The need for ecosystem restoration in the Gulf of Mexico is clear, but effective restoration is often challenged by several questions.

How do we make decisions to move ahead in the face of uncertainty?

How can we know our restoration efforts are doing any good?

If they aren't, how can we make an informed change?

If they are, how can we build on what has been successful?

Science-Based Adaptive Management

A process that allows for restoration efforts to move ahead while addressing the need to expand current knowledge of the state of the system ('learning by doing') and determine the effectiveness of the restoration actions through a focused effort of monitoring, modeling, and research to support effective management and decision-making.

"Adaptive management does not wait until '*enough*' is known about a managed ecosystem, but rather is designed to support the action in the face of the limitations of scientific knowledge and the complexities and [unpredictable] behavior of large ecosystems." (NRC, 2004)

Principles for Science-based Adaptive Management

- ***Anticipating possible future uncertainties*** and contingencies during planning of different restoration options;
- Employing ***science-based approaches*** to build knowledge supporting ecosystem restoration over time;
- ***Designing robust projects*** that can be adapted to uncertain or changing future conditions;
- Building ***shared understanding through collaboration*** and conflict resolution; and
- ***Reconciling competing objectives*** to benefit both nature and society