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Non-fishing Impacts to Essential Fish Habitat (EFH)



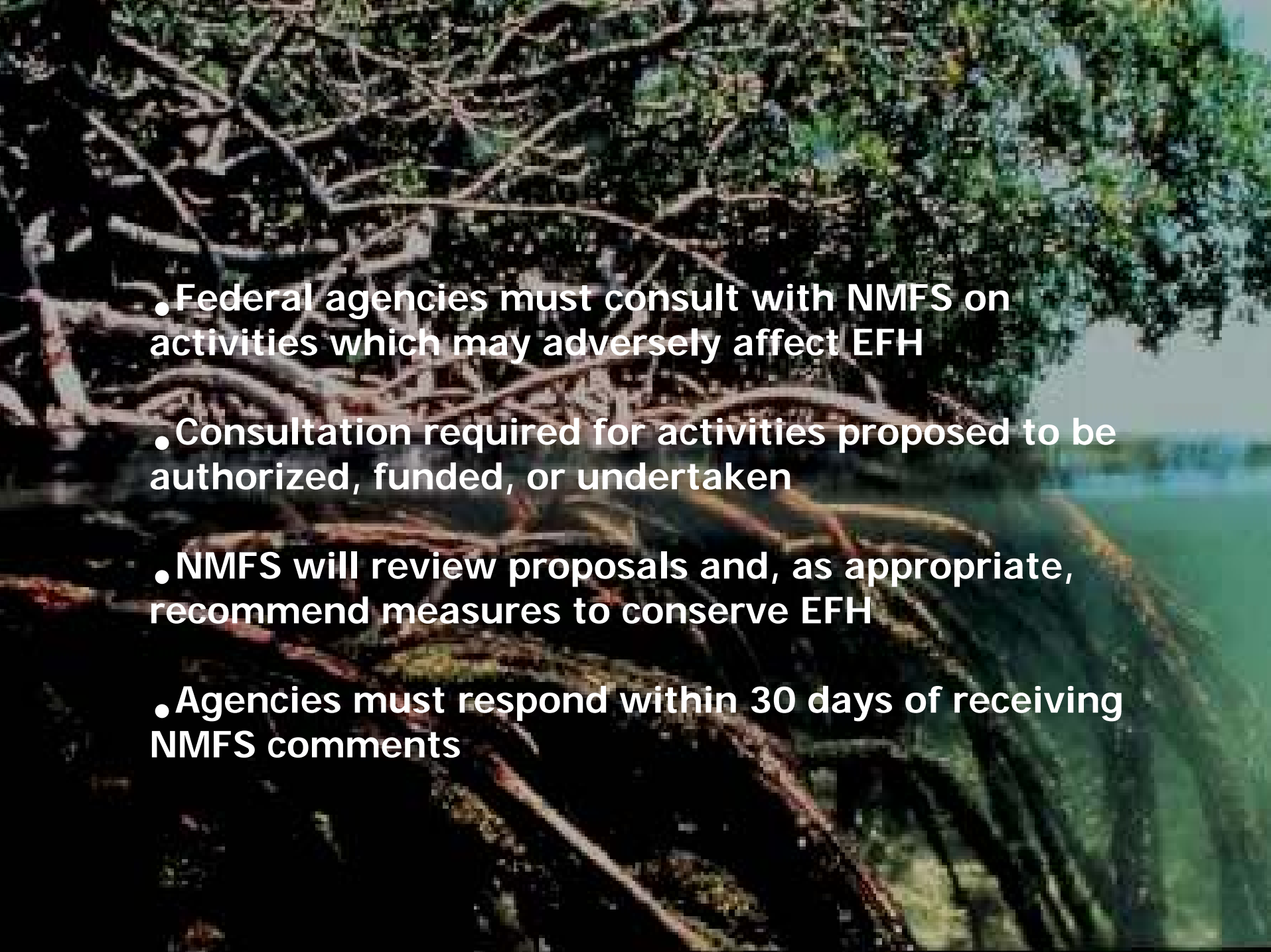
MAGNUSON-STEVENSON ACT ESSENTIAL FISH HABITAT

defined as: "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

EFH in the East Coast region

- Marine Water Column
- Live/Hard Bottoms
- Coral & Coral Reefs
- Artificial/Manmade Reefs
- Sargassum
- Estuarine Emergent Wetlands
- Estuarine Scrub/Shrub Mangroves
- Submerged Aquatic Vegetation
- Intertidal Flats
- Oyster Reefs & Shell Banks
- Estuarine Water Column
- Palustrine Emergent & Forested Wetlands
- Aquatic Beds



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- **Federal agencies must consult with NMFS on activities which may adversely affect EFH**
 - **Consultation required for activities proposed to be authorized, funded, or undertaken**
 - **NMFS will review proposals and, as appropriate, recommend measures to conserve EFH**
 - **Agencies must respond within 30 days of receiving NMFS comments**

Activities with potential to cause Non-fishing impacts to EFH

- **Docks and Piers**
- **Marinas**
- **Boat Ramps**
- **Beach Renourishment**
- **Canals and Ditches**
- **Impoundments**
- **Bridges, Roads and Runways**
- **Oil and Gas Exploration and Production**
- **Ocean Dumping**
- **Power Facilities**
- **Ocean Dredged Material Disposal Sites**
- **Housing/Commercial Developments**
- **Cables, Pipelines, Transmission Lines**
- **Bulkheads and Breakwaters**
- **Sewage Treatment**
- **Water Intakes/Discharges**
- **Aquaculture**
- **Artificial Reefs**

Examples of Non-fishing Impacts

- Dredging (turbidity, sedimentation, contaminates)
- Dredge Disposal (turbidity, sedimentation, contaminates)
- Displacement (loss of physical habitat)
- Filling (burial of vegetation and fauna)
- Shading of submerged/emergent vegetation (from docks and piers)
- Acoustic pollution from pile drivers, bridge removal
- Water quality degradation
- Pollution
- Introduction of exotic species/diseases

Dredging example—adverse impacts

- Dredging may impact infaunal and bottom dwelling organisms (prey of managed species) at the site and force mobile animals such as fish to exit the area.
- Turbidity plumes of suspended particulates may reduce light penetration and lower the rate of photosynthesis of seagrasses and cause stress to corals. If conditions persist, fish may suffer reduced feeding ability and experience respiration problems.
- Toxic metals and organics may become resuspended and contaminate organisms in the water column or through the food chain.

Example of Recommended conservation measures to avoid or minimize dredging impacts

- Placement of piers, docks and marinas should be sited in deep water areas or designed to alleviate the need for dredging
- Seasonal restrictions on dredging activity should be timed to protect larval forms and pre-spawning adults migrating through the area

Large projects currently proposed or underway in the East Coast region with potential to affect EFH

- FL 3 LNG pipelines (Calypso, Seafarer, AES)
- FL Broward County Shore Protection
- FL Port of Miami Expansion
- FL Keys 18 mile US Highway 1 widening
- GA Savannah Harbor Expansion
- GA LNG pipeline (Cypress)
- SC US Highway 17 widening
- SC SPA Marine Container Terminal
- and many, many more smaller projects...