

To: Attendees

From: HDR Engineering, Inc.

Subject: Indian River Lagoon North Feasibility Study (IRL-N FS) Performance Measure Subteam Meeting Summary – September 24, 2002

Attendees: See attached.

Handouts: Agenda
IRL Surface Water Improvement Management (SWIM) Plan’s Contribution to the Development of IRL North FS Performance Measures
Performance Measures/Targets Indian River Lagoon Project
Indian River Lagoon North Feasibility Study Performance Measures Subteam Meeting Power Point Presentation (Hardcopy)

The IRL-N FS Performance Measures subteam meeting was held from 9:00 AM-4:00 PM on September 24, 2002 at the Brevard County Cooperative Extension Service Center in Palm Bay, Florida. The meeting discussions are summarized below.

INTRODUCTION, AGENDA, AND TEAM MEMBERS ROLES

Debbie Peterson, U.S. Army Corps of Engineers (USACE) and Planning Technical Leader for the IRL-N FS, introduced herself and asked everyone present to complete the sign-in sheets (“first timers” for new Project Delivery Team (PDT) members and “old timers” for everyone else) located near the meeting room entrance. Debbie explained that the goal for the meeting was to work toward developing performance measures for the IRL North Feasibility Study. Debbie reminded the meeting attendees of the Federal Advisory Committee Act (FACA) requirements. She explained that the PDT consisted of federal, state, local, and tribal government representatives and time is allotted at each meeting to allow for public input and commentary. Speaker registration cards were provided at the entrance to the conference room. No members of the public were present at the start of the meeting.

PERFORMANCE MEASURES 101(Greg Graves FDEP)

Greg Graves representing the Florida Department of Environmental Protection (FDEP) provided a Power Point presentation explaining the basics of performance measure development. Greg reviewed the definition of a performance measure. Some key points made during the presentation were that performance measures must have real targets for each stressor, and the performance measures must be consistent with the ecological models.

There was some discussion about whether the performance measures should be qualitative or quantitative. Angie Dinkla, HDR Engineering, Inc., explained that both qualitative and quantitative performance measures were developed on the Lake Okeechobee Watershed Project (LOWP). She further indicated that it was the PDT’s role to determine which performance measures would be qualitative or quantitative. Greg Graves reminded the PDT that all

performance measures have cost associated with them. Angie Dinkla related that the LOWP team changed some of their performance measures from quantitative to qualitative due to cost issues.

Greg reminded the team that the goal is to intercept some adverse impact in the project area by developing a project component (e.g., storm water treatment area) and use performance measures to measure the effectiveness of the component. The performance measures must have an associated monitoring plan and the monitoring plan must be balanced with available funding.

IRL-NORTH FEASIBILITY STUDY DRAFT PERFORMANCE MEASURES (Debbie Peterson, Bob Day, & Joel Steward)

Debbie Peterson provided a Power Point presentation regarding how performance measures will be used in the IRL North Feasibility Study. She explained that the team must evaluate alternative plans in a systematic process and explain how and why the plan will help the restoration. The performance measures are critical to evaluating the alternative plan so that the project can move toward selecting a recommended plan. Debbie also reviewed the project goals and objectives from the IRL North project management plan. Angie Dinkla also shared with the team a chart from the LOWP showing the hierarchy of the performance measures and explained that the LOWP team set at least 1 performance measure for each project objective. Angie also shared with the team the one-page fact sheet that the LOWP used for each performance measure and Greg Graves showed a similar sheet that the Restoration, Verification and Coordination (RECOVER) committee is using for the same purpose. Debbie reminded the team that the IRL-N FS and the performance measures will undergo peer review.

Bob Day of the St. Johns River Water Management District (SJRWMD) reviewed draft performance measures that he and Joel Steward (SJRWMD) have developed to give the subteam a starting point. The team discussed how best to review the preliminary draft performance measures. Bob explained that the initial performance measures in the handout were general in nature. Joel Steward also distributed the recent draft IRL SWIM Plan's contribution to the IRL North Feasibility Study performance measures. Greg Graves relayed to the team that one possible test to determine if an item is a performance measure or simply an indicator is by applying the prospective performance measure to the form previously discussed. If the form can be completed and it is applicable to the project goals and objectives, then it is probably a performance measure.

The team discussed sea grass acreage numbers in the preliminary performance measures and the importance of carefully considering the context of the 1943 bench mark numbers that were being used. During continued review of the preliminary performance measures additional clarifications included the following:

- Light penetration can be included in the model output.
- Water color is not a model indicator.
- The model does have temporal ability.

- Performance measures can be revised as the study moves forward if it is determined that the performance measure is not viable.
- It is not mandated that the projects improve flood control.
- Hydro-period restoration is still a viable term.

BREAKOUT GROUP IDENTIFICATION AND STRATEGY

Following a short break, the meeting resumed with a discussion about how to organize the breakout groups and what the scope of discussion should be for each group. It was decided that there would be 3 breakout groups and each group would review the preliminary performance measures that Bob Day and Joel Steward presented to the team earlier and refine and reform the proposed measures as deemed appropriate. Debbie reminded the team that it was important to relate each performance measure back to a specific IRL-N FS objective.

REPORTING FROM BREAKOUT GROUPS

A member from each breakout group provided a summary to the team on the work of their respective group. Notes taken by the breakout groups during their session are attached.

During the breakout group reporting Debbie indicated that she did not want to dismiss any of the performance measures at this early stage of development. Additionally, there was discussion about muck removal. The team agreed that the natural system needs some muck based on the Crane Creek example. The team agreed that pre 1948 levels should be the baseline for muck.

There was also a discussion about the IRL North Feasibility Study project scope and problems it can address. It was explained that in general the project could only address problems created as a result of the Central and South Florida (C&SF) Federal flood control modifications. However, Pete Milam explained to the team that there are other mechanisms that can be used (e.g., continuing authority program) to achieve restoration of areas like spoil islands, provided a non-Federal sponsor can be identified. Specific restoration activities that have been undertaken related to spoil islands include removing exotics and lowering spoil island elevations to support sea grasses. Debbie explained that federal requirements for small projects can sometimes be limiting.

FUTURE ACTIONS / NEXT MEETING

Debbie thanked the team for their hard work and especially Joel and Bob for the jump-start on the performance measures and she thanked the Brevard County Extension Service for the use of the facility. The next step will be to have another full PDT meeting to review the performance measures developed so far. The meeting adjourned at 3:20 PM

Group #1

Seagrass Coverage (7 species) to 1.7m and shallower

- Target (one)
- *IRL-N FS Objectives:*
 - *Improve Habitat*
 - *SAV Extent*

Seagrass Light Requirements

- 32% of sub-surface light (light that has penetrated air-water interface) @ 1.7m
- *IRL-N FS Objectives:*
 - *Improve Water Quality*
 - *Reduce Pollutant Loadings*

Pollutant Loadings

- PLRG's (see Table 2 of IRL SWIM Plan's Contributions to IRL-N FS PM's)
- *IRL-N FS Objectives:*
 - *Improve Water Quality*
 - *Reduce Pollutant Loadings*

Salinity (Envelope)

- Specific #'s geographically
- *IRL-N FS Objectives:*
 - *Improve Water Quality*
 - *Reduce FreshWater In-flows*

Restore Impacted marshes

- Impounded
- Dragline Impacted
- *IRL-N FS Objectives:*
 - *Improve Habitat*
 - *Increase Spatial Extent & Functional Quality of Wetlands*
 - *Maintain/Improve Diversity & Abundance of Plant & Animal Species*

Muck Removal

- Location specific
- *IRL-N FS Objectives:*
 - *Reduce Excessive Freshwater Inflows and Pollutant Loadings*
 - *Improve Water Quality*

Hydrodynamics

- Pre-causeway circulation patterns
- *IRL-N FS Objectives:*
 - *Improve Water Quality*
 - *Increase Spatial Extent and Functional Quality of SAV & Watershed Wetlands*

- *Maintain/Improve Diversity and Abundance of Native Plant & Animal Species*

Shoreline Habitat

- Location specific
- *IRL-N FS Objectives:*
 - Improve Habitat

Group #2

Seagrass Coverage = Water Quality

IRL-N FS Objectives:

Increase Spatial Extent & Functional Quality of SAV & Watershed Wetlands

Improve Habitat

Related: Reduce Excess Fresh Water Inflows & Pollutant Loadings

Related: Improve Water Quality

Target: Minimum 14,489 acres / 26,430 acres

Performance Measure: Solar light at 1.7m = 32% sub-surface light (light that has penetrated the air-water interface)

Sub Performance Measures: TSS, TN, TP

IRL-N FS Objectives:

Reduce Excess Fresh Water Inflows & Pollutant Loadings

Improve Water Quality

Target – Salinity PPT

Performance Measure: Pages 5, 6, 7 as written in SWIM Plan's Contributions

IRL-N FS Objectives:

Increase Spatial Extent & Functional Quality of SAV & Watershed Wetlands

Maintain/Improve Diversity & Abundance of Native Plant & Animal Species

Target

Performance Measure: Pages 8 and 9 in SWIM Plan's Contributions

Add for freshwater wetlands associated with project lands??

Muck

IRL-N FS Objectives:

Improve Water Quality

Improve Habitat

Increase Spatial Extent & Functional Quality of SAV & Watershed Wetlands

Target – restore to pre-1948 extent/volume

Performance Measure – reduce/remove muck (priority areas)

- Control sources

Group #3

Water Quality Improvements Objective (match historic measures).

- Indicators – Quantifiable.
 - Health of Seagrasses.
 - Coverages.
 - Present.
 - Target (1948).
 - Shellfish Density (Data).
 - Pollutant Levels – Present/Target.
 - TP.
 - TN.
 - TSS.
 - Water Characteristics – Present/Target.
 - Salinity.
 - PH, DO.
 - NTU.
 - Light Penetration.
 - Fisheries Productivity.
 - Present/Past/Target (Data).
- Improvement Methods.
 - Reduce Stormwater (Fresh) Discharges.
 - Reduce Stormwater Sediments in Discharges.
 - Restore Coastal Wetlands.
 - Impoundment Breaching.
 - Ditch Filling.
 - Alter Causeways and Hydrodynamic.
 - Increase Shoreline Plant Communities.
 - Muck Removal.
- Qualitative Improvements.
 - Fisheries.
 - Shellfish.
 - Water Supply – must maintain; may improve.
 - Flood Protection– must maintain; may improve.
 - Recreation Opportunities.