The Gulf Ecosystem Monitoring (GEM) Program: A Proposal for Sustaining Long-term Research and Monitoring in the Gulf of Mexico

Stanley Senner

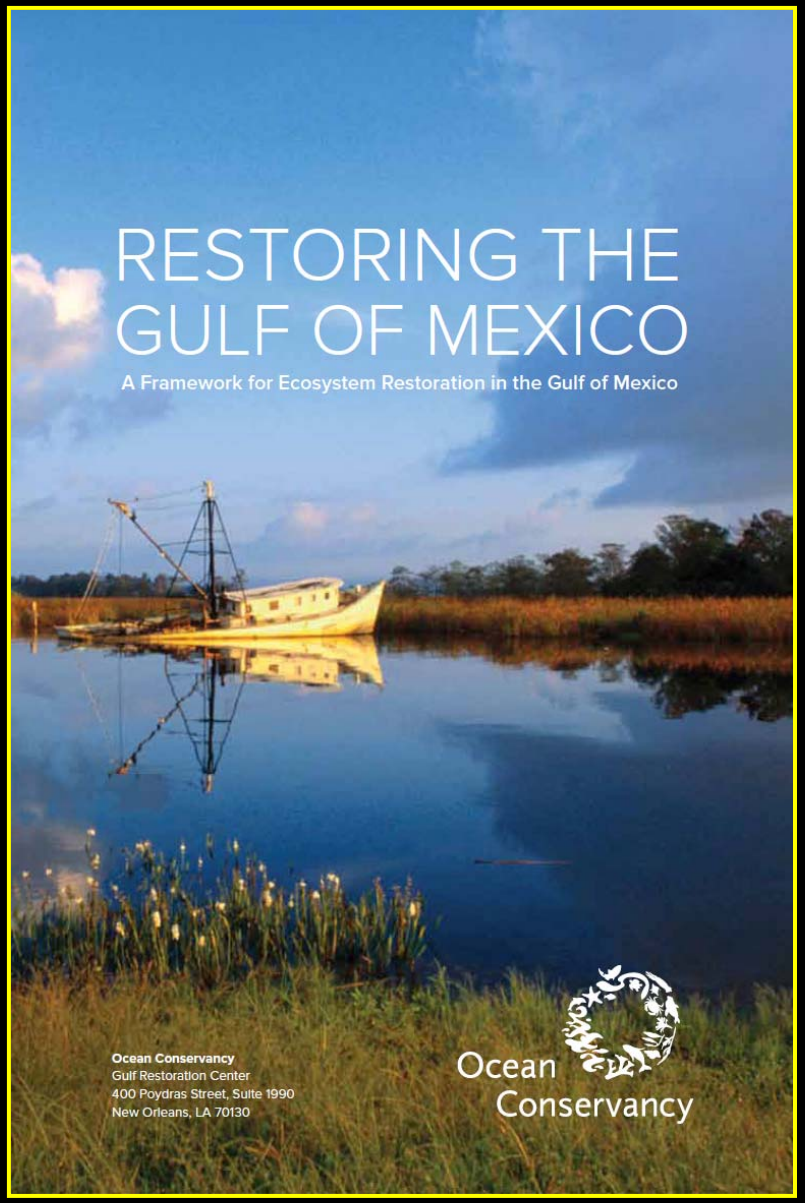
Ocean Conservancy

Gulf Coast Ecosystem Restoraton Task Force Strategy

Monitoring, modeling and research development activities should be integrated from the initial stages of restoration planning through to adaptive management decision-making.

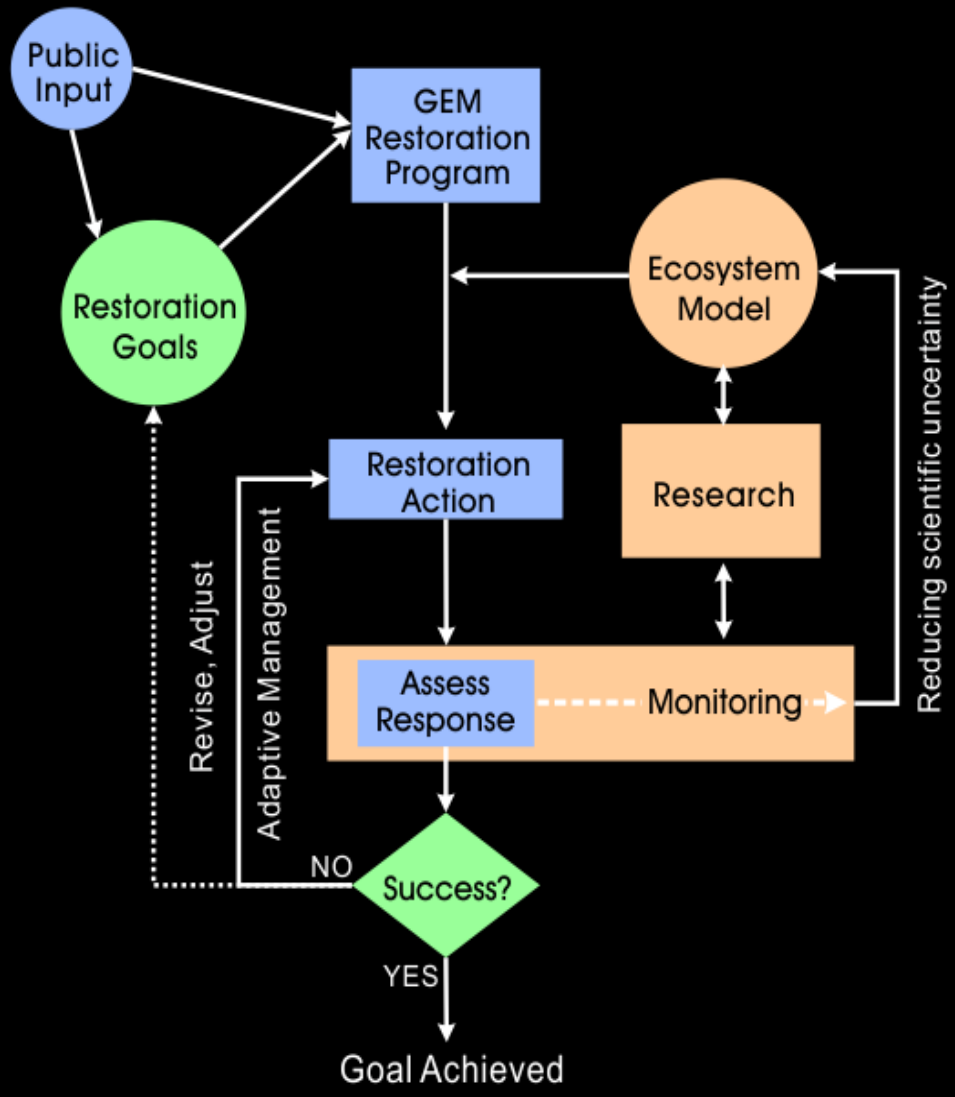
Science Supports Restoration

- Understand Injury or Degradation
- Identify Strategies and Projects
- Monitor and Evaluate Results
- Facilitate Adaptive Management


RESTORING THE
GULF OF MEXICO
A Framework for Ecosystem Restoration in the Gulf of Mexico
Ocean Conservancy
Gulf Restoration Center
400 Poydras Street, Suite 1990
New Orleans, LA 70130
Ocean
Conservancy

ProposedGulf of Mexico Ecosystem Monitoring and Research Program

- Permanent program of monitoring, observation and research in Gulf large marine ecosystem.
- Supplements science supporting NRDA and other restoration programs.
- Endowed with at least $1 billion in lieu of Clean Water Act fines from Deepwater Horizon oil disaster.
- Complements $500 million from BP for Gulf Research Institute administered by GOMA.
- Independent board with state, federal and academic representatives, advised by stakeholders.
- Administered by entity based in the Gulf region.
- Gulf of Mexico integrated ecosystem science plan.
- Competitive grants and contracts on multi-year basis.
- Periodic plan/program reviews by National Research Council.



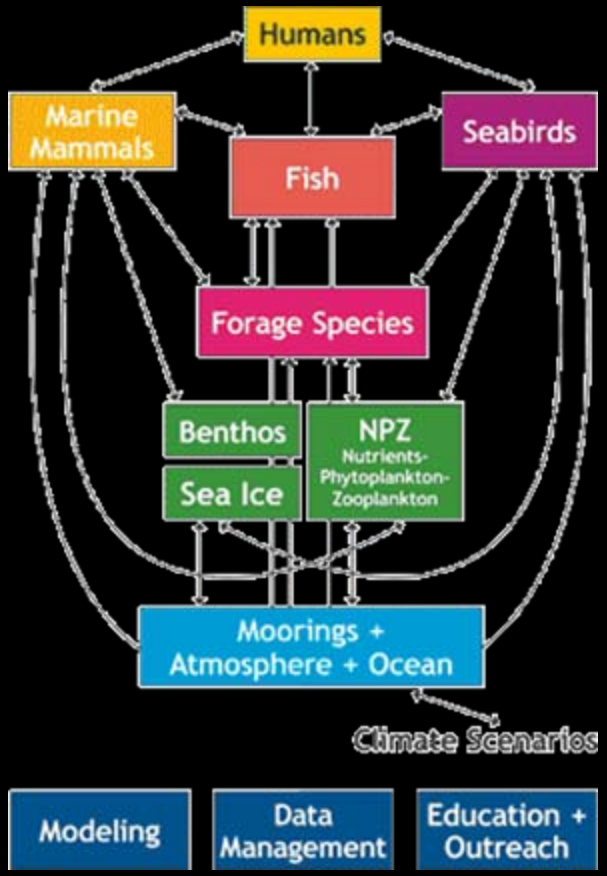
GEM would provide a constant stream of data tracking change among ecosystem indicators and processes in the Gulf. These data would feed directly into adaptive management to inform and facilitate changes in strategies as circumstances require as envisioned in the Task Force's science strategy.

Graphic representation of the northern Gulf of Alaska ecosystem as developed for the GEM program following the *Exxon Valdez* oil spill.

North Pacific Research Board

Credit: Phillip Clapham NMFS

The NPRB has emphasized integrated ecosystem studies in the rich Bering Sea.



Credit: B. Christman, NOAA Corps

In cooperation with the National Science Foundation, the NPRB invested more than $50 million over 5 years and involved more than 100 scientists in an integrated hypothesis-driven project to understand and predict ecosystem change in the Bering Sea due to climate change and loss of sea ice.

Credit: Ben Raines

Invest now or pay later?