

Marine Cage Culture Operations: Corps of Engineers Permit Process

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US Army Corps of Engineers
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Topics

- **Regulatory Authorities**
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Regulatory Authorities

- **All Structures or Work in the navigable waters of the U.S. (Section 10, Rivers and Harbors Act of 1899)**
- **Discharge of dredged or fill material in waters of the U.S. , including wetlands (Section 404, Clean Water Act of 1977)**
- **Section 103 of the Marine Protection, Research and Sanctuaries Act - prevents dumping of trash & sewage in waters of the United States**





Waters of the U.S.

Waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.

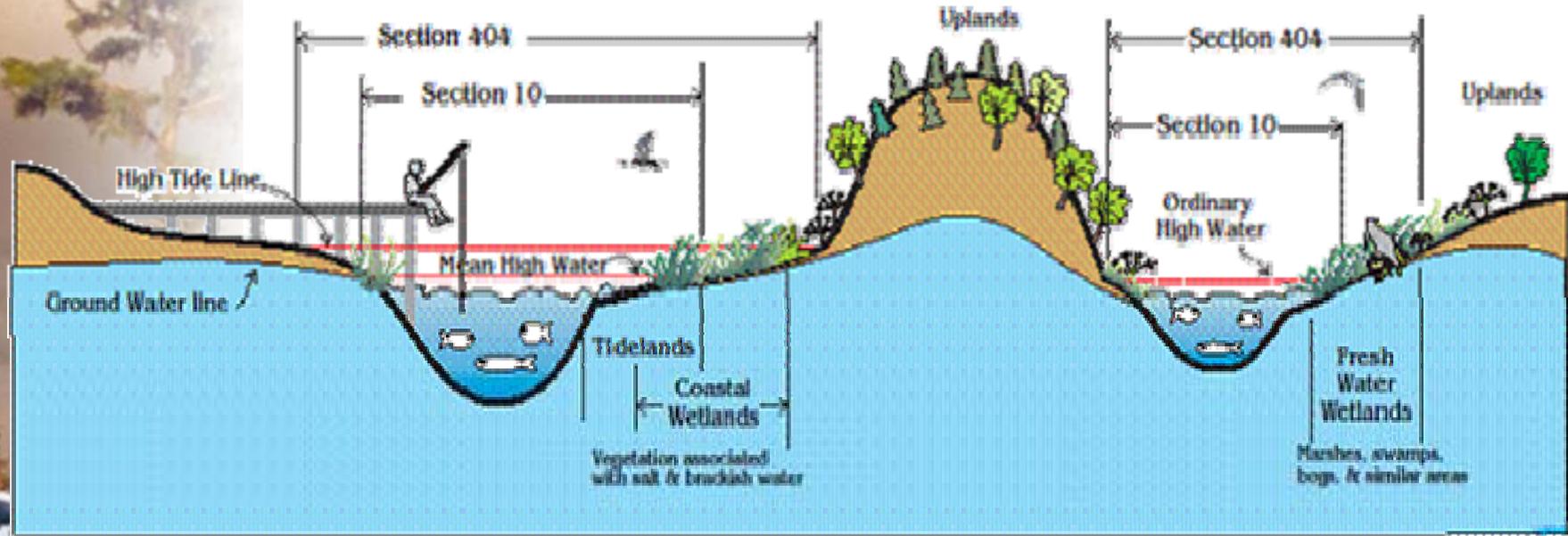
Jurisdiction extends seaward to include all ocean waters within a zone three nautical miles from the coast line (the "territorial seas").



CORPS OF ENGINEERS REGULATORY JURISDICTION

Tidal Waters

Fresh Waters



Section 103 Ocean Discharge of Dredged Material

Ocean discharges of
dredged material

*Typical examples
of regulated activities*

Section 404 Discharge of Dredged or Fill Material *Regulated Waters Definition: 33 CFR 328.3(a)*

All filling activities, utility lines, outfall structures,
road crossings, beach nourishment, riprap,
jetties, some excavation activities, etc.

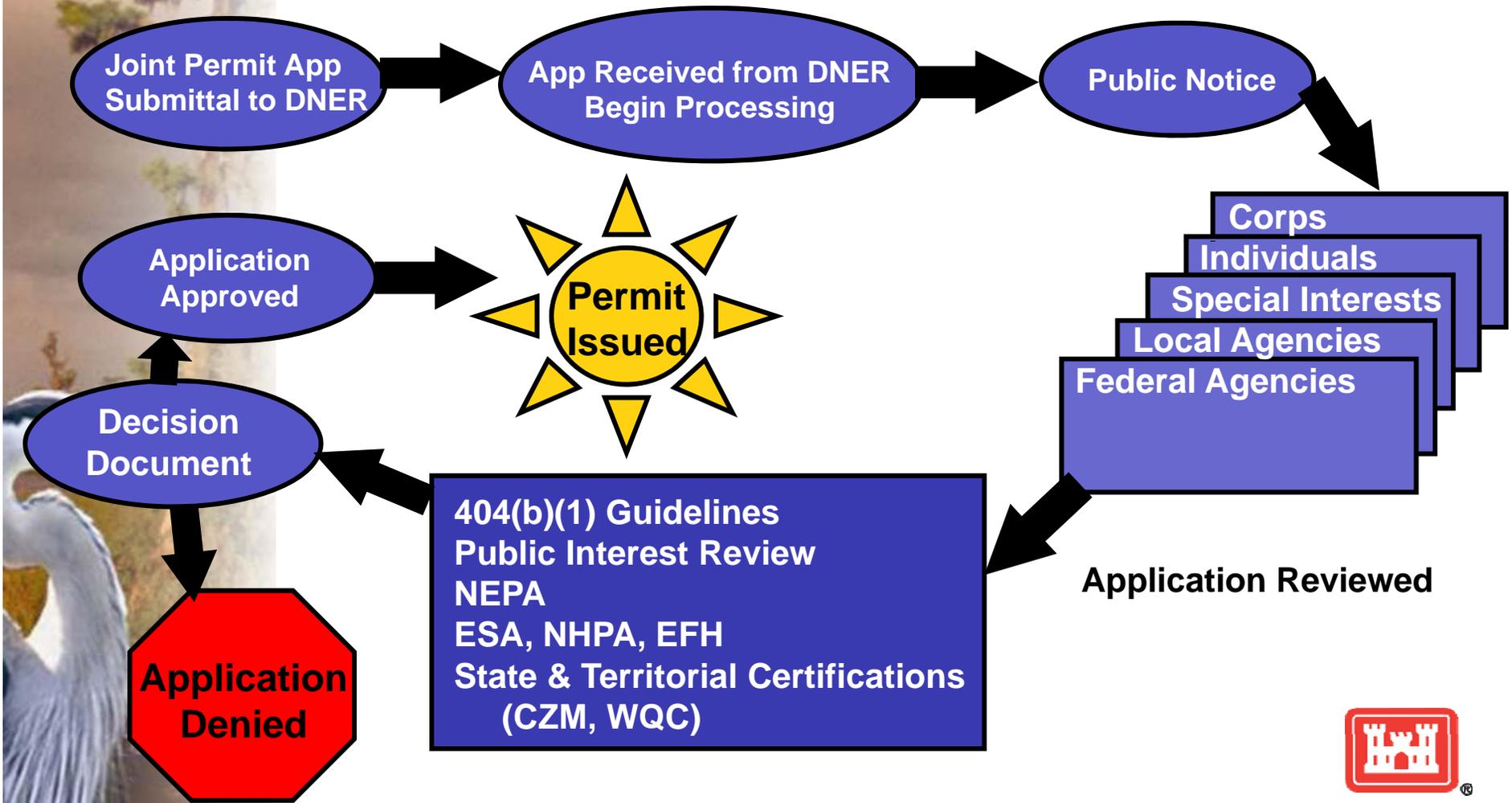
Section 10 All Structures and Work *Regulated Waters Definition: 33 CFR 329.4*

Dredging, marinas, piers, wharves,
floats / docks, intake / withdrawal pipes,
pilings, bulkheads, ramps, fills, overhead
transmission lines, etc. that occur within,
over, under, or affecting the waterbody.

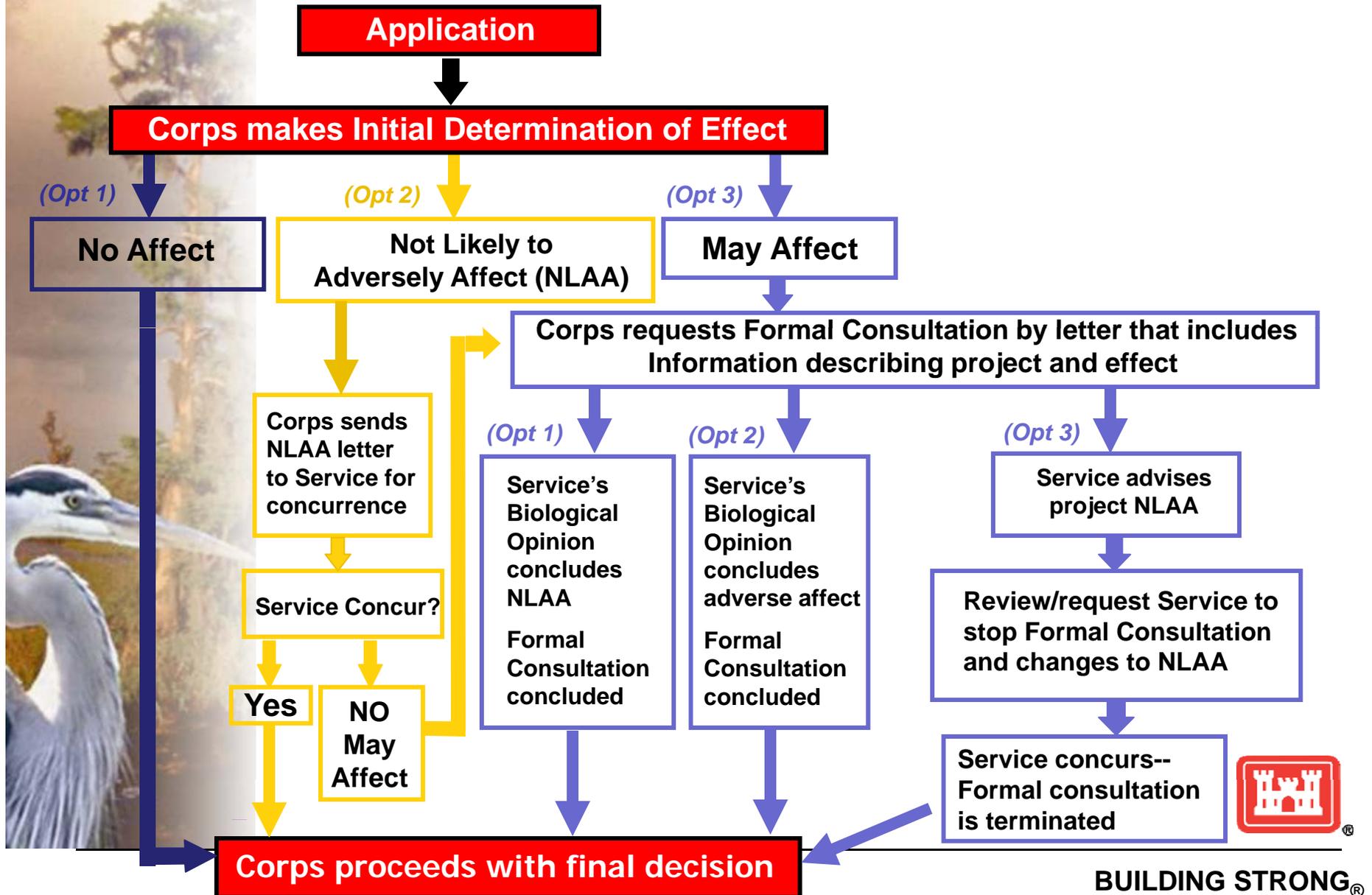


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PERMIT REVIEW PROCESS



ESA CONSULTATION PROCESS



Aquaculture Project

Description (Example)

- Fish Cages Site: The installation of ten “Sea Station 3000 Ocean Spar” aquaculture cages for the culture of Cobia (*Rachycentron canadum*). The cages will be arranged in two rows of five cages. Each cage will be diamond shaped, and approximately 42 feet in height and 75 feet in width at the middle. The cages will be submerged 40 feet below the water surface, but will have the capability to be raised to the surface. Each cage will be tied down by four 3,000 pound (105 inch wide) danforth anchors, and an eight foot in diameter main central ballast, which will rest on the sea floor.





Aquaculture Permits Typical Special Conditions

- Design Criteria
 - ▶ >40 ft Clearance from Cage Top to Water Surface
 - ▶ Special Aid Buoys to Mark Location
 - Color Yellow with Radar Reflecting Tape Yellow
 - Owner's Name, Address & Phone





Aquaculture Permits Typical Special Conditions

- Environmental Monitoring Plan
 - ▶ Compliance with NOAA, EPA, FWS
 - ▶ Daily Monitoring & Inspection of Cages
 - ▶ Cages Clean ups: Avoid Biofouling levels <75% of Net Surface Area





Aquaculture Permits

Typical Special Conditions

- EPA: Issuance & Compliance with NPDES permit & Water Quality Limits
 - ▶ Water Quality Certification (EQB)
 - ▶ Water Quality Monitoring Plan
- Feed Management
 - ▶ Prevent Unnecessary Release of Excess Waste Feed & Nutrients into Aquatic Ecosystem
 - Visual Inspection during feed by Divers
 - Monitoring Technology such as Cameras or Sensors.





Aquaculture Permits

Typical Special Conditions

- USCG Requirements
 - ▶ Prior to survey location area, contact USCG for UXO clearance
 - ▶ Marking Buoys must be in place while cages are raised
 - ▶ Provide USCG coordinates of each cage and buoys





Aquaculture Permits

Typical Special Conditions

- COE:

- ▶ Scaled cage deployments to monitor water quality on issued permits
- ▶ Project shall not deviate from authorized cage dimensions & layout
- ▶ Not authorized to temporarily or permanently
 - discharge fill or dredged material
 - construct structures in Navigable Waters of US, unless otherwise permitted





Aquaculture Permits

Typical Special Conditions

- COE:
 - ▶ Provide As-Built Drawings
 - ▶ Notify of Completion of Work
Authorized by “Self Certification of Compliance”
 - ▶ Authorization Conditioned structures not to cause unreasonable obstruction to Navigable Waters of the US





Aquaculture Permits Typical Special Conditions

- NOAA
 - ▶ Limited to species which if escape will not cause local species harm
 - ▶ Marine Animals Entanglement Prevention
 - Cages Nets/Lines tightly Stretched
 - Color mooring lines for visibility
 - ▶ Record Marine mammals Interactions



STREAMLINING PERMIT PROCESS -- TIPS

- Pre-application meeting with Federal agencies participating
- Do early coordination when impacts are known (EFH, ESA, NHPA)
- Reduce RAI time delays by submitting complete application packages with legible (8.5 x 11) drawings
- NWP's – Follow Regional Conditions
- Anticipate questions with non-water dependent projects
 - ▶ 404(b)(1) Guidelines
 - ▶ Practicable alternatives
 - Avoidance and minimization
 - Least damaging to aquatic environment



How to Stay out of Enforcement

- Read all permit conditions - general and specific
- Adhere to all permit conditions
- Never initiate work without permit in hand
- Post-permitting changes or accidental fills - contact the Corps
- When in doubt, call



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Regulatory Web Pages Information Sources

Jacksonville District

www.saj.usace.army.mil/regulatory/index.htm

National Headquarters

www.usace.army.mil/inet/functions/cw/cecwo/reg



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