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STAFF REPORT: APPEAL SUBSTANTIAL ISSUE DETERMINATION ONLY

Appeal No.: **A-1-HUM-22-0063**

Applicant: Nordic Aquafarms California, LLC

Local Government: County of Humboldt

Local Decision: Approval with Conditions

Location: Western shore of Humboldt Bay on the Samoa Peninsula near Samoa, at Redwood Marine Terminal II, 364 Vance Ave., Humboldt County (APN 401-112-021).

Project Description: Demolish and remediate the former pulp mill facility and construct a land-based finfish recirculating aquaculture system (RAS) including develop five buildings totaling ~700,000 square feet, install a 4.8 megawatt solar array mounted on building rooftops, and ancillary support features including paved parking, fire access road, security fencing, storm water management features, and use of approximately 0.5 million gallons per day of freshwater provided by the Humboldt Bay Municipal Water District.

Appellants: Five separately filed appeals from (1) 350 Humboldt; (2) Scott Frazer; (3) Redwood Region Audubon Society; (4) Salmonid Restoration Federation; and (5) Alison Willy.

Staff Recommendation: No Substantial Issue

IMPORTANT HEARING PROCEDURE NOTE

This is a substantial issue only hearing. Testimony will be taken only on the question of whether the appeal raises a substantial issue. Generally, and at the discretion of the Chair, testimony is limited to 3 minutes total per side (although the Chair has the discretion to modify these time limits). Please plan your testimony accordingly. Only the applicant, appellants, persons who opposed the application before the local government (or their representatives), and the local government shall be qualified to testify; others may submit comments in writing. (14 CCR § 13117.) The Commission will accept the appeal for a full de novo review unless it determines that the appeal raises no substantial issue. Otherwise, the Commission takes jurisdiction over the underlying coastal development permit (CDP) application and will review that application at a future Commission meeting, at which time all persons are invited to testify. If the Commission finds that the appeal does *not* raise a substantial issue, then the local government CDP decision stands and is thus final and effective.

SUMMARY OF STAFF RECOMMENDATION

The County of Humboldt approved a CDP for Nordic Aquafarms California, LLC (Nordic) to demolish and remediate the former Freshwater Tissue Samoa Pulp Mill facility and construct a land-based finfish recirculating aquaculture system (RAS) facility on the property, which is owned by the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District). The ~76-acre property is an industrial site along the western shore of Humboldt Bay near Samoa referred to as Redwood Marine Terminal II (RMT-II). The aquaculture facility would produce approximately 3,000 metric tons per year of head on gutted fish and fillets for delivery to regional markets at the end of phase one and 15,000 metric tons per year (roughly 33 million pounds) at full buildout. Originally, the facility proposed to produce Atlantic Salmon but later changed to a California native species – yellowtail kingfish (*Seriola lalandi*) [see [Exhibit 9](#) (County NOFA) and [Appendix B](#) (County approved Substantial Conformance Review and Minor Deviation)].

The development approved by the County is related to development proposed under two other CDPs that are within the jurisdiction of the Commission. The Commission approved CDP Application No. 9-20-0488 proposed by Nordic on November 16, 2023 for the discharge up to 10.3 million gallons per day (MGD) of treated wastewater effluent from the subject RAS facility via the existing RMT-II outfall pipe that terminates 1.5 miles offshore of Samoa. The Commission will soon be considering (in early 2024) an application from the Harbor District proposing improvements to two existing water intake systems at two existing docks at RMT-II that would extract up to 8,250 gallons per minute (approx. 11.88 MGD) of seawater from Humboldt Bay for use in onshore aquaculture operations (including to the subject Nordic RAS facility) and other permitted coastal-dependent uses on the RMT-II property. In October of 2023, the North Coast Regional Water Quality Control Board approved an NPDES permit application from co-applicants Nordic and the Harbor District for both the ocean discharge and seawater extraction project elements.

Five separately filed appeals were received raising contentions related to energy use, and by extension, greenhouse gas (GHG) emissions; project effects on the marine environment; concern with ESHA buffer adequacy; public access impacts from increased truck traffic; and tsunami hazards. Staff recommends that none of the contentions raise a substantial issue as to the approved project's consistency with the certified LCP or the public access policies of the Coastal Act.

Regarding the energy use contentions, the appeal from 350 Humboldt argues that the approved development as conditioned does not minimize the energy use and associated GHG emissions for fish feed production, use of refrigerants, or trucking to and from the project site inconsistent with an LCP policy incorporating section 30253(d) of the Coastal Act. While the County's GHG emissions analysis does not identify the specific feed supplier(s) or feed composition or include calculations associated with feed production, the County utilized a conservative methodology for calculating GHG emissions as substantiated with a high degree of legal and factual support in the County's adopted Final Environmental Impact Report (FEIR)¹ and Notice of Final Action ([Exhibit 9](#)). The County findings explain that lifecycle analysis and emissions embedded in feed would fall outside of the approach commonly used to analyze GHG inventories of projects, and refrigerants used in the facility would be subject to strict regulations of the California Air Resources Board for leak detection, monitoring, and maintenance requirements. The County's findings address feed standards for fish feed and the applicant's proposal to use sustainably sourced feed, such as avoiding the use of GMO ingredients, integrating the use of ingredients that are alternatives to harvest fisheries (such as vegetable proteins and oils, insect meal, and single cell proteins), and utilizing byproduct trimmings from consumption fisheries (which can be as much as 20% of the fish meal utilized in feed formulation). The County's CDP imposed Condition #25 requiring Nordic to work towards decarbonizing the GHG impacts associated with the project in general, including with respect to fish feed and trucking in particular.

Certain other contentions related to impacts to marine resources raised in three of the appeals are issues that are not part of the scope of the County's CDP for the onshore facility but that the Commission has addressed or will be addressing in its review of separate CDP applications for elements of the project in the Commission's jurisdiction (specifically, the ocean discharge and seawater intake system). In its recent action to approve with conditions Nordic's proposed ocean discharge of treated wastewater effluent from the RAS facility under CDP 9-20-044, the Commission determined that as conditioned, marine resources and water quality would be maintained consistent with Coastal Act sections 30230 and 30231. In an upcoming action that will be brought to the Commission for consideration in early 2024, the Commission will consider the Harbor District's pending CDP application to extract seawater from Humboldt Bay to support the Nordic facility and other permitted coastal-dependent uses located on the RMT-II property (pending CDP Application 1-21-0653). At that time the Commission will be evaluating potential marine resource impacts and will consider the public comments raised prior to taking action, including appellant contentions that relate to the proposed

¹ The FEIR is available from the County's website: <https://humboldt.gov/3218/Nordic-Aquafarms-Project>.

seawater intake system.² In addition to the Commission's CDP review of marine resource issues, the County's CDP includes Condition #21 requiring ocean monitoring, including baseline monitoring prior to use of the outfall and post-discharge monitoring.

Regarding the various other contentions raised by the appeals, there is substantial factual and legal support for the County's decision that the approved development as conditioned is consistent with the certified LCP and the public access policies of the Coastal Act. For example, in addition to the conservative methodology utilized for calculating GHG emissions and VMT impacts, the County's approval as conditioned minimizes VMT by requiring the applicant to utilize various transportation best practices to incentivize employees to use alternative modes of transportation for commuting to and from work other than single-occupancy vehicles. Regarding a contention alleging that the increase in truck traffic will pose increased hazards to safe coastal access, the County's findings address the potential for conflicts with pedestrians and bicyclists utilizing nearby coastal access points and conclude that the approved development as conditioned will not increase traffic hazards or otherwise impact public access. The County findings also demonstrate that the facility will support adequate off-street parking consistent with LCP requirements to ensure no potential for displacement of public access parking along public roads.

Moreover, while the approved development is a relatively large industrial project, its footprint and scope are limited to brownfield lands and redevelopment of areas that historically were developed with heavy industrial uses. The County's decision does not involve any novel LCP interpretive issues and would not set an adverse precedent for future interpretations of the LCP, especially given the high degree of legal and factual support for the County's decision. Finally, while the project does raise issues of regional and statewide significance, there is a high degree of legal and factual support that the approved project as conditioned will protect marine resources and public access, minimize vehicle miles traveled and tsunami risks, and provide an adequate buffer to protect adjacent dune mat ESHA.

Staff therefore recommends that the Commission, after a public hearing, determine that Appeal No. A-1-HUM-22-0063 does not present a substantial issue with respect to the grounds on which the appeals were filed under section 30603 of the Coastal Act and that the Commission decline to take jurisdiction over the CDP application for this project. The motion to adopt the staff recommendation of No Substantial Issue is found on **page 6**.

² The Commission's future action on the Harbor District's seawater extraction application is independent of and not bound by its decision on the subject appeal. Although Nordic is proposing to use seawater extracted from Humboldt Bay for its proposed RAS facility, if the permit application from the Harbor District is denied or otherwise not effectuated, Nordic could, in theory, modify its project to use freshwater instead of seawater to produce farmed fish. Unlike many parts of California, the freshwater available for use at the site is not limited. Domestic water (potable) is to be delivered to the site by the Humboldt Bay Municipal Water District (HBMWD) through existing pipeline infrastructure that historically served the pulp mill operations. As noted in the FEIR, the HBMWD has significant excess capacity of domestic potable chlorinated water sourced from the Mad River.

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APPENDICES

[Appendix A – Substantive File Documents](#)

[Appendix B – Substantial Conformance Review Letter & Minor Deviation to Approved CDP from Humboldt County](#)

EXHIBITS

[Exhibit 1 – Location Map](#)

[Exhibit 2 – Project Maps](#)

[Exhibit 3 – Project Description](#)

[Exhibit 4 – Appeal Filed by 350 Humboldt \(Daniel Chandler\)](#)

[Exhibit 5 – Appeal Filed by Scott Frazer](#)

[Exhibit 6 – Appeal Filed by Redwood Region Audubon Society](#)

[Exhibit 7 – Appeal Filed Salmonid Restoration Federation](#)

[Exhibit 8 – Appeal Filed by Alison Willy](#)

[Exhibit 9 – County Notice of Final Action & Adopted CDP Findings and Conditions](#)

I. Motion and Resolution

Staff recommends that the Commission determine that no substantial issue exists with respect to the grounds on which the appeal was filed. A finding of no substantial issue would mean that the Commission would not take jurisdiction over the underlying CDP application for the proposed project and would not conduct further hearings on this matter, and that the local government CDP decision stands and is thus final and effective. To implement this recommendation, staff recommends a **yes** vote on the following motion which, if passed, will result in the recommended no substantial issue finding. If the motion fails, then the Commission will have instead found a substantial issue and will instead take jurisdiction over the subject CDP application, resulting in a future hearing and action. The motion passes only by an affirmative vote of a majority of the Commissioners present.

Motion:

I move that the Commission determine that Appeal Number A-1-HUM-22-0063 **raises no substantial issue** with respect to the grounds on which the appeal has been filed under Section 30603, and I recommend a **YES** vote.

Resolution:

The Commission finds that Appeal No. A-1-HUM-22-0063 **does not** present a substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency of the approved development with the certified Local Coastal Program and/or the public access policies of the Coastal Act.

II. Findings & Declarations for No Substantial Issue

A. Description of Approved Development

The approved project, known as the Nordic Aquafarms Recirculating Aquaculture System (RAS) Facility Project, is described in the staff report published for the August 4, 2022 Humboldt County Planning Commission meeting as follows, in part (NOTE: bracketed “[...]” additions included herein to reflect subsequent changes made to the project by Nordic (see [Appendix B](#)) and to clarify the elements that fall within the Commission’s CDP jurisdiction):

“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 [700,000] 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 [will be yellowtail kingfish, as approved by 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 [0.5] million gallons per day (MGD) of freshwater and industrial water provided by the Humboldt Bay Municipal Water District, sourced from the Mad River. Existing onsite 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, [the extraction of] which will [be separately permitted by the Coastal Commission and will] be provided via modernized water intake (sea chest) infrastructure [to be improved under the Coastal Commission's CDP] 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 [under separate CDP authorization of the Coastal Commission] utilizing the existing Redwood Marine Terminal II ocean outfall pipe, which extends one and a half miles offshore. A total volume of [10.3] MGD is anticipated to be released daily. Wastewater discharge is permitted by the North Coast Regional Water Quality Control Board [and the Coastal Commission].

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 would be phased as follows:

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

Phase 1 – RAS 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.

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

In addition to the summary project description and phasing provided in County staff report (above), the Environmental Impact Report (EIR) adopted for the project lists the project objectives as follows:

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

County approved project maps and plans are included as [Exhibits 2](#) and [3](#).

B. Development Location and Environmental Setting

The development site is located along the western shore of Humboldt Bay, on the eastern shore of the Samoa Peninsula, east of New Navy Base Road, at 364 Vance Avenue near the unincorporated community of Samoa ([Exhibit 1](#)). The site is due west, across Humboldt Bay, from the City of Eureka. The subject ~76-acre parcel (APN 401-112-021), referred to as Redwood Marine Terminal II (hereafter RMT-II), is currently owned/managed by the Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District) who executed a 30-year lease with the applicant (Nordic Aquafarms California, LLC) for use of the project site for the proposed project.³ The property historically supported heavy industrial timber operations, including, since the early 1960s, operation of a pulp mill facility. The pulp mill permanently closed in 2010, and the Harbor District has led decommissioning and demolition activities since 2013. The parcel is an active brownfield site (Regional Water Quality Control Board case no.

³ The 2019 lease agreement, which has since been amended, is found on the Harbor District's website: <https://humboldt-bay.org/sites/humboldt-bay2.org/files/RMT%20II%20Aquaculture%20Term%20Sheet%202-11-19.pdf>.

1NHU892) that received grant funding from the U.S. Environmental Protection Agency (EPA) for cleanup and assessment activities.⁴

The property is planned and zoned for coastal dependent industrial uses under the Humboldt County certified LCP (Humboldt Bay Area Plan and Coastal Zoning Regulations). The former pulp mill infrastructure has been partially demolished, but many structures remain on site, including a 12-story Reboiler Building (the tallest building on the coast between San Francisco and Portland, Oregon), a machine building, an approximately 270-foot-tall smokestack, and other smaller structures. Most of the existing onsite structures will be removed/demolished as part of the brownfield redevelopment phase of the approved project.

C. Local Government Action

Approval of Coastal Development Permit

On August 4, 2022, the Humboldt County Planning Commission approved Coastal Development Permit No. PLN-2020-16698 for the development as described above. On August 17, 2022, the County Planning Commission action was appealed to the County Board of Supervisors by Redwood Region Audubon Society, Humboldt Fishermen's Marketing Association, Inc., and 350 Humboldt. On September 28, 2022, the Board of Supervisors voted to deny the appeal and uphold the Planning Commission's decision approving the CDP.⁵

In its decision to approve the subject development and deny the local appeal, the Board's final decision imposed 25 permit conditions and eight "ongoing requirements/development restrictions" including, but not limited to, conditions and restrictions related to water quality protection; landscaping; exterior lighting; requirements to implement the authorized development in conformance with the approved project description, site plan,

⁴ According to the EIR prepared for the project, large-scale construction on the project site began in 1963 when Georgia Pacific LLC (GP) developed the site as a bleached Kraft pulp mill (the "Kraft" process of converting wood pulp into bleached white paper). The pulp mill began operation in 1965 and was operated by GP until 1972, when it was sold by GP to Louisiana-Pacific Corporation (LP). To support the pulp mill operations, an ocean outfall pipe was installed to discharge mill water effluent offshore (several tens of millions of gallons of untreated wastewater from the mill was discharged daily through the outfall, until litigation involving Clean Water Act violations was settled in 1991). A 60-KV electrical switchyard was also constructed adjacent to the ocean outfall intake to provide electricity to power pulp mill operations. LP continued operation of the pulp mill into the 1990s. From the late 1990s through 2008 the pulp mill changed ownership multiple times before being sold to Evergreen Pulp Inc. in 2005. After air quality concerns culminated in a lawsuit against Evergreen Pulp in 2006, the pulp mill was ultimately shut down in 2008. The pulp mill was acquired by Freshwater Tissue Company (FTC) in 2009 and permanently closed by FTC in 2010. FTC subsequently undertook decommissioning activities and selective demolition of the facility infrastructure until 2013. In August 2013, the property was transferred to the Humboldt Bay Development Association, a non-profit formed by the Humboldt Bay Harbor District, and has been managed/administratively supported by the Humboldt Bay Harbor District since that time.

⁵ Opponents of the project have since challenged the County's decision on the project in court and the case is still ongoing at time of publication of this staff report.

Mitigation Monitoring and Reporting Program and other mitigation measures; and, among other conditions, a condition restricting development of Phase 2 of the project if, as determined by the Planning Director, Phase 1 of the project is found not to be operating in compliance with “the County CDP, RWQCB NPDES Permit, and any other local, state, or federal permit issued to Nordic or their successor.” The County’s Notice of Final Action, received in the Commission’s North Coast District Office on October 13, 2022, is attached as [Exhibit 9](#).

CDP Minor Deviation and Substantial Conformance Approvals

In April of 2023, Nordic modified its proposal to change the species of cultivation in the authorized facility from Atlantic salmon to a California native species – yellowtail kingfish (*Seriola lalandi* or yellowtail). Related development modifications were approved by the County on October 19, 2023, through the County’s Minor Deviation process (Appendix B). As part of the changes, Nordic also proposed to reduce production from approximately 25,000-27,000 metric tons of head on, gutted fish annually to approximately 3,000 metric tons of head on, gutted fish annually at the end of phase one and 15,000 metric tons at full buildout (roughly 33 million pounds). This proposed reduction in development scope and size would reduce a number of components related to the development as a whole, including the following: (1) reducing the size of the permitted onshore facility by a minimum of 75,000 square feet of building footprint; (2) reducing anticipated truck traffic due to reduced material goods during operation and reduced construction intensity; (3) reducing the energy needs of the project at full build out by 36%; (4) reducing the use of fish feed by 20,250 metric tons per year, or 36%; (5) reducing the use of freshwater, as it will no longer be needed for fish production; 300,000 gallons would be used annually for processing only, a reduction of 88%; and (6) reducing direct and indirect greenhouse gas emissions associated with the facility operations.

Additionally, the minor changes to the authorized development also modified the volume and characteristics of the ocean discharge from what Nordic had initially proposed. A detailed description of the changes to the authorized development is contained in the County’s Substantial Conformance Review and Minor Deviation Authorization for the project, both of which are included in [Appendix B](#).

CEQA Process⁶

Humboldt County acted as the lead agency for the Nordic Aquafarms RAS Facility Project and completed an Environmental Impact Report (EIR) in compliance with California Environmental Quality Act (CEQA). An Initial Study/ Mitigated Negative Declaration was prepared for the project pursuant to section 15074 of the CEQA Guidelines. The ISMND was circulated for public review from April 23, 2021 to May 24, 2021. Three hundred and twenty-five (325) comments were received. In response to public comment, and to address the potential environmental impacts of the water intake and ocean outfall permits (see Other Related Permits, above), the County elected to prepare an EIR. The County issued a Notice of Preparation (NOP) of a Draft EIR (DEIR)

⁶ The summary of the County’s CEQA process presented herein is taken from County Board of Supervisors adopted Resolution 22-123, Finding 3 (Exhibit 9).

on May 28, 2021, and conducted two separate scoping meetings with agencies and the public on June 10, 2021. The NOP was sent to state agencies, property owners within 1,000 feet of the project site, and people who expressed an interest in the project. The County issued a press release for the NOP, and it was posted with the State Clearinghouse between May 28, 2021 and June 28, 2021. The June 10, 2021, meetings generated comments related to greenhouse gas (GHG) emissions, energy use, sea level rise, alternative transportation, cumulative impacts, impacts to coastal access, impacts to water quality, improvements for water intake, source of fish eggs, emissions from the facility, landfill gas, and water outfall monitoring. In addition to and separate from the scoping meetings, the County also convened meetings with staff from various agencies to more accurately define and address agency concerns in preparing the DEIR, including with the Commission, CDFW, North Coast Regional Water Quality Control Board, and National Marine Fisheries Service.

The DEIR was prepared and circulated for a 60-day public review and comment period from December 20, 2021 to February 18, 2022 (State Clearinghouse #2021040532). The DEIR elicited 242 public comments from local, state, and federal agencies; non-governmental organizations (NGO's); and individuals; including 132 letters of support from both individuals and NGO's. No new issues were raised in the DEIR comments. The EIR identified potentially significant impacts that could result from the project related to air quality; biological impacts related to dark eyed gilia, trapping animals during construction, bats, special status amphibians, replacement of osprey nests, avion nesting, marine mammals, long fin smelt and coastal habitat; cultural resources; geology and soils; hazards and hazardous materials; and hydrology and water quality. The EIR includes 18 mitigation measures, which have been incorporated into a Mitigation Monitoring and Reporting Plan (MMRP) and were adopted as part of the project, to reduce the identified impacts to a less than significant level (these are included in Exhibit 9). The DEIR identified no significant adverse cumulative impacts associated with the project.

A Final EIR (FEIR) was prepared, addressed all comments received, and was initially made available for review on July 1, 2022. The FEIR was certified by the Humboldt County Planning Commission on August 4, 2022, and by the County Board of Supervisors on September 28, 2022. Links to the ISMND, the DEIR, and the FEIR are posted on the County's website.⁷

D. Filing of Appeal

On October 13, 2022, the Commission's North Coast District Office received the County's Notice of Final Action ([Exhibit 9](#)). Between October 25th and 27th, 2022 the Commission received a total of five separate appeals of the County's approval from the following appellants: (1) 350 Humboldt ([Exhibit 4](#)); (2) Scott Frazer ([Exhibit 5](#)) (3) Redwood Region Audubon Society ([Exhibit 6](#)); (4) Salmonid Restoration Federation ([Exhibit 7](#)); and (5) Alison Willy ([Exhibit 8](#)). Each appeal was filed in a timely manner, within 10 working days of receipt by the Commission of the County's Notice of Final

⁷ See <https://humboldt.gov.org/3218/Nordic-Aquafarms-Project>.

Action. The appellants each participated in the local CDP application and decision-making process (i.e., submitted comments, and testified at the local hearing) and thus each qualifies as an “aggrieved person” pursuant to Coastal Act section 30801 and title 14 California Code of Regulations (CCR) section 13111.

On November 15, 2022, the applicant submitted a signed copy of a waiver of the 49-working-day deadline for opening the Commission hearing on the appeal.

E. Appeal Jurisdiction and Procedures

The Coastal Commission effectively certified Humboldt County’s local coastal program (LCP) in 1986. After certification of an LCP, the Coastal Act provides for limited appeals to the Commission of certain local government actions on CDPs. Pursuant to section 30603(a), this approval is appealable to the Commission because the approved development is located between the sea and the first public road and because portions of the development are located within 300 feet of the mean high tide line.

Section 30603(b)(1) of the Coastal Act states:

The grounds for an appeal pursuant to subdivision (a) shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in this division.

The Commission’s consideration of appeals is a two-step process. The first step is determining whether the appeal raises a substantial issue that the Commission, in the exercise of its discretion, finds to be significant enough to warrant the Commission taking jurisdiction over the CDP application. The Commission is required to begin its hearing on an appeal, addressing at least the substantial issue question, within 49 working days of the filing of the appeal unless the applicant has waived that requirement, in which case there is no deadline. Here, the applicant has waived the 49-working day deadline. The Coastal Act and the Commission’s implementing regulations are structured such that a substantial issue is presumed, and the Commission generally considers a number of factors in making that determination. The term “substantial issue” is defined in title 14 CCR section 13115:

When determining whether the appeal raises a substantial issue, the Commission may consider factors, including but not limited to:

- (1) the degree of factual and legal support for the local government’s decision;*
- (2) the extent and scope of the development as approved or denied by the local government;*
- (3) the significance of the coastal resources affected by the decision;*
- (4) the precedential value of the local government’s decision for future interpretations of its LCP; and*

(5) whether the appeal raises only local issues as opposed to those of regional or statewide significance.

The Commission may, but need not, assign a particular weight to a factor.

At this stage, the Commission may only consider issues brought up by the appeals.

Commission staff has analyzed the County's record for the approved project, including, but not limited to the County's Notice of Final Action for the approval ([Exhibit 9](#)), the County staff reports ([Exhibit 9](#)), the FEIR, and the appellants' claims ([Exhibits 4-8](#)). Staff is recommending that the Commission find that the appeals of the County's action raise no substantial issue with respect to the grounds on which the appeals were filed.

In this case, because staff is recommending that the appeals raise No Substantial Issue, the Commission will hear arguments and vote on the substantial issue question. Generally, and at the discretion of the Chair, qualified persons will have three minutes per side to address whether the appeal raises a substantial issue. The only persons qualified to testify before the Commission on the substantial issue question are the applicant, the appellants, persons who opposed the application before the local government (or their representatives), and the local government. Testimony from other persons regarding substantial issue must be submitted in writing. It takes a majority of Commissioners present to find that no substantial issue is raised.

If, following testimony and a public hearing, the Commission determines that the appeals *do not* raise a substantial issue, then the Commission does not take jurisdiction over the underlying CDP application and the local government approval will stand. However, if the Commission finds the appeal(s) *do* raise a substantial issue, the Commission takes jurisdiction over the underlying CDP application for the proposed project, and the appeal moves to the second phase of the *de novo* hearing on the appeal. The Commission would continue the *de novo* hearing portion of the appeal hearing to a subsequent meeting.

F. Summary of Appeal Contentions

Listed below is a combined summary of contentions raised in the five separate appeals. Each of the appeals is included as [Exhibits 4-8](#).

1. Energy use, greenhouse gas (GHG) emissions, and vehicle miles traveled (VMT). The approved development as conditioned does not minimize the energy use, and associated GHG emissions, for fish feed production, use of refrigerants, and freight shipping, inconsistent with LCP policy incorporating section 30253(d) of the Coastal Act.
2. Effects on marine resources from uses of the marine environment. The components of the larger project involving the disposal of treated wastewater effluent from the authorized facility to the ocean and the extraction of seawater from Humboldt Bay for use in the facility were not adequately evaluated or mitigated by the County, and thus the development approved by the County as

conditioned will not be protective of marine resources, including, but not limited to, wild salmonids, inconsistent with Coastal Act and LCP policy requirements.

3. Inadequate ESHA buffer: The approved development as conditioned will degrade dune mat ESHA adjacent to the project site because the County's approval authorizes the development of a 20-foot-wide fire road within the ESHA buffer.
4. Impacts on Public Access: The approved development as conditioned will adversely impact public access because the increase in truck traffic poses increased hazards to safe coastal access, and the County did not require mitigation for public access impacts.
5. Inadequate Measures to Minimize Tsunami Risks: The approved development as conditioned does not require tsunami evacuation plans to protect workers at the facility in the event of a tsunami.

For the reasons discussed below, the Commission finds that none of the contentions raise a substantial issue of conformance of the approved development with the policies and standards of the County's LCP or with the public access policies of the Coastal Act.

G. Substantial Issue Analysis

1. Greenhouse Gas Emissions from Fish Feed, Refrigerants, & Trucking

The appeal filed by 350 Humboldt raises concerns about the proposed facility's operational greenhouse gas (GHG) emissions and the emissions' related effects on global warming and sea-level rise (SLR). Specifically, the appeal states that the approved development as conditioned has not properly reduced, mitigated, and offset the impacts associated with GHG emissions because calculations excluded or miscalculated emissions associated with fish feed and refrigerants associated with facility operations. As a result, GHG emissions associated with the development would be much higher than evaluated ("upwards of 2 million metric tons of CO₂e over the lifetime of the project" according to calculations and statements provided in the appeal), and contrary to the County's findings, the appeal contends that the approved development as conditioned would generate GHG emissions that may have a significant impact on the environment, including contributing generally to global SLR. No specific SLR related impacts on the project site are described in the appeal.

In addition, the appeal contends that County's analysis of GHG emissions impacts failed to accurately estimate vehicle miles traveled (VMT) with respect to truck trips involved in facility operations. As a result, the County's approval of the development as conditioned fails to minimize VMT impacts inconsistent with Coastal Act section 30253(d).

The appeal acknowledges there are no applicable LCP policies or standards that specifically address the appellant's arguments related to GHG emissions. However, the Coastal Act supports maximum participation in the Coastal Commission processes, and while the appeal does not cite relevant LCP policies to support its GHG contentions, the Commission has historically reviewed appeals in a manner to give them a liberal

construction to ensure the public has an opportunity to present its views on a project's potential inconsistency with relevant LCP and Coastal Act policies. As such, the GHG arguments raised in the appeal reasonably relate to an argument that the approved development as conditioned does not minimize the energy use, and associated GHG emissions, for fish feed production, use of refrigerants, and freight shipping to and from the project site, inconsistent with an LCP policy incorporating section 30253(d) of the Coastal Act.

Coastal Act section 30253 in part is an enforceable policy in the County's certified LCP. Humboldt Bay Area Plan section 3.11 includes the following enforceable policy:

*** 30253. *New development shall:*

-Be consistent with requirements imposed by an air pollution, control district or the State Resources Control Board as to each particular development.

-Minimize energy consumption and vehicle miles traveled.

As discussed in more detail below, there is a high degree of legal and factual support for the accuracy of the County's GHG emissions calculations with respect to these issues.

Fish Feed

Regarding fish feed, the appeal states in part:

"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 55,000 to 150,000 metric tons per year, at least two times the amount needed to meet a threshold of environmental significance under CEQA..."

The appeal notes that the facility will be certified by the Aquaculture Stewardship Council (ASC),⁸ yet appellant claims the ASC "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..." Thus, by the appellant's calculation, GHG emissions associated with the facility would be much higher than evaluated. The appellant cites studies of GHG emissions associated with land-based containment recirculating aquaculture systems (e.g., the proposed Nordic facility) vs. open pen aquaculture facilities. In particular, the appeal cites results from a lifecycle analysis for a Canadian open pen Atlantic salmon facility, stating in part (GWP = Global Warming Potential):

⁸ ASC is an independent non-profit with a certification program for environmentally sustainable farmed seafood. According to their website (<https://asc-aqua.org/>), sustainability standards for RAS facilities relate to minimizing negative effects on water resources and resource efficiency and sustainability.

“Using IPCC methodology, one kg of salmon contributed to 2.26 kg CO₂e of GWP. Agricultural feed components include by-product poultry meal, wheat, corn gluten meal, canola seed and meal, canola oil, and soy meal, while marine-based ingredients include fish meal, by-product fish meal and oil, fish oil, and menhaden oil. Agricultural products lead impacts in GWP, acidification, eutrophication, and ecotoxicity, while impacts are more evenly distributed in ozone depletion and smog. Using the 25,000 – 27,000 metric ton annual production of the Nordic facility at buildout, this would be 56,500 to 61,020 MT CO₂e emitted indirectly annually. It is attributable primarily to the feed because open pen facilities are much less electricity intensive — and so constitutes a minimum estimate.”

In the FEIR adopted for the broader project (including the seawater extraction and ocean discharge project elements), the County explains that lifecycle analysis and emissions embedded in feed would fall outside of the approach commonly used to analyze GHG inventories of projects under CEQA and notes:

... The emissions inventory approach utilized for the Project regarding lifecycle analysis (or “embedded emissions”) is consistent with the methodology identified by [the Association of Environmental Professionals California Chapter Climate Change Committee in the Production, Consumption and Lifecycle Greenhouse Gas Inventories] as the current, most commonly used, and most suitable CEQA approach for industrial projects which is to include the production emissions associated with the productions of goods and services, but not included embedded or lifecycle emissions in goods and services consumed by the project (AEP 2017)...

The FEIR further responds to this issue as follows (in part):

Emissions resulting in feed production would occur whether or not this facility is constructed, as the feed would be provided to other facilities. Furthermore, given the uncertainties in the location of feed sources, it would be entirely speculative to attempt to evaluate the environmental impacts of feed production. Accordingly, environmental impacts of feed production are neither direct nor reasonably foreseeable indirect impacts of the Project and therefore are beyond the scope of impacts required to be analyzed under CEQA. Furthermore, production of feed would take place outside of California, and if produced in California, the environmental impacts of that production would have been separately analyzed in connection with that facility. Thus, emissions embedded in feed were not included in the GHG analysis of the Project...

Although the County’s GHG emissions evaluation did not include information on fish feed sources, the County’s findings do address feed standards and the applicant’s proposal to use sustainably sourced feed. The County’s findings explain that the feed given to the fish is subject to strict regulation to ensure that it is not dangerous to the animal and that it does not cause unacceptable damage to the environment. As described in the adopted FEIR, Nordic proposes to source feed “from manufacturers

who hold quality assurance certifications such as ISO 9001, GMP (Good Manufacturing Practices), BAP (Best Aquaculture Practices) and HACCP to ensure they meet all current legal requirements of the FDA.” In addition to these feed regulations, Nordic “will have its own value chain quality program that routinely checks feed and finished product for nutritional specifications, and undesirable substances (PCBs, heavy metals, and pesticides).” The project description, as described in the FEIR, proposes the following “guidance criteria” to be used in the selection of the feed profile:

1. Use of only natural carotenoid pigments that includes astaxanthin (made through a natural fermentation process of microorganisms and has no additives, is non-GMO, and contains no preservatives).
2. Avoid the use of GMO ingredients.
3. Integrate the use of ingredients that are viable alternatives to harvest fisheries “to the extent that it is practical such as vegetable proteins and oils; insect meal; and single cell proteins and oils (e.g., bacteria, yeast or microalgae-based products).
4. Utilize byproduct trimmings from consumption fisheries (which can be as much as 20% of the fish meal utilized in the feed formulation).
5. Commitment to supplying a product that delivers essential omega-3 health benefits (there are alternative oils, e.g., algae-oils, that can be used to tailor the total omega-3s and the ratios of EPA and DHA without reliance on fish oil).
6. Require feed suppliers to have a monitoring program for environmental contaminants in the feed they produce and follow-up with in-house quality assurance program for feed quality.
7. Require that feed supplier have a program of traceability for determining the origin of ingredients used in the feed to ensure responsible sourcing of fish meal, fish oil, and soy ingredients.

While the County’s approval does not identify the feed supplier for the authorized development, the FEIR explains that it is too early in the process to do so, because:

... the sources of ingredients making up these diets are changing as the aquaculture industry continuously strives for improvement in the sustainability ranking of those ingredients. A feed formulation that may be the best available today may not be the best 4-5 years in the future when operations are planned to commence. For instance, there is increasing production of new raw materials such as microalgae, single cell proteins and insect meal as alternatives to traditional marine sourced ingredients. As an example, Nordic Aquafarms facilities in Fredrikstad, Norway, have now started using micro algae as a supplement in the diet fed to the fish.

Fundamentally, the diet will be composed of marine ingredients derived from sustainable fisheries, trimmings from seafood processing, sustainably sourced vegetable constituents, vitamins, and minerals. These are formulated into a conventional pelleted fish diet such that they are well

balanced and contain only the correct proportion of nutrients needed for the normal growth and development of the fish -- ensuring good uptake, high conversion rates, and minimal waste as a result...

In addition to the feed selection guidance criteria proposed as part of the authorized development (summarized above), Nordic has committed to choosing a feed supplier that will support responsible Supply Certification Programs “or similar initiatives that ensure that the raw materials making up the diet, and ingredient suppliers, are evaluated and approved prior to supply.” As noted in the FEIR, Nordic will look for “high standards when assessing potential suppliers for the proposed project to ensure the feed mill meets strict environmental and social requirements, source ingredients from socially responsible suppliers, and use environmentally responsible raw materials.” The FEIR discusses potential feed suppliers that may be used, noting:

Skretting and Cargill/EWOS are two major feed suppliers in the region. BioMar is a third multi-national aquaculture feed producer and currently supplies feed to NAFC’s fish farms in Europe (Fredrikstad Seafoods and Sashimi Royal). NAFC will work with one or more of these feed companies as a supplier for the farm in California, in part due to the quality of their feed, but also because they align with the sustainability ambitions of the NAFC.

Nordic also has agreed to provide the County with detailed feed specifications once a supplier has been chosen. Nordic will provide the information to the County no later than 90 days prior to stocking the site with feed.

The County imposed CDP Condition of Approval 25 requiring Nordic to work towards decarbonizing the GHG impacts associated with the project in general, including with respect to fish feed:

25. Nordic Aquafarms shall provide an annual Sustainability Report initiated within one year of operation, describing efforts to decarbonize trucking activities, GHG impacts associated with fish feed and other relevant issues. Nordic shall host a summit by invitation for the local NGOs, Community Leaders, Academia, Tribal Government Leadership and members of the public. In addition to reviewing Nordics Annual Sustainability Report, a forum is created where issues and solutions are discussed by all. Agreed upon elements can be incorporated into Nordic’s sustainability goals in the following years. These collaborative solutions are not exclusive to Nordic, leaving opportunity for development of community wide initiatives and creating a cycle of sustainability improvements that can be adopted over the years. Sponsorship of these initiatives can be borne by Nordic up to an annual limit and can be combined with matching funds and sponsorships from various sources. At a minimum Nordic will provide \$25,000 annually to an appropriate community project.

Thus, while the County's GHG emissions analysis does not identify the feed supplier, feed composition, or include calculations associated with feed production, there is substantial legal and factual support for the County's conclusion that the approved project as conditioned will minimize energy consumption and other impacts associated with fish feed. In addition, because there are no LCP policies specifically related to GHG emissions, the precedential value of the County's decision for future interpretations of its LCP is low.

Refrigerants

Regarding refrigerants, the appeal states that the facility will use 25% of its electric power for refrigeration (e.g., to make the ice for packing fish, in chillers to keep water cool enough for the fish, and in heat pumps) and that the County's approval fails to require the "easily available mitigation measure of using very low global warming potential refrigerants, which are readily available." However, the project information in the record does not identify the actual refrigerants to be used, and thus their Global Warming Potential and contribution to total GHG emissions has not been calculated.

The adopted FEIR explains that the refrigerants used in the facility will be subject to strict regulations and programs of the California Air Resources Board (CARB), including leak detection, monitoring, and maintenance requirements. Refrigerants only have a high Global Warming Potential if emitted into the atmosphere. As a new facility, the facility operations will employ a full-time maintenance team, and preventative maintenance and inspections will occur regularly. As chillers would be an essential part of the facility's daily operations, their optimal functionality would be essential, and any leaks that arise would be discovered quickly and promptly repaired. The FEIR notes that new requirements for leak inspection and prompt repair were implemented in 2022 aimed at preventing and quickly repairing refrigerant leaks. The FEIR concludes:

The regular inspection for and immediate repair of leaks will ensure that any potential impacts associated with these systems would be minimized to the maximum extent feasible. Refrigerants leaks would be anomalies, not normal operating status. It would be inappropriate to assume that refrigeration and chilling systems would be operating outside of the parameters of regulatory requirements (i.e., assume "leaky" or neglected systems)...

A detailed response provided by the County to the issues of fish feed, refrigerants, and GHG emissions is included in the FEIR and in the County's Notice of Final Action ([Exhibit 9](#)).

The County's findings acknowledge that most of the GHG emissions associated with facility operations will be from electricity use. As a result, the County imposed CDP Condition of Approval #22 requiring the applicant to purchase 100% renewable and/or carbon free energy for the authorized development:

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.*

Also, as discussed above, Condition #25 will require Nordic to work towards decarbonizing the GHG impacts associated with the project in general.

Truck Trips

The appeal filed by 350 Humboldt contends that County's analysis of GHG emissions impacts failed to accurately estimate vehicle miles traveled (VMT) with respect to truck trips involved in facility operations. As a result, the County's approval of the development as conditioned fails to minimize VMT impacts inconsistent with Coastal Act section 30253(d). Specifically, the appeal asserts that the County's modeling and analysis for GHG emissions associated with trucking used inappropriate modeling software, short-haul instead of long-haul truck trips, and did not use data-based estimates of trip length. In reanalyzing truck emissions estimations (using a calculator from a manual for green trucking developed by scientists at the Environmental Defense Fund for both sea and truck transport), the appeal states that 5,479 metric tons of CO₂ would be emitted by trucks per year because of project operations, which is 2.4 times higher than the estimate of these impacts in the adopted FEIR. The appeal suggests these impacts should be mitigated by requiring the use of hydrogen or electric trucks for trucking needs.

There is a high degree of legal and factual support for the County's conclusions that the approved development as conditioned minimizes vehicle miles traveled (VMT) consistent with the LCP (and section 30253(d)), and that the facility's operational GHG emissions will not exceed the identified emissions thresholds or generate significant impact under CEQA (as discussed above, there are no applicable LCP policies or standards that specifically address GHG emissions). In calculating VMT attributable to the development and applicable thresholds of significance, the County followed guidance from the Governor's Office of Planning and Research Technical Advisory on

Evaluating Transportation Impacts under CEQA (December 2018).⁹ VMT estimates were based on employees' vehicular commute trips (as opposed to visitor or customer trips such as would be associated with a commercial retail project). Also, the VMT analysis calculated the amount and distance of automobile travel attributable to the project, with "automobile" defined as on-road passenger vehicles – specifically cars and light trucks, versus heavy truck trips. Furthermore, the applicable VMT threshold of significance compared vehicular commute trips per employee against regional baseline estimates, with at least 15% below baseline considered a less than significant impact. In addition, the estimation of baseline VMT utilized a trip-based model developed by Caltrans that has been calibrated and validated against traffic count data in the County. Finally, the calculation utilized a conservative vehicle occupancy estimate based on area-specific U.S. Census data.

The development site is located approximately five miles from downtown Eureka and nine miles from downtown Arcata. The applicant anticipates that future employees will live in various areas within the County, with an average VMT of 10.5 miles per employee per day. Based on the model calculations and significance threshold comparisons, the FEIR concludes that the project would exhibit below-threshold VMT per employee and therefore a less than significant VMT impact.

In addition to the conservative methodology utilized for VMT calculation described above and in more detail in the DEIR and FEIR, there are various transportation best practices incorporated into the authorized development that will further reduce the calculated project VMT (these are described in the FEIR). To incentivize employees to use alternative modes of transportation for commuting to and from work other than single-occupancy vehicles, the development as approved and conditioned includes the applicant's voluntary commitment to, among other transportation incentives, offer monthly free bus passes; reimburse mileage for ride-sharing; offer van pools to designated transportation hubs in Arcata and Eureka before the main shift in the morning and after the end of the main shift in the afternoon; provide "guaranteed rides home" up to six times per year for commuters who rely on transit and carpools in the case of an emergency; provide onsite charging stations for electric vehicles; and provide sheltered bicycle parking facilities and onsite charging for electric bikes. The proposed transportation management program will also reward employees who use and register alternative modes of transportation to and from work more than eight times per month with certain incentives (to be developed in collaboration with participating employees once the program is up and running). The proposed transportation management program will be subject to yearly audit and approval by the County in consultation with the Humboldt County Association of Government and Humboldt Transit Authority, and was included as a condition of approval of the County's CDP:

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

⁹ The VMT analyses are found in the Transportation, Air Quality, and GHG chapters of the DEIR and FEIR posted on the County's website: <https://humboldt.gov/3218/Nordic-Aquafarms-Project>.

plan shall provide measures to reduce the number of single occupant employee vehicles traveling to the site. The Transportation Management Plan may utilize various mechanisms to achieve this including but not limited to:

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

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

In addition to the VMT impact analysis for automobile trips (employee commutes), the GHG emissions and Air Quality impact analyses in the adopted CEQA document also considered annual VMT associated with truck hauling. Truck trips were classified as those within the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD) (referred to as short-hauling) and hauling outside of the NCUAQMD's jurisdiction (long-hauling). As explained in the FEIR, detailed hauling data, such as specific destinations or trip routes or specific trip lengths were not included in the GHG emissions analysis, because (in part):

...emissions for mobile activity were estimated separately from other sources of operational GHG emissions (such as energy consumption or emergency backup generator use). For clarity, and because of how CalEEMod utilizes fleet mix, trip type, trip purpose, and other parameters of mobile activity, separate CalEEMod runs were prepared for each of the mobile sources...

For both GHG emissions and criteria pollutant emissions, annual emissions threshold of significance is applied to the Project; therefore, the purpose of the modeling inputs was solely to generate the correct annual activity for the purposes of annual emissions estimates. Assuming or applying the modeling inputs as a Project-specific daily activity, or as parameters for other operational emissions sources, would be a gross mischaracterization of the purposes and use of the inputs. Additional details on the inputs are discussed below.

CalEEMod contains assumptions for trip length based on the type of trip (trip type), distribution of trip types, and trip purpose. Each of these components is used to generate total VMT estimates, which then feed into the GHG emission calculations. The trip types, trip lengths, distribution and trip purpose distribution are detailed below and in the CalEEMod output, which is included in Appendix B of the DEIR.

The annual VMT for short-hauling and long-hauling were provided by the applicant and developed using the Humboldt County Travel Demand Model (the model adopted by the Humboldt County Association of Governments and Caltrans to forecast vehicle travel), and the data entry for daily trip rates and lengths were modified to support the Project-specific annual VMT...

For the purposes of annual GHG emissions analysis, there is no substantive difference between a project that generates 10 daily trips of 10 miles each (100 daily VMT) or one that generates five daily trips of 20 miles each (100 daily VMT). The driver of the emissions generation, and, therefore, critical Project-specific information, is the annual VMT... the annual Project-specific VMT is the informative input, and the daily activity inputs in CalEEMod should not be construed to mean that the Project is generating 100 short-hauling trips per day of 18.5 miles, or 100 long-haul trips per day of 28 miles. The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the Project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline and diesel-powered vehicles). The Project employee analysis assumes a passenger vehicle fleet mix. The Project hauling analysis assumes use of heavy-heavy duty trucks...

The County's conclusion is that the on-road mobile activity, including truck activity, in the CalEEMod analysis was appropriately assessed and used within the framework of annual emissions estimation and annual activity. The County's findings further note that as a farming operation, the farmed fish product will be delivered to "local (west coast) markets, thereby lessening the need for these markets to import seafood from long-distances..." and this local source will reduce GHG emissions associated with delivery from distant market sources (air freight and other transportation traffic). The GHG emissions analysis was overly conservative in that it did not incorporate the replacement of the higher-emitting sources of importing farmed fish product into the quantitative analysis.

Thus, through the above findings and conditions (among others), the County provides substantial legal and factual support for its assessment of the development's estimated mobile activity related to air quality and GHG emissions impacts. Nevertheless, the County imposed Condition #25 (cited above) requiring Nordic to work towards decarbonizing its trucking activities, among other sustainability requirements.

In conclusion, although the appeal presents alternative methodology for calculating VMT and GHG emission impacts associated with trucking than the methodology utilized by the County, there is a high degree of legal and factual support for the County's conclusion that the GHG emissions and VMT impacts were accurately estimated and mitigated, and that the approved development as conditioned conforms with LCP requirements to minimize vehicle miles traveled.

2. Marine Resource Impacts from Ocean Discharge & Baywater Extraction

The appeals filed by Salmonid Restoration Federation and Alison Willy are similar, and both raise concerns related to impacts to marine resources and habitats, especially wild salmonids, associated with the ocean discharge and seawater intake aspects of the facility operations. In addition, the appeal filed by Scott Frazer also raises concerns alleging project inconsistencies related to proposed uses of the marine environment and Coastal Act and LCP policies protecting marine habitats, including impacts to essential fish habitat and wild salmonids. Collectively, the three appeals contend that the development as approved by the County would not protect marine resources of the bay or ocean due to impacts associated with the effluent discharge and seawater extraction, and they identify several issues of concern with these uses of the marine environment, including the following:

Issues related to discharge of treated effluent through the existing ocean outfall pipe:

- Lack of targeted ozone treatment of the wastewater and factory floor effluent combined with a lack of testing of effluent or fish processing waste for diseases that are known to harm or kill wild native salmonids;
- Sewage treatment design has not been proven to be protective of receiving waters, and technology exists to further remove ammonia and nitrogenous waste from effluent;
- Effluent dispersal has not been fully analyzed or addressed;
- Weekly Polymerase Chain Reaction (PCR) testing of fish processing waste and project effluent for various viruses that pose the highest risk to wild salmonids is needed to ensure early detection of harmful viruses;
- The project will increase the risk of pseudo-nitzschia blooms by adding nutrient loading and by releasing water that is warmer than ambient temperatures, and the cumulative and additive effects of marine upwelling and nutrient loading from the project have not been considered or fully addressed;
- Commercial fish feed is a known source of dioxins, PCBs, organochlorine pesticides, PBDEs, and mercury; fish feed and excrement as a source of these toxics has not been considered; the wastewater treatment does not have the ability to remove these chemicals; and no monitoring is proposed for these chemicals;
- No independent baseline studies of the presence of salmonid pathogens in the marine environment have been conducted in the area that could be affected by the development, contrary to LCP requirements, which would provide a pathogen

baseline against which monitoring for deleterious salmonid viruses could be required;

- Release of effluent into the migratory path for green sturgeon, coho salmon, Chinook salmon and steelhead trout will cause disruption of migratory behavior;
- Benthic foragers such as green sturgeon that forage and migrate near the ocean floor will be exposed to potentially toxic levels of ammonia from the diffusers in the outfall pipe and will have direct contact with precipitated effluent solids; the project effluent is likely to reduce prey availability and affect green sturgeon olfactory receptors used during feeding; and the project's effects on green sturgeon should be reviewed through the NOAA-Fisheries Endangered Species Act consultation process;

Issues related to seawater extraction from Humboldt Bay from two existing intakes:

- The use of 10 million gallons per day (MGD) of saltwater removed from Humboldt Bay will adversely impact native fish larvae from impingement and entrainment, and these impacts have not been fully evaluated;
- The seawater extraction component of the project will reduce the available prey biomass utilized by juvenile salmonids out-migrating from the various tributary sloughs to Humboldt Bay, these impacts have not undergone review through the NOAA-Fisheries Endangered Species Act consultation process, and thus it is premature to conclude that "potential impact to special status fish in Humboldt Bay would be less than significant," and
- Although the seawater intake systems will be screened, impinged marine organisms will be blasted with air to clear the screens. Because most marine fish species are not able to forage on the disintegrated prey from the blasters, screens and air blasters may not minimize the effect of impingement to a level that does not reduce the biological productivity of Humboldt Bay.

In raising these contentions, the appeals cite several policies of the Coastal Act and State Water Code that are included as LCP policies (within the Humboldt Bay Area Plan or "HBAP" LUP), including the following:

Section 30230 of the Coastal Act (HBAP sec. 3.30-B-8):

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act (HBAP sec. 3.30-B-8):

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum

populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30240 of the Coastal Act (HBAP sec. 3.30):

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

Section 30250(a) of the Coastal Act (in part included in HBAP sec. 3.14-B-1):

(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources...

State Water Code section 13142.5 (in part included in HBAP section 3.14-B-1):

In addition to any other policies established pursuant to this division, the policies of the state with respect to water quality as it relates to the coastal marine environment are that:

a. Wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. Highest priority shall be given to improving or eliminating discharges that adversely affect any of the following:

- (1) Wetlands, estuaries, and other biologically sensitive sites.*
- (2) Areas important for water contact sports.*
- (3) Areas that produce shellfish for human consumption.*
- (4) Ocean areas subject to massive waste discharge.*

Ocean chemistry and mixing processes, marine life conditions, other present or proposed outfalls in the vicinity, and relevant aspects of areawide waste treatment management plans and programs, but not of convenience to the discharger, shall for the purposes of this section, be considered in determining the effects of such discharges. Toxic and

- hard-to-treat substances should be pretreated at the source if such substances would be incompatible with effective and economical treatment in municipal treatment plants.*
- b. For each new or expanded coastal powerplant or other industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.*
 - c. Where otherwise permitted, new warmed or cooled water discharges into coastal wetlands or into areas of special biological importance, including marine reserves and kelp beds, shall not significantly alter the overall ecological balance of the receiving area.*
 - 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 in advance of the carrying out of the development.*

As noted in the “Description of Approved Development” finding of this report (Finding II-A above), the development approved by the County is related to development proposed under two other coastal development permits that are within the CDP jurisdiction of the Commission:

1. CDP Application No. 9-20-0488: The Commission approved this application from Nordic in November of 2023 authorizing the discharge up to 10.3 million gallons per day of treated wastewater effluent from the subject Nordic RAS facility via the existing RMT-II outfall pipe that terminates 1.5 miles offshore of Samoa.¹⁰
2. CDP Application No. 1-21-0653: This pending Commission CDP application, filed as complete on October 13, 2023, is proposed by the Humboldt Bay Harbor, Recreation, and Conservation District and will be scheduled for the Commission’s consideration in early 2024. The application proposes the following:
 - a) *Seawater Extraction and “Sea Chest” Improvements*: Improvements to two existing bay-water intake systems (called “sea chests”) at two existing docks (the RMT-II dock and a separate existing intake system on a smaller dock approximately 2,600 feet to the north known as Red Tank Dock) to extract Humboldt Bay seawater from the two systems for a combined total extracted water volume of up to 8,250 gallons per minute (gpm) (approx. 11.88 million gallons per day, or “MGD”) for use in onshore aquaculture operations (including to the Nordic RAS facility) and other permitted coastal-dependent uses on the RMT-II property. The proposed cumulative withdrawal of seawater from Humboldt Bay would be phased as follows: Phase I – up to

¹⁰ The Commission’s adopted findings and conditions of approval for CDP 9-20-0488 can be accessed from the Commission’s website: <https://documents.coastal.ca.gov/reports/2023/11/Th9b/th9b-11-2023-report.pdf>.

694 gpm (~1 MGD); Phase II – 695-1,250 gpm (~1 to 1.8 MGD); Phase III – above 1,250 up to 8,250 gpm (up to 11.88 MGD). Improvements to the sea chests include new intake screening systems, pumps, and connecting pipeline infrastructure.

- b) *Water Distribution Infrastructure:* Proposed water distribution pipeline infrastructure includes the development and installation (via trenching, in trenches up to 4,650 feet long, 19 feet wide, and 5 feet deep) of pipelines and associated hydrants and manifolds extending from and between the two docks to support the proposed coastal dependent industrial uses on the site. There would be an 18-inch to 36-inch-diameter seawater transmission pipeline and a 12-inch-diameter industrial water pipeline. The industrial water pipeline would connect to existing industrial water pipelines on and around the site that tie into the Humboldt Bay Municipal Water District (HBMWD) transmission pipeline, which historically served the pulp mill operations with 30 MGD of industrial freshwater sourced from the Mad River (~10 miles to the northeast) and which in this case will provide 2.5 MGD of freshwater sourced from the Mad River to be used for fire suppression, cooling, etc.
- c) *Offsite Mitigation for Impacts to Biological Productivity:* The application proposes offsite mitigation for impacts to biological productivity from the proposed seawater extraction (i.e., mitigation for entrainment of non-special-status larval species) consisting of the proposed removal of up to 988 derelict piles and 151 cross beam supports attached to the piles at the former Kramer dock in Fields Landing (APN 307-101-002, approximately 5.5 miles south of the subject site). The purpose of the pile removal would be to create space for eelgrass (*Zostera marina*) to colonize (the mitigation site is adjacent to existing eelgrass beds) while enhancing a larger tidal habitat area and, in turn, supporting biological productivity. Four piles would be removed prior to commencement of the withdrawal of more than 694 gpm (more than ~1 MGD) of seawater, and the remaining 984 piles would be removed prior to commencement of the withdrawal of more than 1,250 gpm (more than 1.8 MGD) of seawater.

While all of the marine resource issues raised in the appeals are significant coastal resource issues, none present valid grounds for appeal under 30603(b)(1) of the Coastal Act, because none present an allegation that the County-approved development (emphasis added) does not conform to the policies and standards of the County's LCP or the public access policies of the Coastal Act. The above contentions allege that certain development proposed in the marine environment (effluent discharge and seawater extraction) is inconsistent with the various policies cited above. However, the County's CDP does not authorize any development in the marine environment – namely the ocean discharge of treated wastewater effluent from the facility or the extraction of seawater from the bay for the facility, nor any related improvements to the outfall and intake infrastructure (e.g., outfall diffusers, intake screens, etc.). The County's CDP authorizes only the development components of the project located above the mean high tide line of the ocean and bay that are under the jurisdiction of the

County's certified LCP, as described in Finding II-A (Description of Approved Development).

As discussed above, the Commission is separately considering CDPs for the elements of the project that involve uses of the marine environment, including effluent discharge and seawater extraction, because the project site bisects the CDP jurisdiction of both the County and the Commission. The development approved by the County under PLN-2020-16698 (the subject appeal) was limited to development within the County's CDP jurisdiction, though for the purposes of CEQA review as a lead agency, the County considered the environmental impacts of the whole project, including the seawater extraction and ocean discharge components. Where a development project bisects the CDP jurisdiction of the Commission and a local government with a certified LCP, Coastal Act section 30601.3 allows for the Commission to process a single consolidated CDP for all proposed development using the Coastal Act as the standard of review. However, section 30601.3 requires that all parties (the applicant, the local government with a certified LCP, and the Commission) agree to consolidate the permit action, and in this case, all parties did not agree to CDP consolidation.

In its action on November 16, 2023 to approve CDP Application No. 9-20-0488 from Nordic for the ocean discharge component of the project, the Commission's adopted findings and conditions of approval that directly address many of the appeal contentions raised in the subject appeals, including issues related to near-field toxicity to marine organisms, nutrient enrichment, viruses and pathogens, and other issues.¹¹ The Commission determined that the likelihood of eutrophication, hypoxia, and harmful algal blooms from the discharge was low, and conditions requiring ongoing monitoring and reporting were imposed to ensure marine resources are maintained. Similarly, the action of the North Coast Regional Water Quality Control Board on October 5, 2023 to approve both the ocean discharge and seawater extraction components of the project also addresses many of the appeal contentions raised by imposing various intake and discharge prohibitions and specifications and effluent limitations to protect water quality and beneficial uses of the coastal waters associated with the discharge and intake systems.¹² The Regional Water Board's permit also requires surveys, monitoring, and reporting. When the subject appeals were filed in October of 2022, the appellants did not have the benefit of the adopted findings relied upon for the Commission's and the Regional Water Board's respective actions supporting the decisions by each agency to find that the approved development as conditioned will maintain marine resources.

Furthermore, the Commission will soon be considering the Harbor District's pending CDP application for proposed seawater extraction (which the District plans to allow for use by Nordic and other tenants operating on the RMT-II property engaged in

¹¹ As noted elsewhere in this report, see the staff report available from the Commission's website: <https://documents.coastal.ca.gov/reports/2023/11/Th9b/th9b-11-2023-report.pdf>

¹² See the adopted order available from the Regional Water Board's website: https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2023/R1-2023-0019.pdf and the adopted fact sheet: https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2023/R1-2023-0019_FS.pdf

authorized coastal-dependent uses) at an upcoming public hearing (pending CDP Application No. 1-21-0653). The Commission's consideration of the proposed CDP will consider all public comments received prior to action, including contentions raised in the subject appeals. The Commission's future action on the seawater extraction project is independent of and not bound by its decision on the subject appeal. Although Nordic is proposing the use of seawater extracted from Humboldt Bay for its proposed RAS facility, if the permit application from the Harbor District is denied or otherwise not effectuated, Nordic could, in theory, modify its project to use freshwater instead of seawater to produce farmed fish. Unlike many parts of California, the freshwater available for use at the site is not limited. Domestic water (potable) is to be delivered to the site by the Humboldt Bay Municipal Water District (HBMWD) through existing pipeline infrastructure that historically served the pulp mill. As noted in the FEIR (project description chapter), the HBMWD has significant excess capacity of domestic potable chlorinated water sourced from the Mad River (HBMWD 2021). Historically, the pulp mill operations on the subject site used tens of millions of gallons per day of freshwater without raising supply issues.

Also, NOAA-Fisheries is currently engaged in an Endangered Species Act consultation process for the District's proposed seawater intakes, which includes analysis of impacts on salmonid prey base, among other potential effects.

Therefore, as the appeal contentions related to development in the marine environment (effluent discharge and seawater extraction) raise issues beyond the scope of the County's CDP authorization, these contentions are not valid grounds for appeal pursuant to section 30603(b)(1). Nevertheless, the County imposed, and the applicant agreed to, requirements for ocean monitoring as Condition of Approval 21 as well as requirements that will limit full buildout of the facility if any permit non-compliance issues are identified with any other local, state, or federal permits (Condition of Approval 24):

CDP Condition of Approval 21:

- 21. The applicant shall conduct the following monitoring activities as described in section 2.3.2 of the DEIR.*
 - a. Baseline monitoring prior to operation of the outfall. This monitoring shall commence once Phase 1 demolition is initiated.*
 - b. Post-discharge receiving water monitoring shall commence at discharge from Phase 1 and continue for three years following completion of Phase 2 operations (full facility discharge) following the same methodology as the baseline monitoring. The post-discharge monitoring would provide "before-after-control-impact" or "before-after-gradient" design for the biological monitoring program*

The monitoring program would be conducted during the summer/fall period of upwelling "relaxation," when conditions are least energetic, and dilution of the discharge would thus be lowest and would include baseline, pre-discharge monitoring. Two annual surveys would occur during the

summer/fall period, ideally in August or September, separated by at least two weeks.

The monitoring shall

- i. *Gather coastal oceanographic data with an acoustic doppler current profiler (ACDP) to measure current velocities (deployment and retrieval during the first and second surveys of each year, respectively), and the use of a conductivity, temperature, and depth (CTD) profiler to characterize spatial patterns of temperature and salinity of the ambient waters and any effects in proximity to the discharge. CTD profiles would be collected at approximately 100 to 300 feet (near diffuser) to approximately 500 to 1,000 feet (distant from diffuser), and reference profiles shall be collected greater than one mile from the diffuser. The deployment of the ADCP shall be within 0.5 mile of the diffuser at a similar depth.*
- ii. *Identify Water quality parameters including monitoring of nutrients (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.

CDP Condition of Approval 24:

24. *Prior to issuance of any construction permits for phase 2, phase 1 of the project must be operating in compliance with the County CDP, RWQCB NPDES Permit, and any other local, state, or federal permit*

issued to Nordic or their successor. This shall be to the satisfaction of the Director of Planning and Building.

Thus, there is a high degree of legal and factual support for the County's decision to find the approved development as conditioned consistent with the LCP, including the policies and standards protecting marine resources.

3. Allowance of Fire Road within ESHA Buffer Area

The appeal filed by Redwood Region Audubon Society contends that the approved project as conditioned is inconsistent with the ESHA protection policies of the certified LCP, because the County's approval authorizes a 20-foot-wide fire road within the buffer imposed to protect "high quality dune mat" located on the project site. The appeal cites Coastal Act section 30240, which is included as an enforceable policy in the County's certified LCP (in this case the Humboldt Bay Area Plan LUP):

Section 30240 of the Coastal Act (HBAP sec. 3.30):

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

HBAP sec. 3.30-B-1(a) identifies ESHA as follows:

a. Environmentally sensitive habitats within the Humboldt Bay Planning Area include:

- 1) Wetlands and estuaries, including Humboldt Bay and the mouth of the Mad River.*
- 2) Vegetated dunes along the North Spit to the Mad River and along the South Spit.*
- 3) Rivers, creeks, gulches, sloughs and associated riparian habitats, including Mad River Slough, Ryan Slough, Eureka Slough, Freshwater Slough, Liscom Slough, Fay Slough, Elk River, Salmon Creek, and other streams.*
- 4) Critical habitats for rare and endangered species listed on state or federal lists.*

Biological surveys completed during the project environmental review phase identified approximately 0.34-acre of environmentally sensitive dune mat (*Abronia latifolia-Ambrosia chamissonis* Alliance) habitat on the south end of the project site. The habitat is a sensitive natural community ranked as vulnerable globally (G3) and within the state (S3). The dune mat was characterized by yellow sand verbena, seaside buckwheat, dune knotweed, beach strawberry, sandmat, and dark-eyed gilia (a rare plant).

The LCP prescribes no minimum buffer width requirement for development adjacent to ESHA, but it does include Coastal Act section 30240 as an enforceable policy. Thus, development adjacent to ESHA must be sited and designed to prevent impacts that would significantly degrade the ESHA and shall be compatible with the continuance of the ESHA.

The County's findings for approval address the project consistency with section 30240(a) and (b), including provisions for buffering the identified dune mat ESHA from development, grading restrictions to ensure nearby grading during construction does not affect drainage patterns near the ESHA, and the requirement that the fire road allowed for infrequent emergency use within the 35-foot-wide ESHA buffer be permeable (non-paved) to minimize the potential for significant degradation of the adjacent 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...

BIO-7 of the adopted Mitigation Monitoring and Reporting Plan (MMRP) referenced in the County's findings requires in part the following ([Exhibit 9](#)):

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.

In addition, the approved CDP imposes General Conditions of Approval 6 and 7 to require adherence to and reporting of compliance with the adopted mitigation measures:

- 6. The applicant is responsible for completing and implementing all mitigation measures outlined within the MMRP which shall be completed as required within the MMRP and the applicant/developer/responsible party shall provide all reporting as required in the MMRP.*

7. *An annual report shall be submitted outlining conformance with ongoing conditions and identifying conditions completed within the given year due January 1 of each year. This condition shall be implemented for the life of the project.*

Thus, the degree of factual and legal support for the County's decision supports the conclusion that the authorized development adjacent to ESHA will be sited and designed to prevent impacts that would significantly degrade the adjacent dune mat habitat area and will be compatible with the continuance of that habitat area. In addition, given that the LCP policies do not specify a minimum buffer width and do not prohibit minor ancillary development such as impermeable, infrequently used emergency access roads within ESHA buffer areas, the precedential value of the County's decision for future interpretations of its LCP is low.

4. Public Access Contention

The appeal filed by Redwood Region Audubon Society contends that the approved project as conditioned is inconsistent with various public access and recreation policies of the certified LCP, because "the increase in truck traffic poses increased hazards to safe coastal access, especially surfers changing into and out of wetsuits close to the [New Navy Base Road] roadway." Specifically, the appeal refers to an access point on the west side of New Navy Base Road across from the main entrance to the project site. This access point is referred to as #16-LP Drive/U.S.S. Milwaukee Marker in the Humboldt Bay Area Plan, described as follows:

16. LP DRIVE/U.S.S. MILWAUKEE MARKER – This accessway provides access to the waveslope. Parking is available and logs placed along the access corridor restrict ORVs to the traveled path.

The appeal also cites HBAP sec. 3.14-B, which states in part:

- a. *Industrial uses shall include mitigation and design features for compatibility with adjacent land uses; in particular, screening and/or landscaping to buffer adjacent residential and recreational uses.*

New industrial development adjacent to areas planned for public recreation, natural resources, or residential use on the North Spit shall include mitigation measures, including at a minimum, setbacks, landscaping, and design controls to minimize significant conflicts with adjacent land uses.

The appeal also cites an inapplicable policy (HBAP sec. 3.14-B-3-e) that applies only to development on the coastal dependent industrial lands adjacent to the Eureka Airport and south of Fairhaven rather than to the subject property.

In addition to the policies cited in the appeal, the public access policies of the Coastal Act are applicable to the County's CDP review, because the site is located between the first public road and the sea. Section 30210 of the Coastal Act requires that maximum

public access shall be provided consistent with public safety needs and the need to protect natural resource areas from overuse. Section 30212 of the Coastal Act requires that access from the nearest public roadway to the shoreline be provided in new development projects, except where it is inconsistent with public safety, military security, or protection of fragile coastal resources, or where adequate access exists nearby. Section 30211 of the Coastal Act requires that development not interfere with the public's right of access to the sea where acquired through use or legislative authorization. Section 30214 of the Coastal Act provides that the public access policies of the Coastal Act shall be implemented in a manner that takes into account the capacity of the site and the fragility of natural resources in the area. In applying sections 30210, 30211, 30212, and 30214 to its CDP review, the County's findings must demonstrate that any denial of a permit application based on these sections or any decision to impose conditions requiring public access on the granting of a permit is necessary to avoid or offset a project's adverse impact on existing or potential access.

The access point cited in the appeal is a popular access point for surfers when wave and ocean conditions are favorable for surfing in the area. There are several additional access points to the north and south along New Navy Base Road that similarly provide surfing access during favorable conditions, as well as general coastal access. New Navy Base Road runs the length of the Samoa Peninsula and is the primary access route for a number of coastal-dependent and general industrial properties. The posted speed limit is 55 mph, and trucks are common along the route.

The County's findings include an evaluation of truck and traffic safety, including the potential for pedestrian and bicycle conflicts. The County estimates the project's operations will generate a total of 95 truck trips per week (32 truck trips per day, as tallied below) entering and exiting the project site entrance at the intersection of LP Drive and New Navy Base Road (also referred to as State Route (SR) 255) directly across from the aforementioned public access point, including the following:

- 40 product delivery trucks/week @ 6 days/week = 13 truck trips/day (in and out), with 70% going to/from east on SR 255 via Eureka (28 trucks/ week) and 30% going to/from north on SR 255 via Arcata (12 trucks/week);
- 32 waste trucks/week @ 7 days/week = 9 truck trips/day (in and out, assuming 100% on SR 255 to/from Arcata);
- 20 fish feed trucks/week @ 5 days/week = 8 truck trips/day (in and out, assuming 50/50 split on SR 255 to/from Eureka and to/from Arcata); and
- Three shipping materials and process chemicals trucks/week @ 3 days/week = 2 truck trips/day (in and out, assuming 50/50 split on SR 255 to/from Eureka and to/from Arcata).

With this level of added truck traffic, the County determined the contribution of projected truck trips from the development would not amount to a significant increase in the number of truck trips per day in the area and would not introduce an incompatible use that could substantially increase hazards. The project would not introduce any geometric design features, such as a sharp curve or a dangerous intersection, to public

roadways. Also, the project would not introduce an incompatible use, such as adding farm equipment to an urban road. SR 255 between Eureka and the Samoa Peninsula and north through Manila and Arcata is a Caltrans-designated truck route with a posted speed limit of 55 mph. As mentioned above, New Navy Base Road also is a high-speed road, and the County findings note that these roads were designed to accommodate trucks and serve the industrial uses on the Samoa Peninsula, including the subject site.

The County also analyzed existing collision data and heavy vehicle data and determined that the approved project as conditioned would not likely cause an increase in conflicts between trucks and pedestrians or bicyclists. The County examined historical collision data from 2015-2019 in the vicinity and noted one pedestrian-involved collision in 2017 approximately 850 feet south of the intersection of SR 255 and Vance Avenue (north of the aforementioned access point). Based on the lack of collisions over a five-year period coupled with the relatively minor increase in truck traffic projected with the project (calculated 0.5% increase on New Navy Base Road and 0.2% increase on SR 255), the County concluded that the development would not significantly impact existing conditions in terms of traffic hazards.

The County findings also address the adequacy of parking provided to support the proposed development to ensure that no employee parking will displace public access parking. As noted in the FEIR:

Parking at the facility would be located throughout the central campus corridor between Building 1 and Building 2 providing access to all facility buildings. The facility would include a three-truck loading dock, seven-truck unloading/loading areas, 115 standard light vehicle parking spots, and six ADA accessible light vehicle parking spots. The number of parking spaces was determined based on County Code 313-109 (Off-Street Parking) whereas a management office for industrial uses requires 1 parking space for every 300 square feet of gross floor area plus 1 per employee, and the remainder of light vehicle parking including ADA spaces was determined based on 1 parking space per employee at peak shift, resulting in 115 standard light vehicle parking spots and 6 accessible parking spots. At full production there would be a maximum of 100 employees at the facility at any given time. That would include approximately 20 employees in the approximately 6,400 square foot office/management area of Building 4 and approximately 80 employees spread throughout the rest of the facility.

Consistent with off-street parking requirements, the County imposed Condition of Approval #18 requiring landscaping as part of the parking design:

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 offstreet 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.

Therefore, there is a high degree of factual and legal support for the County's decision that the approved development as conditioned will not impact public access. Because the County identified no public access impacts, the County's decision not to impose public access mitigation will not set an adverse precedent for future interpretations of the County's LCP.

5. Tsunami Evacuation Plan Contention

The final contention in the appeal filed by Redwood Region Audubon Society is that the approved project as conditioned is inconsistent with the hazards policies of the certified LCP, because the County's approval does not include provisions for a tsunami evacuation plan to protect workers at the facility in the event of a tsunami.

The appeal cites HBAP policy 3.17-B-3, which states in applicable part:

3. *Tsunamis—New development below the level of the 100-year tsunami run-up elevation described in Tsunami Predictions for the West Coast of the Continental United States (Technical Report H-78-26 by the Corps of Engineers) shall be limited to public access, boating, public recreation facilities, agriculture, wildlife management, habitat restoration, and ocean intakes, outfalls, and pipelines, and dredge spoils disposal. New subdivisions or development projects which could result in one or more additional dwelling units within a potential tsunami run-up area shall require submission of a tsunami vulnerability report which provides a site-specific prediction of tsunami run-up elevation resultant from a local Cascadia subduction zone major earthquake...*

The development site is located within a mapped tsunami inundation area¹³ and is at risk of tsunami inundation from waves generated from a variety of local and distant sources. Based on available inundation modeling, the area would not be inundated by smaller, more frequent tsunamis but would be inundated by more infrequent and extreme events, such as a Cascadia Subduction Zone (CSZ) event.¹⁴ In the Humboldt Bay area, the time window between tsunami generation and local inundation could be on the order of a few minutes due to proximity to the CSZ, a local source for tsunami

¹³ Based on current maps published by the California Geological Survey: <https://www.conservation.ca.gov/cgs/tsunami/maps/humboldt>.

¹⁴ A CSZ event (magnitude 8.0 or greater) has an approximately ~270-year to 500-year average return period. Evidence suggests the last major CSZ quake occurred in January 1700 (~magnitude 9.0).

waves. In the case of a locally generated tsunami (originating from the CSZ source), the only warning residents, employees, and visitors in the area would receive would be a natural warning (strong, long-lasting shaking from an earthquake, which could last several minutes) occurring 10 to 15 minutes before inundation by the tsunami. As a result, there would be very little time for evacuation between the time the shaking stops and the associated tsunami waves inundate the area.

The County's CDP findings and conditions address these tsunami risks. As noted in the staff report adopted by the Board of Supervisors ([Exhibit 9](#)):

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.

In addition, contrary to the appeal contention, the County imposed a CDP Condition of Approval requiring the development of a tsunami evacuation plan to protect workers at the facility in the event of a tsunami:

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.

Thus, there is a high degree of factual and legal support for the County's decision that the approved development as conditioned conforms to the hazard policies of the certified LCP with respect to tsunamis.

H. Conclusion – Substantial Issue Determination

When considering a project on appeal, the Commission must first determine whether the project raises a substantial issue of LCP conformity such that the Commission should assert jurisdiction over the CDP application for such development. At this stage, the Commission has the discretion to find that the project does or does not raise a substantial issue of LCP and Coastal Act (where applicable, such as in this case) conformance. The Commission has in the past and, pursuant to section 13115(c) of its regulations, considered the following five factors in its decision of whether the issues raised in a given case are substantial: (1) the degree of factual and legal support for the local government's decision; (2) the extent and scope of the development as approved or denied by the County; (3) the significance of the coastal resources affected by the

decision; (4) the precedential value of the County's decision for future interpretations of its LCP; and, (5) whether the appeal raises only local issues as opposed to those of regional or statewide significance. The Commission may, but need not to, assign a particular weight to a factor, and may make a substantial issue determination for other reasons as well.

In this case, these five factors considered together support a conclusion that the appeal does not raise a substantial issue as to the consistency of the approved project as conditioned with the certified LCP and the public access policies of the Coastal Act. As discussed above, the investigations and analyses submitted as part of Nordic's CDP application support the County's findings for consistency with the applicable LCP and Coastal Act requirements concerning minimizing energy consumption and VMTs, maintenance of marine resources, ESHA buffer adequacy, public access, and tsunami hazards. The contentions concerning marine resources that did not present valid grounds for appeal under Coastal Act section 30603(b)(1) do not undermine the high degree of legal and factual basis for the County's approval. The Commission finds there is substantial factual and legal support for the County's decision. As the County thoroughly addressed the relevant coastal resource concerns, the Commission assigns more weight to this factor in the substantial issue analysis.

As to project scope, while the approved development is a relatively large industrial project, its footprint and scope are limited to brownfield lands and redevelopment of areas that historically (for many decades prior to and after the Coastal Act) were developed with heavy industrial uses. When combined with the first factor, this second factor also weighs against finding substantial issue.

The third factor (the significance of coastal resources affected) also supports a finding of no substantial issue. As noted in the above findings, while the marine resource issues raised in the appeals are significant coastal resource issues, the County's CDP does not authorize any development in the marine environment (instead the Commission has CDP authority over the seawater extraction and effluent discharge components of the project). And while the contentions related to GHG emissions raise important considerations, the County findings explain that lifecycle analysis and emissions embedded in feed would fall outside of the approach commonly used to analyze GHG inventories of projects, refrigerants used in the facility would be subject to regulations and programs of the California Air Resources Board for leak detection, monitoring, and maintenance requirements, and there is a high degree of legal and factual support for the County's conclusion that the GHG emissions and VMT impacts were accurately estimated and mitigated. In addition, the County's approval includes a condition (Condition #25) requiring Nordic to work towards decarbonizing the GHG impacts associated with the project in general, including with respect to fish feed and trucking in particular.

Fourth, the County's decision does not involve any novel LCP interpretive issues and would not set an adverse precedent for future interpretations of the County's LCP, especially given the high degree of legal and factual support for the County's decision.

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Finally, while the project does raise issues of regional and statewide significance (primarily GHG emissions, marine resources, ESHA, and public access), as previously discussed, there is a high degree of legal and factual support that the approved project as conditioned will protect marine resources and public access, minimize vehicle miles traveled and tsunami risks, and provide an adequate buffer to protect adjacent dune mat ESHA.

Therefore, especially given the high degree of factual and legal support for the County's decision and conditions of approval, consideration of the five factors together support a conclusion that the County's approval of a CDP does not raise a substantial issue of LCP or Coastal Act conformance. For the reasons stated above, the Commission finds that Appeal Number A-1-HUM-22-0063 does not present a substantial issue with respect to the grounds on which the appeal was filed under section 30603 of the Coastal Act and the Commission declines to take jurisdiction over the CDP application for this project.