



**REGION 4**  
ATLANTA, GA 30303

**MEMORANDUM**

**DATE:**            Insert Date

**SUBJECT:**        EPA’s determination for changes needed to the draft modified NPDES permit for Ocean Era (FLOA00001)

**FROM:**            Kip Tyler, Environmental Engineer  
Water Division, Surface Water Protection Branch, NPDES Permitting Section

**TO:**                Draft modified NPDES permit administrative record

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## **1.0 Background**

The U.S. Environmental Protection Agency Region 4 (EPA) issued a National Pollutant Discharge Elimination System (NPDES) permit in 2020 following a public comment period and public hearing. The NPDES permit was the subject of an evidentiary appeal to 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.

The final permit was then appealed by two Petitioners to the U.S. Circuit Court of Appeals for the 2<sup>nd</sup> Circuit and the U.S. Circuit Court of Appeals for the D.C. Circuit. The two Petitions for Review were subsequently consolidated in the D.C. Circuit Court of Appeals, where the consolidated Petitions remain pending. Additionally, the Petitions were partially remanded to EPA to allow EPA to consider and process a request for Permit Modification submitted to EPA by the Permittee.

## **2.0 Requests for Permit Modification and Revocation**

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 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 ancillary information. On July 17, 2023, Ocean Era provided a revised permit application and detailed information needed to support the permit modification and any necessary consultations with other agencies.

On June 7, 2023, EPA received a letter from Eubanks and Associates on behalf of Petitioners in the Petitions for Review of the final permit currently pending in the U.S. Court of Appeals for the D.C. Circuit. This letter stated "(a)t a minimum, EPA must reopen its permitting process with respect to the new aspects of the proposal... and ensure that those issues are properly subjected to supplemental analysis under applicable laws and an accompanying, full public process."<sup>1</sup>

The appendix to this document contains some of the records referenced in this section.

## **3.0 Regulatory Context for NPDES Permit Modifications**

Requests for NPDES permit modifications are processed pursuant to the CWA implementing regulations within 40 CFR § 122.62, 40 CFR § 122.63 (minor modifications), and 40 CFR § 124.5. Permits may be modified at the request of permittee.

Modifications to NPDES permits may only occur when one of the causes for modification listed within 40 CFR § 122.62 and 40 CFR § 122.63 exists. The cause for minor modifications listed in 40 CFR § 122.63 are limited to non-substantive changes (e.g., typographical errors, more stringent monitoring or reporting, and change of

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<sup>1</sup> The letter from Eubanks Associates did not specifically request a permit modification. However, EPA believes that the letter contemplated a request for a permit modification in stating "At a minimum, EPA must reopen its permitting process with respect to the new aspects of the proposal (i.e., the shifts to red drum and a grid mooring system), and ensure that those issues are properly subjected to supplemental analysis under applicable laws and an accompanying, full public process."

ownership, etc.). Minor modifications are exempt from the administrative procedures for permit issuance, including public review and comment as required by 40 CFR Part 124.

Any permit modification not processed as a minor modification must be made for one of the causes listed in 40 CFR §§ 122.62(a) or (b). Modifications are subject to the permit issuance procedures in Part 124, including public notice and comment procedures. In a permit modification, only the conditions subject to change are reconsidered while all other permit conditions remain in effect.

#### 4.0 Summary of Proposed Changes to the Facility

Ocean Era has indicated that it will not proceed with its aquaculture project as currently permitted because it intends to make changes to certain aspects of the operation. Specifically, Ocean Era has requested to alter the species of fish to be cultured (changing from almaco jack to red drum), net material (copper to monofilament), and the type of rearing system (swivel point mooring system to a stationary cage attached to grid mooring system). Other operational changes related to the discharge include a decreased fish production amount and lower nutrient load. More details for the proposed facility changes are provided below with a comparison to the currently permitted project (also see Tables 1 and 2).

- **Fish Species:** Ocean Era will raise red drum (*Sciaenops ocellatus*) rather than almaco jack (*Seriola rivoliana*). Both fish species are native to the Gulf of Mexico. The red drum brood stock will be sourced from wild fish caught in the Gulf of Mexico in the Sarasota region. Ocean Era will obtain juvenile red drum from first generation offspring of wild fish that are raised at Mote Aquaculture Park, University of Miami, or Live Advantage Bait, LLC.
- **Fish Quantity:** No appreciable changes in fish production numbers are anticipated by Ocean Era. As currently permitted, a total of 20,000 red drum fingerlings would be stocked and a total of approximately 17,000 would be harvested within 12 months assuming an 85% survival rate.
- **Survival Rate:** Ocean Era estimates that the survival rate (85%) for red drum will be the same as almaco jack.
- **Fish Size and Production:** The maximum production amount (without accounting for mortality) for the 2022 permit and modified permit is 88,000 lbs and 55,000 lbs, respectively. Red drum grow slower than almaco jack; therefore, the red drum harvest size will be approximately 2.75 lbs rather than 4.4 lbs for almaco jack. When accounting for the 15% mortality rate, the red drum's smaller harvestable size equates to a total harvest of 46,750 lbs vs. the currently permitted harvest of 74,800 lbs, or approximately 63% of the currently permitted fish production.
- **Fish Feed:** Red drum require a different feed than almaco jack that is lower in protein and nutrients. The previous feed proposed by Ocean Era for almaco jack was EWOS Marine Juvenile (juvenile fish) and Skretting Kona Pacific (adult fish). See table 1 for certain feed characteristics. For the modified permit, Ocean Era will use Cargill Aquacell Starter 5014 (juvenile) and Cargill Triton 4413 redfish feed (adult).
- **Feed Rate:** The feed rate for almaco jack and red drum are approximately the same. The estimated feed rate is approximately 1% of fish body weight per day. Given the slower growth rate and smaller harvest size, the total amount of feed used during production for the modified permit application is approximately 49,000 lbs less than the currently projected feed amount.
- **Culture Density:** The fish density at harvest for the currently permitted and modified permit are approximately 1.3 and 1.0, respectively. The stocking density will remain at a commercial scale aquaculture density.

- **Cage Design:** Ocean Era reported that minor changes to the submersible net pen design are anticipated. The permitted net pen and the proposed cage are based on a PolarCirkel-style submersible design. The diameter of the permitted and proposed cage is 17 m and 25.5 m, respectively. The total fish rearing volume will be maintained at approximately 56,504 ft<sup>3</sup>.
- **Cage Net Material:** The permitted net mesh material was CopperNet that uses copper alloy wire woven into chain-link fence mesh. The proposed net material is KikkoNet – a UV stabilized and lightweight polyethylene terephthalate monofilament that is woven into a hexagonal mesh. Ocean Era reported that there is no functional difference between the two materials in terms of entanglement risk or other concerns.
- **Mooring System:** Mooring design for the proposed cage uses eight embedment anchors vs. the permitted mooring design of three embedment anchors. The mooring design for the proposed cage also uses four ballast blocks that touch the sea floor as part of the anchoring system.
- **Mooring Lines:** 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. Additionally, there are lines that connect from the anchor system to small buoys at the water surface to mark the location of anchors and show the grid boundary. Overall, the lines used for the proposed stationary cage system result in increased length of at least 4,750 ft. All ropes and lines are 52 mm in diameter.
- **Operational footprint:** When accounting for the mooring system, lines, and anchorages, the currently permitted swivel mooring produced a project footprint of approximately 11 acres. The proposed stationary grid system boundary area is approximately 23 acres.
- **Location and Water Depth:** No changes are proposed for the facility location and water depth. The proposed project would be placed in the Gulf at an approximate water depth of 130 ft (40 m), generally located 45 miles southwest of Sarasota, Florida.
- **Drugs:** Ocean Era is not proposing any changes to the drugs or therapeutants used during fish production. As currently permitted, Ocean Era does not intend to use therapeutants for the modified action, but use of therapeutants is authorized. Ocean Era reports that red drum are naturally more tolerant to skin flukes and will be better suited for a stationary net pen and even less likely to need therapeutants.
- **Other:** Ocean Era did not report any other revisions to the modified operations.

**Table 1 - Summary of Project Information**

Item	Current NPDES Permit	Modified NPDES Permit
Fish Species	almaco jack ( <i>S. rivoliana</i> )	red drum ( <i>S. ocellatus</i> )
Fish Quantity		
@ stocking	20,000	20,000
@ harvest	17,000	17,000
Total Fish Production (lbs)		
Maximum (lbs)	88,000	55,000
Survival Rate (%)	85%	85%
Estimated (lbs)	74,800	46,750
Harvest Fish Size (lbs)	4.4	2.75
Harvest Fish Density (lbs/ft <sup>3</sup> )	1.3	1.0
Fish Feed (juvenile)		

Manufacturer and Name	EWOS Marine Juvenile	Cargill Aquaxcel Starter 5014
Feed Rate (% fish body wt)	~1%	~1%
Protein (%)	50	50
Phosphorus (%)	1.4	1.0
Nitrogen (%)	8.0	7.04
<b>Fish Feed (Adult)</b>		
Manufacturer and type	Skreeting Kona Pacific	Cargill Triton 4413
Feed Rate (% fish body wt)	~1%	~1%
Protein (%)	41	44
Phosphorus (%)	1.2	1.0
Nitrogen (%)	6.56	7.04
<b>Total Estimated Load @ Max Production</b>		
Total Feed Amount (lbs)	175,320	126,210
Phosphorus (lbs)	2,104	1,262
Nitrogen (lbs)	14,026	8,885
Solids (lbs)	61,345	44,161
Total Ammonia Nitrogen (lbs)	6,899	5,330
<b>Cage Information</b>		
Cage Type	PolarCirkel-style	PolarCirkel-style
Mooring Type	swivel	stationary
Rearing Volume (ft <sup>3</sup> )	56,504	56,504
Diameter (ft)	56	84
Net material	copper	monofilament
Operational Footprint (acres)	11	23

**Table 2 - Summary of Mooring System**

Item	Current Permit		Modified Permit		Difference	
	Qty	Length (ft)	Qty	Length (ft)	Qty	Length (ft)
Embedment anchors	3	-	8	-	+5	-
Concrete nodes	-	-	4	-	+4	-
Mooring chain/line	3	787	8	3,306	+5	+2,519
Mooring rope	3	394	-	-	-3	-394
Bridle lines	3	295	8	1,128	+5	+833
Node block to buoy	-	-	4	328	+4	+328
Grid line	-	-	4	787	+4	+787
Anchor to buoy line	-	-	8	656	+8	+656
<b>Total</b>	<b>12</b>	<b>1,476</b>	<b>44</b>	<b>6,205</b>	<b>35</b>	<b>+5,123</b>

## 5.0 EPA's Tentative Determination to Modify the NPDES Permit

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 only described the production of almaco<sup>3</sup> jack, which was disclosed in the application process and analyzed in the permit record. Ocean Era has disclosed a new pollutant because escape 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 is not contemplated and was not analyzed in the existing permit record. Accordingly, 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. EPA must ensure that the permit record reflects an analysis of the changes in the proposed operations.

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 may necessitate 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 (NMFS) and/or the U.S. Fish and Wildlife Service (USFWS) 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 (CZMA), National Environmental Policy Act (NEPA), Fish and Wildlife Conservation Act (FWCA), and National Historic Preservation Act (NHPA).

Of the 18 reasons listed as causes for permit modifications within 40 CFR § 122.62(a), it is EPA's 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)).<sup>2</sup> EPA will supplement the permit record and issue public notice of a draft permit modification. EPA notes that a permit modification processed under 40 CFR § 124.5 only allows the conditions that are modified to be reopened when a new draft permit is prepared (see 40 CFR § 122.62 and 40 CFR § 124.5(c)(2)).

The proposed project modifications are not eligible for processing as a minor modification because a change in authorized pollutants is not included within the narrow list of changes eligible for processing as a minor modification under 40 CFR § 122.63.

EPA is not electing to revoke and reissue the permit because none of the reasons within 40 CFR § 122.62(b) and 40 CFR § 122.64(a) are applicable. The NPDES permit was not terminated because none of the termination triggers within 40 CFR § 122.64(a) applied to the permittee or to the revisions of the proposed project.

## **6.0 Revisions to the Draft Modified Permit and Fact Sheet**

The modified draft permit contains the following four revisions compared to the 2022 permit. All other conditions of the currently effective permit and the draft modified permit remain the same.

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<sup>2</sup> 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.

1. the maximum fish production level has been reduced from 88,000 lbs to 55,000 lb on the cover page of the draft Permit;
2. the cultured fish species (red drum) has been included in Part II.A of the draft Permit;
3. in light of the permittee's decision to use a material other than copper for the net pen, effluent monitoring for total copper has been removed from Table 1 of draft Permit Part II.A.1; and
4. a prohibition on the intentional or negligent release of produced fish is included as a clarification in draft Permit Part II.A.

## **7.0 Clean Water Act Section 401**

CWA Section 401 provides States and authorized Tribes with a tool to protect the quality of their waters from adverse impacts resulting from the operation of federally permitted projects. Under CWA § 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the United States until the state or tribe where the discharge originates has granted or waived Section 401 certification. CWA § 401(a)(2) also requires EPA to notify a neighboring state when a discharge for which certification is being requested may affect the quality of waters of that state(s).

Based on the location and nature of the proposed discharge, EPA determined for the 2022 permit that the discharge will not affect any neighboring state or tribal waters in the Gulf of Mexico and that a Section 401 certification was not required. The modified permit application does not change the discharge in a way that would change EPA's determination that it will not affect any State or Tribal waters. Based on a review of the modified application and other relevant information, EPA determined that a CWA Section 401 certification for the modified permit is not required.

## **8.0 Clean Water Act Section 403 (Section incomplete – not ready for review yet)**

All NPDES permitted discharges into the territorial sea, the waters of the contiguous zone, or the oceans must be consistent with the Ocean Discharge Criteria (ODC) promulgated by EPA pursuant to the CWA § 403. Consequently, NPDES permits can require any necessary limits that are consistent with EPA's ODC. The implementing regulations of the ODC (40 CFR Subpart M) "establishes guidelines for issuance of NPDES permits for the discharge of pollutants from a point source into territorial sea, the contiguous zone and the oceans" to prevent unreasonable degradation of the marine environment. Unreasonable degradation of the marine environment is defined in 40 CFR § 125.121(e) as:

1. Significant adverse changes in ecosystem diversity, productivity and stability of the biological community within the area of discharge and surrounding biological communities;
2. Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms; or
3. Loss of aesthetic, recreational, scientific, or economic values which is unreasonable in relation to the benefit derived from the discharge.

### **The 2022 NPDES Permit**

EPA's ODC evaluation for the 2022 permit was partially based on EPA and NOAA's National Center for Coastal and Ocean Science (NCCOS) water quality and depositional modeling that estimated the pollutant loading to the surrounding marine environment. The analysis included water quality impacts related to HABs such as nutrients, organic enrichment impacts to the seafloor sediments and benthic communities, estimated water current magnitude and direction, dilution availability, and solid and dissolved waste impacts. NCCOS modeled the proposed project under the 2022 permit for three scenarios: 1) one year production with a constant fish

biomass of approximately 80,000 lbs; 2) one year production with a constant fish production of approximately 160,000 lbs; and 3) five years under a maximum fish production assuming the cage had a constant biomass of about 80,000 lbs. All of these modeled scenarios were for ... given that the 2022 project year).

The deposition modeling results concluded that accumulation of wastes following a 1-year production cycle, even when doubling fish production amounts, would likely not be distinguishable from background levels of organic carbon. Even when the period of discharge was increased to the full 5-year permit term for a constant daily biomass of 80,000 lbs, the modeling report indicated that the proposed project “will not likely have a discernable impact on benthic communities around the project location” and that the project “will present challenges for monitoring and detecting environmental impacts on sediment chemistry or benthic communities because of the circulation around the project location and the small mass flows of materials from the net pen installation.”

The 2022 permit contains ODC-related conditions to protect the surrounding ocean environment such as a comprehensive environmental monitoring plan, fish stocking certification from a licensed veterinarian, and a prohibition on causing unreasonable degradation. Due to the relatively small amount of fish produced, the volume and constituents of the discharged material are not considered sufficient to pose a significant environmental threat. EPA’s ODC Evaluation for the facility covered by the 2022 permit determined that sufficient information exists to conclude that the discharge from the marine aquaculture facility would not cause unreasonable degradation of the marine environment in accordance with 40 CFR § 125.123(a). More information can be found in the ODC Evaluation prepared for the 2022 permit.

### **Proposed NPDES Permit Modification**

The water quality and depositional modeling performed for the 2022 permit remains applicable to the proposed permit modification due to the assumptions used in the modeling calculations or software. The model software that NCCOS used (DEPOMOD and NewDEPOMOD) for the 2022 permit did not allow the net pen to move in space or time on a swivel, therefore, the model was executed at a fixed location like the proposed system for the modified aquaculture system. Instead of using the fecal settling velocity for almaco jack in the 2022 permit modeling, salmonid fecal settling velocity was used for the 2022 permit modeling because salmonids are well studied, validated, and allowed for a maximum benthic impact assessment due to salmon having increased fecal settling velocities. The feed settling velocity used in the 2022 permit model simulations (9.5 cm/s) falls within the range of commercial feeds for red drum (3.67 – 15.68 cm/s) in a recent study.<sup>3</sup> The feed digestibility of 85% that was used for the 2022 permit model fall within the range for red drum feed digestibility and are consistent with marine farm waste model methods.<sup>4</sup>

Therefore, all pollutant loadings, including the nutrient load and water column concentrations of nitrogen and phosphorus will be reduced. Further pollutant analysis will be performed during the permit modification process. Assumes same or higher feed rate. the total amount of feed applied will be % lower... The facility will still be subject to strong and constant currents capable of assimilating and dispersing nutrients without adverse effects.

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<sup>3</sup> Chary, K., Callier, M.D., Coves, D., Aubin, J., Simon, J., and Fiandrino, A. 2021. Scenarios of fish waste deposition at the sub-lagoon scale; a modelling approach for aquaculture zoning and site selection. ICES Journal of Marine Science (2021), 78(3), 922-939. DOI:10.1093/icesjms/fsaa238

<sup>4</sup> Gaylord, T.E., Gatlin, D.M. 1996. Determination of digestibility coefficients for various feedstuffs for red drum (*sciaenops ocellatus*). Aquaculture 139, 303-314. DOI:10.1016/0044-8486(95)01175-7

*removed copper monitoring because copper material is no longer being used- we also referred to antimicrobial qualities of copper material in discussion of risk from pathogens, saying use of copper reduced this risk. In some document we may have to note that and determine that even with the change to non copper material the risk of pathogen spread is still minimal due to X, Y and Z ....*

Furthermore, the 2022 permit and draft modified NPDES permit contains a condition that requires the permittee to stay 500 meters away from any hard bottom habitat. Modeling indicated that a 500-meter buffer area from the proposed facility was sufficient to protect hard bottom habitats in the area surrounding the proposed farm. (EPA notes that the baseline environmental survey conducted at the site showed that hardbottom habitat was likely not present.)

The changes to the facility under the draft modified permit's discharge do not affect EPA's ODC Evaluation that was prepared for the 2022 permit, and EPA has determined that the modified permit would not cause unreasonable degradation of the marine environment.

## **9.0 Other Federal Laws Applicable to NPDES Permits**

This section addresses additional federal laws, other than the CWA, that EPA permit writers should consider when drafting an NPDES permit. The NPDES regulations at 40 CFR 122.49 include a discussion of how some of the laws described below relate to the federal NPDES program.

### **9.1 Federal Coordination and Lead Agency Determination**

Certain consultations and environmental evaluations require or allow a lead agency when the proposed action involves more than one federal agency. For example, the NEPA regulations require a lead agency for the preparation of an environmental assessment (EA) when more than one federal agency proposes or is involved with the same action (see 40 CFR § 1501.7). Additionally, the ESA and EFH consultation and conference responsibilities allow a lead agency pursuant to 50 CFR § 402.07<sup>5</sup> and 50 CFR § 600.920(b),<sup>6</sup> respectively. Using lead agencies during these environmental reviews promotes efficiency and consistency. The FWCA does not require or suggest a lead agency for consultations involving multiple agencies for the same action.

#### **The 2022 NPDES Permit**

Given that the action of authorizing the currently permitted project involved more than one federal agency, the EPA elected to act as the lead agency to complete the NEPA review as well as the ESA and EFH consultation responsibilities. EPA's decision to act as the lead agency was also informed by the 2017 Memorandum of Understanding for Permitting Offshore Aquaculture Activities in Federal Waters of the Gulf of Mexico that was effective during the 2022 NPDES permit issuance for seven federal agencies with permitting or authorization responsibilities. EPA notified the NMFS that the EPA is acting as the lead agency. The NMFS and USACE were cooperating or co-federal agencies for these environmental reviews.

#### **Proposed NPDES Permit Modification**

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<sup>5</sup> 50 CFR § 402.07 allows a lead agency: "When a particular action involves more than one Federal agency, the consultation and conference responsibilities may be fulfilled through a lead agency. Factors relevant in determining an appropriate lead agency include the time sequence in which the agencies would become involved, the magnitude of their respective involvement, and their relative expertise with respect to the environmental effects of the action. The Director shall be notified of the designation in writing by the lead agency."

<sup>6</sup> 50 CFR § 600.920(b) allows a lead agency: "If more than one Federal agency is responsible for a Federal action, the consultation requirements of sections 305(b)(2) through (4) of the Magnuson-Stevens Act may be fulfilled through a lead agency. The lead agency should notify NMFS in writing that it is representing one or more additional agencies."

The modified NPDES permit remains subject to multiple federal actions (NPDES and Section 10 permitting actions), therefore, the EPA elected to maintain the lead federal agency roles for NEPA, ESA, and EFH.<sup>7</sup> On November 2, 2023, NMFS and USACE were informed by EPA that it will serve as the lead agency for any subsequent EA revisions or analysis, if necessary, due to proposed project modifications requested by Ocean Era, and requested that NMFS and USACE become a cooperating agency for NEPA if additional analysis is needed to evaluate potential effects with the proposed modification. These letters also notified the NMFS and USACE that EPA will maintain the lead agency role for ESA and EFH if re-initiating the consultations are required. On November 3, 2023, NMFS and USACE accepted EPA's lead role for NEPA, ESA, and EFH while also acknowledging that they will operate as cooperating agencies under NEPA.

## 9.2 Endangered Species Act

Interagency consultation and coordination with the NMFS and the USFWS is required by ESA Section 7 to insure that any action authorized, funded, or carried out by an action agency is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat (ESA Section 7(a)(2)), and confer with the NMFS and USFWS on any agency actions that are likely to jeopardize the continued existence of any species that is proposed for listing or result in the destruction or adverse modification of any critical habitat proposed to be designated (ESA Section 7(a)(4)). Additionally, the implementing regulations for the CWA related to the ESA require EPA to ensure, in consultation with the NMFS and USFWS, that "any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat."<sup>8</sup>

### The 2022 NPDES Permit

A biological evaluation (BE) was prepared by the EPA and the USACE to jointly consider the potential direct, indirect, and cumulative effects that the proposed actions may have on listed and proposed species as well as designated and proposed critical habitat, and to assist the action agencies in carrying out their activities for the proposed action pursuant to ESA Section 7(a)(2) and ESA Section 7(a)(4). EPA and USACE reviewed the proposed activity and determined that a BE was appropriate to evaluate the scope of the proposed project. The action agencies considered the potential affects to threatened and endangered species from five groups of species: birds, fish, invertebrates, marine mammals, and reptiles. EPA and USACE concluded that the proposed project's potential threats (disturbance, entanglement, vessel strike, water quality) to ESA-listed species and critical habitat are highly unlikely to occur or extremely minor in severity; therefore, the potential effects to ESA protected species and critical habitats are discountable or insignificant.

On August 13, 2019, EPA and USACE provided the jointly developed BE to USFWS and initiated consultation with USFWS. EPA and USACE determined that the discharges authorized by the NPDES permit will have "no effect" on any federally listed species, proposed species, or critical habitat for sea birds that are under the jurisdiction of the USFWS and within the proposed action area. On August 27, 2019, the USFWS provided notification that the USFWS does not object to the permit issuance for the proposed project and had no additional comments.

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<sup>7</sup> The NPDES permit at issue is exempt from NEPA requirements, but EPA elected to voluntarily prepare an environmental assessment of impacts and alternatives in accordance with its Policy for Voluntary Preparation of NEPA Documents, 63 FR 58045 (Oct. 29, 1998).

<sup>8</sup> 40 CFR § 122.49: The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed. ... (c) The Endangered Species Act, 16 U.S.C. 1531 et seq. section 7 of the Act and implementing regulations (50 CFR part 402) require the Regional Administrator to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

On August 13, 2019, EPA and USACE provided the jointly developed BE to NMFS and initiated consultation with the NMFS. Regarding federally listed species, proposed species, and critical habitat under the jurisdiction of the NMFS, EPA and USACE determined that the discharges authorized by the NPDES permit “may affect, but [are] not likely to adversely affect” certain fish, invertebrates, marine mammals, and reptiles within the proposed action area. On September 30, 2019, NMFS concurred with some of the “not likely to adversely affect” determinations made by the agencies, and revised others to “no effect.”

Completion of the informal consultation with the USFWS and NMFS satisfied EPA’s obligations under ESA Section 7(a)(2) for the 2022 permit NPDES permit. More information about the ESA consultation, including the BE and consultation coordination documents are provided in the EA.

### **Additional Analysis Conducted by NMFS After the 2022 NPDES Permit was Issued**

Following the final NPDES permit issuance in 2022, NMFS issued a letter of concurrence (LOC) that amended the consultation record to include additional relevant information related to the project’s potential impacts. The LOC included an additional analysis on 1) any project-related vessel route between the marina and farm location; 2) potential route of effects to species from vessel strikes associated with the project and from non-project vessels due to a potential increase in recreational or commercial traffic near the facility; 3) potential effects of the aquaculture facility acting as a fish aggregating device that could lead to behavioral changes, increased predation, and increased bycatch; and 4) the potential risk of harmful algal blooms from the project on listed species. Because all potential project effects to listed species were found to be discountable, insignificant, or beneficial, NMFS again concurred with the EPA and USACE assessment that the proposed action is not likely to adversely affect any listed species or designated critical habitat. The LOC did not change NMFS’s determination that the Ocean Era project is not likely to adversely affect any listed or proposed species or designated or proposed critical habitat. (See LOC in appendix).

### **Proposed NPDES Permit Modification**

According to 50 CFR § 402.16, a federal agency is required to reinitiate ESA Section 7 consultation if any one of four thresholds are triggered.<sup>9</sup> EPA, as the lead agency, has evaluated the triggers as described below:

**1. If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered.**

EPA and USACE evaluated the potential impacts to listed species and critical habitat in the 2020 BE. The risks to ESA species considered were disturbance, entanglement, vessel strike, water quality. The additional analysis conducted by NMFS in 2022 also considered routes of exposure such as harmful algal blooms, fish aggregation devices, and vessel strikes. All potential water quality risks associated with the modified permit are less when compared to the 2022 permit due to the decreased fish production and feed amounts. Other exposure routes such as vessel strikes, disturbance, and fish aggregation are expected to be the same as evaluated in the 2019 BE, and in the NMFS 2022 LOC.

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<sup>9</sup> 50 CFR 402.16: Reinitiation of consultation: (a) Reinitiation of consultation is required and shall be requested by the Federal agency, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action.

Regarding entanglement concerns, the modified project will increase the operational footprint and include more lines in the water column and structures on the seafloor. The entanglement risks that are associated with an increased quantity of gear are mitigated by the stationary grid system that will be maintained under tension to reduce the risk of entanglement to listed species and marine mammals. A 2023 review found that tensioning of mooring lines decreases risks from entanglement while also noting that there are instances of marine mammal physical interactions that result in fatal entanglements at offshore finfish farms.<sup>10</sup> The length of time the facility will be deployed and the small-scale nature of the system are additional factors that make impacts to ESA-listed species and critical habitat highly unlikely to occur or extremely minor in severity. Other changes associated with the modified project (e.g., change in net-pen material, change in cultured species), will also not result in any increased effects to ESA-listed species and critical habitat.

Based on the foregoing, new information does not reveal effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered.

**2. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence.**

The NPDES permit is being proposed to be modified as described in the project summary section; however, the proposed modifications are not anticipated to cause an effect to listed species or critical habitat. All routes of exposure that were analyzed in the 2019 BE and resulting consultation are appropriate for the modified action. NMFS concluded in their 2019 and 2022 written concurrence that 2022 permit is not likely to adversely affect any listed or proposed species or designated or proposed critical habitat.

Additionally, a biological opinion was not prepared by NMFS or USFWS for the 2022 permit. A biological opinion is a document that provides the opinion of the Service(s) as to whether the Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. NMFS and USFWS used the 2019 BE as the basis for not preparing a Biological Opinion on the proposed federal actions and did not identify any reasonable and prudent measures to minimize any take incidental to otherwise lawful activities.

In sum, the identified action has not been modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the BE or written concurrence.

**3. If a new species is listed or critical habitat designated that may be affected by the identified action.**

On February 14, 2024, NMFS published a notice in the Federal Register (89 FR 11208) listing the queen conch (*Aliger gigas*) as a threatened species under the ESA. The queen conch's maximum habitat depth is 30 meters; the project is located at a water depth of 40 meters. EPA and USACE have determined that this project would have no effect on the queen conch based on the project location being outside the queen conch's habitat range.

Critical habitat for the threatened Nassau grouper (*Epinephelus striatus*) was designated effective February 1, 2024 (89 FR 126). The 920 miles<sup>2</sup> of critical habitat for the Nassau grouper was in various

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<sup>10</sup> Bath G.E., Price C.A., Riley K.L., Morris J.A. Jr. 2023. A global review of protected species interactions with marine aquaculture. Review in Aquaculture; 1-34. doi:10.1111/raq.12811

locations in the Atlantic Ocean and southern portions of Gulf of Mexico. The proposed project is not located near the designated critical habitat; therefore, there is no effect on the Nassau grouper.

NMFS proposed to designate critical habitat for the Rice's whale (*Balaenoptera ricei*) within the Gulf of Mexico on July 24, 2023 (88 FR 47453). The waters from the 100-meter isobath to the 400-meter isobath were identified as the core distribution area that informed the proposed critical habitat designation. Given that the proposed project is located at the 40-meter water depth, the facility is not located near the proposed critical habitat and is not likely to adversely affect Rice's whale (see NMFS's determination for the 2022 permit NPDES permit).

Other than the listings identified above, there are no new species listings or critical habitat, or proposed species or proposed critical habitat designations that would be affected by the modified action.

**4. If the amount or extent of taking specified in the incidental take statement is exceeded.**

Incidental take refers to takings of ESA species that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant. The proposed project is not subject to an incidental take statement and no incidental take is expected or allowed.

The federal action agencies have determined that reinitiation of consultation is not warranted. On **insert date**, EPA requested that NMFS and USFWS determine if ESA consultation reinitiation is required. On **insert date**, NMFS determined that **insert information from NMFS...** On **insert date**, USFWS determined that **insert information from USFWS...**

### **9.3 Essential Fish Habitat Provisions of the Magnuson-Stevens Act**

The EFH provisions of the Magnuson-Stevens Act mandate the identification and protection of important marine habitat. Pursuant to the MSA § 305(b)(2), federal agencies are required to consult with NMFS on any action that may result in adverse effects to EFH or habitats of particular concern. Federal action agencies which permit activities that may adversely affect EFH are required to consult with NMFS regarding the potential impacts of their actions on EFH and respond in writing to NMFS recommendations.

Federal agencies can use any of the five approaches within the EFH implementing regulations to fulfill the consultation requirements: use of existing environmental review procedures, general concurrence, abbreviated consultation, expanded consultation, and programmatic consultation. The approach used for handling EFH consultation depends on the nature and scope of the actions that may adversely affect EFH.

#### **The 2022 NPDES Permit**

Given that the action of permitting the project that is currently covered by a NPDES permit involved more than one federal agency (NPDES permit issuance by EPA, and Rivers and Harbors Act Section 10 permit issuance by the USACE), EPA elected to act as the lead agency to fulfill the consultation responsibilities. An EFH assessment was prepared by EPA and USACE for the 2022 permit NPDES permit. The EFH assessment determined that the minimal short-term impacts associated with the discharge will not result in substantial adverse effects on EFH, habitats of particular concern, or managed species within the facility area. Based on the EFH assessment, EPA included conditions in the NPDES permit to avoid or limit organic enrichment and physical impacts to habitat that may support associated hardbottom biological communities. The NPDES permit contains a condition that the facility must be positioned at least 500 meters from any hardbottom habitat.

On March 8, 2019, EPA initiated an abbreviated consultation with NMFS and provided the EFH assessment. On March 12, 2019, the NMFS concurred with the EFH determination made by EPA and the USACE. After completion of consultation and receipt of NMFS concurrence on the assessment, minor revisions were made to the EFH document that did not change the findings of the EFH assessment. On August 2, 2019, EPA provided an updated EFH assessment that included minor modifications and clarifications to NMFS for concurrence. The minor revisions did not change the EFH determination or the mitigation measures that were sent to NMFS previously. On August 23, 2019, NMFS concurred with the determination made within the EFH assessment and did not make any conservation recommendations to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions. Completion of the abbreviated consultation with NMFS satisfied EPA's obligations under MSA § 305(b)(2).

### **Proposed NPDES Permit Modification**

EPA elected to act as the lead agency to fulfill EFH obligations for the federal actions (NPDES permit issuance by EPA and Section 10 permit issuance by USACE) if the project modifications require any consultations. The permittee has requested an NPDES permit modification to authorize certain changes to the project plans, including a change of fish species to be produced from almaco jack to red drum, and a reduction in fish production level and feed rate. In addition, the permittee is proposing to modify the facility/cage design. As stated previously, the EFH consultation obligations were satisfied for the 2022 NPDES permit. Federal agencies are required to reinitiate an EFH consultation with NMFS under two conditions: 1) when the permitting agency substantially revises its action in a manner that may adversely affect EFH; or 2) if new information becomes available that changes the basis for NMFS conservation recommendations.<sup>11</sup>

Regarding whether the modified NPDES permit is substantially revised in a manner that may adversely affect EFH, the draft modified permit will be revised to replace almaco jack as the fish to be cultured with red drum, at a lower fish production level and feed rate. Additionally, the permit will not require water quality sampling for copper because the cage material is no longer constructed of copper. All other aspects of the modified permit will remain the same as the 2022 permit including conditions to limit nutrient enrichment and physical impacts to habitat that may support associated hardbottom biological communities and the permit requirement that the facility must be positioned at least 500 meters from any hardbottom habitat. Given that the scale of the project associated with the NPDES permit is decreasing (fish production, depositional waste, nutrient load, etc.), EPA has determined that the project modifications related to the discharge of pollutants will not adversely affect EFH.

In regard to the USACE's Section 10 permit, the USACE was working on issuance of the permit in accordance with the original project plans and was relying on the original EFH consultation from 2019, but never issued a RHA Section 10 permit for the facility. The USACE is currently considering an individual Section 10 permit for the modified project proposal. The previous EFH assessment for the Section 10 authorization evaluated a similar cage design and size to the modified cage. The EFH assessment conducted for the previous anchoring and mooring system was for a cage rotating from the center connection point based on water current magnitude and direction. While the modified operation will have more anchors connecting to the seafloor and lines within the water column, the project is not substantially being altered in a way that will impact EFH. Ocean Era has characterized the seafloor surface and subsurface in order to site the facility away from physical and biological features, such as hard bottom habitat, where EFH could be affected. The USACE permit will include a condition

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<sup>11</sup> 50 CFR 600.920(l): Supplemental consultation. A Federal agency must reinitiate consultation with NMFS if the agency substantially revises its plans for an action in a manner that may adversely affect EFH or if new information becomes available that affects the basis for NMFS EFH Conservation Recommendations.

that will require the permittee to install the anchor system on substrate without vegetated or hardbottom habitat. The USACE determines that the EFH assessment previously conducted is sufficient to deal with the scope of facility modifications, and that the project changes are not a significant change that will adversely affect EFH through installation of structures in the water column or on the seafloor.

The federal agencies believe that ecosystem diversity will be maintained, ecological productive capacity will be preserved, the marine ecosystem will retain its ability to regulate itself surrounding the project, and proposed permit modifications will not decrease the quality and/or quantity of EFH. The previous EFH assessment included an analysis of the potential adverse effects of the action on EFH and managed species (including red drum), a review of pertinent literature, and contained the federal agencies' conclusions regarding the effects of the action on EFH. The previous EFH assessment remains commensurate with the complexity and magnitude of the potential adverse effects of the proposed action as required by 50 CFR § 600.920(e)(2), and meets the information requirements that all EFH assessments must include according to 50 CFR § 600.920(e)(3).

The project modifications do not warrant revising the final 2019 EFH Assessment that was conducted for the previously effective NPDES permit and draft RHA Section 10 permit. The new information available from the modified action does not change the project in a way that affects the basis for conservation recommendations by NMFS.

On **insert date**, EPA requested that NMFS and USFWS determine if a supplemental EFH consultation is necessary. On **insert date**, NMFS determined that **insert information from NMFS once a response is received...**

More information about the EFH process and analysis for the previously issued permit can be obtained within the original EFH Assessment and the appendix to this document.

#### **9.4 National Historic Preservation Act**

NHPA Section 106 and its implementing regulations (36 CFR Part 800) require federal agencies to take into account the effects of their activities on historic properties. Additionally, EPA must adopt measures when feasible to mitigate potential adverse effects of the licensed activity on properties listed or eligible for listing in the National Register of Historic Places before issuing a NPDES permit (40 CFR § 122.49(b)).<sup>12</sup> NHPA's requirements are to be implemented in cooperation with state historic preservation officers (SHPO) and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

#### **The 2022 Permit**

The permittee provided a siting analysis and conducted a comprehensive baseline environmental survey that included an assessment of the seafloor and seafloor subsurface to determine if habitat and archeological resources were present at the project site. The siting analysis and survey showed that archeological resources were likely not present on or under the seafloor.

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<sup>12</sup> 40 CFR § 122.49: The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed. ... (b) The National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq. section 106 of the Act and implementing regulations (36 CFR part 800) require the Regional Administrator, before issuing a license, to adopt measures when feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act's requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and when appropriate, in consultation with the Advisory Council on Historic Preservation.

During the interagency permitting process for the project authorized under the 2022 permit the applicant coordinated with the Florida SHPO to ensure compliance with NHPA. On January 3, 2019, the applicant submitted a NHPA consistency determination to the Florida State Clearinghouse with the Florida Department of Environmental Protection. On February 8, 2019, the Florida SHPO found that the proposed project will not affect historic properties if the facility anchors are placed within 100 feet of the surveyed lines on the seafloor. The Florida SHPO also recommended that the permit include a “unexpected discovery protocol” condition.<sup>13</sup> The appropriate permitting agency with jurisdictional oversight for an unexpected discovery protocol permit provision is the USACE; the USACE will include this provision within their Section 10 permit.

### **Proposed NPDES Permit Modification**

The revisions to the project will result in additional structures on the seafloor; however, the baseline environmental survey showed that archaeological resources like sites, shipwrecks, and other cultural resources were likely not present in the project anchorage area. Comments from the Florida SHPO sent during the consultation for the 2022 permit stated that “should the anchoring design for the proposed project require placing ground tackle outside of the 100-foot corridors centered on the data track lines or project plans change, we request additional consultation with our office, as supplemental remote sensing surveying may be required. While the project plans have changed slightly, the revised project will still be placed within one of the four pen placement areas that were originally identified by the permittee. Each of these four placement areas are approximately 247 acres which is more than enough to accommodate the 23-acre grid.

Additionally, the USACE, as the appropriate federal agency with jurisdictional oversight of structures placed on the seafloor, will include the unexpected discovery protocol within the Section 10 permit. Furthermore, the permittee will be required under the Section 10 permit to immediately notify the Florida SHPO in the event of an unanticipated discovery of an archaeological resource.

The draft modified permit will be sent to the appropriate Florida SHPO and other Florida agencies during the public notice period to allow another opportunity for coordination and consultation if necessary.

## **9.5 Coastal Zone Management Act**

Under the CZMA, federal agency activities that have coastal effects must be consistent to the maximum extent practicable with federally approved enforceable policies of a state’s coastal management program (CMP). The CZMA’s implementing regulations in 15 CFR Part 930 require that any federally permitted activity affecting the coastal zone of a state that has an approved CMP be reviewed by that state for consistency with the state’s program. Federal consistency is the CZMA requirement that federal actions that have reasonably foreseeable effects on any land or water use or natural resource of the coastal zone (also referred to as coastal uses or resources, or coastal effects) should be consistent with the enforceable policies of a coastal state’s federally approved CMP. Listed activities under Florida’s CMP include permits issued under CWA Section 402.

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<sup>13</sup> The “unexpected discovery protocol” provision recommended by the Florida SHPO states “In the event that any project activities expose potential prehistoric/historic cultural materials not identified during the remote-sensing survey, operations should be immediately shifted from the site. The respective Point of Contact for regulatory agencies with jurisdictional oversight should be immediately apprised of the situation. Notification should address the exact location, where possible, the nature of material exposed by project activities, and options for immediate archaeological inspection and assessment of the site.

Additionally, the implementing regulations for the CWA prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the state CMP, and the state concurs with the determination (40 CFR § 122.49(d)).<sup>14</sup>

### **The 2022 Permit**

On January 3, 2019, Ocean Era submitted a CZMA consistency determination to the Florida State Clearinghouse with the Florida Department of Environmental Protection (FDEP). On January 15, 2019, the Florida Department of Agriculture and Consumer Services (FDACS) documented that the coastal consistency determination submitted by the applicant was consistent with all FDACS statutory responsibilities for aquaculture. On February 18, 2019, the Florida Fish and Wildlife Conservation Commission found that the applicant's coastal consistency determination was consistent with Florida's CMP. On February 26, 2019, the Florida State Clearinghouse within FDEP documented that there were no objections to the proposed project. EPA determined that the action covered by the 2022 permit is consistent with the CZMA and its implementing regulations.

### **Proposed NPDES Permit Modification**

A modified NPDES permit qualifies as a "major amendment" under the definition of terms in the CZMA implementing regulations that apply to federal permits.<sup>15</sup> Additionally, these regulations provide further guidance about when to coordinate with the appropriate State agency for permit activities previously reviewed by the State.<sup>16, 17</sup>

A critical element for determining that the modified NPDES permit is subject to federal consistency overview is that the proposed activity has reasonably foreseeable effects on the State's coastal uses or resources, and the proposed project is substantially different that originally described in a manner inconsistent with the management program.

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<sup>14</sup> 40 CFR 122.49: The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed. ... (d) The Coastal Zone Management Act, 16 U.S.C. 1451 et seq. section 307(c) of the Act and implementing regulations (15 CFR part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

<sup>15</sup> 15 CFR 930.51(c): The term "major amendment" of a federal license or permit activity means any subsequent federal approval that the applicant is required to obtain for modification to the previously reviewed and approved activity and where the activity permitted by issuance of the subsequent approval will affect any coastal use or resource, or, in the case of a major amendment subject to § 930.51(b)(3), affect any coastal use or resource in a way that is substantially different than the description or understanding of effects at the time of the original activity.

<sup>16</sup> 15 CFR 930.51(b): The term also includes the following types of renewals and major amendments which affect any coastal use or resource: (1) Renewals and major amendments of federal license or permit activities not previously reviewed by the State agency; (2) Renewals and major amendments of federal license or permit activities previously reviewed by the State agency which are filed after and are subject to management program changes not in existence at the time of original State agency review; and (3) Renewals and major amendments of federal license or permit activities previously reviewed by the State agency which will cause an effect on any coastal use or resource substantially different than those originally reviewed by the State agency.

<sup>17</sup> 15 CFR 930.51(e): The determination of substantially different coastal effects under paragraphs (b)(3), and (c) of this section is made on a case-by-case basis by the Federal agency after consulting with the State agency, and applicant. The Federal agency shall give considerable weight to the opinion of the State agency. The terms "major amendment," "renewals" and "substantially different" shall be construed broadly to ensure that the State agency has the opportunity to review activities and coastal effects not previously reviewed.

The permitting activity falls outside the coastal zone of Florida because it is seaward of the geographic area described in the State's CMP. In accordance with NOAA's CZMA Federal Consistency Overview,<sup>18</sup> State review of the proposed activity is discretionary. Furthermore, the facility authorized under the 2022 NPDES permit and the modified facility does not have any reasonably foreseeable effects on a state's coastal uses or resources due to its location being approximately 36 miles from the border of Florida State waters.

In an effort to ensure that State of Florida agencies have the opportunity to review the modified activity, the draft modified permit will be sent to the FDACS, FWC, FDEP, and Florida State Clearinghouse during the public notice period to allow an opportunity for coordination, if necessary.

## **9.6 Fish and Wildlife Coordination Act**

The FWCA requires that Federal agencies consult with the USFWS, the NMFS, and state wildlife agencies for activities that affect, control, or modify streams or other bodies of water for any purpose, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat. The FWCA establishes fish and wildlife conservation as an objective of all Federally funded, permitted, or licensed water-related development projects. The FWCA states that the consultation purpose is for "preventing loss and damage to wildlife resources." In the context of the FWCA, "wildlife" and "wildlife resources" as used to describe "birds, fishes, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent." The FWCA does not require or suggest a lead agency for consultations involving multiple agencies for the same action.

Federal action agencies developing water-related projects are to include justifiable means and measures to benefit and reduce impacts to fish and wildlife, and mitigation and enhancement recommendations are to be given full and equal consideration with other project purposes. Additionally, the CWA implementing regulations related to the FWCA require EPA to consult with the USFWS and NMFS, and the appropriate state agency exercising jurisdiction over wildlife resources to conserve those resources, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water (40 CFR § 122.49(e)).<sup>19</sup>

### **The 2022 Permit**

On August 13, 2019, EPA and USACE provided the jointly developed BE to USFWS and NMFS, and initiated FWCA consultation with USFWS and NMFS. EPA is not permitting any loss or damage to wildlife resources and has conducted environmental and wildlife consultations or evaluations as documented throughout the 2022 permit record; therefore, EPA did not anticipate any impacts resulting in substantial modifications to the receiving water body, either from the originally permitted project or the project modifications. On August 27, 2019, the USFWS provided notification that they do not object to the permit issuance for the proposed project and have no additional comments. On September 30, 2019, NMFS concluded that "any adverse effects that might occur [from the proposed project] on marine and anadromous fishery resources would be minimal" and did not object

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<sup>18</sup> NOAA. 2020. CZMA Federal Consistency Overview – Section 307 of the Coastal Zone Management Act of 1972. NOAA, National Ocean Service, Office for Coastal Management. < [www.coast.noaa.gov/czm/consistency/](http://www.coast.noaa.gov/czm/consistency/) >

<sup>19</sup> 40 CFR § 122.49: The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed. ... (e) The Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., requires that the Regional Administrator, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

to issuance of the permit pursuant to the FWCA. Completion of the consultation with the USFWS and NMFS satisfied EPA's obligations under the FWCA.

Given that the project is in federal waters approximately 36 miles from Florida state waters, EPA did not specifically consult with any State agency under the FWCA; however, EPA did coordinate with multiple State of Florida agencies and provided them with an opportunity to comment on the facility during the draft permit public notice period.

#### **Proposed NPDES Permit Modification**

The FWCA does not contain any guidance on conducting supplemental consultations or reinitiating consultation. EPA and USACE do not deem the project modifications significant enough such that they will result in loss of wildlife or damage to wildlife resources. The modifications to the project that are proposed will not have any appreciable impact on the previous FWCA determination.

On **insert date**, EPA requested that NMFS and USFWS determine if a supplemental FWCA consultation is necessary. On **insert date**, NMFS determined that **insert information from NMFS once a response is received**. On **insert date**, USFWS determined that **insert information from USFWS once a response is received**.

#### **9.7 Marine Mammal Protection Act**

The Marine Mammal Protection Act (MMPA) reflects a national policy to prevent marine mammals from population decline beyond the point where they cease to be significant functioning elements of the marine ecosystem. The MMPA prohibits the taking of marine mammals which includes harassment, hunting, capturing, or killing of marine mammals without a permit from either the Secretary of the Interior or the Secretary of Commerce. There are some exemptions to marine mammal takes which are specified in MMPA Sections 101 and 118. The MMPA delegates the NMFS as the authority responsible for the conservation and management of cetaceans (whales, dolphins, porpoises) and pinnipeds (other than walruses).

The MMPA requires that facilities engaging in marine aquaculture as "fishermen" engaging in a Category I or II fishery must obtain a Marine Mammal Authorization Program certificate from NOAA Fisheries. Fishermen engaging in a Category I, II, or III fishery must report incidental death or injury of marine mammals that results from the aquaculture facility within 48 hours.

The MMPA does not place any consultation obligations on federal agencies when permitting projects in federal waters. Ocean Era is responsible for complying with MMPA and obtaining any necessary marine mammal authorization program certificate.

All marine mammals are covered under the MMPA; some are also covered under the ESA if they have been determined to be or proposed to be classified as endangered, threatened, or have critical habitats. EPA and USACE evaluated the potential impacts to ESA-listed marine mammals (i.e., whales) in the BE that may be in the proposed action area. The potential impacts to marine mammals that are not ESA-listed were evaluated in the EA by both permitting agencies.

#### **The 2022 Permit**

The permittee partnered with NMFS to develop a protected species monitoring plan (PSMP) to monitor marine mammals and collect valuable information about potential interactions between aquaculture operations and protected species. The data collected under the PSMP will help NMFS understand interactions between marine

mammals and aquaculture facilities and will inform future risk assessments for projects of this nature. Monitoring under the PSMP will occur throughout the life of the project and represents an important minimization measure to reduce the likelihood of any unforeseen potential injury to all protected species. For example, the project staff will suspend all surface activities (including stocking fish, harvesting operations, and routine maintenance operations) in the unlikely event that any protected species comes within 100 m of the activity until the animal leaves the area. Should there be activity that results in an entanglement or injury to protected species, the on-site staff would follow the steps outlined in the PSMP and alert the appropriate experts for an active entanglement.

### **Proposed NPDES Permit Modification**

The PSMP remains effective for the proposed modifications to the facility. Ocean Era is obligated to engage with NOAA if revisions to the PSMP become necessary or should a Marine Mammal Authorization Program certificate be required.

## **9.8 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 (MBTA) implements four international conservation treaties that the U.S. entered into with Canada, Mexico, Japan, and Russia. It is intended to ensure the sustainability of populations of all protected migratory bird species. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by USFWS. The Migratory Bird Treaty Reform Act of 2004 amended the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes.

EPA and USACE evaluated the proposed project's potential impacts migratory seabirds and other migratory birds in the EA. The BE also evaluated potential impacts to two protected species of seabirds (piping plover and red knot). The federal agencies determined that the issuance of permits would have only very minimal impacts to seabirds expected to occur near the proposed facility due to operational practices (taut mesh cover on the cage) and the unlikelihood of interaction with the project due to its location being approximately 45 miles from shore. Additionally, the permittee's PSMP applies to seabirds as well as marine fish and mammals. The assessments within the EA and BE satisfy our obligations under the MBTA for the 2022 permit and proposed modified NPDES permit.

## **9.9 National Marine Sanctuary Resources Act**

Section 304(d) of the National Marine Sanctuaries Act (NMSA) requires any federal agency issuing permits to consult with the NMFS if the proposed aquaculture activity is likely to destroy, cause the loss of, or injure sanctuary resources. As part of the consultation process, the NMSP can recommend reasonable and prudent alternatives. While such recommendations may be voluntary, if they are not followed and sanctuary resources are destroyed, lost, or injured during the action, the NMSA requires the federal action agency(ies) issuing the permit(s) to promptly prevent and mitigate further damage, and restore or replace the damaged resources in a manner approved by NOAA.

The Flower Garden Banks National Marine Sanctuary is the only federally designated underwater sanctuary in the Gulf of Mexico. It is located 80 to 125 miles off the coast of Texas and Louisiana. In 2021, Flower Garden Banks sanctuary was expanded from 56 miles<sup>2</sup> to 160 miles<sup>2</sup> to protect additional critical habitat. The sanctuary now comprises 17 different banks with 19 separate boundaries.

EPA and USACE considered the Flower Garden Banks sanctuary as a habitat of particular concern in the EFH Assessment and in the NEPA evaluation for the 2022 permit. The proposed project will not have any effect on this sanctuary due to the sanctuary being hundreds of miles from the proposed facility. Given that the proposed aquaculture facility will not impact any sanctuary resources, consultation with NMFS is not required for the 2022 permit issuance and the modified permit.

## **9.10 National Environmental Policy Act**

NEPA requires federal agencies to assess the environmental effects of certain proposed actions prior to making decisions. The range of actions covered by NEPA is broad and includes making decisions on permit applications. Using the NEPA process, agencies evaluate the environmental and related social and economic effects of their proposed actions. Agencies also provide opportunities for public review and comment on those evaluations.

In actions subject to NEPA requirements, Federal agencies are responsible for ensuring that its environmental review procedures under NEPA comply with the Council on Environmental Quality's (CEQ) regulations (40 CFR Parts 1500-1508). In addition, federal agencies have their own procedures to implement the CEQ regulations to facilitate efficient decision making and ensure that federal agencies make decisions in accordance with the policies and requirements of NEPA. The CEQ regulations were recently updated and became effective on July 1, 2024. The EPA and USACE implementing regulations for NEPA are 40 CFR Part 6 and 33 CFR Part 230, respectively.

### **The 2022 Permit**

The EPA is required to comply with the procedural requirements of NEPA when issuing NPDES permits for "new sources," as defined in section 306 of the CWA. The proposed facility does not meet the definition of a "new source" under section 306 of the CWA and therefore is exempt from NEPA compliance under section 511(c) of the CWA and is not subject to NEPA analysis requirements. Nevertheless, as a matter of discretion, EPA voluntarily used NEPA procedures for this proposed action since the Agency determined that such an analysis would be beneficial.<sup>20</sup> While the EPA voluntarily used NEPA review procedures in conducting the analysis for the NPDES permit issuance, the EPA also has explained that the voluntary preparation of these documents in no way legally subjects the Agency to NEPA's requirements. The EA was also prepared consistent with the requirements of 40 CFR § 6.205(a) that allows for an EA when the result of the environmental impacts and the significance of the impacts are not known.<sup>21</sup> The draft EA also supported the USACE Section 10 permitting action.

The environmental review process, which is documented in the EA, indicated that no significant environmental impacts are anticipated from the proposed action as permitted currently. The NPDES permit conditions include protective measures, and these measures are described in the EA and the final NPDES permit. The previous issuance of the NPDES permit to the applicant was determined to not cause a significant environmental impact to water quality or result in any other significant impacts to human health or the natural environment. Accordingly, EPA issued a Finding of No Significant Impact (FONSI) to document this determination on September 30, 2020. Substantive public comments were received on the draft NPDES permit and on the EA. EPA's and USACE's responses to those comments were included in a response to comment document which is included in the final NPDES permit package and administrative record for the 2022 permit.

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<sup>20</sup> EPA's election to use NEPA review procedures was in accordance with EPA's Policy for Voluntary Preparation of NEPA Documents, 63 Fed. Reg. 58,045 (Oct. 29, 1998).

<sup>21</sup> 40 CFR § 6.205(a): The Responsible Official must prepare an environmental assessment (EA) (see 40 CFR 1508.9) for a proposed action that is expected to result in environmental impacts and the significance of the impacts is not known. An EA is not required if the proposed action is categorically excluded, or if the Responsible Official has decided to prepare an EIS.

## **Proposed NPDES Permit Modification**

The CEQ regulations provide information about when a supplemental EA should occur within 40 CFR 1501.5(h). EPA's NEPA implementing regulations at 40 CFR 6.200(h) also provide guidance about when a reevaluation is required following the completion of a final EA, as do the USACE regulations at [33 CFR Part 230](#).

### **Analysis under USACE regulations**

#### **Analysis Under EPA Regulations at 40 CFR 6.200(h)<sup>22</sup>**

When an EA that is more than five years old, and for which the action subject to the evaluation has not been implemented, Agencies are required to re-evaluate the proposed action. While the Ocean Era project has not been constructed and is not operational, the FONSI is not yet more than five years old (signed on September 30, 2020).

A supplemental environmental review is required if there is a substantial change to the action that is relevant to environmental concerns or if there are significant new circumstances or information relevant to environmental concerns. These regulatory requirements mirror those within the CEQ regulations that are evaluated below.

#### **Analysis Under CEQ Regulations at 40 CFR 1501.5(h)<sup>23</sup>**

When a federal action that is subject to environmental review under NEPA is incomplete or ongoing, 40 CFR 1501.5(h)(1)(i) requires a supplemental EA if the federal agency makes substantial changes to the proposed action that are relevant to environmental concerns. 40 CFR 1501.5(h)(1)(ii) also states that an EA supplement is required when there are substantial new circumstances or information about the significance of the adverse effects that bear on the analysis to determine whether to prepare a FONSI.

When determining whether the adverse effect of the proposed action is significant or if there are substantial new circumstances or information about the significance that bear on the analysis, EPA considers the modified action's context and intensity of the effect. The duration of any potential effects has not changed with the modified facility, nor have the physical characteristics of the geographic area been revised. EPA is not making substantial changes to the 2022 permit (see Section titled "Changes to the Permit and Fact Sheet"). The modified permit will maintain the monitoring and compliance plans in the 2022 permit that prevent marine degradation from occurring such as environmental monitoring, facility prohibitions, best management practices, reporting of any drugs used, and facility damage prevention. Critically, the marine impacts associated with the modified permit's discharge are expected

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<sup>22</sup> 40 CFR 6.200(h): For all NEPA determinations (CEs, EA/FONSIs, or EIS/RODs) that are five years old or older, and for which the subject action has not yet been implemented, the Responsible Official must re-evaluate the proposed action, environmental conditions, and public views to determine whether to conduct a supplemental environmental review of the action and complete an appropriate NEPA document or reaffirm EPA's original NEPA determination. If there has been substantial change in the proposed action that is relevant to environmental concerns, or if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, the Responsible Official must conduct a supplemental environmental review of the action and complete an appropriate NEPA document.

<sup>23</sup> 40 CFR 1501.5(h) Agencies: (1) Should supplement environmental assessments if a major Federal action is incomplete or ongoing, and: (i) The agency makes substantial changes to the proposed action that are relevant to environmental concerns; or (ii) There are substantial new circumstances or information about the significance of the adverse effects that bear on the analysis to determine whether to prepare a finding of no significant impact or an environmental impact statement. (2) May also prepare supplements when the agency determines that the purposes of the Act will be furthered by doing so.

to be less than the those evaluated in the current permit due to the production of fish being decreased (see previous sections).

Revisions to the original EA's purpose and need or is not necessary because the same federal authorizations are required. Additional alternatives do not need to be considered beyond those that were already reviewed. The degree to which the modified action may adversely effect coastal or archeological resources is reduced or unchanged (see previous sections). Potential impacts to protected species under ESA or MMPA... Effects to EFH ...

The purpose of EA supplementation is to address circumstances where the analysis upon which the agency based its decision has changed and there is potential for new significant effects. The action of issuing a modified permit does not change the assumptions within the previous EA. EPA has focused on whether a change to the proposed action could have environmental effects that have not been analyzed in determining whether changes to the proposed action require supplementation. In this case, the potential effects on the human environment are only minimally changed and will actually be less severe due to the volume of pollutant discharge decreasing.

Additionally, under 40 CFR 1501.5(h)(2), EPA may also prepare a supplemental EA when the agency determines that the purposes of NEPA will be furthered by doing so. EPA has discretion when determining if a supplemental environmental review will further the purposes of NEPA. Using this discretion, EPA does not believe, in light of the lack of significant change from the originally permitted project, that a reevaluation of the EA for the project revisions and modified NPDES permit will promote the purposes of NEPA.

As described above, EPA has determined that the changes to the modified action and new circumstances relevant to environmental concerns do not indicate the potential for significant effects and therefore do not require a supplement. The underlying, original analysis remains valid, and still supports EPA's FONSI. In accordance with 40 CFR 1501.5(i),<sup>24</sup> EPA and USACE have used their discretion to reevaluate the previous EA and determined that a supplemental environmental review and new FONSI is not necessary. The analysis documented herein explains EPA's decision-making process regarding reevaluation and considers the changes to the originally permitted action. The proposed project modifications do not change the evaluation conducted in the EA in a manner that warrants supplementation.

Finally, EPA notes the voluntary nature of EPA's use of NEPA procedures in the original NPDES permit action. The voluntary nature of EPA's use of NEPA procedures also applies to the proposed modification. EPA has voluntarily considered whether supplementation is warranted and has determined that it is not warranted.

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<sup>24</sup> 40 CFR 1501.5(i): Agencies may reevaluate an environmental assessment to determine that the agency does not need to prepare a supplemental environmental assessment and a new finding of no significant impact or an environmental impact statement.

## Appendix

- A. Email from Ocean Era dated 5/10/23
- B. Ocean Era request for NPDES permit modification dated 07/05/23
- C. Ocean Era revised NPDES permit application dated 07/13/23
- D. Letter from Eubanks and Associates on behalf of multiple Petitioners dated 06/07/23
- E. Additional analysis conducted by NMFS after the 2022 NPDES permit was issued dated **insert date**
- F. EFH concurrence from NMFS dated **insert date**
- G. ESA and FWCA concurrence from NMFS dated **insert date**
- H. ESA and FWCA concurrence from USFWS dated **insert date**

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