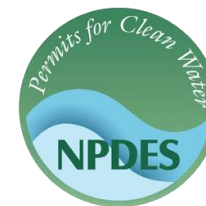


GOM Aquaculture Permitting and the Application Process

June 27, 2019

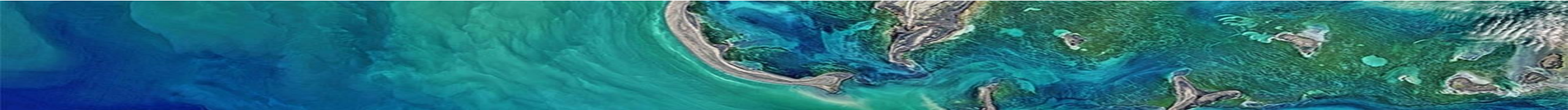
Pioneering Offshore Aquaculture in the SE Gulf of Mexico



NATIONAL POLLUTANT
DISCHARGE ELIMINATION
SYSTEM (NPDES) PROGRAM



Outline



- **Required permits for Aquaculture activities in the GOM**
- **EPA's implementation of the Clean Water Act (CWA)**
- **Components of EPA's Permit**
- **EPA Permitting process**

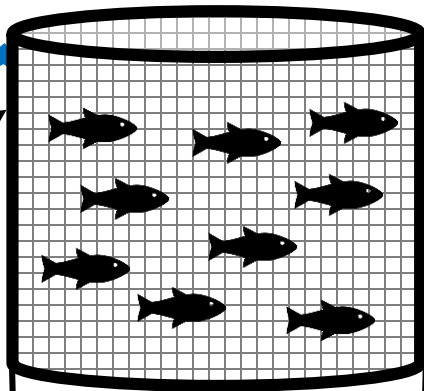
Required Federal Permits for Aquaculture

- **U.S. Army Corps of Engineers (USACE) Section 10 permit**
 - Required in navigable waters to protect navigation and commerce
 - Permits construction in or over navigable waters
- **United States Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) Permit**
 - Required for **point sources**, discharging **pollutants** into the **waters of the US**
 - Permits the effluent (discharge)

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency

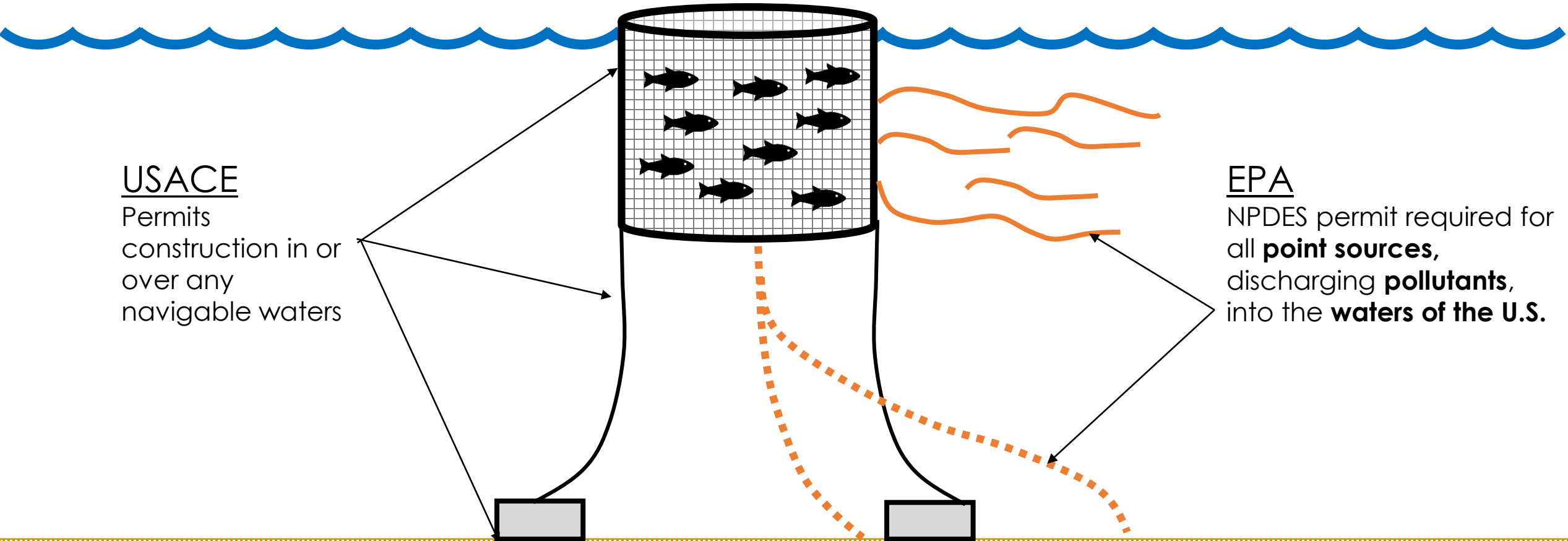
USACE

Permits construction in or over any navigable waters



EPA

NPDES permit required for all **point sources**, discharging **pollutants**, into the **waters of the U.S.**



Clean Water Act (CWA) and Aquaculture

- CWA goal is to restore and maintain the integrity of the nation's waters
- Section 402 requires National Pollutant Discharge Elimination System (NPDES) permits for point source discharges of pollutants into waters of the U.S., including the territorial seas. 40 CFR § 122 through 127.
- Section 403 Ocean Discharge Criteria (ODC). As part of the NPDES requirements for these federal permits, an ODC Evaluation is conducted per 40 CFR § 125 Subpart M. Ensure that discharge will not cause:
 - Unreasonable degradation – specific requirements (10 criteria)
 - Significant adverse changes in the ecosystem
 - A threat to human health, or
 - Loss of aesthetic, recreation, scientific, or economic values

Section 402 – NPDES Permit

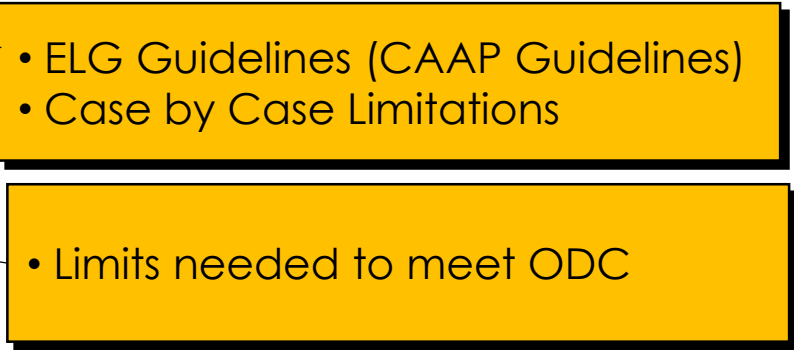
- Is a legal document that:
 - Identifies outfall points from which a facility can discharge
 - Sets requirements to protect the quality of surface water (e.g. pollutant concentration limits, best management practices, record-keeping requirements)
 - Allows an operation to discharge as long as the operation meets the requirements of the permit
- All requirements are enforceable and any violations are subject to enforcement actions.

Components of an NPDES Permit

All Permits



Industry Specific



Pollutants of concern

- total suspended solids or settleable solids
- biological wastes
- floating and submerged matter
- Five-day biochemical oxygen demand, dissolved oxygen
- nutrients (phosphorus and nitrogen), ammonia
- therapeutic drugs and chemicals including anti-fouling agents

What Informs Permit Conditions

- Site Characteristics (Depth, Flow, etc)
- Facility Characteristics (Size, Feed, etc.)
- Consultations and Evaluations
- Ocean discharge criteria evaluation (determines the need for additional control mechanisms)
- Applicable Effluent Limit Guidelines (ELGs)

Effluent Limitation Guidelines for Aquaculture Facilities

- Facilities that produce at least 100,000 lbs a year that directly discharge wastewater at least 30 days a year – considered a Concentrated Aquatic Animal Production Facility (CAAP) (40 CFR § 122.24
 - Must meet Effluent Limitation Guidelines for CAAP Facilities set in 40 CFR 451
- Below this criteria does **not mean an NPDES permit is not required**, it just means that the CAAP guidelines do **not automatically** apply.

NOTE: There are separate criteria for identifying cold water CAAP facilities

The CAAP Effluent Guidelines require operators to:

- Control discharge of allowable drugs, pesticides and excess feed.
- Properly dispose of wastes.
- Properly manage/treat production and wastewater, including those from transport and harvest.
- Maintain proper materials storage.
- Properly dispose of mortalities.
- Implement spill prevention and response procedures.
- Report the use of experimental animal drugs or drugs that are not used in accordance with label requirements.
- Keep records and periodically report on numbers and weights of animals, amounts of feed and pharmaceuticals, and frequency of cleaning, inspections, maintenance, and repairs.
- Fully train staff in all of these procedures.

Ocean Discharge Criteria

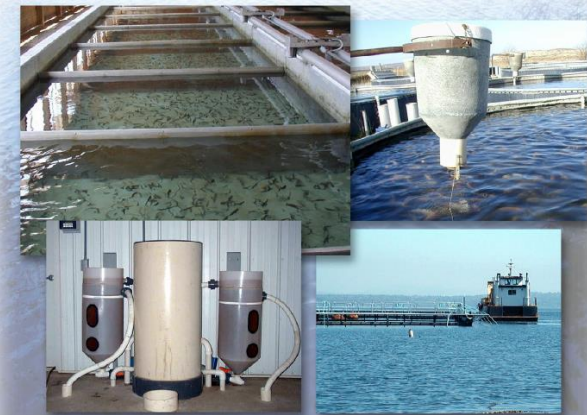
- Requirements based on Ocean Discharge Criteria (40 CFR Part 125, Subpart M).
 - Ambient monitoring programs
 - Alternative assessments
 - Additional pollution prevention techniques, as needed

Purpose of Monitoring

- For the purpose of:
 - Ensuring compliance with limits in the NPDES permit
 - Establish basis for enforcement actions
 - Assess treatment efficiency
 - Characterize effluents and receiving waters



Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category

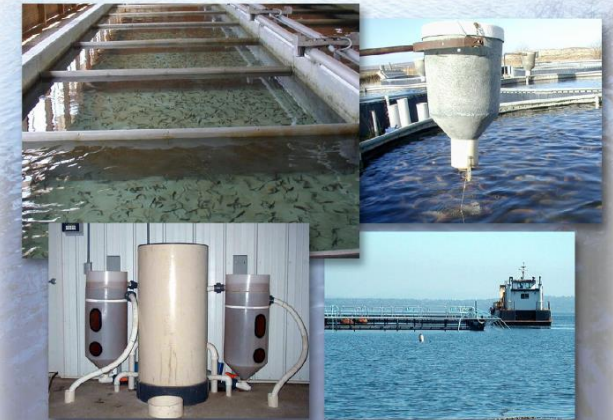


Typical Monitoring Requirements

- Location of sample
 - Effluent and receiving water
- Sample frequency
 - Continuous, daily, monthly, and annual
- Type of sample
 - Grab or composite
- Sample methods
 - Method detection and hold times
- Sample records
 - Date, time, place, individual, etc.



Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category



Other Possible Permit Requirements

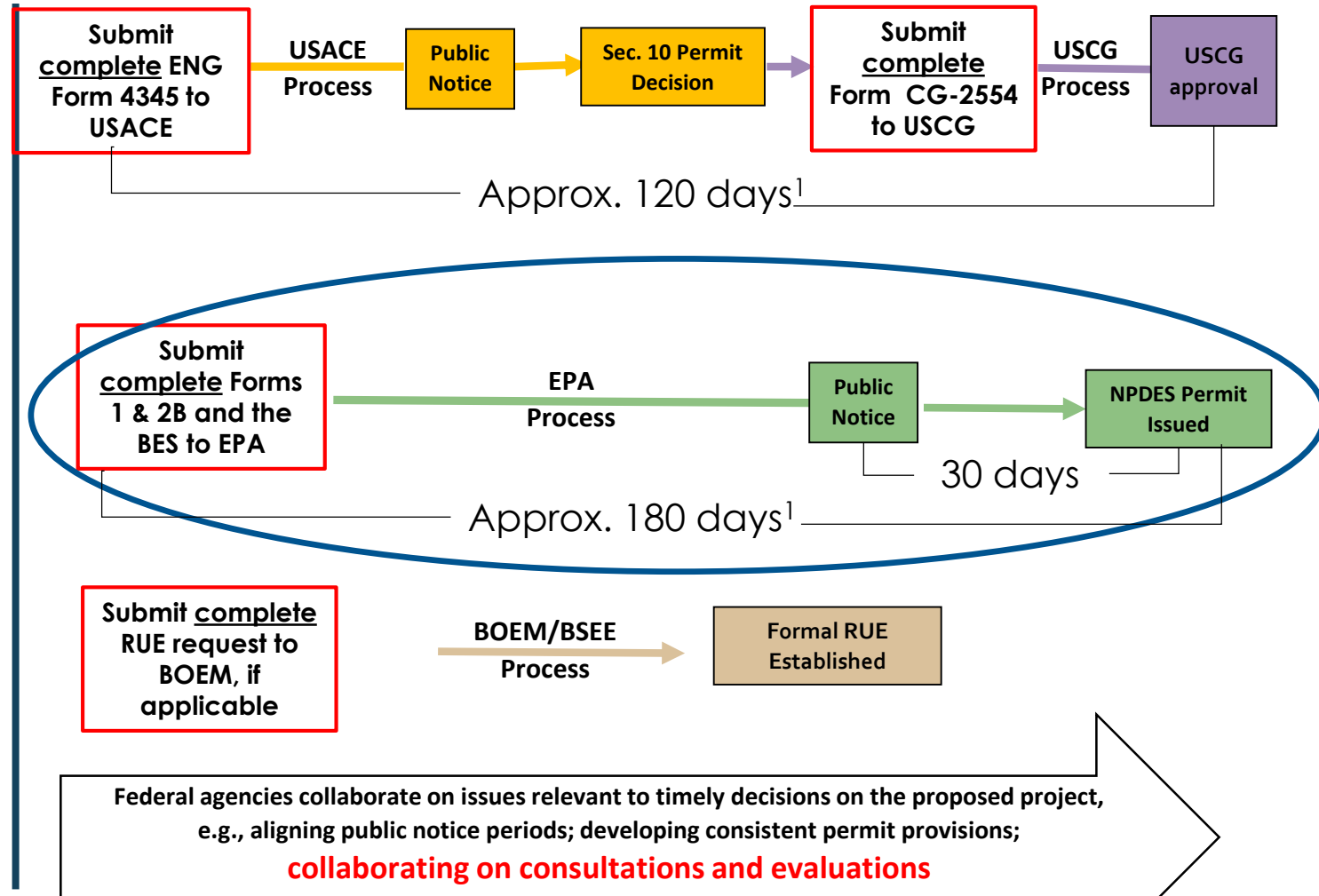
- Narrative limitations (e.g. There shall be no discharge of floating solids or visible foam other than trace amounts)
- Establishment of buffer zone
- Best Management Practices Plan – Implement the ELGs
- Environmental Monitoring Plan – Implement the ODC
- Facility Damage and Prevention Control Plan – Developed to demonstrate facility is being operated and maintained to prevent and mitigate any environmental impacts during a disaster
- Quality Assurance Plan – Ensure that water quality data collected is reliable

Overall Permitting Processes

Pre-application Process

Formal Application Process

Permit Issuance



- Pre-application meeting **Not required** but highly **encouraged**
- Brings together various federal agencies – **Not required** but highly encouraged
- Base-line environmental survey (required)
- Pull-together other required information (required)

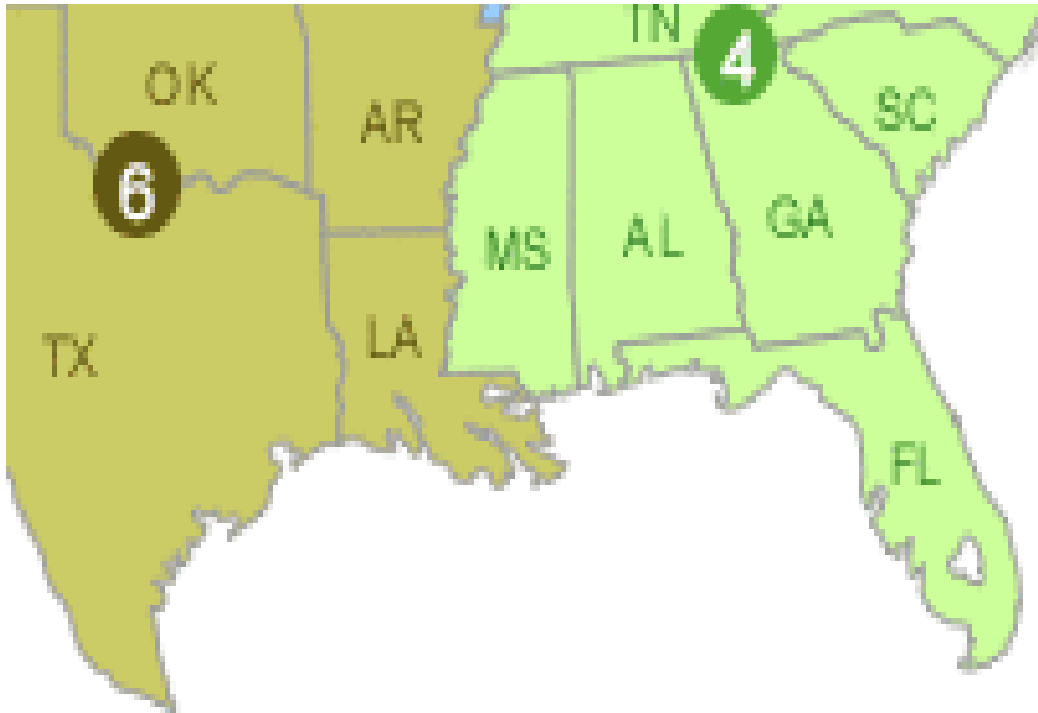
- When effective, deploy and begin operation
- Must comply with permit conditions
- NPDES Permits are for 5 years
- Submit application for renewal (for EPA – 180 days prior to expiration date of permit)

¹May take longer depending on the nature of the discharge, complexity of public comments and external reviews and consultations

Federal Consultations and Evaluations

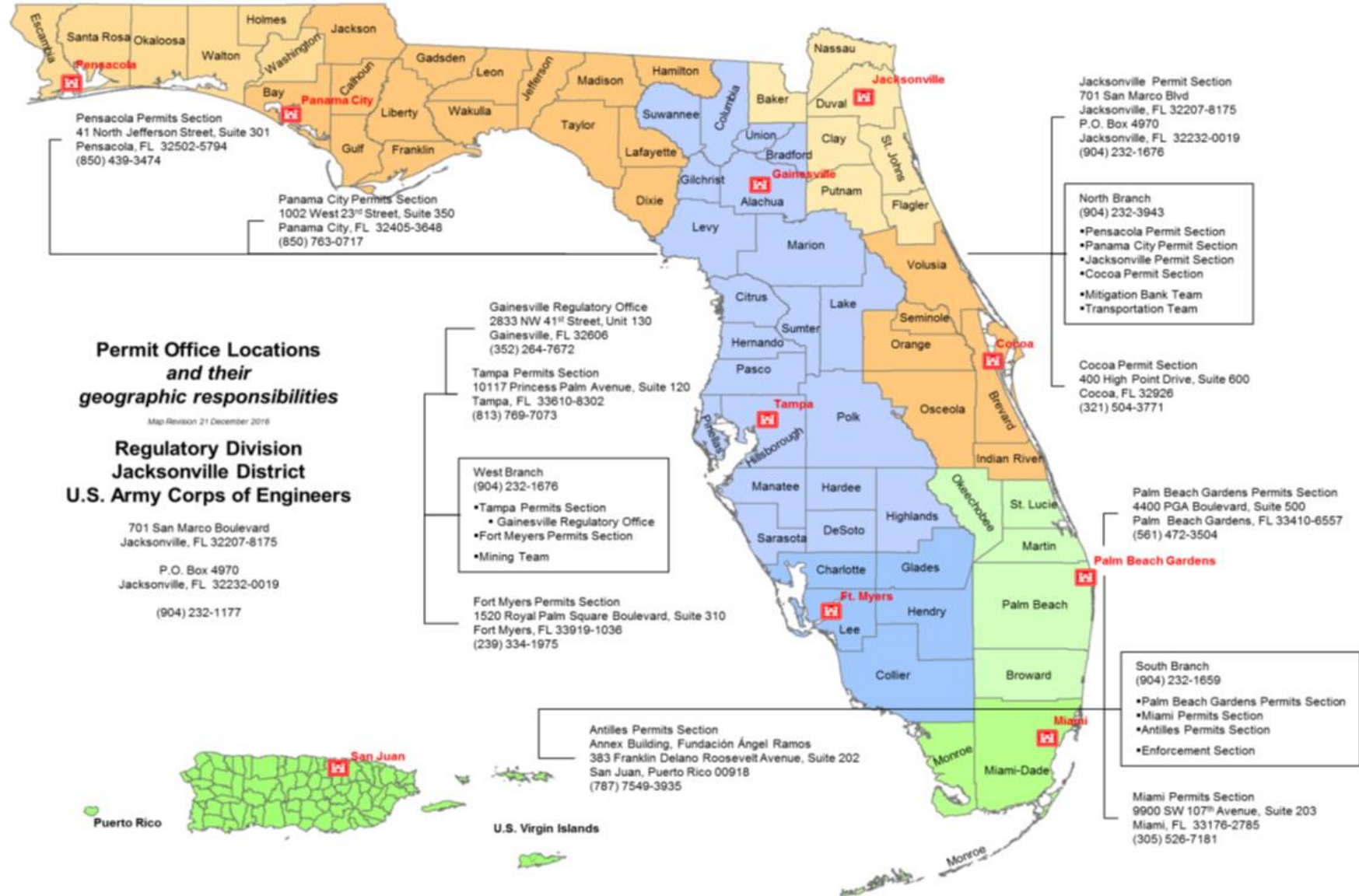
Statutory Requirement	Assess likelihood that the project will affect, and implement measures to abate effects on...	Oversight Agency
Section 7, Endangered Species Act	an ESA-listed species and/or designated critical habitat.	NOAA, National Marine Fisheries Service
Essential Fish Habitat, Magnuson-Stevens Fisheries Conservation and Management Act	essential fish habitat.	NOAA, National Marine Fisheries Service
Section 106, National Historic Preservation Act	historic properties, e.g., shipwrecks, prehistoric sites, cultural resources.	Advisory Council on Historic Preservation; State/Tribal Historic Preservation Offices
Fish and Wildlife Coordination Act	fish and/or wildlife resources.	U.S. Fish & Wildlife Service
Section 304(d), National Marine Sanctuary Resources Act	sanctuary resources.	NOAA, National Marine Sanctuary Program
Section 118, Marine Mammal Protection Act	the incidental capture of marine mammals during commercial fishing operations.	NOAA, National Marine Fisheries Service
Coastal Zone Management Act	the land or water uses or natural resources of the states' coastal zone.	States with approved CZM Plans
National Environmental Policy Act	the quality of the human environment.	Council on Environmental Quality

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Questions?