



NMFS Southeast Region's Perspectives on Diversions

Richard Hartman
NOAA Fisheries Service
Southeast Regional Office, Habitat Conservation Division



Importance of Diversions

- NOAA believes that diversions can be an important tool for maintaining fishery habitat
- If effective at maintaining fishery habitat, will help maintain productivity of managed species (e.g., Penaeid shrimp, red drum)

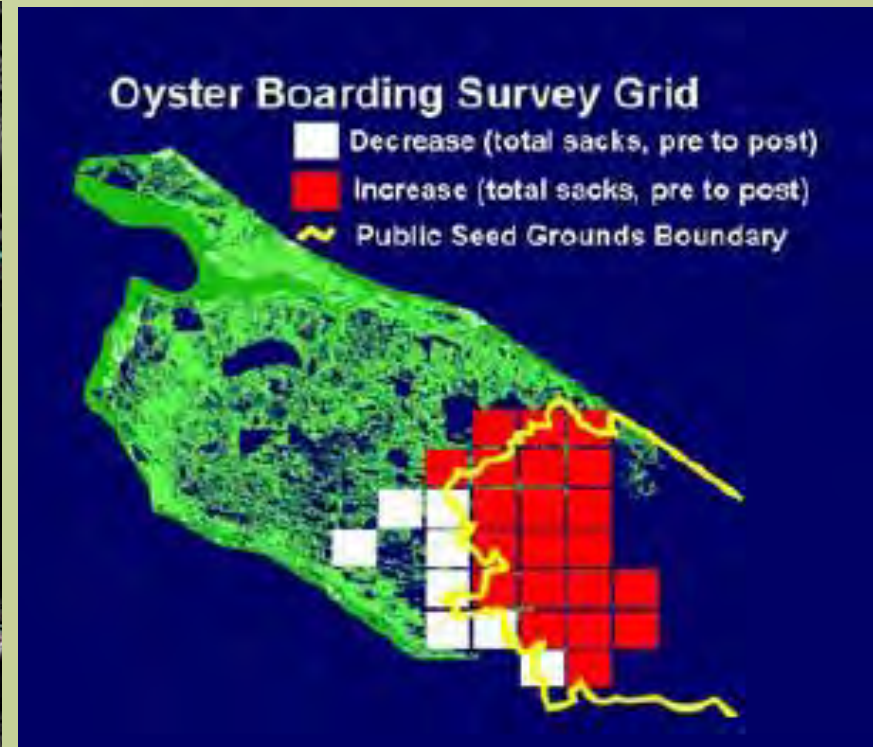


Fishery Issues of Concern



- Species shifts/
fisheries displacement

- Potential reductions
in fishery productivity



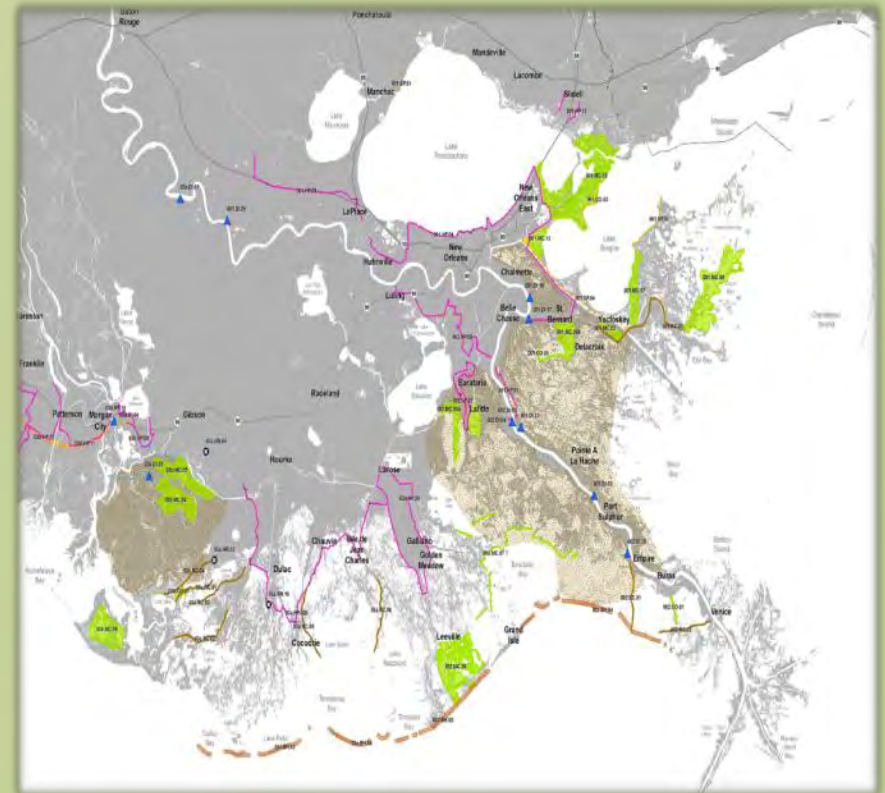
Fishery Issues of Concern



- Eutrophication and anoxia



- Cumulative impacts of multiple diversions



Concerns Related to Marsh Health and Sustainability



- Potential negative impacts of high nutrients on susceptibility of marsh to storm energy
- Habitat restoration via sediment diversions takes a long time after a substantial time lag
- Reduced sediment loads in river waters
- Effectiveness in combating projected rates of sea level rise caused by climate change

Understanding Trade Offs



Examples include:

- Reduced production now versus maintenance of some level of production later
- Reduced production of some fishery species now versus improved production of another species
- Marsh versus oysters
- What are the other trade offs we suspect might happen?

Understanding Risks

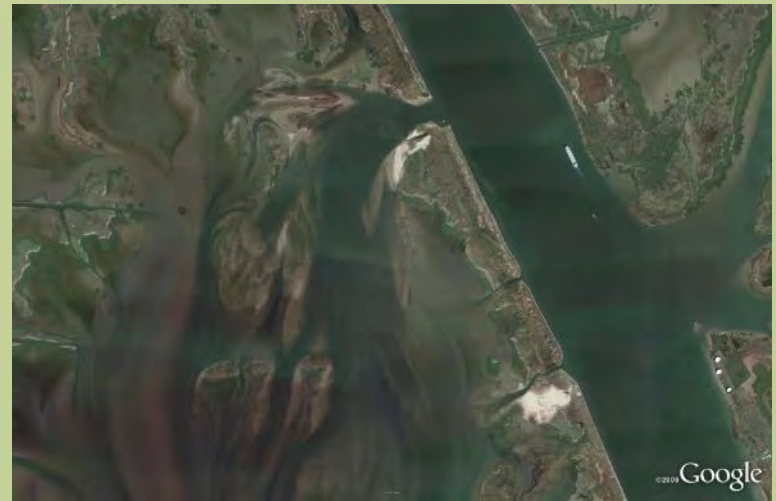


- Do we have the necessary tools to understand trade offs/risks?
- How appropriate are the data supporting the use of those tools?
- What can be done in the near term to improve our understanding of the trade offs?
- Is that investment in time and money critical to understanding trade offs and decision-making?

Understanding rewards



- What are the likely benefits associated with the diversions?
- Are there means to better model or quantify likely rewards and the temporal lag with planned diversions
- How can those rewards be improved or maximized?



Monitoring/Adaptive Management



- Develop MAM plan early in the process
- Fully commit to a long term investment in MAM
- Implement monitoring effort early in the process prior to construction of diversions
- Identify criteria which may lead to specific adaptive management changes
- Involve scientific community in development and implementation of MAM program