DRAFT FACT SHEET

NPDES #:	FL0A00001
Permittee:	Ocean Era, Inc. PO Box 4239 Kailu-Kona, HI 96740
Facility:	Velella Epsilon
Location:	Gulf of Mexico (Approx. 27° 7.34185'N, 83° 12.02291'W)
Facility Type:	Aquatic Animal Production (Standard Industrial Classification (SIC) code 0273)
Authorization to discharge:	Wastewater from an Aquatic Animal Production Facility producing up to 55,000 pounds/year for one production cycle; Modification to Existing Permit
Outfall:	001
Receiving Water:	Federal Waters of the Gulf of Mexico

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1. Facility Description

The Velella Epsilon project is a net-pen aquatic animal production facility that is considered a new discharger.[1] The project will culture a maximum of 20,000 fish (red drum, *Sciaenops ocellatus)* for one production cycle during approximately 12 months. The estimated final fish size is approximately 2.75 pounds (lbs). The maximum amount of fish produced during the production cycle is 55,000 lbs. The total estimated fish harvest weight is 46,750 lbs when using an 85% survival rate.

The operation consists of a supporting tender vessel and a single net-pen cage in water depth of approximately 130 feet. The net material is KikkoNet – a UV stabilized and lightweight polyethylene terephthalate monofilament that is woven into a hexagonal mesh. The submersible fish pen will be deployed on an engineered stationary multi-anchor grid mooring system that uses eight embedment anchors and four ballast blocks. Mooring lines will be used at multiple locations. The proposed configuration uses rope or chain to create the grid system, attach anchors to the grid system, connect ballast blocks to the grid system, and connect the grid system to the cage.

The cage can be adjusted to suit wave and current conditions. As a result, the system can operate floating on the ocean surface or submerged within the water column of the ocean. When a storm approaches the area, the cage can be submerged. Small buoys are used at the water surface to mark the location of anchors and show the

[1] In accordance with 40 CFR § 122.2, a new discharger is defined as a facility that has a discharge of pollutants commencing after August 13, 1979, is not a "new source," and has never received an effective National Pollutant Discharge Elimination System (NPDES) permit. The proposed facility is not considered a new source because the appropriate effluent standards for the aquaculture industry (concentrated aquatic animal production facilities) are not directly applicable to the proposed facility, and a "new source" is defined under the CWA as a facility that is subject to an applicable effluent limitation guideline and commenced construction after promulgation of the guideline.

grid boundary.

More detailed facility information and analysis supporting the draft permit modification is provided within a draft memorandum titled "EPA's analysis supporting the draft modified NPDES permit for Ocean Era (FL0A00001)."[2]

2. Industry Description

National Pollutant Discharge Elimination System (NPDES) permits protect water quality by regulating point source discharges to waters of the United States. Point sources are any discernable, confined, and discrete conveyance from which pollutants are or may be discharged (40 CFR § 122.2). Net-pen systems are a stationary, suspended, or floating system of nets, screens, or cages that are anchored offshore in open waters of the United States (40 CFR § 451.2(j)). Aquaculture facilities produce and discharge wastes (excess fish feed and fecal material) that contain pollutants, which are defined as including solid waste, biological materials, and industrial waste (40 CFR § 122.2). Accordingly, marine finfish aquaculture operations are point sources that discharge pollutants and are required to obtain NPDES permits.

3. Receiving Water Body Description

The effluent discharges into federal waters of the Gulf of Mexico (Gulf) approximately 45 miles southwest of Sarasota, Florida. For Clean Water Act (CWA) NPDES purposes, federal waters in the Gulf extend seaward from the three nautical mile boundary of each Gulf coastal state to 200 miles offshore. Near the facility, the Gulf is not considered an impaired water pursuant to CWA § 303(d) and is not subject to any total maximum daily load.

For marine waters off the coast of Florida, Florida's water quality standards (WQS) apply within three nautical miles off the shore. There are no legally applicable WQS that apply for federal waters in the Gulf. CWA § 304 requires EPA to develop aquatic life criteria that accurately reflect the latest scientific knowledge of the impact of pollutants on human health and the environment. Aquatic life criteria are designed to protect both freshwater and saltwater organisms from short-term and long-term exposure and are the highest concentration of specific pollutants or parameters in water that are not expected to pose a significant risk to the majority of species in a given environment. EPA has established recommended marine aquatic life criteria. The CWA § 304(a) recommended criteria are not laws or regulations; they are guidance for states and tribes to use for their waters when developing WQS. The CWA § 304(a) criteria were considered during development of the 2022 permit when evaluating potential impacts from the facility and in developing appropriate conditions to ensure that the proposed discharges will not cause unreasonable degradation of the marine environment and will comply with EPA's Ocean Discharge Criteria (ODC) under CWA Section 303 and 40 CFR Part 125, Subpart M.

More information about the receiving water body characteristics can be found in the ODC Evaluation and the Environmental Assessment (EA).[3]

4. Outfall Description

The net-pen effluent (outfall) is immediately downstream of the midpoint of the cage. The proposed facility will be placed within an area that contains unconsolidated sediments that are 3 – 10 ft deep. The applicant will select the specific location based on a diver-assisted assessment of the sea floor when the cage and mooring system are deployed. The proposed action area is a 3,281 feet radius measured from the center of the stationary cage.

5. Context for the Draft Modified Permit

The U.S. Environmental Protection Agency Region 4 (EPA) issued a NPDES permit to Ocean Era in 2020 following

[2] www.epa.gov/publicnotices/ocean-era-draft-modified-npdes-permit-fl0a00001

[3] www.epa.gov/npdes-permits/ocean-era-inc-velella-epsilon-aquatic-animal-production-facility-national-pollutant

a public comment period and public hearing. Petitioners sought review of the NPDES permit before EPA's Environmental Appeals Board (EAB). On May 6, 2022, the EAB issued a decision that remanded in part and denied review in part for the permit appeal. The EAB remanded the permit decision to the Region "to clearly state whether the Region determined that the permitted discharge will not cause unreasonable degradation of the marine environment." In response to the EAB decision, EPA revised the permit record and issued a final permit on June 9, 2022. The permit issued in 2022 (the "2022 permit") remains effective for Clean Water Act (CWA) purposes.

On May 10, 2023, Ocean Era provided written notification to EPA that the project would not proceed as planned and provided preliminary information about changes to the planned operation. On May 23, 2023, EPA asked Ocean Era to provide a written request to modify the permit, a revised application, and other supporting information to enable EPA to determine the appropriate permitting action. On July 5, 2023, Ocean Era formally submitted a request for permit modification under 40 CFR § 124.5 and relevant ancillary information. On July 17, 2023, Ocean Era submitted a revised permit application and detailed information to support the permit modification and any necessary consultations with other agencies.

Ocean Era has indicated that it will not proceed with its aquaculture project as currently permitted in the 2022 permit because it intends to make changes to certain aspects of the operation. Specifically, Ocean Era has requested to alter: 1) the species of fish to be cultured (from almaco jack to red drum); 2) decrease the maximum amount of fish produced from 88,000 lbs to 55,000 lbs; 3) change the net material (copper to monofilament); and 4) change the type of mooring system (from swivel point mooring system to a stationary cage attached to a grid mooring system).

The 2022 permit is based on the information that was provided in the application and supporting materials submitted to and collected by EPA during the permitting process. The 2022 permit record described the production of almaco jack, which was disclosed in the application process and analyzed in the permit record. Ocean Era has disclosed a new pollutant because escapement of cultured fish is considered a pollutant as a "biological material" under the CWA and NPDES implementing regulations. The potential impacts of red drum escapes into the Gulf of Mexico are a discharge that was not previously analyzed in the existing permit record. Accordingly, the incidental release of red drum due to fish escapes is not authorized under the current permit. Further, certain culture related characteristics (i.e., fish feed, fish growth rates, pathogens, etc.) need to be considered when growing a different fish species, and these changes could alter the nature and/or volume of pollutants discharged.

Additionally, although the change in facility design would not likely have a significant effect on the nature or volume of pollutants discharged, it could alter the interaction of the facility with protected species under the Endangered Species Act (ESA) or protected habitats under the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act. The potential change in interactions with protected species or fish habitat necessitated further review of EPA's existing ESA and EFH evaluations, determinations, and consultations. If EPA's ESA and EFH evaluations and determinations remain unchanged, EPA will seek confirmation from the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service that the proposed project changes do not affect the concurrences previously issued by those agencies with respect to EPA's determination. Furthermore, the modification process will allow EPA an opportunity to coordinate, as necessary, with state and federal agencies to determine if the facility and operational changes affect decision-making under the Coastal Zone Management Act, National Environmental Policy Act, Fish and Wildlife Conservation Act, and National Historic Preservation Act.

EPA seeks to ensure that the permit record reflects an analysis of the changes in the revised project operations. It is EPA's tentative determination that cause exists to modify the permit based on the project alterations that occurred after permit issuance (40 CFR § 122.62(a)(1)) and new information being received that was not available when the permit was issued in 2022 (40 CFR § 122.62(a)(2)).[4]

More information about the facility changes, permit modification justification, and compliance with other relevant laws is provided within a memorandum titled "EPA's analysis supporting the draft modified NPDES permit for Ocean Era (FL0A00001)."

6. Revisions to the Draft Modified Permit

The following describes revisions to the draft modified permit when compared to the 2022 permit. All other conditions of the 2022 permit remain the same.

1. **Fish Species:** Ocean Era changed the cultured fish species from almaco jack to red drum. The fish species has been included in Part II.A of the draft modified Permit.
2. **Fish Production:** The total fish biomass produced by the permittee during the culture period has decreased given that red drum grow more slowly than almaco jack. Accordingly, the maximum fish production level has been reduced from 88,000 lbs to 55,000 lbs on the cover page of the draft modified Permit and in Part II.B.14.
3. **Copper Monitoring:** Considering Ocean Era's decision to use a cage material other than copper for the net pen, effluent monitoring for total copper has been removed from Table 1 of draft modified Permit Part II.A.1.
4. **Prohibition:** A condition has been added to the draft modified permit that prohibits the intentional or negligent release of cultured fish into the ocean (see the draft modified Permit Part II.B.15). While this requirement was not specifically included in the 2022 permit, the prohibition is included as a clarification that makes more explicit the permittee's obligation, based on the proper operation and maintenance requirement and other conditions of the 2022 permit, to manage the facility in a way that minimizes the escape of cultured fish. For example, the prohibition is consistent with the 2022 Permit's structural maintenance conditions (see Permit Part IV.A.6), the proper operation and maintenance provisions (see Permit Part VIII.B.1), and the Facility Damage Prevention and Control (see Permit Part VI).

The draft modified permit conditions are consistent with and based on the CWA § 402, CWA § 403, and all applicable implementing regulations for the NPDES program.

Many documents from the 2022 permit record, including the issued permit and fact sheet, are available on EPA's website.[5]

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[4] 40 CFR § 122.62(a) Causes for modification. The following are causes for modification but not revocation and reissuance of permits except when the permittee requests or agrees. (1) Alterations. There are material and substantial alterations or additions to the permitted facility or activity (including a change or changes in the permittee's sludge use or disposal practice) which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit. (2) Information. The Director has received new information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. For NPDES general permits (§ 122.28) this cause includes any information indicating that cumulative effects on the environment are unacceptable. For new source or new discharger NPDES permits §§ 122.21, 122.29), this cause shall include any significant information derived from effluent testing required under § 122.21(k)(5)(vi) or § 122.21(h)(4)(iii) after issuance of the permit.

[5] *Id* at 3.