June 20, 2006

FROM: The Biscayne Bay Regional Restoration Coordination Team (BBRRCT)
TO: The South Florida Ecosystem Restoration Task Force Working Group

SUBJECT: The C-111 Spreader Canal Basis of Design (BODR) Report

As accepted by the Working Group on January 20, 2006, the Biscayne Bay Regional Restoration Coordination Team (the Team) Action Plan calls for the BBRRCT to review and provide comments on Biscayne Bay related Comprehensive Everglades Restoration Plan (CERP) projects including the C-111 Spreader Canal Project. The Team received a briefing on the C-111 Spreader Canal Acceler8 BODR on June 23, 2006, during the public presentation and comment period for this project. After carefully reviewing the information provided, the Team has concluded that the recommended Acceler8 Design Alternative 5 may be inconsistent with sub-goals in the Action Plan relating to reduction of pollution, and improvement of water quality.

Water Quality in Loveland Sough

The BBRRCT is concerned that the Acceler8 Phase 1 C-111 does not completely address water quality problems in Loveland Slough. The slough's watershed is almost exclusively agriculture, with runoff that transports fertilizer, pesticides and contaminated sediments from the farm fields into the slough. Although it is believed that the more frequent opening of Control Structure S-178 will limit the concentration of pollutants, the Team believes that water quality problems will remain a concern due to nutrient and contaminant loading from extended flow regimes. The established "base" flow in Alternative 5 would convey water directly from the slough through the spreader canal to adjacent natural areas without treatment to remove any pollutants. This flow would effectively dilute, but not eliminate, the contamination and transfer of polluted water into lands targeted for environmental restoration. In addition, the proposed 500 cfs flow rate would alter the natural intermittent flow pattern characteristic of a slough during high rainfall events to a flow pattern more characteristic of a stream. Since there is no proposed increased attenuation of contaminants, constant flow with these contaminants will continue to load the area with these compounds based on flow over time. The Team also believes that some adaptive management techniques should be in position, in order to mitigate any further water quality concerns once the project is in place. For example, a comprehensive BMP effort for the surrounding farms has been initiated under the auspices of the Florida Department of Environmental Protection (DEP), Florida Department of Agriculture and Consumer Services (FDACS) and the Institute of Food and Agricultural Sciences BMP Implementation Program. Through techniques such

as fertilizer and irrigation management, plant yields can be improved while minimizing the release of excess nutrients into surrounding ground and surface waters.

While the Team applauds efforts to deal with the impaired water quality of the slough, we believe that contaminated sediment and water from the slough must be prevented from entering the spreader canal. Water from the slough should either be hydrologically isolated from the spreader canal or appropriately treated before entering the spreader canal in order to avoid conveying polluted water to the restorable natural areas. The Team recommends an increase in the project budget to ensure that the contaminated slough water is not allowed into the spreader canal, so that further degradation or loading of downstream waters do not occur after Acceler8 construction.

Consistency between the Acceler8 and the CERP project

The Team is also concerned with the current terminus of the C-111 Spreader Canal in Phase I. We believe that it is inconsistent with the goals for the CERP Phase II project, and that this will lead to reduced environmental benefits. We support the spreader canal alignment with the natural 2.4 ft topographic contour line because we believe this alignment makes the most hydraulic sense and will yield environmental advantages. In the BODR, the current canal terminus is not in a position where it will be able to connect to this 2.4 ft contour, which we believe will constrain the future Phase II project. The Team believes that better consistency is necessary between the Phase I Acceler8 project, and the Phase II PDT.

In an effort to better link the CERP and Acceler8 projects, we recommend that the CERP PDT reach consensus on the features that will be implemented by the Acceler8 project. Also, we recommend an analysis of how the Acceler8 project will be linked to the overall goals and objectives of the larger C-111 CERP project, including quantification of defined performance measures developed by the PDT. This analysis should include an evaluation of a topographically aligned canal that maximizes benefits across the largest spatial extent of this area of the coastal Everglades and improves the hydrological connectivity of the Model Lands Basin. We also recommend that topographic alignments should be fully modeled and analyzed as project alternatives, as well as verifying the accuracy of the LIDAR topography with available ground surveys in order to ensure that the proposed Acceler8 spreader canal is aligned correctly for the future Phase II project alternatives.

Dry Season Conditions

Preliminary modeling indicated that canal alignments that cross elevation contours may act to drain the wetlands to the north of the project when there is

no flow in the canal. Evaluation of existing releases has indicated that there is no flow in the canal roughly half of the time, which indicates a potential for problems, especially under extended dry conditions. Engineering solutions to this problem should be included in any design that crosses contours and the costs for construction and operation of those solutions should be included in the analysis.

Mitigation

Presently, the spreader canal alignment follows the footprint of a previous canal system. The rationale for selecting this alternative was to minimize impacts to existing wetlands and thus minimize mitigation. However, focusing on direct wetland impacts of the footprint of the project components (i.e. the spreader canal) rather than the potential spatial extent and ecological lift that could be realized with various alignments may overlook significant factors that may be revealed by a more extensive analysis of direct impacts versus long term benefits.

Overall

It is the Team's understanding that the potential cost for different design alternatives of this project is a limiting factor. However, the Team recommends some increase in the project budget to allow for optimal refinements of Alternative 5 as described in this letter.

Incorporating these recommendations into the BODR will promote consistency with the Ecological and Physical Restoration subgoals of the BBRRCT Action Plan and eliminate environmental risks and uncertainties associated with the C-111 Spreader Canal Acceler8 project. The BBRRCT thanks the Working Group for considering our concerns, and we look forward to providing additional input as the project moves forward.