the Highway Design Manual (Caltrans 2020). **Caltrans has not designated the Samoa Bridges on SR 255 as a Class II bike lane, so the six-foot shoulder standard does not apply. Bicycles (and pedestrians) are permitted to use SR 255 between US 101 and New Navy Base Road as shared facility rather than as a designated bike lane.** There may be portions of SR 255 that lack sufficient shoulder width for pedestrians or bicyclists; however, the Project would not cause additional undue substantial risk to vulnerable road users because the Project does not significantly intensify truck traffic or private automobile traffic that would substantially increase the risk to vulnerable road users.

5. Summary Table 1-2 on page 1-11 of the DEIR mislabeled entries.

Cultural Resources				
~~**CR-1**~~ **CR-a** Would the Project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5?	Terrestrial Development	No Impact	N/A	N/A
	Ocean Discharge	No Impact	N/A	N/A
	Humboldt Bay Water Intakes	No Impact	N/A	N/A
	Compensatory Off-Site Restoration	Less than Significant	N/A	N/A
CR-1 Would the Project cause a substantial adverse change in the significance of a ~~historical or~~ archaeological resource pursuant to Section 15064.5?	Terrestrial Development	Less than Significant with Mitigation	Mitigation Measure CR-1- Implementation of Protocols for Cultural Monitoring During Ground Disturbance Mitigation Measure CR-2 Implementation of Inadvertent Discovery Protocols	Less than Significant

6. Summary Table 1-2 on page 1-16 of the DEIR mislabeled one entry.

~~HAZ-3~~ **HAZ-7** Would the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Terrestrial Development	Less than Significant	N/A	N/A
	Ocean Discharge	No Impact	N/A	N/A
	Humboldt Bay Water Intakes	No Impact	N/A	N/A
	Compensatory Off-Site Restoration	No Impact	N/A	N/A

7. Omitted text in Mitigation Measure HWQ-3 on page 3.9-29 of the DEIR.

   - 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 **release of debris or contaminated material**. Prior to disposal, the piles and debris will be stored on paved areas**, in containers, or on impermeable material**. **Debris will be stored** covered with tarps and surrounded by a soil erosion boom in order to prevent potential leaching or discharge of debris or contaminated material.

ATTACHMENT 4

Draft Environmental Impact Report

Linked below:

https://humboldtgov.org/3218/Nordic-Aquafarms-Project

ATTACHMENT 5

Public Comments

Opposed

From:	Ann Dorsey
To:	Planning Clerk
Subject:	Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698
Date:	Sunday, July 24, 2022 8:36:33 PM

Planning Commission,

I urge you to deny the permit for Nordic Aquafarms for the following reasons:

The Aquafarm will generate at least 100,000 metric tons of greenhouse gases each year from the fish feed.

Humboldt Bay already has to local sustainable aquaculture in its oyster farms.

There are significant risks from this project including tsunamis, earthquakes and escaped fish.

Thank you,

Ann Dorsey

From:	Christopher Hamilton
To:	Planning Clerk
Subject:	Planning Commission hearing for July 28, 2022 - Nordic Aquafarms California, Record Number PLN-2020-16698.
Date:	Sunday, July 24, 2022 5:21:02 PM

Dear Planning Commission Members:

Because factory-style fish farms employ toxic pesticides and pharmaceutical drugs, even GMO soy, in order to yield larger fish populations for food, I've grown increasingly wary of their impacts on our waters.

It's of particular concern that the toxins can significantly affect worker health in several ways through:

Drugs they use for pest and disease control; in crowded pens that multiply levels of harmful bacteria, those bacteria can develop resistance to antibiotics crucial for treating human diseases.

Factory farmed salmon turn pink because of dyes; some of those dyes may contribute to retinal damage and hyperactivity in children.

Chemicals factory farms use are likely to increase risks of cancer, reproductive and endocrine system problems.

However, in fish farms it's not only harmful to humans, but such toxics discharged from this facility will adversely affect wildlife in the sea, too; that effluent will go directly into habitat where juvenile salmon are swimming.

So I want to express my opposition to the proposed Nordic Aquafarms facility in Humboldt. Its plans to operate such a huge factory fish farm on the Samoa Peninsula require much deeper review. The County's Mitigated Negative Declaration concludes, amazingly, that no significant adverse environmental effects would be yielded by this facility. It appears from

documents that it may produce up to 60 million pounds of fish per year and discharge six million gallons of wastewater into our coastal waters daily.

Thus, I pray that the Commission will review this proposed facility more rigorously. I think there are so many environmental and social--even economic--impacts it will have. Please do all you can to prevent a land-based factory fish farm from harming Humboldt Bay's precious coastline.

I really don't believe that the mitigated negative declaration meets strict requirements of the California Environmental Quality Act. The act aims to assure state residents that better long-term environmental protection goals will guide decisions coming from public agencies like yours. Please consider how large wastewater discharge from this facility may affect water quality, wildlife habitats, and infrastructure in the area.

Fish feed practices at these operations also rely on wild fish and land-based crops like soy, which, as I said, contain GMOs. But more importantly, factory fish farms must respond to bottom-line concerns, so increasing profits may diminish sustainability of the work there and the quality of products. Factory fish farms also risk the demise of wild fishing communities and any economic activities that are connected to them. They tend to depress fish prices and they also compete for limited space for marine life and fishing folk. We really must think more about these risks from a foreign-owned corporation that may well be less accountable to U.S. and Humboldt County interests.

I know that Humboldt County understands the value of California's coastline, which belongs to the people of California. I care deeply about the well-being of our ocean ecosystem, and I want our precious resources protected so our children and their children can enjoy them. Please do not take steps toward allowing this industrial fish farm. Thank you for your consideration.

Chris Hamilton

From: Jerry Tobe
To: Planning Clerk
Subject: Nordic Aquafarms Project
Date: Monday, July 25, 2022 4:56:41 AM

> **Caution:** This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

Dear Planning Commission,
350 Humboldt Grassroots Climate Action has submitted a comprehensive analysis of Nordic Aquafarms California, LLC's FEIR. One takeaway is Nordic Aquafarms California, LLC has been less than forthright, at least in their EIRs. We know it's unwise to do business with less than honest brokers, but that hasn't deterred government entities and elected individuals before, usually to the detriment of their constituencies.
The comprehensive analysis that 350 Humboldt Grassroots Climate Action has submitted mentions antibiotic resistant bacteria from fish feed associated with aquafarming. We know livestock feed containing antibiotics results in antibiotic resistant pathogens called superbugs. Humboldt County and Humboldt Bay shouldn't have to deal with or be the source of superbugs.
The impact that Nordic Aquafarms' Norwegian facility had on the surrounding environment is still unknown as is the reason that they stopped farming Atlantic salmon and as are other recent business decisions - potentially relevant information in the decision making process.
I strongly recommend you get Nordic Aquafarms California, LLC to
- provide a one million dollar bond that you invest in a portfolio of dividend paying, medium risk stocks and roll those dividends back into that portfolio until you need the money for things that go wrong with/at Nordic Aquafarms or when they close/abandon the farm, and
- install solar microgrids in Humboldt to equal their unmitigated energy. install solar microgrids in Humboldt to equal their unmitigated energy. These could be installed at hospitals, fire houses, community centers, schools, assisted living and nursing homes, waste treatment plants, and water districts. Solar microgrids cut emissions from our current fossil fuel dependent electricity and provide safeguards for power outages
if you decide to permit Nordic Aquafarms California, LLC to proceed.

May you do ONLY that which is truly best for the environment and the vast majority of people living in Humboldt County, and cause those people as little harm as humanly possible.

Thank you for reading my email.

--
Best Regards,
Jerry Tobe

From:	Karen Berger
To:	Planning Clerk
Subject:	Regarding the Planning Commission Hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698
Date:	Sunday, July 24, 2022 4:47:42 PM

Please do not certify the final Environmental Impact Report and deny the permit for the following reasons:

1. The massive electricity use (equal to Eureka and Fortuna together). We are going to need it to electrify all of our transportation and buildings;

2. The role of salmon farming for the US in a world where 350 million people don't have enough to eat;

3. The 100,000 or more metric tons of greenhouse gases that will be emitted annually by the fish feed;

4. The fact that Humboldt Bay already has local sustainable aquaculture in the form of our oyster farms; and

5. The risks: Tsunami, earthquake and fish escape.

Thank you in advance for your consideration in this matter.

Karen Berger

Lifelong Resident of California for 68 years and Environmental Activist

From:	Rebecca Jean Emigh
To:	Planning Clerk
Subject:	Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698.
Date:	Monday, July 25, 2022 9:51:50 AM

Please deny the final EIR-it should not be certified and the permit should be denied. This project will emit too much greenhouse gas and use too much electricity. Humboldt Bay already had sustainable aquaculture.

Rebecca Jean Emigh
Professor Sociology, UCLA
18135 Karen Drive
Tarzana CA 91356

From:	Sue Y Lee
To:	Planning Clerk
Subject:	Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698
Date:	Monday, July 25, 2022 4:32:46 PM

Dear Planning Commissioners,

Nordic Aquafarm plans to construct facilities that can withstand a 9.5 Richter scale earthquake. That is good. However, the real question is, can the plant remain unaffected by a major tsunami event? Tsunamis occur here often enough that we have road signs near the coast that alert drivers that they are leaving or entering such an area. Should a major tsunami inundate the proposed Nordic Aquafarm installation, can they guarantee that none of the Atlantic salmon at any life stage are swept into the ocean? I doubt they can.

If my doubt is correct, they probably should be denied a permit to build their proposed location or possibly should be required to use a local species of salmon.

Nordic Aquafarm can possibly do some good for this area, but their plans as proposed require my opposition.

For further information about tsunamis, see articles published in Science, 1 July 2022, 377(6601):30-31, 91-99.

Sincerely,
Archie S. Mossman
PO Box 223
Arcata, CA 95518
707.677.3669

Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698

To the Planning Commissioners and staff:

The original promise of the Nordic Aquafarm project has significantly dimmed after the EIR process failed to resolve several problems. The GHG emissions from energy use, refrigerant use, and transport remain well above the sustainable threshold. Factor in the GHG emissions of the fish food, and the increase is truly daunting. Perhaps it would be tempting to shout, "Damn the torpedoes. Full speed ahead!" if this were a different time. It may be difficult for many of us to to grasp that we must alter our priorities and our approach to business if the current climate emergency isn't to become catastrophic.

The basic concept of RAS aquaculture could be a good fit for the Samoan peninsula if the project were scaled much differently. Growing Atlantic Salmon, in particular, apparently poses such huge challenges that only one company, Atlantic Sapphire, has actually produced salmon, using the RAS technique, and it has lost millions of dollars and hundreds of thousands of fish. Its CEO, Johann Amdreassen, warns that growing Atlantic Salmon on the scale they are attempting is very difficult. Their biggest operation aims for 10,000 tons of salmon--less than half of Nordic's target. The die-offs demonstrate that technology for these gigantic aquaculture factories is not yet well developed. Is a project that hasn't succeeded on a pilot scale yet a good investment for Humboldt county?

The energy efficiency of this proposed operation is also in question, making the climate impacts of its GHG emissions unacceptably high. Nordic's promise to use only renewable energy is somewhat abstract at this time. At best RCEA would procure clean energy contracts from sources somewhere in California that theoretically displace fossil fuel use--at least until the rest of the state completes the transformation of its grid. We hope that happens as soon as possible, and we hope that PG&E will shut down its natural gas operation by 2045. Meanwhile, that's where our energy comes from, not to mention biomass electricity, which is more carbon-intensive than natural gas.

So the reality of our energy supply here in Humboldt county has a very long way to go before we can truly claim that it's a hundred percent clean and renewable. Increasing our energy usage by 25% while complying with SB 32 to decrease our carbon emissions by 40% below 1990 levels by 2030 seems all but impossible. Do we think everyone else should do it but not us? Nordic's proposed 4.8 MW rooftop solar array is a good start, but supplies only a small fraction of its need. What Nordic really needs is access to a giant wind farm, so they might be in luck a few years down the road. Unfortunately, in light of all the uncertainties right now, we cannot count our megawatts before they hatch.

A large, essential operational feature for any fish farm is the use of refrigerants. Commercial refrigeration typically loses 25% of its chemical charge every year. Unfortunately, Nordic has refused to identify which refrigerants they will use or to commit to using the refrigerants with the lowest global warming potential. They say only that they will follow the law--a promise that strikes fear into the heart of anyone who has studied refrigerants. The law currently permits refrigerants that retain two thousand times more heat than carbon dioxide to be used in commercial systems. Without this vital information, how are we to assess a major sector of emissions for this project?

A quite similar lack of concrete detail applies also to the estimates of vehicle miles traveled cited in the EIR. These miles would be incurred by transport of their product and of the fish effluent to Marysville. We have to wonder where they got the number of 2,268, 907 miles when they state in the EIR that "Specific trip lengths (such as minimum, maximum, average, or distribution) for short-hauling and

long-hauling were not known." Such opacity fails to inspire anyone's confidence in the accuracy of their estimate of 2371 metric tons of carbon for their transport--not that that isn't a sufficiently impressive amount.

Perhaps the issue of food for the fish presents the thorniest problem. Guaranteeing a sound food supply is, of course, number one priority for the future. It makes intuitive sense to farm fish to supply high-quality protein and to take pressure off wild stocks which are dealing with worsening ocean conditions. However, Atlantic Salmon need as much food as they supply. Even if we justify converting bottom fish--food for the world's poor--to a high-end product for the middle and upper classes, we need to further justify the expense of so much energy devoted to the process of catching the fish, processing them and shipping them.

Nordic has promised to procure certification from the Aquaculture Stewardship Council, which tracks all aspects of fish farming, including procuring the feed and the subsequent GHG. For the amount of fish food Nordic would require, those emissions would amount to around 150,000 metric tons per year, according to sustainability reports from Skretting and Cargill, two producers of fish feed. That Nordic's EIR leaves out entirely this impact while promising to meet ASC standards throws their credibility, or at least their sincerity, into doubt. Apparently, a CEQA technicality permits Nordic to leave those emissions out of the EIR because they would originate outside of California. Everybody knows this is an unnatural way to define emissions, which have no geographical loyalties.

Humboldt Bay's suitability for sustainable aquaculture is already proven. Twenty-one acres of bay have been pre-permitted for shellfish and seaweed farms, and four farms are active now. Much more is possible. Shellfish and seaweed aquaculture uses very little energy, sequesters carbon, and cleans the water besides. This standard of sustainability is hard to match, but fish farms should aspire to follow as closely as possible.

If Nordic would agree to a much smaller project, raise a less voracious species, and wait until offshore wind energy is a reality, they could truly claim to care about sustainability. No doubt their business is to flourish financially today, but our business is to make sure the future is included. We need new responsible models for how we do business in our imperiled world. Sustainability is not a pc catch word. It's a stark necessity, and the costs of ignoring that are becoming more and more evident, pointing to a disastrous outcome if we fail to re-tool our approach to business.

Thank you for considering these remarks.

Martha Walden
editor of 350 Humboldt LookOut

From:	Sue Y Lee
To:	Planning Clerk
Subject:	Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698
Date:	Monday, July 25, 2022 4:35:55 PM

Dear Planning Commissioners,
I am requesting that you do not certify the final EIR and deny permitting for the Nordic Aquafarm (NAF) Project as currently presented.

In the big picture of climate warming, the cost of energy from fossil fuel sources for farming a nonnative species of fish on the Samoa Peninsula to provide food is too high, and does not justify the exacerbation of global warming that this project will make on earth's climate.

I am concerned about the business plan of the corporation.
It does not make financial sense for our County to invest in a firm that has yet to show success with three continuous cohorts, the basic standard for a sound business plan.

Also as of earlier this month, the current CEO of NAF admitted that it still has not secured the $650 million bank loan they need for this project, and that the banks are waiting to see how well NAF's smaller scaled Florida Atlantic Sapphire plant does.

To me, it does not make financial sense for our County to invest in a firm that has split off from the parent Nordic corporation as recently as April, 2022. Additionally, the parent Norwegian and Danish operations are shifting to farming yellowtail kingfish. Such a recently formed venture is a risky investment for Humboldt County. There are too many organizational and financial issues here for me to feel comfortable with this investment.

We, the taxpayers of Humboldt County, will be left holding the bag if this NAF should fold due to the many other issues such as energy, transportation, ecological, seismic, and others that have not been adequately addressed by their EIR.

Sincerely,
Sue Y. Lee Mossman
PO Box 223
Arcata, CA 95518
707.677.3669

REDWOOD REGION AUDUBON SOCIETY

P.O. BOX 1054, EUREKA, CALIFORNIA 95502

July 26, 2022

Planning Commission
Humboldt County Courthouse
825 5th Street
Eureka CA, 95501

Subject: Comments on Nordic Aquafarms Samoa Peninsula Land-based Aquaculture Project Final Environmental Impact Report

Dear Commissioners:

Our comments on February 15, 2022, May 21, 2021, and July 3, 2021, on the Draft Environmental Impact Report, Impact Statement, and Notice of Preparation, respectively, expressed our concerns regarding the seawater intake mitigation for marine life entrainment and impingement, fish food sourcing, and water quality.

Seawater Intake

We agree with the California Department of Fish and Wildlife in that the proposed mitigation for longfin smelt (LFS) continues to be mostly hypothetical and based on incorrect assumptions regarding the vulnerability of LFS to impingement. We also continue to be concerned about the potential for impingement and entrainment of other planktonic size biota that have not been fully evaluated in the DEIR or FEIR. **We therefor request that a full study on these issues be completed as a requirement of a permit to operate.**

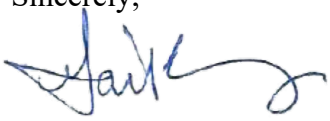
Fish Food

The response to comment 516-12 on third party certification the FEIR states "These certification standards also develop over time to adapt to current situations and challenges, it would therefore be premature to lock in the standards today; instead, NAFC will use the best available certification once in operation." **We request that language required for the operating permit stipulate that third party certification of marine sources for fish food be the most protective of the marine environment**.

Hydrology and Water Quality

As indicated in comment letter 503, neither Trinidad Harbor nor the entrance to Humboldt Bay are indicative of conditions at the proposed point of wastewater discharge. The FEIR attempts to justify potential environmental impacts based on data from these two locations but fails to incorporate existing data that includes the point of discharge. **We believe this omission makes the FEIR deficient and request that all existing data be included in a supplement as a condition of FEIR approval.**

Sincerely,



Gail Kenny, President
Redwood Region Audubon Society

Copies:
Humboldt County Board of Supervisors
Humboldt County Supervisor-elect, Natalie Arroyo

From: Greg Camphire
To: Planning Clerk
Subject: RE: Planning Commission on July 28 for Nordic Aquafarms California
Date: Tuesday, July 26, 2022 3:57:36 PM

Hello,

Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698, I am writing to ask that the final EIR not be certified and the permit denied for Nordic Aquafarms California.

Humboldt Bay already has local sustainable aquaculture in the form of oyster farms, and the massive electricity use (equal to Eureka and Fortuna together) would be better suited for transportation and buildings. At least 100,000 metric tons of greenhouse gases will be emitted annually by the fish feed. There are also additional risks due to potential earthquakes, tsunamis, and escape of fish.

Please do not certify the final EIR. Please deny the permit for Nordic Aquafarms.

Thank you,
Greg C.

Scroll down to view attachments if attachment links below are broken.
(They should work)
This will be our system moving forward
- Trip

From: David Sopjes
To: Planning Clerk
Subject: Nordic Fish FactoryPLN-2020-16698.
Date: Wednesday, July 27, 2022 10:49:01 AM
Attachments: HumCo Planning Commision Statement on Nordic Fish Factory.pdf
HumCo Planning Commission Statement.pdf

Good Day
I am commenting on the proposed permit for Nordic's fish factory PLN-2020-16698..

Planning Commission Statement

28Jul22

My name is David Sopjes and I have lived in Humboldt County for 45 Years. I am a retired science teacher and I have a quiz for you. " Do you think that 5million salmon will produce more sewage waste or less sewage waste as the 45,000 citizens of Eureka?" The correct answer is that 5 million salmon will produce much more waste than 45,000 Eurekans. They will produce 3.9X as much or the waste equivalent of 175,000 people based on Biological Oxygen Demand. High BOD creates anoxic dead zones in receiving waters. Our coastal waters already are at risk from upwelled anoxic waters during spring and summer, but this cumulative effect is not even addressed in the DEIR. This factory uses bacteria to convert its Ammonia to Nitrate potentially resulting in algal blooms in the receiving water. NOAA Fisheries pointed this out as a potentially significant impact, but were told by the paid industry spokesscientists that dilution is the solution.

When I first heard about this project,3 years ago, I researched the peer reviewed literature about Recirculated Aquaculture Systems and became concerned about the massive potential for waste production from these factories. The ocean disposal pipe that Nordic is using is not regulated by safe concentration limits on pollutants. They are only required to remove a percentage of the pollutant based on what enters their waste treatment facilities. According to their NPDES permit for BOD, Nordic is required to remove 90% of the BOD that enters the facilities, they are allowed to dump 10% of their BOD. Also 10% of their Phosphorus and suspended solids and 15 % of their total nitrogen. This type of regulation favors the large polluter at the cost of the environment. Nordic has promised the public, in their Project Design Document, that they will only dump 1% of their BOD, Phosphorous, and suspended solids and 10% of their Nitrogen. However, when a monitoring program was put in place, as per DIER, Nordic said that regulators would have to prove that the factory was responsible for an observed environmental impact and that its effluent exceeded their Federal NPDES permitted amounts. It is incorrect for the planning commission staff to recommend this permit using Nordic's promised waste reduction numbers as justification. They should have used the NPDES required numbers, since 10% of their BOD is 10 X the pollutant compared 1% of BOD.

There has been much discussion of the Greenhouse Gas Emissions from this factory and how to mitigate them. That is important because they will use about a quarter of our available energy if we don't get wind turbines. The GHG from this factory would be about 80 million kilograms of GHG equivalent to 200 million passenger miles. There is no mention in their EIR of the GHG emissions from the settled sludge, made up of uneaten food and manure, produced by their waste treatment plant. They plan to truck it to Maryville and have Recology of California compost it and spread it on fields. This amounts to around 10 million kg of GHG, equivalent to 25 million passenger miles. This material will have a salinity 80% of salt water. I would never put salty compost on my fields. This would certainly represent a significant environmental impact in Maryville, but that is not considered in this project.

The EPA calls the business model for this factory a Confined Animal Feeding Operation. It is an organic carbon intensive process. Trucking in large amounts of organic carbon as carbohydrates, proteins and fats in the feed, trucking out product and sludge, and dumping an organic soup into the ocean. Based

on the production expected from this factory, this is equivalent to a CAFO with 9000 steers. The EPA says a large CAFO is 1000 steers.

Most of you remember the deal where we were told you didn't need healthy rivers for salmon. As long as you have dams and hatcheries, the ocean will raise the fish. Nordic would tell you that you don't need healthy rivers (just a little water) OR healthy oceans (just a place to dump the waste) and you can have all the "salmon" you can stand. I guess they really are the future of fisheries.

I am also attaching a report I produced citing the peer reviewed literature that applies to this factory.

David Sopjes
3703 Grizzly Bluff Rd
Ferndale, CA 95536

Planning Commission Statement

28Jul22

My name is David Sopjes and I have lived in Humboldt County for 45 Years. I am a retired science teacher and I have a quiz for you. " Do you think that 5million salmon will produce more sewage waste or less sewage waste as the 45,000 citizens of Eureka?" The correct answer is that 5 million salmon will produce much more waste than 45,000 Eurekans. They will produce 3.9X as much or the waste equivalent of 175,000 people based on Biological Oxygen Demand. High BOD creates anoxic dead zones in receiving waters. Our coastal waters already are at risk from upwelled anoxic waters during spring and summer, but this cumulative effect is not even addressed in the DEIR. This factory uses bacteria to convert its Ammonia to Nitrate potentially resulting in algal blooms in the receiving water. NOAA Fisheries pointed this out as a potentially significant impact, but were told by the paid industry spokesscientists that dilution is the solution.

When I first heard about this project,3 years ago, I researched the peer reviewed literature about Recirculated Aquaculture Systems and became concerned about the massive potential for waste production from these factories. The ocean disposal pipe that Nordic is using is not regulated by safe concentration limits on pollutants. They are only required to remove a percentage of the pollutant based on what enters their waste treatment facilities. According to their NPDES permit for BOD, Nordic is required to remove 90% of the BOD that enters the facilities, they are allowed to dump 10% of their BOD. Also 10% of their Phosphorus and suspended solids and 15 % of their total nitrogen. This type of regulation favors the large polluter at the cost of the environment. Nordic has promised the public, in their Project Design Document, that they will only dump 1% of their BOD, Phosphorous, and suspended solids and 10% of their Nitrogen. However, when a monitoring program was put in place, as per DIER, Nordic said that regulators would have to prove that the factory was responsible for an observed environmental impact and that its effluent exceeded their Federal NPDES permitted amounts. It is incorrect for the planning commission staff to recommend this permit using Nordic's promised waste reduction numbers as justification. They should have used the NPDES required numbers, since 10% of their BOD is 10 X the pollutant compared 1% of BOD.

There has been much discussion of the Greenhouse Gas Emissions from this factory and how to mitigate them. That is important because they will use about a quarter of our available energy if we don't get wind turbines. The GHG from this factory would be about 80 million kilograms of GHG equivalent to 200 million passenger miles. There is no mention in their EIR of the GHG emissions from the settled sludge, made up of uneaten food and manure, produced by their waste treatment plant. They plan to truck it to Maryville and have Recology of California compost it and spread it on fields. This amounts to around 10 million kg of GHG equivalent to 25 million passenger miles. This material will have a salinity 80% of salt water. I would never put salty compost on my fields. This would certainly represent a significant environmental impact in Maryville, but that is not considered in this project.

The EPA calls the business model for this factory a Confined Animal Feeding Operation. It is an organic carbon intensive process. Trucking in large amounts of organic carbon as carbohydrates, proteins and fats in the feed, trucking out product and sludge, and dumping an organic soup into the ocean. Based on the production expected from this factory, this is equivalent to a CAFO with 9000 steers. The EPA says a large CAFO is 1000 steers.

Most of you remember the deal where we were told you didn't need healthy rivers for salmon. As long as you have dams and hatcheries, the ocean will raise the fish. Nordic would tell you that you don't need healthy rivers (just a little water) OR healthy oceans (just a place to dump the waste) and you can have all the "salmon" you can stand. I guess they really are the future of fisheries.

To whom it may concern

I am opposed to the permitting of the Nordic Fish Factory facility proposed for the Samoa Spit. My main concern is the size of the factory and the amount of waste that will be produced. Nordic and the County of Humboldt have not been transparent or completely honest with the citizens of Humboldt. This facility will produce the same amount of waste as a medium sized city (175,000 people based on BOD). Nordic and the County have never mentioned this to the public. They continue to state that the waste treatment standard is the highest in the industry, removing 90% of the total nitrogen and 99% of everything else. Nordic's effluent content table in their Project Description Rev2 contains a list of their production per day for each pollutant. It is possible to work backwards to determine the 100% amounts that are produced by the fish and presented for waste treatment. These 100% values indicate that the factory will be producing the waste equivalence of a medium sized city. I have completed the following analysis of Nordic's waste production numbers. I can't see how you can say that the waste equivalent of 175,000 people dumped in the ocean for the next 50 years will have" no significant adverse environmental effect"? Why don't you tell the citizens of Humboldt the whole truth?

Response to Nordic Project Design Rev2 (11/2020)

Calculation of Waste production ratios for the facility based on data supplied in Project Design Rev2

The Project Design Document Rev 2 claims: "The total RAS and wastewater design delivers the following performance:

1. 99 percent reduction of total suspended solids, BOD, and phosphorous

2. 90 percent reduction of nitrogen discharge (page 30)"

Figure 2-3 Wastewater Treatment Infrastructure diagram on page 31 indicates 99% removal of phosphorous.

They present the following table on page 32

"Table 2-5 Project Daily Maximum Effluent Summary

Effluent Discharge

Total Water volume 12.5 MGD

Total Suspended Solids (TSS) 18 KGD

Biochemical Oxygen Demand (BOD) 162 KGD

Total Nitrogen (TN) 673 KGD

Ammonium Nitrogen (NH4) 0.07 KGD

Phosphorus (P) 5.8 KGD

Notes:

1. MGD = Millions of Gallons per Day

2. KGD = Kilograms per day"

If these values for effluent kg/d are based on the percentage waste reduction values stated previously in the Project Design document, then we should be able to use those reduction percentages to calculate the original (100%) amount of waste produced by the facility and presented to the waste treatment plant. By comparing the waste(kg) produced to the fish(ton) produced, we get the waste production ratio.

1) Total Suspended Solids- If 1% of the TSS=18kg/d, then 100% = 1800kg/d or(X365) = $6.57X10^5$kg/yr. If they produce 25,000 tons of fish/yr, then that yields a **waste production ratio** of $6.57X10^5$kg/yr: 25,000 ton/yr = **26.28kg TSS /ton of fish produced**

- SHN report for RMTII(SHN,2016) = 306.5 kg/ton so Nordic's system produces 8.57% of what SHN expected from a fin fish aqua culture system

- Eureka waste water treatment plant(inflow)(page 5-City of Eureka,2017) = 442lbs/d or 200.9kg/d July 2017 so Nordic is claiming they produce 8.9% of the TSS that the City of Eureka (45,000 people) produces

2) BOD – If 1% of BOD=162kg/d, then 100% = 16,200 kg/d .

-Eureka waste water treatment plant report for July 2017 shows a mean BOD(inflow) = 9185 lbs/d or 4,175kg/d (page 5). So Nordic's BOD waste production is 3.88X the City of Eureka (45,000 people) or **174,610 human waste equivalence**

3) Total Nitrogen – If 10% of TN = 673kg/d, then 100% = 6730kg/d or X(365)= $2.45645X10^6$ kg/yr. If they produce 25,000 ton of fish/yr, the that yields a **waste production ratio** of $2.45645X10^6$ kg/yr: 25,000 tons/yr = **98.258 kg Nitrogen/ton of fish produced.**

- SHN report for RMTII(SHN,2016) = 55.8kg/ton

-Atlantic Salmon in China (Song et al, 2019) section9 Table S13 = 49.5 - 65.1 kg/ ton

-So Nordic's system produces 1.76X the Total Nitrogen waste as SHN expected

4) Ammonium Nitrogen (NH4) - .07kg/d. Based on the 12.5MGD volume, that is a concentration of 1.5ppb that is 100X less than the safe concentration of ammonium in the seawater they are raising the fish in, so this number is sketchy.

- Eureka waste water treatment plant reported a mean NH4 max discharge in the effluent in 2017 (annual report page 8) = 253.7 lbs/d = 115.3kg/d.

-Nordic is claiming that they are producing .07/115.3 or .06% mean Max NH4 effluent of the city of Eureka

5) Phosphorous –If 1% of the Phosphorous = 5.8 kg/d, then 100% = 580kg/d or X(365) = 211,700kg/yr. If they produce 25,000 ton/yr, then that yields a **waste production ratio** = 211,700kg/yr: 25,000ton/yr = **8.468kg/ton.**

- SHN report for RMTII(SHN,2016) total Phosphorous = 8.9kg/ton

- Atlantic Salmon in China (Song et al, 2019) section9 Table S13 =10.2kg/ton

- So Nordic's system produces 95% of the phosphorous expected by SHN at RMTII

SUMMARY

Nordic claims its Total Suspended Solids waste production ratio is 12X better than what SHN expected and the China Atlantic Salmon study reported. Nordic claims its NH4 production per day is .06 % of the City of Eureka. I have little confidence in either of these numbers. The Phosphorous waste production ratio is about 95% of the SHN estimate so it is possible that they will achieve this ratio.

Nordic's system produces 1.76X the Total Nitrogen waste as SHN had expected. This number seems a little high since SHN's numbers are "more than 10 years old and do not apply here", as Harbor Commissioner Mr. Pat Higgins told me, and I expected Nordic to be more efficient than that. Nordic's BOD waste production is 3.88X the City of Eureka (45,000 people) or 174,610 human waste equivalence. This high BOD is due to the high organic carbon content of the factory's waste stream. That estimate is consistent with the estimates I have made using other waste production ratios.

This Factory will produce settled solid waste as part of their waste treatment operation. This sludge is to be dried on site and then transported, by at least 4 tanker trucks per week, to a disposal facility in the central valley operated by Recology of California. The Nordic DEIR estimates this will be 4,000 tons per year at full

operation. The Life Cycle Analysis of a similar RAS Facility in China found that the sludge produced was approximately 50% of the Feed mass(Song,2019; Mongirdasa 2019). This would be 12,000 tons for the Nordic Factory. This material is composed of fish manure and uneaten food and will be composted and spread on fields. This practice is common for sludge generated by urban waste treatment facilities. There are two significant issues with this part of Nordic's waste treatment plan. First, this facility is raising salmon in salt water and the settled solids will have a salinity that is 80% of sea water. Where will all the salt end up and will salty compost be marketable? Second, this composting produces large amounts of greenhouse gases in the process. A typical ton of municipal sludge produces 750kg of greenhouse gas equivalent when composted and spread over fields(Hong-tao,2016). Nordic's sludge would produce at least 9 million kg of greenhouse gases each year. The sludge from this process contains much more organic carbon than typical municipal sludge and will produce much more GHG. The EPA says a typical passenger vehicle produces .404kg GHG per mile driven(US EPA). Nordic's GHG production from their sludge is the equivalent of up to 22 million passenger miles each year. This would be occurring for the next 50 years, at least. Does this project help California meet its zero carbon goals?

This is not surprising for a business model that is based on trucking in massive inputs of organic carbon(feed) that will be turned into 25,000 tons of organic living tissue (fish 90% water) while producing massive amounts of organic carbon waste to be dumped in the ocean or "composted" on land. This business model is commonly known as a "Confined Animal Feeding Operation" or CAFO. This factory's production would be the equivalent of a 9,000 steer CAFO (fish have 5X the feed conversion ratio compared to 1000lb steers). The EPA considers a large CAFO to be 1000 steers (US EPA). Would this be approved if they were actually planning for a 9000 steer CAFO on the Samoa Peninsula?

Initially, Nordic wanted to avoid any monitoring of their waste dumping into the ocean. They claim to be removing 99% of the total suspended solids, BOD, and phosphorous and 90% of the total Nitrogen. They claim this is the best in the industry. When they were required to monitor their waste effluent in their DEIR, they said that regulators would have to prove that any problems with algal blooms are due to Nordic's operation and that their waste effluent is more than what their Federal NDPES permit allows. Their NPDES permit only requires 90% and 85% removal of these contaminants, respectively. They are allowed to dump 10X they amount they are claiming to dump They won't stop dumping, but they have changes to their feed and feeding schedules that they are willing to implement. They cannot stop dumping in the ocean without losing their entire operation. You can bet they will claim they are too big to fail compared to the damage they are doing to our tiny local fisheries and ecosystem. This will certainly involve a long, expensive court battle.

The Project Description Rev2 indicates that the Nordic Fish factory now requires 12.5 MGD. I expected this request for increased water usage because I did not think they would be able to clean their recirculated water without more effluent flow. I am certain it won't be the last request for more effluent water. In my analysis, I have focused both on the mass of waste produced by the factory as well as waste concentrations, which can change with changing effluent volumes. The actual volume of effluent will affect the concentrations of waste that oceanic organisms are initially exposed to, but it does not affect the total amount of waste produced by the Nordic Fish Factory, which depends on the total fish production level (25,000 ton/yr). The observed waste production ratios are not affected by any change in effluent volume. It is my prediction that they will be asking to be allowed more effluent when they begin operations and find they have trouble cleaning the recycled water well enough to keep their fish alive. The City of Eureka is considering connecting to the ocean outfall pipe in the future. Eureka's effluent combined with Nordic's effluent and winter rain water that enters the system, the ocean outfall pipe could easily reach 80% of it supposed capacity(40MGD), leaving little room for Samoa's and Manila's waste treatment systems to also use the ocean outfall pipe. As a citizen of the Humboldt County Ecosystem, I consider our dumping of our citizens' waste into our rivers and ocean as a manageable, necessary evil and I applaud our waste treatment professionals for taking good care of our rivers and oceans/bays as our county has grown (Arcata and Fortuna, not so much Eureka). Nordic's Fish Factory dumping their wastes into our ocean for their own profit is an unnecessary evil. Their promised benefits to our county pale in comparison.

Most of you remember the deal where we were told you didn't need healthy rivers for salmon. As long as you have dams and hatcheries, the ocean will raise the fish. Nordic would tell you that you don't need healthy

rivers (just a little water) OR healthy oceans (just a place to dump the waste) and you can have all the “salmon” you can stand. I guess they really are the future of fisheries.

David Sopjes

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According to globenewswire.com, global aquaculture generated 2018 revenues of $271.66 billion, and is expected to grow to $376.48 billion by 2025.

Well, unless it doesn't.

As marine fish stocks experience widespread decline, Big Aqua is rushing to fill the void with all manner of manufactured frankenfish. Nary a week passes without a new industry scheme for "growing" fish on land or in marine waters. Environmentalists have rightfully laid siege to Big Aqua for years, causing each new fish "farm" design to promise the world new, intoxicating environmental heights never before imagined.

Norway leads the industry pack. But after laying waste to large swaths of Norway's marine waters, Norwegian investors, venture capitalists, self-professed farmers and at least one convicted fraudster have set their sights on distant shores. And my home of Maine is right in their crosshairs.

The industry is salivating over the Pine Tree State. Cold, relatively clean water. Relatively cheap real estate. Cheap, mostly union-free labor with a reputation for tough, hard work. An unsurpassed eco-brand standing all alone in iconic L.L. Bean winter boots with glorious snow-covered Mt. Katahdin rising in the background. Ready access to vast East Coast markets - Maine is within a day's drive of 100 million hungry people. Water laws dating back to bucket baths. And a very pliant state government.

Ground zero for aquaculture's Maine invasion is my midcoast town of Belfast, where Nordic Aquafarms of Fredrikstad, Norway, wants to build a $500 million land-based industrial fish farm. Since announcing in February 2018, Nordic has met with tenacious citizen opposition and has been mired in a swamp of its own arrogance and incompetence. Two and a half years after its expected construction start, Nordic still lacks an Army Corps of Engineers permit and its Maine Department of Environmental Protection (DEP) and Belfast Planning Board permits are both facing lengthy and well-financed appeals.

But the real kicker is a lawsuit over ownership of intertidal land Nordic needs for its saltwater intake and effluent discharge pipes in Belfast. The trial began June 22, and June 23 saw startling testimony from Nordic Chief Financial Officer Brenda Chandler. In sworn testimony, Chandler said Nordic's position is that ownership of the disputed intertidal land is "unclear."

In order to even apply for its DEP permit, Nordic had to establish "right, title and interest" (RTI) to all lands it needs for its Belfast project, but with Chandler's testimony now throwing that RTI into doubt, DEP may require Nordic to redo its entire application, the original of which ran to more than 1,000 pages - most or all of which was written by lawyers at $300 an hour - and which took the better part of a year to process. With Nordic already a woefully behind in Belfast, this would be a huge blow.

That whole legal mess could have been avoided. While negotiating to run its pipes through the land of out-of-state summer residents Janet and Richard Eckrote, Nordic discovered that intertidal flats presumed to belong to the Eckrotes might actually belong to Eckrote neighbors and longtime Belfast residents Judith Grace and Jeffrey Mabee - who happened to be selling their waterfront home. But rather than buy the property, Nordic tried to save a few bucks by withholding its inconvenient discovery from licensing agencies.

But firebrand Nordic opponent and deed-and-title research whiz Paul Bernacki discovered Nordic's subterfuge. Nordic went to the PR mattresses, posting to its Facebook page a bizarroland statement saying it wasn't their place to say who owned what. Realizing the statement amounted to a land-grab confession, Nordic promptly took it down.

If Nordic loses the land ownership case, it is likely finished in Belfast, dealing a major blow to Nordic, which has hemorrhaged money in Belfast, and dealing a major setback to efforts by Maine Governor Janet Mills (D) to paint Maine as a place eager to disrobe for Big Aqua.

Mills' campaign to bend over for aquaculture was laid bare by emails I obtained under Maine's Freedom of Access Act. The emails reveal an inappropriate and perhaps illegal campaign to pressure the DEP to approve Nordic's permit application. The questionable effort was championed by Governor Mills' brother Peter Mills, executive director of the Maine Turnpike and wingman for various big-boy polluters, foreign and domestic.

The emails have found perch in the Nordic legal and permit frays and have been shared with enviro groups around the state who may use them as ammunition in current legal wars and or as grounds to reopen yesterday's lost battles.

Meanwhile Nordic's and Big Aqua's woes have spread well beyond Belfast Bay. Inspired by Nordic's Belfast foes, opponents of a similar Nordic operation in coastal Eureka, California have tapped Belfast activists for tips and information. And Maine activists in and around Bar Harbor and RV-infested Acadia National Park are rising up to challenge a sea-based Frenchman Bay project that - like every Big Aqua project - promises brand new cutting-edge technology cleaner than the snow atop Mount Katahdin.

And in Miami, Atlantic Sapphire, another Norwegian player, recently killed off fully 800,000 fish in the world's biggest land-based frankenfish factory because it failed to gauge how noise and vibration emanating from ongoing plant construction would devastate its fish, resulting in dead fish clogging up discharge pipes. It's hard to say who is more imbecilic here: Atlantic Sapphire, for building a keenly water-intensive operation in a state with more sinkholes than fresh water, or the State of Florida for allowing it.

Adding to Big Aqua's Maine woes was the recent defeat of LD1473, a bill that would have exempted land-based aquaculture projects from all state building and energy codes. Rather than take a scalpel to the codes, Big Aqua went after all of them - and failed in grand theatrical fashion. In an official legislative hearing, broadcast worldwide via Zoom, State Senator Kim Rosen of coastal Bucksport, 18 miles east of Belfast, read her bill while carefully sipping a joyfully announced late-afternoon cocktail. Within a few short words it was clear the properly lubricated Rosen had neither written the bill nor knew its content.

Indeed, in an email given to me by Rosen friend and LD1473 opponent Dr. Sid Block, Rosen wrote to Block: "this bill could have been written by the aquafarms!!!"

Armed with the email, I fired off a letter to The Bucksport Enterprise, whose editor, Don Houghton, told me Rosen was decidedly unaccustomed to such public thrashing. According to Houghton, Rosen protested post-publication that she thought her email to Block "was some sort of private correspondence." Apparently she was wrong.

No doubt smarting from the published letter, and facing a veritable storm of anti-LD1473 letters and emails, Rosen ran for cover. She pillow-killed her own baby, urging her previously giddy colleagues to snuff the bill - which they promptly did.

With LD 1473 now inhabiting a rotting Himalayan pile of abandoned and defeated bills, and with Big Aqua opposition stiffening in Frenchman Bay, a failed Nordic land grab in Belfast might cause global Big Aqua to think twice about Maine's vaunted but perhaps withering hospitality. And that would be a victory for Big Aqua opponents from Oslo to Eureka.

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The Incredible Vanishing Mr.Heim

By Lawrence Reichard

In Counterpunch June 24, 2021, I wrote about Big Aqua aquaculture sinking its fangs into my home state of Maine and into my midcoast home of Belfast, where Nordic Aquafarms of Fredrikstad, Norway, wants to build a colossal $500 million land-based frankenfish farm. In dollar terms it would be the biggest industrial infrastructure in Maine - and physically bigger than Fenway and Gillette Stadium combined.

Ever since Nordic began to seduce Belfast's shot-callers five years ago, its Belfast schemes have been run by one Erik Heim, a sports-shirt middle age Norwegian who always looks like he can't decide whether to zip his fly now or wait till no one's looking. And Heim's wife, Marianne Naess, ran Nordic's delightfully incompetent PR department, which once sent a letter to every postal patron in Belfast, population 6,700. Four pages. Single-spaced. Misspellings. Tortured syntax. Bizarro layout. According to a recent Gallup poll, four people read it.

Before going public with its Belfast plans four years ago, Nordic and the City of Belfast wooed each other in a very effective echo chamber. Nordic said it was green and sustainable, and the city said there would be only a few crank opponents - everyone else will love you. It was love at first sight.

Five years and millions later, not one shovel in the ground. Oops.

And now Heim and Naess are suddenly gone. They announced their departure in a Facebook post that gushes about how they look forward to petting their pet chihuahua Harry, but it says squat about why they are actually leaving Nordic. And after four-plus years of pitting neighbor against neighbor here in Belfast, there will apparently be no farewell tour. Just post to Facebook and go back to, well, whatever.

It's hard to avoid thinking Heim got the guillotine for failing to deliver on Belfast. Five years in and they're still facing various lawsuits and permit appeals. Like black flies in a Maine spring, the shit just won't go away.

I was there when Nordic went public in February 2018. I entered the public information meeting in favor of the project, and I sat next to a wall sporting a big Power Point projection of the proposed plant area, around the southernmost mile of my beloved five-mile Little River Trail. The map showed the trail ending a half-mile before its current southern terminus. I asked Heim about that, and from across the room, with an arrogant chuckle and smirk, he said the map - right next to me - didn't show that.

That was the first of many Heim mistakes I would see over the next four years.

Like the time in his office in Fredrikstad when, without thinking, he gave up the name of Bent Urup, who designed, built, owned and sold to Nordic the company's plant in Hanstholm, Denmark. Heim's eyes immediately betrayed his regret at surrendering Urup's name. Heim stumbled and stuttered. "I don't know whether you'll find him. Last I heard he was bouncing around Southeast Asia." Google gave me Urup's phone and email in less than a minute, and a week later in his Fredericia, Denmark office, Urup said he had been following Nordic's Belfast hires and they simply weren't up to snuff.

When I published, a Nordic-Urup food fight erupted in the ubiquitous aquaculture trade journals. It was johnny-come-lately Nordic against the best land-based aquaculture designer, engineer and entrepreneur in the business.

But Nordic and Urup finally figured out they were both getting covered in flying food, so they kissed, made up and trained their guns on me. In another public information meeting Heim said I had misquoted Urup. I stood up, held my iPhone high and said, "It's all right here, on tape." Heim stood there wordless. Game. Set. Match.

But Nordic wasn't completely inept at PR. On that same 2018 trip to Denmark I interviewed a 14-year-old kid who had worked for Nordic, cleaning out empty fish tanks with Virkon S, a highly toxic industrial cleaner made by our good friends at DuPont. I asked the kid whether he used protective eyewear. No. So I called the Danish equivalent of OSHA. Under Danish law it's illegal to handle Virkon S without protective eyewear, and it's illegal for minors to handle it at all.

When I published that, Nordic said it had never hired underage workers - which I never alleged. Intro to PR 101: if you have no defense to the charge made, defend yourself from a charge that wasn't made.

Then there was the time Erik Heim filed an official court affidavit saying firebrand Nordic opponent Paul Bernacki had so intimidated the Maine Department of Environmental Protection that it, the DEP, canceled an official visit to the site where Nordic wants to spew 7.7 million gallons of effluent a day and disrupt and disperse God knows how much relatively settled and inert industrial mercury.

The only problem is DEP didn't cancel the visit. It was delayed one day by rain. And Heim was at the visit, as was I. I saw Heim there and his name is to this day on the official list of attendees, landing Heim's later affidavit somewhere between wildly incompetent and quite bizarre.

But blaming all of Nordic's chronic ineptitude on Heim and Naess would be a disservice to surviving Nordic officer Bernt Olav Rottingsnes, who was recently quoted as saying Nordic needs bank loans but banks are reluctant to lend to Nordic. Interesting approach: try to get a loan from Bank D after telling reporters banks A, B and C won't lend to you.

Not to mention the failure of Nordic and the City of Belfast to square their story when the city tried to soothe an ever-louder Nordic opposition by wasting $8,000 on a puff-piece report on Nordic by global consulting firm Deloitte - which had repeatedly done work for Nordic. Then City Manager Joe Slocum said publicly he had never before hired a consulting firm. Indeed, Slocum didn't even know how to call Norway. Slocum nonetheless insisted he found Deloitte all by himself, but then Heim later told me in his Fredrikstad office he had given Slocum a list of consulting firms and Deloitte was on the list. Oops.

But don't worry, Nordic's endlessly amusing incompetence will likely survive if Heim is, as rumored, replaced by Nordic Chief Financial Officer Brenda Chandler. In sworn testimony in Waldo County Superior Court in Belfast, Chandler wandered way off company script and said ownership of intertidal land Nordic needs for its project was unclear. If the Maine Department of Environmental Protection played by the rules, Chandler's sworn testimony would have been enough to throw out Nordic's 2,000-page DEP permit application, for which one must - theoretically - demonstrate clear title to all needed lands. Fortunately for Nordic, DEP rules are strictly for suckers and losers, not alleged fat cats with burgeoning wallets no one has ever seen.

So we'll miss you, Erik and Marianne. Just about as much as we miss Joe Slocum. And just about as much as we'll miss Brenda Chandler when she's gone.

Lawrence Reichard is a freelance writer and editor in Belfast, Maine. He can be reached at thedeftpen@gmail.com.

Humboldt County Rolls the Dice with Brand-new Nordic Chief

At a July 12 Humboldt County Board of Supervisors meeting, incoming Nordic Aquafarms CEO Brenda Chandler sought to reassure the board after the sudden and unexplained departure of previous Nordic CEO Erik Heim. "I'm still getting up to speed on all the aspects for California but I still have a great team behind me," Chandler said.

Well, if that's the case, then the team behind Nordic's CEO du jour must have changed substantially since late 2018 when Bent Urup, the world's foremost aquaculture designer, engineer, operator and entrepreneur told me in his Fredericia, Denmark office that the team Nordic had assembled for its then $500 million Belfast, Maine project simply wasn't up to snuff.

Chandler further told the Board of Supervisors Nordic has "worked on some very large projects on the East Coast," but this is simply false. Nordic has "worked" only one east-coast project - that of my hometown of Belfast, Maine - and 'in five years of pursuing that project, that "work" has included not one day of actual construction. Putting it kindly, that miserable track record is enough to discourage any would-be investor, especially in an industry that is suffering low prices for its salmon product and considerable pandemic-era salmon price fluctuation.

Chandler also said Nordic has an east-coast "employee on the ground." Are we to be reassured by Nordic having one employee on the ground for a project of a pre-pandemic $500 million? This is the managerial equivalent of hiring a security to watch the place - day shift only.

Meanwhile, the Humboldt County Planning Commission will hold a July 28 meeting on Nordic's permit application. According to the Mad River Union, Planning Director John Ford said the main issues to be addressed will include carbon emissions, truck traffic, and preventing fish escape.

Having covered Nordic in Maine for more than four years, I hope your planning commission isn't relying on Nordic information in its deliberations, as Nordic has, here in Maine, misled and outright lied about these issues and others.

Nordic's stated carbon emissions for Maine don't include having to dig up and truck off thousands of truckloads of earth to stabilize its construction site. This after declaring the site "perfect." And shockingly, this mirrors the same exact problem Nordic has had in its hometown of Fredrikstad, Norway, where its failure to properly assess its construction site caused its building to sink into the ground, likely causing structural damage to the buildings, likely causing Nordic to significantly reduce production levels, and even causing the company to at one point announce it would convert the operation into a research facility...only to later abandon that short-lived idea.

Needless to say, this incompetence, identically repeated in Belfast, would dramatically affect Nordic's rosy declarations of just a few nice little electric trucks a day in Belfast.

Nor do Nordic's rosy carbon protestations include transporting large amounts of fishmeal ingredients from far-flung corners of the world, or the killing of topsoil - a major carbon mitigator - by the use of pesticides to grow soy and possibly other grains for aquaculture's grossly inefficient food-production model.

Then there are fish escapes, for which one look no further than the false February 2019 testimony given by Nordic's Marianne Naess to the Maine legislature's Joint Standing Committee on Agriculture, Conservation and Forestry, in which Naess said fish can't escape from land-based industrial fish farms. Naess's testimony completely contradicted various press accounts of just such escapes from land-based industrial fish farms in Norway and New Brunswick - to name the ones we know of. Even more shocking, Naess's testimony contradicts previous statements made by Nordic itself, in public meetings and on its website.

And on and on. As if evidence of Nordic's unreliability - and fundamental incompetence - were somehow sorely lacking.

I wish the Humboldt County Board of Supervisors and Planning Commissions all the best with their Nordic deliberations, but if they're looking to Nordic Aquafarms for reliable data, the historical record very much suggests they are looking in the wrong place.

From:	Lee Dedini
To:	Planning Clerk
Subject:	Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698.
Date:	Wednesday, July 27, 2022 7:21:21 AM

Pertaining to the Planning Commission hearing to be held July 28, 2022 for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698.

The Final Environmental Impact Report for the Nordic Aquafarm proposal has enough negative climate impact information that the Planning Commission should not approve this project.
Just by energy use alone, it will use 20% of the county's electrical use. This electrical use would necessitate using the unknown completion of offshore wind power, which is required for the county to have 100% clean energy. The projects 4.8 MW rooftop solar array is only a small percentage of the facilities energy needs.
The one big item not mentioned enough is the 100,000 or more metric tons of greenhouse gases that will be emitted annually by the fish feed required. The ratio of one pound of fish food for one pound of raised salmon is necessary for the 25,000 tons of Atlantic salmon raised per year.
The fact that this proposed plant is 17 times larger than any fish plant by Nordic, says that they are not prepared for what can be expected. If approved, this facility would be the largest of its type in the country. Please keep in mind the longer term effects on climate change in Humboldt and the world. Sea level rise is the perfect example of climate change right here on Humboldt Bay. The projections of sea level rise by 2100 will have the Nordic Aquafarm as an island on the Samoa Peninsula. We do not want this as our legacy in history.
About 12.5 million gallons of treated wastewater would be discharged every day into the ocean with currents bringing suspected bacterial water into the entrance of the bay. Humboldt Bay is the nursery for our oyster industry.
There are many critical reasons not to approve this project.

Respectfully, Lee Dedini, Humboldt 350 member

From:	Lina C Carro
To:	Planning Clerk
Cc:	Lina Carro
Subject:	Nordic Aquafarms California, LLC; Coastal Development Permit and Special Permit Record Number PLN-2020-16698 (filed 10-05-20) Assessor"s Parcel Number (APN): 401-112-021
Date:	Wednesday, July 27, 2022 11:30:48 AM

To the Planning Department and Humboldt County Board of Supervisors,

Please do not approve this project! The proposed project's FEIR is inadequate and deficient. I am not a science professional but I am a longtime community member and Humboldt County resident who is deeply concerned about the approval of this project so my comments will summarize and refer to what I learned from listening to a review of the FEIR.

After listening to last night's Public Affairs program (Tuesday, July 26 at 5:30 pm) concerning the approval of the Nordic Aquafarms' mega-project to be permitted to operate in Humboldt County, I oppose the approval of this project as it is proposed in the FEIR. I urge you to spend 20 minutes listening to the data presented by the speakers on the program at Public Affairs before moving ahead to approve this project.

The first guest on the program was Alison Wily of Riparian Solutions and a board member of the Salmonid Restoration program who explored the science, rhetoric, and risk of this project. You may refer to her earlier comment letter on the DEIR for written details at :https://humboldtgov.org/DocumentCenter/View/104347/Willy-Alison-Riparian-Solutions-21822

The second guest on the program was Dan Chandler of 350Humboldt who pointed out what a vast carbon footprint this project would have on a global scale, outside of its more local impacts on our small community.

Here is a summary of the existing concerns I share with these speakers about the project's final EIR document:

1) Rhetorical Response to DEIR comments
The document does not delve into research to respond to the public's questions and comments on the DEIR. This includes my own comment letter on the DEIR.

2) Risks and Biosecurity
As the project is written, Humboldt Bay ecology would be at high risk for native salmon as well as for countless other species who make Humboldt Bay their habitat due to new and emerging viruses the research in the FEIR does not cover. Moreover, there is no offer in the project FEIR to address testing for them. These emerging viruses came largely from Norway and more recently Iceland which could be introduced to Humboldt Bay fish.

There is also a risk from the emissions of glycophytes on fish feed and that effluent flow which would be carried on the current and the incoming tide would bring them back into Humboldt Bay. The company is taking measurements only at the outflow of the pipe.)

There is no provision for biosecurity for staff working at the farm.

Salt Water Removal from Humboldt Bay
The overall impacts on the health of all species from removing **ten million gallons of water every day from Humboldt Bay** are not addressed

Fresh Water Removal from the Mad River
The farm's need to remove **two and a half million gallons of freshwater every day from the Mad River** troubles me deeply. On a personal level, as a resident who works hard to conserve fresh water I receive from the Mad River, this one hits home. How can we, in times of such unprecedented drought, allow precious fresh water to be used by this private, for-profit corporation?

3) Energy Impact and Aquafarm Carbon Footprint
This project proposes to use the same amount of energy that our largest two cities, Eureka and Arcata, combined. The capacity needed to run the entire operation has grown to 39.5 mega watts energy infrastructure and there are no facilities to support this. When these power sources are simply not available, this means that they will have to rely on using our existing energy sources. The project will demand this level of energy 24/7 which precludes much of it actually running on renewable energy.

Ultimately, this drain on Humboldt County's energy grid will make it very difficult for our county to convert our transportation and our buildings to electricity in the future. This is a huge concern to me.

Also, the Atlantic Salmon that will be grown by the farm will be fed other small fish (via fishmeal, etc.) that could have been eaten in their original form near their country of origin. According to Dan Chandler, this tallies to about 70,000-90,000 metric tons of greenhouse gas emissions from this fish feed that are not mentioned in the FEIR. Nordic Aquafarms is sidestepping this issue by not addressing it or offering mitigation. They should be more transparent about the carbon footprint that their entire aquafarm process will have on the planet.

4) Integrity and stability of the company
There was a recent and sudden parting of the ways with the company's founders. We need to hear more about what happened to cause this. How can our community place our trust in such an unstable company to protect our community's best interests? We need to hear about these details before approving the project.

Thank you for considering my comments about this project.

Sincerely,
Lina Carro

From: Mary Hurley
To: Planning Clerk
Subject: Nordic Aquafarms Public Comment for 7-28-22 Planning Commission Permit Application
Date: Wednesday, July 27, 2022 11:31:38 AM

I am submitting a public comment for the above referenced matter.

I request that the final EIR not be certified and the permit denied for the following reasons:

- The project is environmentally unsustainable in that it will use huge amounts of electricity needed for transportation and buildings. Humboldt County must decrease emissions by at least 40% by 2030 to do our part in the greatest threat to us and the entire planet, continued climate change that could bring us past the tipping point and bring unlivable conditions of drought, wildfires, and sea level rise. Nordic plans to use 25% of their power from refrigerants which creates much higher levels of CO2 and warming.
- Humboldt Bay already has a local sustainable aquaculture with our oyster farms. We must prioritize our local fishing resources over fish farming. There is much scientific evidence showing what can go wrong with fish farming including antibiotic resistant bacteria from fish feed and algae growth from effluent discharge. The risks of fish escape affecting local species could be devastating.
- The ethics and politics of fish farming allow more global inequality. This product will be consumed by wealthier people/nations while we face increasing starvation on our planet now close to one billion people.

Humboldt County must prioritize protecting our natural resources including Humboldt Bay.

Thank you.

Mary Hurley
5098 Mitchell Road, Eureka, CA 95503

From: Nancy Ihara
To: Planning Clerk
Subject: Planning Commission meeting regarding Nordic Aquafarms FEIR 7/28/22
Date: Wednesday, July 27, 2022 10:02:41 AM

Humboldt County Planning Commission

Re: Nordic Aquafarms FEIR, Board consideration of 7/28/22

Dear Board Members,

Initially I was in support of the Nordic Aquafarm project. It would provide jobs and the company was committed to cleaning up the former mill site. As I have learned more, however, I have become alarmed about it..

The project is enormous in size and any failures will have potentially devastating impacts on our environment.

Our coast is predicted to have a large subduction zone event in the future which will cause a wall of water to wash over the peninsula. Non-native Atlantic salmon will surely escape and enter our coastal waters and potentially wreck havoc on our native salmon and other marine life.

The amount of electricity required by the Aquafarms is massive - equivalent to that used by the cities of Eureka and Fortuna?! If the offshore wind farms are not built, where will this energy come from? It is my understanding that Nordic Aquafarms in the FEIR is committed to renewable energy.

I am always dismayed when, as with the former mill site,companies can and do abandon their property when it is no longer profitable. If that became the case with the Nordic Aquafarms have they committed to cleaning up the site?

I am not knowledgeable about the threat of viruses from farmed fish escaping into the wild but it's my understanding that it is a possibility. This would threaten our native marine life and the livelihood of our local fishermen and women.

I urge you not to support this project.

Nancy R. Ihara
Manila, California

From: Patti Stuart
To: Planning Clerk
Subject: Hearing 7/28/2022 regarding Nordic Aquafarms
Date: Wednesday, July 27, 2022 10:03:03 AM

Caution: This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

I am writing to express my serious concerns with regard to the Nordic Aquafarms plan that comes before the planning commission today. While Humboldt County does need more employment opportunities that provide good jobs, I don't believe this project is the right one for our community.
The massive electrical usage will greatly increase our carbon footprint while also causing concerns when we need to be "islanded" due to wildfire. Also, it seems foolish to build such a massive structure on a thin slip of peninsula very much in danger of tsunami and/or earthquake. Of course Nordic Aquafarms has a plan for keeping their fish out of the waters of the bay and the ocean. But they cannot plan for the size of the next earthquake or tsunami. Because we can't afford to clean up the toxic mess left by the pulp mill, we plan to exchange it for a different type of toxic mess? The waste water that will be generated will increase the water temperature in the area where it is to be released. Aren't we attempting to prevent increased ocean temperature?
My husband and I choose to live in Humboldt County because of its educated and environmentally responsible choices in the past. This plan, if it proceeds, seems to be a step in the wrong direction.

Sincerely,
Patti Stuart
2298 Timothy Court
McKinleyville 95519

Sent from my iPad

From: Juliet O"Barr
To: Planning Clerk
Subject: Nordic Aquafarms record# PLN-2020-16698
Date: Thursday, July 28, 2022 9:20:51 AM

To Whom It May Concern,

I would like to express my concern for the Nordic Aquafarms project's potential environmental impact. I am very concerned about the very large water use requirement that this fish farm will require, especially as we are in the midst of a historic drought. The discharge from the farm, and the associated nutrients, that will flow into the ocean will undoubtedly be harmful to our local coastal environment. Lastly, and not at all least, are the carbon emissions that this project will produce if not done properly. It is absolutely essential that any permitting requires 100% renewable energy to be used at every stage and in every facet of this venture. It is way past time that we prioritize the health of our climate over monetary gains and expedience. Please, for the sake of our collective future, take all possible measures to ensure that this project scales up slowly and appropriately so that it may be done in a way that is not negatively impactful to our environment. Thank you for your time and consideration,

Juliet O'Barr

From: Mira O"Barr
To: Planning Clerk
Subject: Nordic Aquafarms record# PLN-2020-16698
Date: Thursday, July 28, 2022 10:52:58 AM

To Whom It May Concern,

I would like to express my concern for the Nordic Aquafarms project's potential environmental impact. I am very concerned about the very large water use requirement that this fish farm will require, especially as we are in the midst of a historic drought. The discharge from the farm, and the associated nutrients, that will flow into the ocean will undoubtedly be harmful to our local coastal environment. Lastly, and not at all least, are the carbon emissions that this project will produce if not done properly. It is absolutely essential that any permitting requires 100% renewable energy to be used at every stage and in every facet of this venture. It is way past time that we prioritize the health of our climate over monetary gains and expedience. Please, for the sake of our collective future, take all possible measures to ensure that this project scales up slowly and appropriately so that it may be done in a way that is not negatively impactful to our environment.

Thank you for your time and consideration,
Mira O'Barr

From: Taj O"Barr
To: Planning Clerk
Subject: PLN-2020-16698
Date: Thursday, July 28, 2022 11:19:54 AM

> **Caution:** This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

To whom it may concern,
I wanted to express concern regarding the farm being opened in Samoa. It is critical that this facility does not negatively impact the environment here meaning it should run on renewable energy as well as greatly minimize any pollution in the environment.
Sincerely,
Taj

"We are sleepwalking to climate catastrophe." António Guterres.
Secretary-General of the United Nations

To: Humboldt County Planning Commission, Humboldt County Board of Supervisors, and the California Coastal Commission
From: 350 Humboldt and the Humboldt Unitarian Universalist Fellowship Climate Action Campaign
Subject: Comments on the final EIR and staff report for Nordic Aquafarms California, LLC, Record Number PLN-2020-16698. Pertaining to the Planning Commission hearing to be held July 28, 2022.

Contact persons:

Daniel Chandler, Ph.D. Steering Committee 350 Humboldt dwchandl@gmail.com 707 677-3359 436 Old Wagon Road Trinidad, CA 95570	Sue Y Lee Mossman Humboldt Unitarian Universality Fellowship Climate Action Campaign sue.lee@humboldt.edu

Cc: John Ford, Brenda Chandler

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Nordic Aquafarm Issues Remaining After the Final EIR

Overall role of land-based aquaculture in a warming world

a. Aquaculture has many pluses. If done correctly it doesn't deplete the world's fisheries and it produces far less CO2 than most sources of food protein.
b. However, the advantages depend on the fish being farmed and the fish feed being used and the market for the fish. Because salmon is a predator fish it must be fed at least as much fish in its feed as is produced. This is called the Fish In Fish Out ratio. This ratio has dropped over the last ten years, but basically it is now 1 kg of other fish must be put in fish feed to produce 1 kg of salmon. The fish that go into salmon feed are "forage" fish that predators eat, such as sardines and anchovies. These are fish that can be and are eaten by humans in areas where they are caught, such as off the coast of Africa. So poor countries, some of which are already facing food shortages, have their fish fed to Atlantic salmon that are sold to upper middle class people in developed countries *in violation of economic and climate justice.* Considered globally, the benefits of a land-based Atlantic Salmon aquafarm in the United States do not outweigh the disadvantages. Paradoxically the oysters grown in Humboldt Bay are among the most sustainable of farmed marine products. Shellfish in general are sustainable *because they use natural nutrients in the water and do not need to be fed.* [1]

   We also know that the environmental benefit Nordic claimed up until the final EIR, that it would reduce greenhouse gases by replacing salmon air-shipped from Norway or Chile with local salmon, is not true. This is both because the amounts of air-shipped salmon are much less than what Nordic will produce and because anything not sold in the US market will be flown to another.[2] Reference to this supposed savings has been dropped from the final EIR (*Errata, page 4-11)*.

Will the Nordic Aquafarm aggravate the climate crisis *or* help reduce greenhouse gases?

a. Local perspective: Humboldt County faces sea level rise, drought, and wildfires. As the Climate Action Plan and state law say, Humboldt County needs to decrease emissions by at least 40% by 2030. By greatly increasing electricity use and greenhouse gases (see below) the Nordic project makes achieving our 40% reduction *much* more difficult or impossible.
b. Scientific perspective:
   i. The Paris Accord committed us to trying to keep global warming to no more than 1.5°C. It is at 1.1°C now, and the IPCC projects that we have to reduce emissions by 50% by around 2030 to have a chance
   ii. Going over 1.5°C is likely to let loose a series of tipping points that make it impossible to control global warming
   iii. The United States alone has contributed 20% of all greenhouse gas emissions. We are the second largest emitter still today. California is the second largest state

[1] Rating by GoodFish, a non-profit: https://goodfish.org.au/resource/is-aquaculture-sustainable/
[2] See the joint response to the DEIR by several environmental organizations. Combined Comments 2-18-22 (Baykeeper, EPIC, et.al.)

emitter.[3] If the world is going to meet the overall 50% reduction, the US and California are going to have to do more than 50% by 2030.

c. So the crucial question is whether the Nordic Aquafarm will contribute to the problem or help solve it. As we show in this document, the Nordic facility will annually be adding between 93,000 and 210,000 metric tons of greenhouse gases to the atmosphere that are not included in the final EIR. Thus it greatly increases emissions rather than helping reduce emissions more than 50 percent, as needed in the next 10 years, and 100 percent by 2050.

The global warming effect of fish feed as determined by the Aquaculture Stewardship Council and a fish feed manufacturer used by Nordic in Norway

a. Fish food for aquaculture is viewed by fish biologists as a major source of greenhouse gas emissions. Based on data from many different scientific studies that estimate the CO2 equivalent emitted by fish food for Atlantic Salmon, the average emissions at the Nordic aquafarm are likely to be 150,000 metric tons per year, at least six times the amount needed to meet a threshold of environmental significance under CEQA.[4] What we did not know when we summarized these scientific studies in our comments on the DEIR is how much the industry as whole has adopted the scientific methods used in these studies.

b. The major organization responsible for certifying quality in the land-based growth of Atlantic Salmon, the Aquaculture Stewardship Council (ASC), includes greenhouse gases as part of their certification and requires each aquafarm to do a greenhouse gas inventory each year. The inventory must document the greenhouse gases attributable to the fish food consumed. It also requires fish feed manufacturers to state on their product the greenhouse gases released in their manufacture. Here is the ASC statement to this effect as it applies to aquafarms such as the facility Nordic seeks to permit:[5]

> *"GHG accounting for feed –*
> [R]equires the calculation of the GHG emissions for the feed used during the prior production cycle at the grow-out site undergoing certification. This calculation requires farms to multiply the GHG emissions per unit of feed, provided to them by the feed manufacturer, by the amount of feed used on the farm during the production cycle. The feed manufacturer is responsible for calculating GHG emissions per unit feed....
>
> The scope of the study [by feed manufacturers ASC certifies] to determine GHG emissions should include the growing, harvesting, processing and transportation of raw materials (vegetable and marine raw materials) to the feed mill and processing at feed mill. Vitamins and trace elements can be excluded from the analysis. The method of allocation of GHG emissions linked to by-products must be specified. The study to determine GHG emissions can follow one of the following methodological approaches:

[3] Our World in Data. https://ourworldindata.org/co2-emissions. US historical contribution from: David Wallace-Wells, May 24: https://messaging-custom-newsletters.nytimes.com/template/oakv2?productCode=DWW&te=1&nl=david-wallace-wells&emc=edit_dww_20220524&uri=nyt://newsletter/71f82874-6fe2-5287-932f-f921132e7f0b World Resources Institute. https://www.wri.org/insights/8-charts-understand-us-state-greenhouse-gas-emissions California's own methdology differs. These data use an EPA methodology that offers comparability across states

[4] A number of these studies were cited in detail in our joint response to the DEIR

[5] https://www.asc-aqua.org/wp-content/uploads/2019/12/ASC-Salmon-Standard_v1.3_Final.pdf

1. A cradle-to-gate assessment, taking into account upstream inputs and the feed manufacturing process, according to the GHG Product Standard
2. A Life Cycle Analysis following the ISO 14040 and 14044 requirements for life cycle assessments."

These are the same methods used by the scientists we cited in our DEIR comments.

c. One of the three biggest fish feed manufacturers, Cargill, notes that fish farming contributes 250 million metric tons of CO2e per year, and salmon contributes 10 million metric tons of CO2e per year. Cargill says: "Feed contributes significantly to the carbon footprint of seafood farming, and feed producers hold the key to achieving large emissions reductions throughout the value chain. Using that key to its full effect depends on seafood farmers and retailers sharing the same drive for sustainability."[6] Nordic, of course, claims sustainability as a value.

d. *To summarize: ASC, the certification agency for aquafarms like Nordic, requires food manufacturers to calculate GHG emissions using the methods that fish biologists use; and ASC requires the aquafarms themselves to count these feed emissions in the GHG emissions inventory they are required to report to ASC. So all three components of the industry are on the same page with how to calculate greenhouse gases from fish food. Nordic will be reporting every year to the ASC the greenhouse gases attributable to their fish feed and thus to their fish. Yet, at the same time the FEIR argues that none of those greenhouse gases should count in the CEQA analysis! So everyone except the people who prepared the FEIR buys into the idea that greenhouse gases from fish foods have to be calculated and reported by the aquafarm using a life cycle or carbon footprint method. Why this difference?*

e. The FEIR says only greenhouse gases produced in California count, and the life cycle method used by scientists and the aquaculture industry is "not commonly" used in CEQA analyses. We agree that CEQA does not *require* this method, and that for most projects it is not appropriate, but it does not preclude it, and all parties agree that with respect to aquaculture it is appropriate and it *is* required for the sustainability certification Nordic touts. After all, greenhouse gas emissions are a global problem; they don't just affect California as the FEIR argument implies. Fish food is manufactured in many places around the world. Like airline emissions from flights crossing national borders, or soy beans consumed here but grown on farms cut from the Amazon rainforest, emissions have to be counted at the point of consumption. Fish scientists and all elements of the aquaculture business have agreed that the greenhouse gases from manufacturing fish feed are counted where they are fed to fish. The FEIR must be changed to recognize and require mitigation of the fish feed greenhouse gas emissions that the ASC will require Nordic to report.

f. We used the "sustainability reports" that fish food manufacturers Skretting[7] and Cargill[8] produce annually to calculate what the Nordic aquafarm greenhouse gas emissions would be. On their website, Skretting lists the values for the tons of CO2e per ton of feed in their four Canadian and four Norwegian factories: they range from 2.05 at a minimum to 5.28 for

[6] https://www.cargill.com/doc/1432196768685/cargill-aqua-nutrition-sustainability-report-2020.pdf
[7] https://www.cargill.com/doc/1432196768685/cargill-aqua-nutrition-sustainability-report-2020.pdf; https://www.skretting.com/en/sustainability/sustainability-reporting/sustainability-report-2020/
[8] https://www.skretting.com/en/sustainability/sustainability-reporting/sustainability-report-2020/climate--circularity/the-carbon-footprint-of-feed/

the maximum (t CO2e/t feed).[9] Cargill, instead of providing figures for different factories, provides an average for salmon fish food of 2.67t CO2e/t of feed.[10] We can calculate the greenhouse gas emissions if we know how much fish food will be used. The Staff Report to the Planning Commission says: "At full scale operations, NAFC expects to use approximately 36,300 metric tons of feed per year." To get the range of fish feed greenhouse gases attributable to Nordic at full build-out using Skretting's data, we multiply respectively the 2.05 and the 5.28 of CO2e t/t of fish food by the 36,300 tons of fish food. For the low figure it is 74,415 and for the high figure it is 191,664. For Cargill's factory average it is 2.67 times 36,300 or 96,921 metric tons of greenhouse gases per year.

g. These are huge figures. For illustration, California's cap and trade program applies if a source emits at least 25,000 metric tons of CO2e a year. Emissions from Nordic will be 3 to 8 times that amount.

Refrigerants

a. Here is why refrigerants are important: Their emission warms the atmosphere from a few hundred times more than CO2 itself to thousands of times more.
b. Nordic plans to use 25% of their electric power (which in total is equal to all that used by Eureka and Fortuna combined) for refrigeration.[11] They will use refrigerants to make the ice that they pack the fish in for shipping, and they will use refrigerants in "chillers" that will keep the water cool enough for the fish. The DEIR also says: "Use of water to water-heat exchangers and heat pumps will be maximized to reduce energy demands." Heat pumps also use refrigerants.
c. They say they will follow all laws and regulations and will have full time staff working on the cooling systems. However, they say they cannot specify the actual refrigerants and the global warming potential of them because their design team hasn't designed the system. In short, instead of describing the potential greenhouse gas emissions from refrigerants they say they don't know what they are, but offer up as mitigating circumstances that they will follow the law. Is there any other source of greenhouse gas emissions that this would be an acceptable answer for? In fact, the relevant CEQA standard is "Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?" The answer is we don't know because the data are not available.
d. In emails to Marianne Naess we asked that Nordic commit to using natural refrigerants. These are refrigerants that have a minimal effect on the climate. There is refrigeration equipment that uses natural refrigerants for chillers and virtually every other heating or cooling use. Nordic refused to commit to this.
e. We asked for information that would allow us to judge how much refrigerants with a high global warming potential they will use. (The regulation going into effect in 2025 will allow them to use HFC refrigerants with up to 2,200 times more global warming potential than CO2). Namely, what do they use in their Norwegian factory? This is actually easy to provide

[9] https://www.skretting.com/en/sustainability/sustainability-reporting/sustainability-report-2020/climate--circularity/the-carbon-footprint-of-feed/
[10] https://www.cargill.com/doc/1432196768685/cargill-aqua-nutrition-sustainability-report-2020.pdf
[11] See the graph on page 3.5-4 of the DEIR

and highly relevant because they plan to use a number of modular tanks that are similar to the much smaller Norwegian factory. Nordic refused to provide this information. It should not be proprietary information. We contacted the DeepChill company in Canada that works with RAS facilities. They said they use R 404A, which warms 3,922 times as much as CO2; they also use a lower GWP substitute for R404A called R448A which warms 1,386 times as much as CO2; and they use R770 which is ammonia, a natural refrigerant with zero warming effects.

f. We have calculated how much greenhouse gas emissions there might be based on adapting data from other uses and information on leaks from chillers. Our detailed methodology is in the Appendix. It comes out to 6,224 metric tons a year. Over thirty years that would be 186,720 metric tons of CO2.
g. Refrigeration is a technology that can go drastically wrong. The following quotation is from the shareholder statement of Atlantic Sapphire's facility in Florida:
"The increase [in costs] is mainly explained by the $11 million in temporary chiller and generator rental costs in the U.S. following the breakdown of the chiller plant…in Q1 2021."
h. So chillers have not yet been proven to work in a facility half the size of what Nordic proposes.

In summary, the EIR does not meet *the legal requirement to identify and describe the potentially significant impacts of refrigerants* and Nordic has refused to adopt the mitigation measure of using very low global warming potential refrigerants, which are readily available.

Sources of greenhouse gases from renewable electric power

a. Nordic has committed to either buy its electricity from RCEA or buying renewable or low carbon electricity from another provider, presumably a solar provider outside the county. As a result the final EIR incorrectly states: "A more appropriate carbon intensity factor would be zero pounds of carbon dioxide equivalent per megawatt hour (0 lbs. CO_2e/MWh)."
b. We are very appreciative that Nordic has decided to go with renewable energy. However there are two sources of greenhouse gas emissions that will still exist – it will *not* be zero emissions from power, not even close.
    i. First, all forms of energy emit some greenhouse gases, including solar and wind. For solar, for example, the electricity is generated by the sun activating two layers of silicon semiconductor chips.[12] Carbon is emitted in the manufacturing process, in operation and in decommissioning and recycling. The federal National Renewable Energy Laboratory recently reviewed 400 estimates of the carbon footprint of solar and came up with 45 grams of CO2 per kilowatt hour. This compares to 450 for natural gas, so it is ten times less. However, Nordic will be using 195 gigawatt hours of electricity. A gigawatt hour is one million kilowatt hours. The CO2 emitted by one gigawatt hour is 45 million grams or 45 metric tons (since there are a million grams in a metric ton). We multiply the 45 metric tons by 195 and get an annual emission of 8,775 metric tons of CO2e – *not zero.*
    ii. The second unrecognized source of emissions from power is due to the intermittency of renewable power. Even if one buys 195 gigawatt hours of solar every year, that

[12] https://www.energy.gov/eere/solar/solar-photovoltaic-cell-basics

doesn't mean that 24/7 the Nordic facility will be powered by solar.[13] "24/7 Carbon-free Energy (CFE) means that every kilowatt-hour of electricity consumption is met with carbon-free electricity sources, every hour of every day, everywhere."[14] The United Nations has a 24/7 Energy Compact that lays out the principles of such energy systems. Microsoft and Google are two of the firms that have signed on. We can get an idea of the extent to which 24/7 is going to be available in northern California by using the figure for Google's Oregon operations: 88% of their energy will be 24/7 carbon free energy.[15] This is among the highest in the many places where Google operates facilities, for example it will only be 21% in Nevada and 40% in Texas. So if we apply the 88% to what is available for Nordic and assume the other 12% is made up of power from the Humboldt Generating station, in 2030 the actual greenhouse gas emissions from times when renewables are not available will be 12% of 195 gigawatt hours or 23.4 gigawatt hours. Since gas emits 450 metric tons (NREL intensity of natural gas) per gigawatt hour, the total will be: 10,450 metric tons of CO2e in a year.[16]

iii. So rather than zero the actual amount of CO2e released in 2030 from energy usage will be 19,305 metric tons. Some of this may decline over time if the 24/7 percentage increases. RCEA has no specific plans to do this, however.[17]

What could go wrong?

c. The Nordic sales pitch has focused on stability and sustainability but there is actually a lot that can go wrong. In the past the county has gotten stuck for corporate failures. The land the aquafarm would go on is poisoned by many years of pulp mill pollution which the county did not adequately regulate or require be cleaned up.

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[13] A very understandable explanation of this issue has been written by David Roberts at: https://www.canarymedia.com/articles/clean-energy/google-and-others-have-committed-to-24-7-carbon-free-energy-what-does-that-mean Nordic will have a constant demand, but the supply of renewable energy, including from storage, will vary across the 24 hours.

[14] UN 24/7 Carbon Free Energy Compact. https://www.un.org/en/energy-compacts/page/compact-247-carbon-free-energy

[15] https://sustainability.google/progress/energy/

[16] This is a very conservative figure since it is unlikely RCEA will be close to 88% for some time.Although RCEA has no specific plans to deliver 24/7 carbon free power (private communication), Penninsula Clean Energy does. They purchase as much renewable energy as their consumers use, but fall short of 24/7 matching. On their website, they have an excellent description of why this is important; it includes a graph showing how much of the time there is a mismatch between demand and the renewable supply. https://www.peninsulacleanenergy.com/our-path-to-24-7-renewable-power-by-2025/ Here is a summary of how different their electricity is depending on using annual accounting vs. 24/7 accounting:

	RENEWABLE PERCENTAGE	GHG EMISSION INTENSITY
ANNUAL ACCOUNTING METHOD	52%	12 lbCO_2e/MWh
TIME-COINCIDENT ACCOUNTING METHOD	47%	187 lbCO_2/MWh

[17] Personal communication.

d. The Nordic facility is experimental. It is approximately 17 times the size of the Norwegian plant that the company runs (1,500 metric tons vs 25,000 metric tons of fish product) so there is actually not much assurance to be found in their prior experience.
e. The largest operating Atlantic Salmon aquafarm today is that of Atlantic Sapphire in Florida. It is only 40 percent of the size of the facility planned for Humboldt. In the last year Atlantic Sapphire had three fish die offs, one of 500,000 fish. The Florida plant had a refrigeration failure so that they are now using rented chillers at a cost of $11 million a year. And there was a fire at its Norwegian plant that destroyed most of the facility. So there is a lot that can go wrong. Atlantic Sapphire lost $121 million in 2021. It's CEO offered this advice to a Maine RAS facility that is just starting up: "Don't underestimate the task. It's very complicated and takes a lot of time."[18]
f. On an aquaculture podcast, in the context of the fish die-off, Brian Vinci, director of a non-profit called The Freshwater Institute—which supports sustainable aquaculture -- said the following about large Atlantic Salmon aquafarms: "It's clear to me that scale is a huge issue and a challenge they have had to face. Johann (the CEO) was on the news media recently warning that there are massive challenges with growing Atlantic Salmon at scale. Although we at Freshwater Institute proved out land-based salmon from egg to grow-out back in 2008, we were only doing it at a small scale of 20 tons per year head and gutted. What's going on at Sapphire at 10,000 tons is just another beast entirely." [19] What kind of beast is Nordic's 25,000 tons?
g. The founding CEO of Nordic, Erik Heim, met with a group of Humboldt environmentalists. When asked about the problems of other companies he said, "We never had any of those problems in our Norwegian facility." However, that facility, besides being only 1/17th the size of the Humboldt plan, has only been in operation a short time. In 2021 the firm reported: "Fredrikstad Seafoods has successfully harvested salmon on a weekly basis for almost a year now."
h. Nordic has already had two organizational difficulties, though neither involved fish die offs, fires, or refrigeration breakdowns:
    i. Erik Heim, a co-founder of Nordic, and his wife Marianne Naess who was the public face of Nordic here in Humboldt, quit in June with no explanation
    ii. In April the Nordic corporation was split, with one corporation now owning the Norwegian and Danish factories, and the unbuilt American factories being in another separate corporation. Also in April, the company decided to convert the Atlantic Salmon factory in Norway to Yellowtail Kingfish.[20]
    iii. This does not sound like a stable business we can count on for over 30 years.

[18] https://www.intrafish.com/aquaculture/atlantic-sapphire-ceos-advice-to-land-based-rival-dont-underestimate-scale-of-the-task/2-1-1197991

[19] The Freshwater Institute, a program of The Conservation Fund, focuses on the sustainability of the domestic seafood supply by providing solutions to enable the growth of environmentally-responsible aquaculture. Vinci's statement is on a recording is available at https://www.rastechmagazine.com/ras-talk-hard-path-to-innovation-with-johan-andreassen-of-atlantic-sapphire/, starting at 1 minute 35 seconds.

[20] https://www.intrafish.com/aquaculture/nordic-aquafarms-confident-on-land-based-kingfish-salmon-farming-permits/2-1-1246458

i. In effect, Humboldt County is an investor in Nordic. But here is what an investment advisor for aquaculture says: "They aren't asking the basic question: 'Has your pilot facility performed according to your target bio-plan with three continuous cohorts? Is it a spreadsheet bio-plan or is it based on science or actual results? If you can't do it at a pilot scale, how do you propose to do it at large scale?"[21] Nordic only did it for one or two cohorts before switching away from Atlantic Salmon,[22] so it does not meet this basic standard.

j. The Nordic CEO Bernt-Olav Rottingsnes was quoted in July 2022 as saying: "Yes, I think it is fair to say the banks still think it is too early to lend to land-based fish farming. The banks have financed Atlantic Sapphire, and I believe the banks think they need to see some results from there before they lend." The Humboldt project will need 650 million dollars.[23] When asked about financing in a Lost Coast Outpost interview in July, interim CEO Brenda Chandler said: "You can never be 100 percent until the money's in the bank, right? I mean, clearly it's an effort. And clearly you have to have investors who can get their brain around it and get behind it. And that's what we're working on, is cultivating those kinds of relationships with investors. But we've done a lot."[24]

k. Brenda Chandler was also asked about the Atlantic Sapphire fish die offs, and replied "it's all about the talent, our talent in the engineers and the biologists that we have on our staff."[25] However, since the company in Scandinavia is now a separate entity, it is unclear how much access the American Nordic will have to this talent and – since the Scandinavian factories will no longer be raising Atlantic Salmon – it is unclear whether such a talent pool will even exist when it is needed.

l. What happens if offshore wind doesn't come through? We certainly hope it will, but if it doesn't Humboldt County is left with a factory using as much electricity a year as Eureka and Fortuna combined. Humboldt will only get upgraded transmission lines if the wind farm goes through. If there is no wind farm, the 195 gigawatt hours Nordic uses will be needed for the conversion of our transportation and housing to electricity so that we can do our share of reducing greenhouse gas emissions.

m. There are actually many specific things that can go wrong. Comments on the draft EIR spelled them out. The FEIR assured us all was taken care of. The experts quoted above lead us to doubt that these paper guarantees can be counted on. Here is a small number of things biologists and state agencies were concerned about in their comments on the DEIR.
   - Contamination of the fish eggs with viruses
   - Viruses in the effluent
   - Antibiotic resistant bacteria from fish feed associated with aquafarming

[21] https://www.intrafish.com/finance/the-biggest-land-based-salmon-skeptics-companies-actually-producing-salmon-on-land/2-1-986934
[22] https://www.nordicaquafarms.com/fredrikstad-seafoods-strong-biological-performance-from-the-first-generations-of-land-raised-salmon/
[23] https://salmonbusiness.com/it-is-fair-to-say-that-the-banks-still-think-it-is-too-early-to-lend-to-land-based-farming/
[24] https://lostcoastoutpost.com/2022/jul/16/interview-nordics-new-interim-ceo-brenda-chandler/
[25] Ibid.

- Uncontrolled algae growth where the effluent is sent out into the ocean (no studies were conducted there)
- Hazards in case of a 9.5 earthquake or a tsunami
- "Impingement" of juvenile salmonids on the bay intake systems

Transportation Greenhouse Gases

a. The EIR estimates 2,268,907 vehicle miles traveled (VMT) in 2029, most of which is driving loaded trucks (1,693,068). The EIR estimates these trips will emit 2,371 metric tons of CO2e. The modeling tool is obviously the wrong one since the analysts had to fudge the data inputs, using multiple short trips instead of the actual long trips. In fact, actual estimates about trip length and frequency were not used in the EIR: "Annual VMT data was provided for short-hauling and long-hauling trips for GHG emissions analysis; detailed hauling data, such as specific destinations or trip routes was not provided. Specific trip lengths (such as minimum, maximum, average, or distribution) for short-hauling and long-hauling were not known."[26] In short, the EIR does not contain an independent or accurate estimate of VMT.

   We redid the 2029 greenhouse gas emissions based on VMT using a formula from a manual for green trucking.[27] (We did not change the estimate for passenger vehicles going to and from work.) We first had to know roughly the tonnage of each truck load. The DEIR does include this for the fish food: 19 metric tons per truckload. Fish on ice, being more dense, might weigh more, so we used 20 metric tons as the tonnage. With 20 metric tons, the CO2 emitted is 161.8 grams of CO2/ton-mile.[28] To get the ton miles we multiply 20 by the 1,693,068 truck VMT in a year or 33,861,360 ton miles. Multiplying the emissions factor by the ton miles,[29] we get 5,479 metric tons emitted by the trucks per year; then we add the 152.7 metric tons for passenger vehicles, yielding a total of 5,631 metric tons of CO2 per year from vehicle traffic. This is 2.4 times the FEIR estimate from their inappropriate modeling software and certainly justifies using electric or hydrogen trucks as a mitigation measure.

   The draft and final EIR modeling tool did not include other important variables that must be used in accurately estimating CO2e from truck transportation. The federal EPA SmartWay Program encourages haulers to reduce emissions and has software to provide accurate greenhouse gas emissions calculations for trucking firms. Nordic should join this program and get an accurate estimate for the FEIR (based on actual distances to actual destinations). This program could also be used in an adaptive management program.[30]

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[26] FEIR 2-19
[27] This calculator was developed by scientists at the Environmental Defense Fund for both sea and truck transport: https://storage.googleapis.com/scsc/Green%20Freight/EDF-Green-Freight-Handbook.pdf
[28] Ibid.
[29] There are 1,000,000 grams in a metric ton. We divided the ton miles by one million and multiplied by the emissions factor of 161.8.
[30] https://nepis.epa.gov/Exe/ZyPDF.cgi/P1013TIJ.PDF?Dockey=P1013TIJ.PDF

What we ask for

A. Because of all the greenhouse gases that this project will emit (unrecognized by the EIR), and because of the enormous risks it presents to the County, the taxpayers and wildlife around the Bay and in the ocean, we respectfully request you to 1) reject the EIR and 2) reject the conditional use permit.

B. Because a carbon neutral project would be better than approving the project as presented, we request that if you approve the project you take the following actions:
   a. Multiple sources of greenhouse gases were either ignored or miscalculated in the EIR. The final EIR should be redone to meet legal requirements and recirculated. It should include all of the above sources of greenhouse gas that it omitted, especially the greenhouse gas emissions that Nordic will be certifying to the Aquaculture Stewardship Council each year.
   b. The EIR must either specify the refrigerant leakage and offset it or Nordic must commit to using ultra-low (<10 GWP) refrigerants. If the refrigeration design really can't be done until after certification we request "adaptive management" for the heating/cooling system wherein emissions are actually calculated each year and fixed or mitigated as a consequence.
   c. Because the EIR significantly underestimates greenhouse gases from transportation and because the state is already moving to require truck electrification,[31] the conditional use permit should specify that all hauling be done using electric or hydrogen powered trucks.
   d. There are several possible ways of mitigating the greenhouse gases attributable to fish feed and unrecognized emissions from renewable energy. One or more of them should be adopted, preferably all three.
      i. All greenhouse gas emissions could be offset by purchase of offset credits from the Yurok tribe. Offsets are widely used, for example by airlines, when greenhouse gas emissions cross state or national borders as is the case with fish feed emissions. Offsets can also be directly proportionate to the emissions. It will take several years for the facility to reach full production, so offsets for fish feed or energy usage or truck transport should be calibrated to the actual emissions.
      ii. Because of the currently unmitigated emissions attributable to Nordic's electricity use (due to emissions from renewable energy sources and to intermittency), Nordic could install solar microgrids in Humboldt to equal their unmitigated energy. These could be installed at hospitals, fire houses, community centers, schools, assisted living and nursing homes, waste treatment plants, and water districts. Solar microgrids cut emissions from our current fossil-dependent electricity and provide safeguards for power outages.
      iii. Nordic could underwrite the cost of storage from curtailed solar/wind energy. This would allow Humboldt to get closer to 24/7 carbon free renewable energy and reduce emissions for all RCEA customers.

[31] https://content.govdelivery.com/accounts/CARB/bulletins/3142c5f. The state's own trucks will need to be electric starting in 2024.

e. Nordic must put up a $500 million dollar bond to ensure that the county, its taxpayers, and its wildlife are not left holding the bag if any of the many things that could go wrong do so.

Appendix

Calculating possible greenhouse gas emissions from refrigerants

We know the electrical use and refrigerant leaks from supermarkets. So that's where we start. According to the EPA, 20 typical supermarkets would annually use 48.75 gigawatt hours of electricity, which is equal to 25% of the total electricity to be used by Nordic.[32] One typical supermarket emits 1,556 metric tons of CO2 from refrigerants, at a leak rate of 25%. 20 supermarkets would therefore emit 31,120 metric tons of CO2e. However, the maximum allowed GWP for chillers after 2025 will be 2200 which is roughly half of the average supermarket. So that would be 15,560 metric tons. And chillers have a leak rate of up to 15%, so if we say 10% rather than 25% as with supermarkets, we get to 40% of the leak rate, or a total of: 15,560 * .4 = 6,224 metric tons. Over thirty years that would be 186,720 metric tons of CO2. Note that these calculations do not include emissions from heat pumps, which should largely be limited to release at repair or decommissioning.

[32] https://www.epa.gov/sites/default/files/documents/gc_averagestoreprofile_final_june_2011_revised_1.pdf

From:	Bruce Campbell
To:	Planning Clerk
Subject:	comment on Nordic Aquafarms proposal (Public Hearing # 1) (was unable to give vocal input since no one noticed me "raising my hand" on my landline)
Date:	Friday, July 29, 2022 7:23:33 AM

July 28-29, 2022

To the Humboldt County Planning Commission,

I am very disappointed that I was unable to give vocal input despite being on a landline calling into the (partially) Zoom hearing regarding the Nordic Aquafarms proposal for the Samoa Peninsula for a grand total of three hours and forty minutes! I must've pressed "star 6" about fifty times over the course of that time – especially toward the end when phone call-in folks were called upon (usually by name). I don't know if names magically appear to some Planning Commission staff when some people with cellphones call into the hearing, but not only was I not called by name, but my "7056" last four digits were never called. And even if I was called, no one seemed to notice that I was "virtually raising my hand" by repeatedly pressing "star 6". Oops, I just saw that the formal "agenda" mentioned how someone on phone can "raise their hand" – too bad I read that twelve hours too late. I hope you accept this comment due to my difficulty in getting recognized to speak – and also because the decision and discussion on the matter was delayed until August 4th.

I had been hoping to ask a question in regards to cleanup plans for the Samoa site, but of course was unable to do so. My understanding is that there was certain cleanup going on at the site into 2019. It was emphasized that lead and asbestos will be thoroughly cleaned up from the old pulp mill site. However, I do not recall hearing or seeing mention that dioxin, PCBs, plus arsenic and other heavy metals would also be cleaned up from the site. Please include these noted substances in your cleanup and remediation plans – or else specifically mention that you will be cleaning up lead and asbestos at the Samoa site, but will not focus on cleaning up dioxin contamination, PCBs from transformers, or arsenic and other heavy metals (besides lead) at that site. We could use clarity in such.

Now for my overall conclusions. The scale of this project is way too large. It is this disturbing scale that will cause many problems:

1. It is sad that dirty biofuel energy will be relied upon during interim years before offshore wind energy powers the electrical grid of much of the North Coast of California, and that the project could well be responsible for Humboldt County not meeting its climate action goals;
2. I am certainly concerned about the scale of the proposed NA project. I agree with NOAA

and certain speakers who contend that the saltwater intake pipe should be in the ocean rather than in Humboldt Bay. There is inadequate info available in regards to what would be in the effluent discharged from the industrially-shared discharge pipe in the ocean fairly near Humboldt Bay to adequately analyze. And in earlier comments I expressed concern not only about pretty common drought conditions in the Mad River watershed, but also mentioned the "toxic plume" threatening that source of Humboldt's drinking water supply which could reduce the amount of water availability in the future.

3. It was my understanding that multiple-pronged projects should include all aspects of the project rather than merely focusing upon the first part of the project. One must not "piece-meal" under the CA Environmental Quality Act, yet it sounds like some administration and staff is considering piggy-backing other industries onto other property near the proposed NA site while the saltwater intake pipe in particular apparently would be "shared". It must be thoroughly documented in regards to what ingredients will be in effluent, and as to which site is preferable for discharges. Yet do not omit mention of various intake / discharge pipes relating to the project property.

4. I am concerned about the very nebulous and shifting nature of the feed that will be fed to the many Atlantic salmon at the NA Samoa facility. What is its carbon footprint, is the feed related to genetic contamination (such as genetically modified soy – for instance) of cropland, and what wild salmon are being deprived of food because anchovies and other fish are instead being diverted to be fed to salmon at the NA Samoa facility.
5. I am concerned that such a large amount of farmed internal salmon will be dumped onto the market in a comparatively short period – which could greatly impact demand as well as price for salmon caught in more traditional ways by already long-struggling tribal and other coastal area fisherfolks along the West Coast of the USA as well as British Columbia.

I recall reading an earlier NA-related document which mentioned that Nordic Aquafarms did not have "Problem X" or "Problem Y" at any of their USA fish-farming facilities! While this claim was technically true, yet it is true not because NA had impressively-run facilities, but instead because they had never operated a major fish-farming facility in the USA before in order to encounter such problems! So, easy for NA to say!

Back when I was commenting upon Diablo Canyon waste discharge especially in 1981 and 1982, there was common talk about "impingement" and "entrainment". Your staff emphasized how "entrainment" would be reduced due to smaller holes on fish screens, but that did not address that if a species is not slurped in by the intake, then it sounds like the likelihood of that critter being crushed against intake screens (called "impingement") would be increased! I did not quite catch I believe it may have been a staffer who briefly mentioned "impingement" – though was sure more focused on entrainment as that person had mentioned earlier – so please clarify what was said at the hearing regarding "impingement".

I call for cleanup of the toxic Samoa site to meet standards for residential developments (as a couple speakers pointed out) – even though homes are not planned at the site. Workers should not be exposed to certain levels of toxic materials simply because there are stricter standards for home sites than there are for industrial sites. The higher standard must be abided by in cleanup and remediation of this old pulp mill site.

And now a note of caution in regards to "compensatory restoration". While it sounds fine in spirit, and can be worthwhile, yet these days the term "restoration" is often used as an excuse to do bad projects. This is often true on forestland, yet sadly also pertains to large projects within the purview of the California Coastal Conservancy. That agency seems to do a reasonable job on small projects, but they "sell-out" if they see a large amount of funding available for what some may term as "restoration" even though they would be supposedly "restoring" an area to something it never before resembled. This is especially noted in the "dumbing down" of Southern California wetland habitat types led by the proposed project to have industrial large-scale bulldozing (and resculpting for years) of the Ballona Wetlands Ecological Reserve which California taxpayers spent $140 million to acquire and theoretically protect about 19 years ago. So-called "restoration" work in Carpenteria and elsewhere also reduced wetland habitat types because the CA Coastal Conservancy was instead chasing large juicy contracts. (One can sympathize with some state agency folks who saw especially brutal budget cuts in the 2000s decade and thus kept an eye out for larger projects within which they could try to guarantee an adequate budget for their agencies. But to essentially crush, re-arrange for years, or toss out the current biota to essentially start over again since that approach generates the most cash for your agency is quite disturbing.) Thus, "compensatory restoration" should be viewed warily – it could work especially on certain smaller scales, but sometimes it is an abused process (such as allowing Los Angeles Harbor area wetlands to be destroyed for port expansion by destroying diverse wetland habitats under the guise of "restoration" at Ballona).

There has been progress made in recent years in regards to more climate-friendly refrigerants. Any approval of the NA proposal should not only take a "phased approach", but also should mandate very climate-friendly refrigerants be used at any Nordic Aquafarms Samoa facility.

This planning commission should extract more essential info (if they even have it) before any serious consideration of approval of the NA project. And if you are moving toward approving that project, due to the inexperience of NA in large-scale fish production, it makes sense that there be a "phased approach" to make sure that there are not damaging impacts to certain species relating to intake and discharge pipes, etc. Plus it will become clearer whether NA can be successful in major fish production without using antibiotics. Certainly additional info is needed on the topics of fish feed, location and scale of intake and discharge pipes, etc., and whether they will promise to use climate-friendly refrigerants. Please delay action on this project until such additional info is available to inform your decisions, and then proceed

cautiously in a phased approach partially in order to not “shock” the salmon market by major dumping of farmed fish onto it. There is a lot of talk about Environmental Justice in general these days, yet to proceed with a huge project which is a huge shift from thousands of years of traditional sustainable salmon harvesting without carefully considering impacts on tribal fisherpeople and their communities is very disturbing indeed.

Thanks for receiving this input to help inform your upcoming decision (hopefully after receiving more info as advised above) regarding the Nordic Aquafarms project application. I just read the “Recommendation” by staff which is definitely presumptuous since clearly there is insufficient info available on some aspects of the NA proposal such that you are not ready to certify the Final EIS or declare the adequacy of mitigation measures. Oh Planning Commission, please hold off until more info is available, and then consider the relatively sanity of a phased approach to the project.

Sincerely yours,

Bruce Campbell
10008 National Bl. # 3
Los Angeles, CA 90034
madroneweb@aol.com

Supporting

From: Cayetano Reynoso
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 11:37:58 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

This project will help people like me, who work in Northern California. It will also give training opportunities for apprentices, so we can grow the next generation of skilled working people. We need good jobs like this in the community, so we can support our families. We also need local jobs, so we don't have to travel many miles for work and spend our money elsewhere. COVID has drastically affected the tourism industry in this county and our economy, and things will only get worse, unless we create jobs that are careers. The Nordic fish farm is one of those.

Furthermore, this project will clean up an abandoned site and turn it into something our community can be proud of. With this fish farm, Humboldt County can continue our long tradition of helping feed California, and do it in a sustainable way. With the decline of the timber industry, we need projects like this to sustain the economic prosperity and employment opportunities in this region.

Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Cayetano Reynoso
Sacramento

Regards,
Cayetano Reynoso
2807 Pasadena Ave
Sacramento, CA 95821

From: Chris Dorn
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 9:51:54 AM

> **Caution:** This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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opportunity. Please take this letter of support into consideration during your open comment period.

Chris Dorn
North San Juan

Regards,
Chris Dorn
202 Ridge Rd
North San Juan, CA 95960

From: Cory Allbritton
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:22:01 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Cory Allbritton
Healdsburg

Regards,
Cory Allbritton
240 Alexandria Dr
Healdsburg, CA 95448

From: Dave Rowe
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 9:16:48 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Dave Rowe
Redding

Regards,
Dave Rowe
4855 Caterpillar Rd
Redding, CA 96003

From: George Steffensen
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:15:38 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

George Steffensen
Santa Rosa

Regards,
George Steffensen
2512 Magowan Dr
Santa Rosa, CA 95405

From: Gregory Silva
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 9:23:21 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Gregory Silva
Plumas Lake

Regards,
Gregory Silva
1333 Bertas Ct
Plumas Lake, CA 95961

From: Jeffrey Hunerlach
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Saturday, July 23, 2022 7:15:53 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

This project will help people like me, who work in Northern California. It will also give training opportunities for apprentices, so we can grow the next generation of skilled working people. We need good jobs like this in the community, so we can support our families. We also need local jobs, so we don't have to travel many miles for work and spend our money elsewhere. COVID has drastically affected the tourism industry in this county and our economy, and things will only get worse, unless we create jobs that are careers. The Nordic fish farm is one of those.

Furthermore, this project will clean up an abandoned site and turn it into something our community can be proud of. With this fish farm, Humboldt County can continue our long tradition of helping feed California, and do it in a sustainable way. With the decline of the timber industry, we need projects like this to sustain the economic prosperity and employment opportunities in this region.

Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Jeffrey Hunerlach
Eureka

Regards,
Jeffrey Hunerlach
1821 Buhne Dr
Eureka, CA 95503

From: Jerry seiff
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:00:00 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Jerry seiff
Oroville

Regards,
Jerry seiff
52 Powell Ridge Rd
Oroville, CA 95966

From: Jesse Jimenez
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Saturday, July 23, 2022 6:29:21 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Jesse Jimenez
Newark

Regards,
Jesse Jimenez
35768 Haley St
Newark, CA 94560

From: John Solari
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:31:43 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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John Solari
Petaluma

Regards,
John Solari
185 McBrown Rd
Petaluma, CA 94952

From: Justin Bochmann
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:37:49 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Justin Bochmann
Sacramento

Regards,
Justin Bochmann
3807 Pasadena Ave
Sacramento, CA 95821

From: Manuel Morales
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 10:14:40 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Manuel Morales
Rohnert Park

Regards,
Manuel Morales
1572 Gretchen Ct
Rohnert Park, CA 94928

From: Mario Rodriguez
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 12:08:47 PM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Mario Rodriguez
Sacramento

Regards,
Mario Rodriguez
3807 Pasadena Ave
Sacramento, CA 95821

From: Rachel Hunerlach
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 3:31:50 PM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Rachel Hunerlach
Eureka

Regards,
Rachel Hunerlach
1821 Buhne Dr
Eureka, CA 95503

From: Steve Stewart
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 12:30:55 PM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Steve Stewart
Oroville

Regards,
Steve Stewart
1300 7th St
Oroville, CA 95965

From: Tyler Charlton
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Friday, July 22, 2022 9:14:18 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Tyler Charlton
Browns Valley

Regards,
Tyler Charlton
5534 Marysville Rd
Browns Valley, CA 95918

From: Arturo Sainz
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Tuesday, July 26, 2022 1:49:37 PM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

This project will help people like me, who work in Northern California. It will also give training opportunities for apprentices, so we can grow the next generation of skilled working people. We need good jobs like this in the community, so we can support our families. We also need local jobs, so we don't have to travel many miles for work and spend our money elsewhere. COVID has drastically affected the tourism industry in this county and our economy, and things will only get worse, unless we create jobs that are careers. The Nordic fish farm is one of those.

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Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Arturo Sainz
Sacramento

Regards,
Arturo Sainz
3807 Pasadena Ave
Sacramento, CA 95821

From: Haley, Mike
To: Planning Clerk
Subject: Public Comment for July 28, 2022 Planning Commission Meeting, Agenda Item G1
Date: Tuesday, July 26, 2022 2:45:53 PM

Dear Planning Commission,

College of the Redwoods is committed to supporting the aquaculture industry in Humboldt County, both in long-standing mariculture endeavors and in emerging fields. As part of this commitment, the college is currently in the process of hiring a full-time aquaculture faculty member, and we are engaged in writing curriculum that would lead to both a certificate of achievement and an associate's degree in aquaculture. We anticipate that we can begin offering these courses during the fall 2023 semester.

For the last several years, our college has worked collaboratively with people at Nordic Aquaculture as we develop these new educational programs. The college is strongly supportive of Nordic Aquafarms' project on the peninsula, and we look forward to providing industry-relevant training to our community to help prepare for the job opportunities that will result from this project.

Thank you,
Mike Haley

Mike Haley
Interim Dean, Career Education
College of the Redwoods
7351 Tompkins Hill Road
Eureka, CA 95501
707-476-4341

CALIFORNIA AQUACULTURE ASSOCIATION

July 26, 2022

County of Humboldt
Planning Commission
825 Fifth Street
Board of Supervisors Chambers
Eureka, California

Re: Planning Commission Hearing | Thursday, July 28, 2022 | Agenda item G.1.:
Nordic Aquafarms California, LLC; Coastal Development Permit and Special Permit
Record Number PLN-2020-16698 (filed 10-05-20)
Assessor's Parcel Number (APN): 401-112-021
Samoa area

Position: Support

I am writing on behalf of the California Aquaculture Association (CAA)[i], a producer-supported association representing finfish, shellfish, and algae growers and seafood related businesses throughout California.

CAA would like to express its support for Nordic Aquafarms' Coastal Development Permit and Special Permit for their Samoa Peninsula Land-based Aquaculture Project (the Project).

The Food and Agriculture Organization's State of the World Fisheries report estimates that 93% of wild fish stocks worldwide are fished at maximum sustainable levels[ii]. Wild fisheries are managed well in California, but there are only so many fish that the ocean can sustainably produce. And with the world population projected to increase from the current 7.7 billion (2019) to 9.7 billion by 2050[iii], the demand for consumable proteins, including finfish, will only increase in the decades to come. Aquaculture is needed to supplement this demand.

Additionally, the COVID-19 pandemic has made it clear the need to increase food security in the United States. The U.S. imports 80% to 90% of its seafood[iv], approximately 50% of which is produced by way of aquaculture[v]. Consumers in this country are eating farmed fish already, it's just not coming from our own farmers. We need to be producing more seafood domestically, and Nordic Aquafarms' Project will do just that.

Also, aquaculture is the most efficient and sustainable method of protein production; far superior to chicken, pork, or cattle.[vi] The feed conversion ratio for finfish aquaculture is very low, averaging approximately 1.15:1 (approximately 1.15 lbs of feed used to produce 1 lb of flesh).[vii] Additionally, the use of wild fish protein and oil in aquaculture feed has been decreasing because of an increased use of plant-based feed substitutes. The "fish in, fish out" (FiFo) ratio, the amount of wild fish needed in feed to produce a pound of farmed fish, when averaged across species, is equal to or less than 0.5:1 (approximately 0.5 lbs of wild fish used to produce 1 lb of farmed fish) for current worldwide aquaculture production.[viii]

Biosecurity is a top concern and priority of all who share our natural resources, and Nordic Aquafarms' Project addresses these concerns directly. As outlined in the Project's Escape Prevention, Containment Management, and Contingency Plan[ix], Nordic Aquafarms will employ a Closed Containment Systems (CCS), which significantly minimizes the possibility of fish escapement by system design. CAA agrees that Nordic Aquafarms has, as stated in their Project proposal, 'gone beyond most standards that require risk-based engineering, design, dimensioning, and construction to virtually arrive at an escape-proof facility and farm site'.

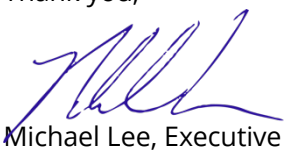
P.O. Box 4638, Chico, CA 95927 | 916-246-6349 | info@caaquaculture.org

The continued development of our state's aquaculture industry will be vital to meet the growing demand for seafood in California and throughout the United States. Nordic Aquafarms' Project will create jobs and provide economic opportunities that are currently being lost to other states and countries.

Nordic Aquafarms is furthering the much-needed development of large-scale finfish production and, as such, CAA fully supports their Project.

If you have any questions or would like to speak more about this, please contact me at info@caaquaculture.org or 916-246-6349.

Thank you,



Michael Lee, Executive Director

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[i] The California Aquaculture Association (CAA) is a producer-supported association representing finfish, shellfish, and algae growers and seafood related businesses throughout California since 1983. The CAA promotes commercial production of plants and animals in aquatic systems to satisfy the needs of consumers for wholesome products that are produced by sustainable means conserving California's land and water resources.

[ii] FAO, State of World Fisheries, p. 40.

[iii] United Nations, Department of Economic and Social Affairs, World Population Prospects 2019, p.1.

[iv] NMFS, Office of Science and Technology, Fisheries of the United States, 2017 Report, Current Fishery Statistics No. 2017, September 2018, p. 114.

[v] Hauke L. Kite-Powell, Michael C. Rubino, and Bruce Morehead, "The Future of U.S. Seafood Supply," Aquaculture Economics & Management, vol. 17, no. 3 (August 2013), p. 229.

[vi] Global Aquaculture Alliance, Why It Matters, http://aquaculturealliance.org/what-we-do/why-it-matters/

[vii] Trine Ytrestoyl, Turid Synnove Aas, and Torbjorn Asgard, "Utilization of Feed Resources in Production of Atlantic Salmon," *Aquaculture,* vol. 448 (2015), pp. 365-374.

[viii] NOAA Fisheries, Office of Aquaculture, *Feeds for Aquaculture*.

[ix] Page 40, https://humboldtgov.org/DocumentCenter/View/102296/20-Project-Description-PDF

From: Neils Ash
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 12:22:07 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

This project will help people like me, who work in Northern California. It will also give training opportunities for apprentices, so we can grow the next generation of skilled working people. We need good jobs like this in the community, so we can support our families. We also need local jobs, so we don't have to travel many miles for work and spend our money elsewhere. COVID has drastically affected the tourism industry in this county and our economy, and things will only get worse, unless we create jobs that are careers. The Nordic fish farm is one of those.

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Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Neils Ash
Morgan Hill

Regards,
Neils Ash
325 Digital Dr
Morgan Hill, CA 95037

From: Anissa Powderly
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 6:27:12 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Anissa Powderly
Sacramento

Regards,
Anissa Powderly
4850 Natomas Blvd
Sacramento, CA 95835

From: Armie Morgan
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 9:10:17 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Armie Morgan
Burlingame

Regards,
Armie Morgan
828 Mahler Rd
Burlingame, CA 94010

From: Cameron Robbins
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 9:13:51 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Cameron Robbins
Burlingame

Regards,
Cameron Robbins
828 Mahler Rd
Burlingame, CA 94010

From: Charley Lavery
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 9:11:49 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Charley Lavery
Burlingame

Regards,
Charley Lavery
828 Mahler Rd
Burlingame, CA 94010

From: Christopher Martin
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 8:02:05 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

This project will help people like me, who work in Northern California. It will also give training opportunities for apprentices, so we can grow the next generation of skilled working people. We need good jobs like this in the community, so we can support our families. We also need local jobs, so we don't have to travel many miles for work and spend our money elsewhere. COVID has drastically affected the tourism industry in this county and our economy, and things will only get worse, unless we create jobs that are careers. The Nordic fish farm is one of those.

Furthermore, this project will clean up an abandoned site and turn it into something our community can be proud of. With this fish farm, Humboldt County can continue our long tradition of helping feed California, and do it in a sustainable way. With the decline of the timber industry, we need projects like this to sustain the economic prosperity and employment opportunities in this region.

Humboldt County needs good-paying, long-term jobs, and the Nordic fish farm will give us that opportunity. Please take this letter of support into consideration during your open comment period.

Christopher Martin
Meadow Vista

Regards,
Christopher Martin
1670 Combie Rd
Meadow Vista, CA 95722

From: Ethan Lester
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 9:12:34 AM

Dear Humboldt County Planning Commission,

Dear Members of the Humboldt Planning Commission, I work in the Northern California construction industry as a member of Operating Engineers Local 3, and I am writing today in support of the Nordic fish farm project, which would be built on the property of the old Samoa pulp mill facility.

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Ethan Lester
Burlingame

Regards,
Ethan Lester
828 Mahler Rd
Burlingame, CA 94010

Name: Dr. Katharine Onofryton, DVM

Project Title: Nordic Aquafarms California, LLC; Coastal Development Permit and Special Permit

Record Number: PLN-2020-16698

Date of Hearing: July 28, 2022

I fully support this project. I am a veterinarian with several years of experience in aquaculture in the government and private sectors. This project will provide safe, healthy food and improve upon the previous site of a pulp mill. Atlantic salmon is very suitable for raising in a recirculating system, like this project. The demand for seafood in the US is very high, and as much as 20% of the world's population has seafood as their main protein source, according to the Food and Agriculture Organization of the United Nations. In 2017, the USA was the leading importer of fish and fishery products with imports valued at $21.6 billion, but only exported $6.1billion. This is a major deficit and puts the US at risk of importing fish grown without the stringent high standards of the United States Department of Agriculture (USDA) and Food and Drug administration (FDA). The production of fish in the US will provide healthy proteins that are raised humanely without excess drug or pesticide usage that happens abroad. Nordic Aquafarms will create jobs in Humboldt County in the agriculture/fisheries sector in an environmentally friendly way. This project will contribute to the food security of the US, which saw a hit during the COVID-19 pandemic with supply chain issues, regulations on importation and exportation, and the loss of jobs related to food production. Providing healthy fish that are safe to eat and humanely raised is a very noble goal put forward by Nordic Aquafarms. The support and approval of this project will allow them to be successful.

From: Rod Smalley
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 8:16:51 AM

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Rod Smalley
Morgan Hill

Regards,
Rod Smalley
325 Digital Dr
Morgan Hill, CA 95037

From: Tony Garcia
To: Planning Clerk
Subject: I support the Nordic fish farm project!
Date: Thursday, July 28, 2022 8:37:20 AM

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Tony Garcia
Morgan Hill

Regards,
Tony Garcia
325 Digital Dr
Morgan Hill, CA 95037