restore Council Monitoring & Assessment Program Development

Habitat Mapping to Support Restoration & Fisheries
What is Essential Fish Habitat?

Waters and substrate that are essential for fish spawning, breeding, feeding and growth.
Some Gulf Numbers

9
31
28000
3750
672000
What good are maps?

• Provide baseline data for:
  • Science
  • Management
  • Restoration
  • Commercial uses

• Reference framework to help understand habitats and their functions
A Conundrum
Other Problems
Wouldn’t it be cool if…..

- Mapping /Habitat Gap Analysis conducted
  - Where
  - When
  - Resolution

- Assess the use for:
  - Restoration
  - Fisheries Mgmt

- Centralized discovery tool
- Centralized visualization tool
Distribution of Clean Water Act penalties to Gulf recovery per the RESTORE Act

Clean Water Act Penalties*

80% Gulf Coast Restoration Trust Fund

20% Oil Spill Liability Trust Fund

35% evenly split among the 5 Gulf states

- AL
- FL
- LA
- MS
- TX

Department of Environmental Quality

Governor’s Office

To Gulf Coast Ecosystem Restoration Council to implement the comprehensive recovery plan (supplemented by 50% of the interest generated by the Trust Fund)

30%

- the proportion of the number of miles of oiled shoreline per state compared to total number of miles of oiled shoreline
- the inverse proportion of the average distance from the BP Deepwater Horizon rig to oiled shoreline of each state
- the average population of coastal counties per the 2010 census

- AL
- FL
- LA
- MS
- TX

To the states consistent with the goals and objectives of the comprehensive plan and based on the following allocation formula

2.5%

- Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program (supplemented by 25% of the interest generated by the Trust Fund)

2.5%

Centers of Excellence (supplemented by 25% of the interest generated by the Trust Fund)

* Clean Water Act penalties are a per barrel penalty of $1100 for release of pollution into the environment. If “gross negligence” is determined in release of the pollution, the penalty per barrel increases to $4300. In the case of the BP Deepwater Horizon incident the following are estimated:

$1100 \times (4.9 \text{ million barrels of oil released into the environment}) = \text{approx} \ 5.39 \text{ billion}

$4300 \times (4.9 \text{ million barrels of oil released into the environment}) = \text{approx} \ 21.07 \text{ billion (gross negligence)}

All amounts are subject to negotiation via a settlement between the government and responsible parties.
RESTORE Council Objectives

- Restore and protect habitats
- Restore and protect water resources
- Protect and restore LMR
- Restore and protect natural resources and shorelines
- Promote community resilience
- Promotes Stewardship and education
- And Improve science based decision making process.
Coordinated monitoring is needed to support:

- Science-based decision-making
- Measurement of restoration and management outcomes
  - Project scale
  - Basin/watershed scale
  - Regional scale
- Evaluation of progress towards comprehensive ecosystem restoration objectives
- Reporting to stakeholders
Water Quality and Habitat
Proposed Program Activities

• Inventory existing habitat/water quality
• Determine minimum monitoring standards
• Evaluate suitability to support Council needs
• Develop searchable monitoring information databases
• Identify information gaps from inventory
• Document existing baseline conditions
• Fill data gaps (future phase(s))
Coalesce and build on existing mapping activities & programs in the Gulf

- Identify, catalogue, and understand historic and ongoing activities and associated data
  - Imagery type
  - Resolution
  - Classification?
  - Methods/Protocols

- NO NEW DATA COLLECTION!
Working groups and Community of Practice
Mapping activities
How do we store this information?
How do we store and query this information?

Click one of the buttons above to start querying data in DIVER Explorer.

Spatial elements will be plotted on the map to the left.

Data Summary, Table and Charts will appear in the area below.
How can we visualize and interact?
Approach good for both Restoration and Fisheries?