

Ecological Risk Assessment of Biscayne Bay — Effects of Everglades Restoration

Presentation by Dr. Mark Harwell, Center for Marine and Environmental Analyses (CMEA), Rosenstiel School of Marine and Atmospheric Science (RSMAS),

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Working Group Meeting 24 July 2001

Dr. Harwell will present an overview of the Biscayne Bay ecological risk assessment research done by CMEA, sponsored by NOAA Coastal Ocean Program and in collaboration with the South Florida Water Management District. There will be a 2-hour morning session for interested parties with details of the ecological risk assessment and movies of model outputs. In addition, Dr. Harwell will make a 45-minute summary presentation to the Working Group in the afternoon.

The presentations will overview the following:

- Ecological risk assessment framework and steps for the Biscayne Bay comparative ecological risk assessment;
- Scenarios of South Florida water management system and restoration changes (95 Base and D13R), and various climatic conditions;
- South Florida Water Management Model and model outputs of freshwater flows into Biscayne Bay from each water management scenario;
- CMEA Biscayne Bay Hydrodynamical Model and model outputs for salinity regimes from each scenario;
- CMEA Seascape Model and model outputs for effects of salinity regimes on seagrass and hard-bottom communities of Biscayne Bay;
- CMEA Fish Community Model and model outputs for effects of salinity regimes on seatrout and shrimp populations of Biscayne Bay;
- Summary results of comparative ecological risk assessments;
- Conclusions and implications for decision-making.