

Environmental Compliance



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Environmental Compliance

- Federal agencies must consider the impacts of their activities on the environment as part of their decision-making processes.
- Environmental compliance should begin ***early on*** in the decision-making process
- Major federal statutes and Executive Orders requiring environmental compliance include:
 - National Environmental Policy Act (“NEPA”)
 - Executive Order 12114
 - Marine Mammal Protection Act (“MMPA”)
 - Endangered Species Act (“ESA”)
 - Coastal Zone Management Act (“CZMA”)
 - Magnuson-Stevens Act – Essential Fish Habitat (EFH)
 - National Historic Preservation Act (“NHPA”)

National Environmental Policy Act of 1969,

42 U.S.C. 4321

- **Procedural** statute requiring federal agencies to take a “hard look” at environmental impacts of proposed action and determine if it **significantly affects** the quality of the human environment
 - Requires **informed decision-making**, including consideration of public input **prior** to activities being carried out
 - NEPA applies when there is a ‘federal hook’ - \$\$\$
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- NSF regulations for complying with NEPA are set forth in: Title 45 C.F.R. PART 640—COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT
 - Most NSF awards are not “major Federal actions significantly affecting the quality of the human environment”
 - Some research may have potential environmental effects and require *at least* an environmental assessment :
 - technology transition from development stage to large-scale commercial utilization
 - Construction
 - field work affecting the natural environment will be conducted*
 - drilling of the earth, excavation, explosives, weather modification, or other techniques that may alter a local environment*
 - testing and release of biological-control agents for purposes of ecosystem manipulation and assessment of short- and long-term effects of major ecosystem perturbation*

* NSF Directorates may determine that certain “routine” projects do not require an EA but require specific approval

NEPA Compliance

- **Categorical Exclusions**
 - Agency determines that proposed activity has ***no significant*** impacts, individually or cumulatively, on the environment
 - Agency's determination of no significant impacts is documented in its regulations
 - NSF's categorical exclusions are set forth in 45 C.F.R. 640.3(b)
- **Environmental Assessments**
 - Activity is neither categorically excluded nor the type of activity which is anticipated to have significant environmental impacts requiring a more rigorous environmental analysis
 - Concise public document: briefly provides sufficient evidence and analysis to determine whether further analysis is warranted, or a Finding of No Significant Impact ("*FONSI*") should be prepared
- **Environmental Impact Statement**
 - Detailed written statement of the proposed activity and its anticipated impacts on the human environment
 - Designed to assist agencies in planning actions and making decisions
 - Prepared in accordance with CEQ regulations

NEPA Activities for Seismic Surveys

Current:

- Grant to LDEO with subcontract for environmental consultants
- Develop an EA for each individual seismic survey
- Mitigated FONSI – we have impacts, but are mitigating to a level of insignificance



Future:

- Programmatic EIS (PEIS)
 - Creates a framework for future NEPA
 - May reduce the paperwork for individual seismic surveys
 - “Tiered EAs”
 - Annual meetings with NMFS & USWFS to review seismic survey schedule (*MMPA/ESA*)
- NSF direct contract for environmental services

Executive Order 12114: Environmental effects abroad of major Federal actions

- Order which furthers the purpose of the National Environmental Policy Act, etc.
- Requires Federal agencies to be informed and take into account pertinent environmental considerations when making decisions on major federal actions taken outside the US, its territories and possessions.

Marine Mammal Protection Act (MMPA)

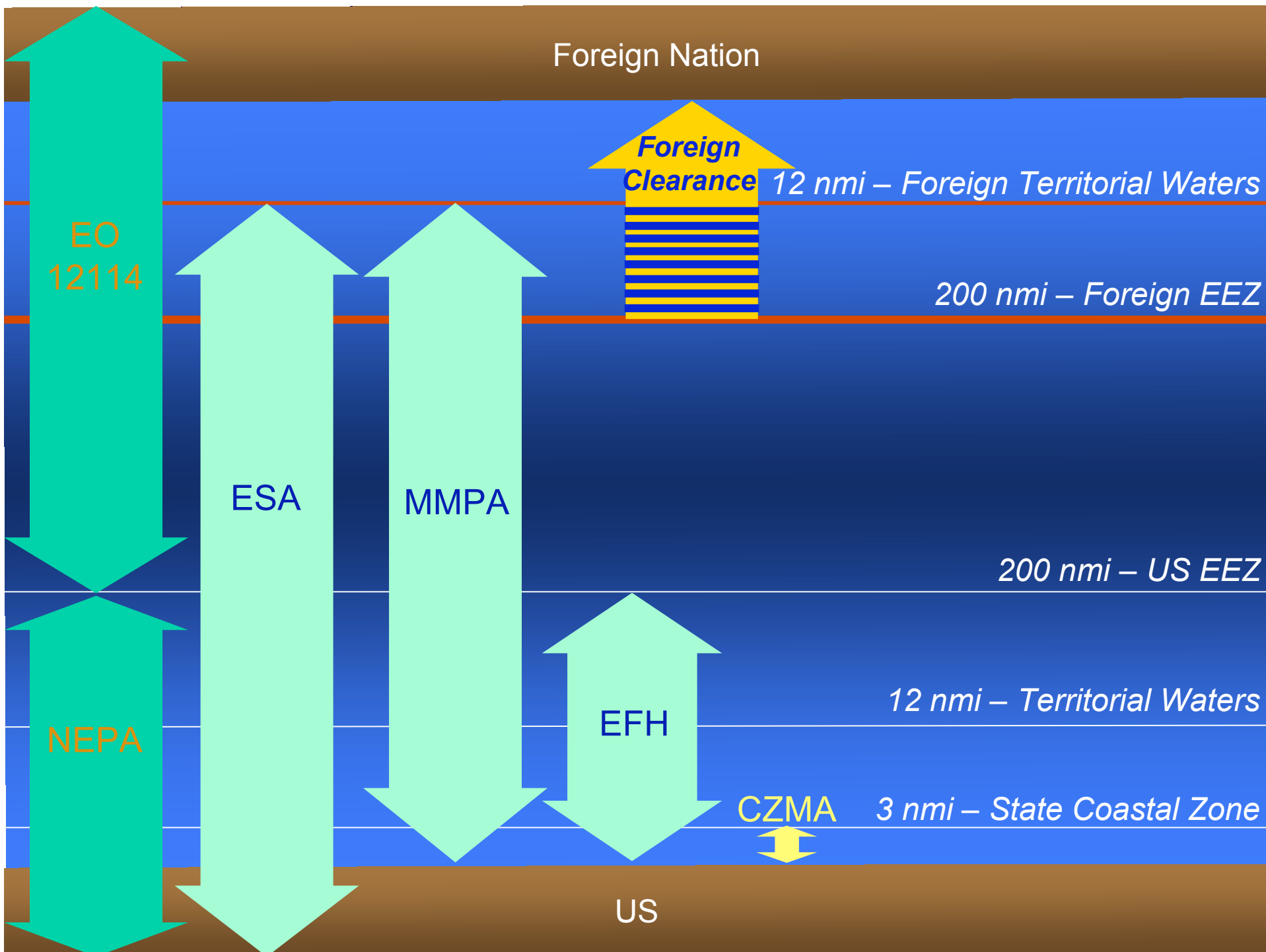
- Act established to protect marine mammals; to establish a Marine Mammal Commission; for other purposes.
- In 1994, MMPA section 101(a)(5) was amended to establish an expedited process (**120 days**) by which citizens of the U.S. can apply for an authorization to incidentally **"take"** small numbers of marine mammals by **"harassment"**, referred to as Incidental Harassment Authorizations (IHAs).
- "Takes" by "harassment" are defined as:
 - **Level A** - the potential to injure a marine mammal or marine mammal stock in the wild
 - **Level B** - any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered.

Endangered Species Act (ESA)

- Requires agencies to consider impacts of their activities on endangered and threatened species, and their habitat.
- Agencies are to consult with the **US FWS** and **NMFS** under “ESA Section 7” regarding whether the proposed activity is likely to jeopardize the continued existence of any endangered or threatened species or result in the adverse modification of habitat of such species.
- Section 7 consultation with US FWS/NMFS can be informal or formal.
 - Informal: Not likely to have adverse effects. Get concurrence from USFWS *in writing*.
 - Formal (**135 days**): Likely to have adverse effects. Agency prepares biological assessment and USFWS/NMFS prepares biological opinion.
- Any takings of marine mammals listed as threatened or endangered under the ESA must be authorized under both the ESA and MMPA. The ESA takes are authorized by an Incidental Take Statement (ITS) under Section 7 (for Federal agency actions).

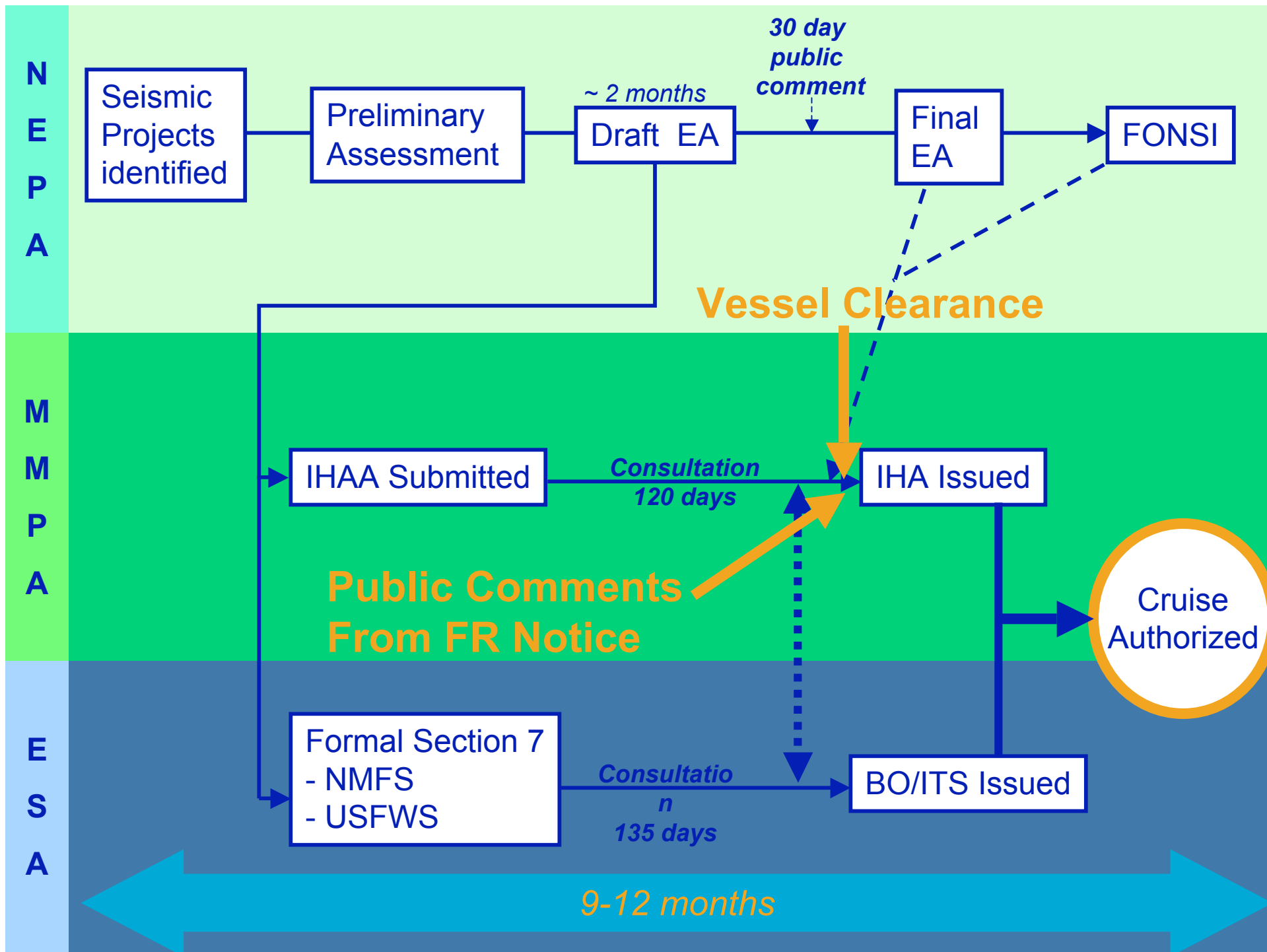
Coastal Zone Management Act (CZMA)

- Federal Statute requiring federal agencies to determine whether proposed federal activity is likely to have “effects” on coastal uses or resources
- If effects are likely, federal agency must comply with the “consistency” provisions of the CZMA and consult with the coastal state to ensure that the proposed activity is “consistent to the maximum extent practicable” with the enforceable policies of the coastal state’s coastal management plan



Process for Seismic Surveys & Timeline

- Preliminary Assessment of seismic survey
- Draft EA developed by LGL (~ 2months plus review)
- If Level B takes are anticipated under the MMPA, LDEO submits the Draft EA along with an IHA Application to NMFS for consultation (minimum 120 days)
- If endangered species are identified in the survey area, NSF submits the Draft EA to NMFS and USFWS (if applicable) for ESA Section 7 consultation (minimum 135 days)
- Draft EA is posted on the NSF website for 30 day public comment period
- Any public comments are addressed and the EA is made Final
- If appropriate, a Finding of No Significant Impact is signed by the OCE Division Director
- Final EA/FONSI is submitted to NMFS
- NMFS Issues the IHA and Biological Opinion/Incidental Take Statement
- Cruise can initiate



Lessons Learned

- PI should understand the terms & enforce the IHA
- MMOs are responsible for enforcing the IHA
- Foreign Territorial Waters and EEZs:
 - Within Foreign Territorial Waters and EEZs, we are subject to the rules of that foreign nation.
 - Those rules should become apparent during the official vessel clearance process initiated by the UNOLS ship operator - sometimes this is late in the planning process.
 - Although we can try to negotiate these rules, in the end we will need to comply should we operate in these areas.
- Avoid politically-sensitive disputed waters
- Marine sanctuaries/protected areas may require additional mitigation or be harder/impossible to get authorization
- “Deep” water is typically better
- Outreach is usually good

Debunked Urban Myths...

- NEPA is a virus
- IHA is an acronym for “I can Hit A whale”
- Once an EA is submitted to NMFS the permitting process is over
- They did it, so I can, too... (Location, location! foreign territorial waters, EEZs, etc.)
- The PI is **not** responsible for following and enforcing the IHA requirements during a seismic survey.



Lead MMO

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- NEPA: Council on Environmental Quality (www.whitehouse.gov/ceq)
 - MMPA:
 - ESA:
 - CZMA: NOAA's Ocean and Coastal Resource Management Office (www.coastalmanagement.noaa.gov)
 - NHPA: Advisory Council on Historic Preservation (www.achp.gov)