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GULF OF MEXICO UNIVERSITY RESEARCH COLLABORATIVE



**Gulf Restoration Science Workshop:**  
*Principles and Actions for Implementing  
Best Available Science*

**Larry McKinney, GOMURC Board chair, Harte Res. Inst.**  
**August 12, 2013**

<http://www.gomurc.org>

# Outline



- Who?
  - Audience and participants
- Why are we here?
- What will we do?
  - Workshop purpose, objectives, outputs



# Who?



## Target audience:

- Ecosystem restoration programs
- Stakeholders-- restoration practitioners, scientists, managers and decision-makers.

## Participants:

- GOMURC university consortium
- Funding from Walton Family Foundation
  - WFF leads Gulf Renewal Project (NGO coalition)
- Reps. from ecosystem restoration science programs (invited leads or designees)
- Speakers (selected by Organizing Committee)

# Why?

- **RESTORE Act: Best Available Science (BAS)** “(A) *maximizes the quality, objectivity, and integrity of information, including statistical information; (B) uses peer-reviewed and publicly available data; and (C) clearly documents and communicates risks and uncertainties in the scientific basis for such projects.*”
- **BAS principles should apply to all ecosystem restoration programs**



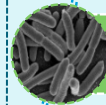
**Ecosystem Restoration:** ERP, NRDA, RA1603, RA1604, RA1605, NFWF, NAS, NAWCF



**Ecosystem Monitoring:** RA1603, RA1604, RA1605, NAS, NFWF



**Economic Revitalization:** RA1603, RA1605



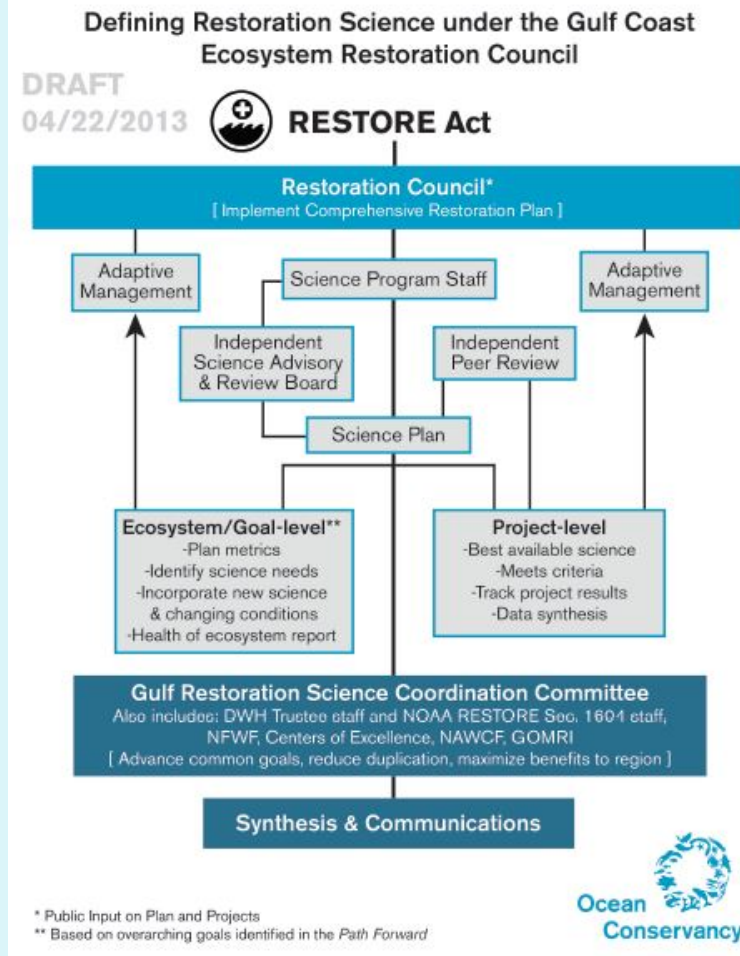
**Human Health:** NAS, RA1603, RA1605



**Energy Safety:** NAS, RA1605

# How do we coordinate a regional ecosystem restoration science program?

- Collaborate with stakeholders to determine (e.g., OC recommendations to GRC)
- Build on regional restoration examples (e.g., talks this am)
- Sustain for life of Gulf restoration effort (long-term action plan)



## Restoration Example– ERP Lake Hermitage Marsh Restoration (\$13.6M, part of 20 year effort for \$38M by LA CPRA)

- Create 104 acres of brackish marsh in lieu of earthen terraces– actions:
  - Dredge sediment from borrow area in MS River,
  - Pump via pipeline to site
  - Natural dewatering and compaction of dredged sediments result in elevations within the intertidal range conducive to emergent marsh
  - Plant native marsh vegetation to accelerate new marsh creation.

### SCIENCE ROLES:

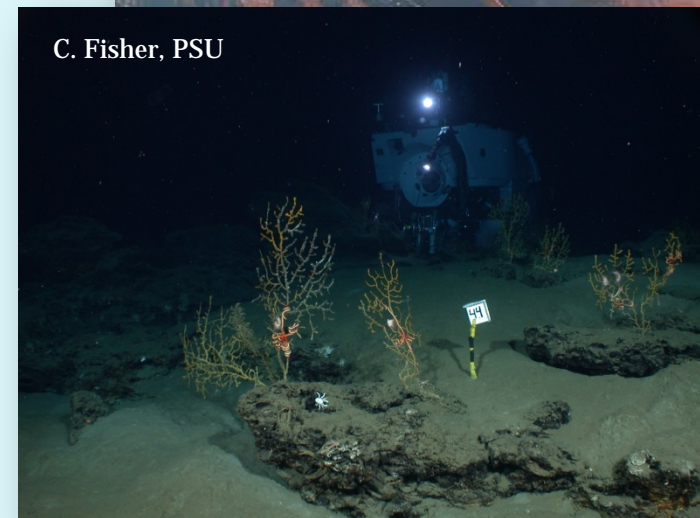
- 2011-2014: project **review**/selection; **EIS**
- 2013-14: **baseline** surveys of new site, borrow area, pipeline route; **assess** quality of fill
- 2015: **implement** dredge/fill new site
- 2015-2017?: **monitor** compaction; pre-planting baseline
- 2018-20: planting, monitor, **adapt**
- 2015, 2020: **synthesize**, report

# What?



## Workshop Goals:

- Promote collaboration of DHOS restoration science programs and stakeholders (restoration practitioners, scientists, managers and decision-makers).
- Define and propose mechanisms for BAS integration
- Propose mechanisms to sustain collaborations

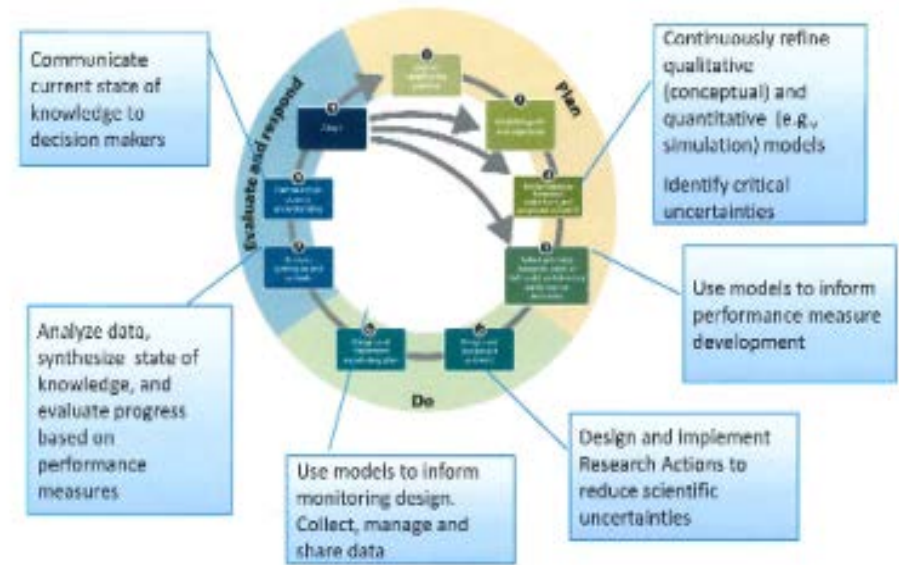


# What?

## Objectives and outputs:

- B1-- guiding principles for integrating BAS
- B2-- priority short (1-5 years) and long-term (6-30 years) actions to sustain BAS integration and obstacles to implementation
- B3- engagement actions and strategies to foster collaboration

## Science Supporting AM



CO Delta Stewardship Council



# Speakers



- **Greg Steyer, USGS: GCER Task Force Science Assessment and Needs:**
  - What is science-based restoration and adaptive management?
  - Actions/potential obstacles to integration of Science plan in support of restoration programs



- **Robert Johnson, NPS: Coastal restoration program-- Everglades Restoration Comprehensive Plan** (<http://www.evergladesplan.org/>); Guiding principles for science-based restoration; activities, obstacles, and organization in support of science-based restoration and adaptive management; activities to engage stakeholders



- **Pete Petersen, UNC-CH: Ocean (including deep water and pelagic environment) restoration program-- Overview of EVOS Comprehensive Plan** (<http://www.evostc.state.ak.us>); same elements as Johnson

# Questions?



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