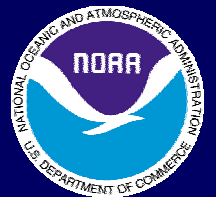


Fish and Energy Policy

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NOAA/NMFS
Office of Habitat Conservation



HC/MSC Joint Energy Seminar
ASMFC Annual Meeting
Atlantic Beach, North Carolina
October 24, 2006



General Outline

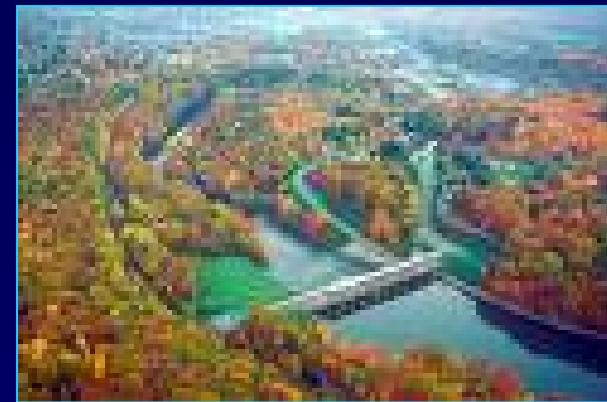
- **Types of energy projects**
 - *Traditional*
 - *New/alternative*
- **Trends**
 - *Expanding sectors*
 - *Numbers*
- **Comparison to other industry sectors**
- **Implications to ASMFC trust resources and member states**



Types of Projects

➤ Traditional Facilities

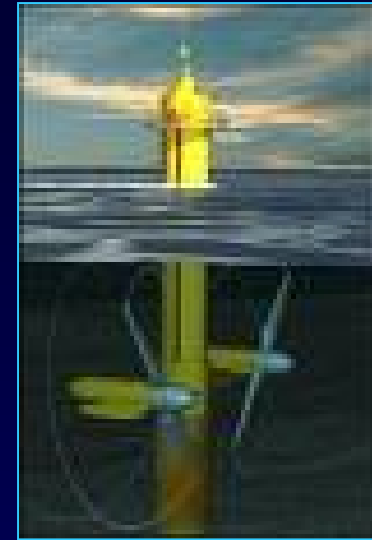
- *Power plants to produce electricity*
- *Offshore oil and gas*
- *Hydropower*



Types of Projects (cont'd)

➤ New/Alternative Facilities

- *Wind*
- *Hydrokinetic*
 - *Wave*
 - *Current*
 - *Tidal*



Hydropower

➤ National

- *>78,000 dams*
- *~3,000 are hydropower dams licensed by FERC*
- *600,000 stream miles blocked*

➤ Atlantic coast

- *15,515 dams*
- *84% of historic habitat blocked*



Hydropower (cont'd)

➤ Atlantic Coast Successes in 2006

- **Columbia Canal Project fishway**
 - *Restores access on Broad River, SC*
 - *Benefits most diadromous species*
- **Santee Cooper Project fishway**
 - *Will restore access in Santee Basin, SC (2nd largest basin on east coast)*
 - *Benefits most diadromous species*



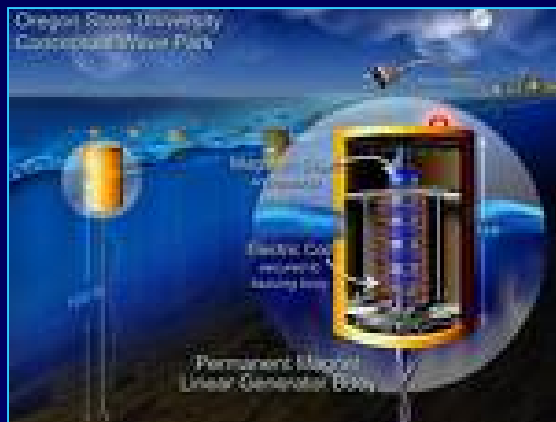
Wind Energy

- **Location** – *mostly state waters from Massachusetts to Chesapeake Bay*
- **Numbers** – *dozens of proposals*
- **Policy** – *Workshops in 2004-2005, with public-private reports*
- **Issues** – *Navigation/passage, habitat*



Wave Energy

- **Location** – *could be anywhere along coast*
- **Numbers** – *newest sector, few proposed to date*
- **Policy** – *covered by Hydrokinetic Workshop in late 2005*
- **Issues** – *Navigation/passage, implications to surface migrants*



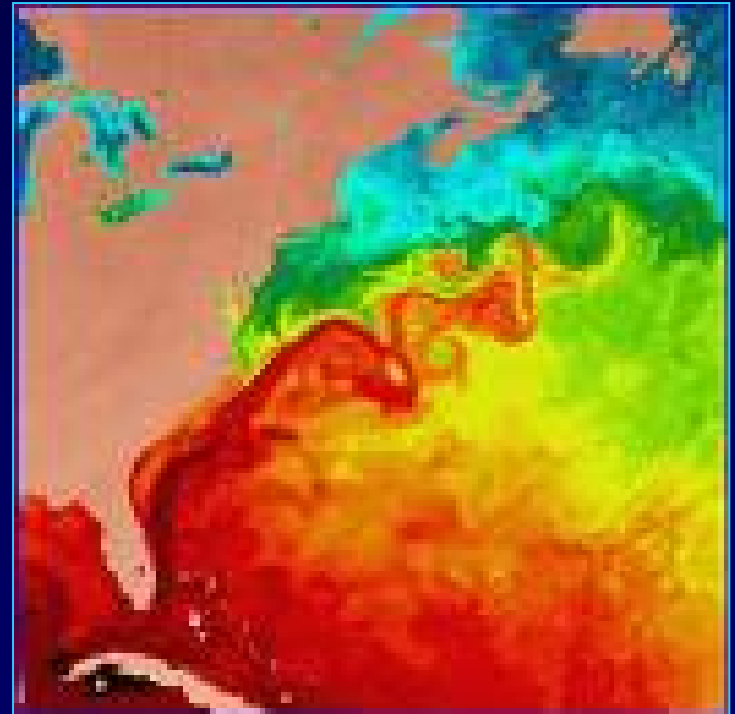
Tidal Energy

- **Location** – *narrow passages with high tidal amplitude*
- **Numbers** – *several proposed in Maine*
- **Policy** – *covered by Hydrokinetic Workshop in late 2005*
- **Issues** – *Navigation/passage, implications to migrating fish*



Ocean Current Energy

- **Location** – *coastal waters with mix of wave height and frequency*
- **Numbers** – *very few; speculative*
- **Policy** – *covered by Hydrokinetic Workshop in late 2005*
- **Issues** – *Navigation, implications to migrating fish*



Trends and Observations

- *Key sectors are identified*
- *Number of proposals growing rapidly*
- *Most states experiencing at least some activity*
- *Regulatory agencies showing greater inclination to allow pilot projects with facilities in water*



Trends and Observations (cont'd)

- *Near shore activity now could be joined by offshore projects within next decade*
- *Many major data gaps on effects and mitigation*



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