Pre-Application Meeting Checklist for Offshore Aquaculture in the Gulf of Mexico

June 3rd, 2016

Purpose

To provide an opportunity for potential applicants to engage in preliminary discussions with various federal permitting agencies (NOAA Fisheries, U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers) and agencies with specific expertise in federal waters (Coast Guard, Bureau of Ocean Energy Management, and Bureau of Safety and Environmental Enforcement) ***prior to applying for federal permits***.

This meeting will focus on the location of the proposed aquaculture site and general characteristics of each operation to identify potential issues that ***could render a site unsuitable for aquaculture purposes***.

Conditions and Considerations

Please note that the following conditions and considerations apply for proposed aquaculture sites:

- The total size of each proposed site ***must be twice as large as the combined area of all aquaculture systems (e.g., cages, moorings, lines, anchors) at full build out*** to allow for fallowing and rotation of production systems.
- No aquaculture facility may be sited in federal waters of the Gulf within a marine protected area, marine reserve, Habitat Area of Particular Concern (HAPC), Special Management Zone, permitted artificial reef or coral reef area as specified in the Code of Federal Regulations (www.ecfr.gov) at 50 CFR 622.[1]
- Areas that may not be considered suitable for aquaculture and should therefore be avoided include: navigational fairways and vessel traffic routes, anchoring areas and lightering zones, deepwater ports, platform safety zones, military zones, areas with intensive multiple human activities such as fisheries and tourism, dredging sites and mineral extraction areas, designated dredge material dumping sites, rights of way for energy transmission lines and communications cables, scientific reference sites, and areas that have the potential to affect sites listed (or eligible for listing) under the National Historic Preservation Act.
- Site selection is critically important. In general, areas with current speeds of 0.1 m/s or less, depths less than 25.0 m (82 feet) or hypoxic areas (< 2 mg/l) may not be suitable for aquaculture.
- There is extensive oil and gas infrastructure in the Gulf of Mexico including production platforms. In an effort to avoid space-use conflict at a proposed aquaculture site, the applicant should establish communication with any oil and gas

[1] http://www.ecfr.gov/cgi-bin/text-idx?SID=f11c4799df61f1359746111c8a3c190a&mc=true&node=pt50.12.622&rgn=div5

industry-related companies that may operate within 3.0 nautical miles of the aquaculture site. Safety zones around oil and gas platforms and associated infrastructure should be avoided.[2]

- No offshore aquaculture facility may be sited within 1.6 nautical miles of another offshore aquaculture facility.
- No offshore aquaculture facility or facility discharge may be sited within 1.0 nautical miles of an Ocean Dredged Material Disposal Site.

Process

1) Prospective applicant contacts NOAA Fisheries' Regional Aquaculture Coordinator (AQC) for information on the Pre-Application Meeting process:

   Regional Aquaculture Coordinator
   c/o Jessica Beck-Stimpert
   NOAA Fisheries Southeast Regional Office
   263 13th Avenue South
   St. Petersburg, FL 33701
   Email: nmfs.ser.aquaculture@noaa.gov
   Phone: (727) 824-5301

2) Prospective applicant submits the following information to the AQC. ***Please follow this outline and provide as much information as possible for each section.***

   a) Applicant(s) or Business name, mailing address, phone number and email.

   b) Background and/or introductory information on the potential applicant.

   c) List of federally managed species proposed for culture and the annual production rate per species at full build out (and by phase, if applicable). A list of federally managed species can be found at: http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/species%20managed.pdf. ***Note*** that shrimp and corals and non-federally managed species cannot be cultured under this permitting process.

   d) Daily estimated maximum amount (in pounds) of feed and description of feed type (if known) to be used for feeding fish in offshore cages.

   e) Latitude and longitude coordinates of the boundary perimeter vertices for the proposed aquaculture site. Latitude and longitude must be reported as degrees

[2] See safety zone regulations at 33 CFR 147.1-147.865 for specific oil and gas structures which are enforced by the U.S. Coast Guard. Additional established GOM USCG District 8 security zones and safety zones can be found at 33 CFR 165.801-842 (Regulated navigation areas and limited access areas) and 33 CFR 150.940 (Specific deepwater ports, i.e. Louisiana Offshore Oil port (LOOP)).

minutes and decimal minutes to ***at least*** the third decimal place (e.g., DD MM.MMM).

f) Base maps of the proposed aquaculture site including the entire area of the aquaculture facility and surrounding area of influence extending to no less than 3.0 nautical miles from the boundary of the proposed site. Include 20m, 100m and 200 m isobath lines. Base maps made to the following scales should be provided: a) Approach Scale (1:40,000-1:150,000) b) Coastal Scale (1:150,001-1:600,000) and c) General Scale (1:600,001-1:1,500,000). ***Maps must use NOAA raster electronic navigational charts as the basis.*** Each map should be at least one page in size (8.5x11 inches), should be clearly labeled, and should include legends and latitude and longitude coordinates along the borders.

The following structures and areas within 3.0 nautical miles of the proposed aquaculture site boundary should be depicted on each base map. Use the ***best resolution*** base map/chart available for each scale of map required. ***Include a separate list of corresponding latitude and longitude coordinates*** for all structures and areas within 3.0 nautical miles of the proposed aquaculture site boundary. For this list, include the coordinate(s) of the closest point of each structure/area to the nearest boundary of the proposed site. A ***List of GIS Data and Resources*** is provided at the end of this document.

i. Federal projects (including military zones and dumping sites)
ii. Gas/oil platform and pipeline locations, docking terminals, identified avoidance areas, etc.
iii. Lease blocks for oil/gas development
iv. Artificial reefs[3]
v. Navigation fairways
vi. Aids and hazards to navigation
vii. Ocean Dredged Material Disposal Sites
viii. Anchorage areas
ix. Archaeologically sensitive areas (e.g., shipwrecks)
x. National Marine Sanctuaries
xi. Marine protected areas, marine reserves, Habitat Areas of Particular Concern, Special Management Zones, permitted artificial reef or coral fishery management areas as specified in 50 CFR 622.
xii. Areas designated as Essential Fish Habitat HAPCs
xiii. Areas designated as Essential Fish Habitat for coral species
xiv. Areas designated as critical habitat under the Endangered Species Act
xv. Other sensitive habitat or resources (e.g., live bottom, deep water corals, chemosynthetic habitats, etc.), if known

[3] Consider all known artificial structures that support marine life, not just those specifically created and permitted as artificial habitat.

Note: The presence and location of all charted biological features, shipwrecks or other archaeological resources, and oil and gas infrastructure installed on the seafloor, may vary from that depicted on NOAA navigational charts. The actual location of these features will need to be confirmed by a high-resolution seafloor survey (e.g., the Baseline Environmental Survey requirement) during the permit application stage.

g) General site characteristics within the proposed site including:
   i. Maximum depth (meters)
   ii. Minimum depth (meters)
   iii. Directional flow of predominant currents, if known
   iv. Current speeds (centimeters/second), if known
   v. Seafloor type (e.g., sand bottom, mud bottom, rocky substrate)

h) Draft site plan of the facility, figures depicting the positions of the various components of the proposed facility, configuration and arrangement of systems (if known). Include information on the number, types and sizes of cages (including cage mesh size, mesh and material, submersible or surface cages, cage size dimensions including circumference, diameter, depth and volume, etc.), cage array, and anchoring and mooring systems (including line size, thickness and type). Include the number and type of navigation aids, including buoys and anchoring systems that will be used to mark the "restricted access zone" (i.e., the boundary of the aquaculture facility).

   Include a detailed ***construction and production timeline***. ***Note*** that per NOAA's regulations, at least 25 percent of permitted aquaculture systems must be placed in the water at the permitted site within 2 years of issuance of a NOAA Fisheries' Gulf Aquaculture Permit. Cultured species must be placed in the aquaculture systems within 3 years of issuance of the permit.

i) Provide any additional supplemental information you would like to have considered at this time.

3) The prospective applicant is invited to a Pre-Application Meeting (via video or conference call) approximately 30 days after the AQC receives all required information.

4) Upon completion of the Pre-Application Meeting, the AQC provides the prospective applicant with a list of outstanding issues and questions.

5) The prospective applicant contacts each federal agency to discuss and/or resolve any issues prior to applying for federal permits.

List of GIS Data and Resources

- NOAA Nautical Charts: http://www.nauticalcharts.noaa.gov/
- Raster Navigational Charts: http://www.nauticalcharts.noaa.gov/mcd/Raster/index.htm
- NOAA Seamless Raster Navigational Chart Server & Web Map Services http://www.nauticalcharts.noaa.gov/csdl/seamlessraster.html
- NOAA U.S. Chart No. 1 – Symbols, Abbreviations, and Terms used on Paper and Electronic Navigation Charts: http://www.nauticalcharts.noaa.gov/mcd/chart1/ChartNo1.pdf
- NOAA United States Coast Pilot – Gulf of Mexico Navigation Guide: http://www.nauticalcharts.noaa.gov/nsd/coastpilot_w.php?book=5
- USGS Data Catalog for the Gulf of Mexico: http://coastalmap.marine.usgs.gov/regional/contusa/gomex/gloria/data.html
- NOAA Marine Cadastre: http://MarineCadastre.gov/
  - http://marinecadastre.gov/data/
    - Enter search term for Bathymetric Contours
- NMFS Southeast Region Maps and GIS Data: http://sero.nmfs.noaa.gov/maps_gis_data/
  - Endangered Species Act Critical Habitat http://sero.nmfs.noaa.gov/maps_gis_data/protected_resources/critical_habitat/index.html
  - Essential Fish Habitat: http://www.habitat.noaa.gov/protection/efh/habitatmapper.html
  - Gulf of Mexico Fishery Management Areas http://sero.nmfs.noaa.gov/maps_gis_data/fisheries/gom/GOM_index.html
- NOAA Environmental Response Information for Decision Makers (ERMA): http://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma/erma-gulf-response.html
- NOAA Historical Hurricane Tracking Tool: http://coast.noaa.gov/hurricanes/
- BOEM Data Center: http://www.data.boem.gov/homepg/data_center/
- BOEM Lease Block Query: http://www.data.boem.gov/homepg/data_center/leasing/leaseareablock/labfilter.asp
- BOEM Platform and Pipeline Locations, Identified Avoidance Areas: http://www.boem.gov/GOMR-GIS-Data-and-Maps/
- USGS Data Catalog for the Gulf of Mexico: http://coastalmap.marine.usgs.gov/regional/contusa/gomex/gloria/data.html
- Gulf of Mexico Data Atlas: http://gulfatlas.noaa.gov/
- Gulf of Mexico Ocean Observing System: http://data.gcoos.org/
- Ship Traffic (in real time): http://www.marinetraffic.com/
- BOEM Data Center: http://www.data.boem.gov/homepg/data_center/

- Lease blocks for oil/gas development:
  - Marine Cadastre database
    http://www.boem.gov/MarineCadastre.gov/
- Platform and pipeline locations, identified avoidance areas, etc.:
  http://www.boem.gov/GOMR-GIS-Data-and-Maps/
- NOAA Shipwrecks and Obstructions:
  http://www.nauticalcharts.noaa.gov/hsd/wrecks_and_obstructions.html
- NOAA Digital Coast: http://coast.noaa.gov/digitalcoast/
- NOAA National Centers for Environmental Information, Ocean Data:
  https://www.ncdc.noaa.gov/data-access/marineocean-data
- NOAA National Centers for Environmental Information, Bathymetric Data Viewer:
  http://maps.ngdc.noaa.gov/viewers/bathymetry/
- NOAA National Centers for Environmental Information, Fishing Maps:
  http://maps.ngdc.noaa.gov/viewers/fishmaps/
- USEPA Ocean Dredged Material Disposal Sites:
  - http://www.epa.gov/region6/water/ecopro/em/ocean/odmd_sites.html
  - https://wcms.epa.gov/ocean-dumping/ocean-disposal-map
  - https://wcms.epa.gov/ocean-dumping/managing-ocean-dumping-epa-region-6
- Gulf of Mexico State Artificial Reef Programs:
  - Texas Parks and Wildlife Department
    http://www.tpwd.state.tx.us/landwater/water/habitats/artificial_reef/
    http://tpwd.texas.gov/gis/ris/artificialreefs/
  - Louisiana Department of Wildlife and Fisheries
    http://www.wlf.louisiana.gov/fishing/artificial-reef-program
  - Mississippi Department of Marine Resources
    http://www.dmr.ms.gov/marine-fisheries/artificial-reef
  - Alabama Marine Resources Division
    http://www.outdooralabama.com/artificial-reefs
  - Florida Department of Environmental Protection
    http://myfwc.com/conservation/saltwater/artificial-reefs/