

Miami-Dade DERM  
Staff Comments on CERP Guidance Memoranda  
December 17, 2007

General:

COE staff has clearly made a substantial effort to incorporate agency comments from the last review cycle. We applaud this effort, however, we note that several of our substantive comments have not been incorporated into the latest draft. We have made suggestions for improvement to accommodate our concerns below. The majority of DERM's comments are provided based upon our active experience as participants in numerous CERP PDTs and other CERP committees. We appreciate the opportunity to continuing to work with the COE to refine the guidance memoranda further.

Miami-Dade has previously emphasized concerns related to a variety of "Savings Clause" issues, including provision of comparable water quality and volumes for both natural systems and urban water supplies and maintenance of flood protection levels of service. We understand the language in WRDA and the interpretation that has been set forth with respect to "intervening" projects that may have provided flood protection, water quality, or other ecological benefits. Although we understand impacts on such intervening project improvements are not viewed as violations of the Savings Clause, we wish to reemphasize our earlier position that adverse impacts to such intervening benefits is not good public policy, and we urge that teams be given guidance to assure that such benefits should not be compromised by CERP.

Our experience in PDTs and other teams has reinforced our concerns that existing modeling tools and performance measures are often inadequate to address Savings Clause issues, particularly for water quality. The current procedure also provides full analysis after plan formulation, which can result in potential delays and costs with reformulation. As noted below, phasing of projects in conjunction with IAR is also further complicating analysis of these various Savings Clause issues. In reviewing CGMs 1,2, 3, and 4, we particularly note very little material guidance to teams on issues of comparable water quality. We wish to emphasize that we are concerned about total phosphate and other nutrients and their potential impacts on Biscayne Bay and Everglades systems; however, we also note that a variety of other water quality parameters, such as microcontaminants, pathogens, and salinity are important in evaluation of Savings Clause issues related to wellfields. We recommend that more specific guidance be provided to teams to assist them determining how to conduct such analyses of water made available by other projects or in instances where an alternative water source is provided.

We strongly recommend that a section be added on Incremental Adaptive Restoration (IAR). CGM 6 appears to have been developed based upon earlier concepts associated with system-wide Monitoring and Assessment Plans, conceptual models, and interim updates. These remain viable aspects of adaptive management, but have not incorporated more ambitious approaches inherent in IAR. This new philosophy, an outgrowth of the concept of adaptive management, is being implemented in several of the more complex projects in order to move forward with some components of a plan to provide substantial early restoration benefits, while providing for opportunities for learning to address the most significant uncertainties that represent a risk to

accomplishment of CERP objectives. This philosophy can and has resulted in several projects being split into several phases. More recently, PDTs have been asked to develop IAR plans that could incorporate elements of more than one CERP project, or even include components of non-CERP projects, such as Modified Water Deliveries. This has raised policy questions on the following:

- How the PDT should plan for an early phase while maintaining compatibility with later phases;
- How the PDT should address budget caps when phasing can increase planning, monitoring, and construction costs because of additional planning needs, the need for additional monitoring to gain information from pilot projects, and the time delay in implementation;
- How the PDT should address potentially diminished ecological benefits from an early phase that may not contain crucial features for deriving substantial ecological benefits;
- How the Corps and the non-Federal sponsor should expeditiously address land acquisition for the entire project when only one phase is being addressed.
- How will teams be able to evaluate costs and benefits of projects outside the scope of their own team study area, timeline, or authorization?

These issues are being worked out in several projects at present, and we encourage the USACE to capture this learning in CGM 1 and rewrite CGM 6 so that future teams can benefit from the experience being generated now.

We recommend Next Added Increment (NAI) modeling parallel with full CERP implementation, or creating an option for incorporating NAI modeling earlier in the process. Phasing of projects has cut down on the total project benefits expected for a particular phase, but has not eliminated the process of cost-benefit accounting. Several projects have experienced CERP or Future Without Project features masking the functioning of the smaller suite of alternative features under phased planning. NAI or modified NAI modeling was helpful in teasing out benefit projections without interference from background features.

CGM 1:

Section 1.6, Elevation of Issues. The text (Page 1-4, lines 32-34) states that “Issues should be coordinated through the Design Coordination Team (DCT) and the Quality Review Board (QRB), as appropriate.” The area of responsibility for each of these teams is neither provided here nor in the definitions in Appendix A, therefore, this section would be improved if it were to provide more information on the composition and function of these teams, along with specific guidance on what types of issues would get elevated to each of the teams. Are these teams considered equal in the hierarchy of decision-making, with each having an area of responsibility, or sequential, with an issue going to one team and then the other if it can’t be resolved at the first? It should also be noted that the participation in these groups is limited, and management guidance that may emerge is not always documented clearly. Communication between these policy groups and project teams is indirect, at best. Feedback to PDTs or other implementation teams from such decision-making bodies should be provided in an objective format.

Section 1.7, In-Progress Reviews and Other Meetings. Page 1-4, line 43 states that “The primary objective of IPR meetings is to discuss and resolve policy issues ...”. Given that the attendees at the IPR appear to solely be from the Army Corps hierarchy, it is of some concern that policy issues are being decided by this team, apparently without input from the local sponsor and/or

other resource agencies. Please clarify what role these meetings have, especially in light of the existence of DCT and QRB, which are multiagency teams also assigned (see Section 1.6) to address policy issues.

Management measures, performance measures, and evaluation criteria have continued to be confusing to new members of project teams and the general public. Please provide a definition of each of these, either the first time each is used in the document, or in Appendix A.

It would be helpful to see a theoretical timeline for project completion so that the timing and sequencing of the various meetings that are described in this and the two subsequent sections are visually depicted.

Sec 1.10, Real Estate. We concur with using the actual purchase price for land that has already been acquired in figuring real estate costs. This policy avoids penalizing a project where substantial amounts of land needed by the project have been in public ownership for an extended period. This section does not distinguish between land being provided by the Corps and/or the non-Federal Sponsor and land being provided (and possibly donated) by public agencies or other entities that are not the non-Federal sponsor. How will costs be figured for lands or flowage easements that are donated?

This section does not address the possibility for land or easement donations. Even if there are early indications that land and/or flowage easements would be donated to the project by public agencies other than the local sponsor, it has been our experience that costs for the project are being figured on full purchase price of such land. This inflates the project budget and potentially creates a limitation on the restoration that can be accomplished because of it. This is certainly not the intent of the agency or private entity that is considering a land or easement donation. We understand that until an agreement has been completed for a land or easement donation, the donation could be withdrawn at any time. We suggest, however, that the value of potential donations could be tracked in a separate cost category that is used to help define the uncertainty in real estate costs for the project rather than having this information counted as a real project cost.

Sec 1.10.2, Cost of Real Estate as a Percentage of Project Costs: Individual Projects. We strongly support allowing individual projects to exceed the 25% of project costs cap on real estate acquisition. In addition, we recommend that the policy for holding CERP as a whole to land acquisition costs that do not exceed 25% of project costs be abandoned and replaced with a policy of tracking trends in land acquisition values in South Florida and providing appropriate justification for land acquisition costs that exceed 25% of project costs, instead of relying on a hard cap, for the following reasons:

1. As noted in the section, the recent explosion of land values throughout South Florida has already created project cost overruns in several projects and has forced reconsideration of alternatives that were otherwise considered to provide an excellent suite of environmental benefits along with a good cost/benefit ratio. Several projects have been divided into more than one phase, partly because of the implementation of the Incremental Adaptive Restoration (IAR) philosophy that has recently been adopted, and partly because phasing the project also brought the benefit of reducing costs, and especially land acquisition

costs, thus bringing the smaller project back into line with the original project cost projections.

2. The extended timeline over which CERP will be built could result in early projects benefiting from the relaxation of the 25% cap, while projects that come later in the schedule could be penalized. Land values are expected to continue to rise for the long term, although at present a slight downward adjustment appears to be occurring due to market forces.
3. Real estate is still lagging behind project planning in acquisition of significant tracts needed by the project. This results in three problems, all of which can add to the total real estate costs:
  - a. The longer it takes to acquire needed land, the higher the price will tend to be. Land prices in South Florida have started into a downturn cycle, however, the opinion of real estate experts has continued to be that there is a demand for South Florida land, so the downturn is expected to be neither long-lived nor severe. Over the life of the CERP planning process, therefore, prices will continue to increase.
  - b. The lag allows speculators time to acquire strategic properties and artificially elevate the value of the land. Such activities also affect land prices for the surrounding lands because of the elevated comparable sales values. The following are a few examples of how land values within the boundaries of CERP projects in Miami-Dade County have been artificially elevated: purchase of the land at an inflated price, initiation of development processes regardless of any intention to develop, failure to negotiate in good faith in order to force condemnation, etc.
  - c. The lag puts time pressure on real estate staff to acquire strategic parcels in time for construction to begin at a time certain. This virtually eliminates the possibility for taking advantage of downturns in the real estate cycle to acquire substantial amounts of land at advantageous prices.

We recommend that USACE reconsider how and when land is purchased for CERP projects. Much of the needed land has already been identified, and a great deal is already on one or more lists for environmental acquisition by public and private entities. Acceleration of land acquisition funding and providing flexibility so that real estate staff can take advantage of periodic downturns in the market and other opportunities to acquire at an advantageous price will make a significant difference in total project costs. There is a greater risk of not acquiring enough land than there is of acquiring too much.

There is no discussion in this section of how USACE will treat mitigation projects that are located within a CERP footprint. Planning efforts have traditionally avoided impacting such projects, but regional restoration due to the CERP project might actually provide additional benefits to mitigation projects within the project area. These projects are required in order to replace wetland benefits that were lost to the greater public good when the property owner chose to derive economic benefit from land that included wetlands. If a CERP project will benefit a private mitigation project (and could actually assist the property owner or reduce the cost of achieving the mitigation goals), it is unreasonable to expect the public to pay the property owner in order to provide additional benefits for such projects. Instead, regulatory staff could be

incorporating conveyance of needed easements (flowage, conservation, etc) for restoration into the permitting requirements for any mitigation project that is located within a CERP project footprint. If possible, the mitigation land should be conveyed into public ownership as a condition of the permit, along with the financial means for carrying out the required perpetual maintenance of the mitigation project.

#### Section 1.14, Features to Improve Water Quality

This section appears to be straightforward, however, something that is used in the decision pathway must be missing from the narrative. In actual application, projects that appear to meet these criteria have been deemed “not in the Federal interest”. An example is the C-111 Spreader Canal Project. This project is a Class A project and has significant water quality issues for the water coming into the project area from the S-178 structure. The Corps has stated, however, that they believe there is no federal interest in the water quality portion of this project. Please clarify this section, using the need to better explain the justification for excluding the water quality component(s) of the C-111 Spreader Canal project from 50% federal cost-share as a guideline for what information needs to be included.

#### Section 1.15, Project Monitoring Plan

We concur that monitoring at the project level should not generally duplicate regional monitoring addressed by the Monitoring and Assessment Plan (MAP). MAP, however, does not currently address project-specific issues and uncertainties, nor does it always provide appropriate temporal and spatial scale. There needs to either be appropriate incorporation of monitoring at the project level in the MAP, or a recognition that the MAP will not be able to address project-specific components. If the latter, there should be enough flexibility and commitment for funding to enable the project team to address project-specific uncertainties through monitoring at the project level.

Provision of an appropriate balance between regional and project-specific monitoring is particularly important with the implementation of the Incremental Adaptive Restoration (IAR) framework. IAR emphasizes incorporation of opportunities for learning in order to reduce uncertainties that could otherwise delay project construction. It is expected that this approach will necessitate assessment of parameters and scales that are not addressed by the regional approach that was used to develop MAP. With the implementation of IAR, project-level monitoring has become more important to the long-term success of CERP and should be given more emphasis. Several projects have already been divided into phases that depend on project-level monitoring of early phase features and/or pilot projects to support planning and design of later phases. If the fundamental concepts of IAR are to be achieved, the Guidance Memorandum should provide a mechanism that integrates RECOVER and PDT planning and assures these collaborative teams that monitoring projects that are needed to support IAR are fully funded.

#### Section 1.19, Consideration of Recreation Opportunities

We support the concept of recreational access that is consistent with the C&SF Project (CERP) authorized purpose. Recreational use of the Everglades does, however, currently include uses that would not have been possible without the road and canal network that was installed before and during the construction of the Central and South Florida Flood Control Project. Such uses are likely to be affected by restoration projects that propose to eliminate portions of the flood

control project. There has been debate about whether recreational impacts should be considered and accommodated when selecting a restoration alternative. Project teams have received verbal guidance that recreational use should not be a factor in developing a restoration alternative, however, that guidance is not stated in this section. We recommend that appropriate language be inserted so that the boundary between restoration planning and providing recreational access that is consistent with the C&SF Project authorized purpose is clearly defined.

We are also concerned about the following statement: “The PDT should determine whether the selected alternative plan affects existing recreation features and the appropriateness of mitigating adverse effects on existing recreation facilities.” As currently written, this sentence could be interpreted to mean that restoration could be compromised in order to mitigate for recreational impacts. Please provide additional detail on how the PDT is to determine whether mitigation for recreational impacts is appropriate, and if so, what constitutes appropriate mitigation.

#### Section 1.20, Regional Modeling Analyses

This section implies that the PDT has responsibility for developing the baseline simulations to support the various alternative analyses that are required. This is in conflict with statements in Section 1.23, where several baselines are provided by RECOVER. This section is accurate to the extent that the PDT must review the baselines developed at the regional level by RECOVER and determine whether modification would be appropriate to incorporate features that could not be represented in the regional model, but which may be important at the subregional or local levels.

#### Section 1.23, Major PIR Activities

Please note comments provided for Section 1.20, above. There is a statement in Section 1.23.1 that a Feasibility Scoping Meeting is the appropriate venue for determining whether the team should focus on optimization of the Yellow Book Plan or whether additional formulation should occur. Since the FSM is defined in Section 1.7 as a meeting that occurs after preliminary formulation and evaluation has already occurred, it seems inefficient for this meeting to be the appropriate venue for this decision. It would be more efficient to make such a decision early in the alternative formulation process.

#### CGM 3:

Sec 3.7.2, Agricultural and Urban Water Supply. The first paragraph needs minor rewording to improve clarity. Suggested rewording:

The existing legal sources of water for agricultural and urban water supplies in the Pre-CERP Baseline were determined using model assumptions based on the actual levels of consumptive use in existence as of the date of enactment of WRDA 2000 rather than permitted allocations. This methodology is consistent with the basic underlying principle used to choose assumptions for other existing legal sources of water, which is to represent as closely as possible the actual conditions in place in the system as of the date of enactment of WRDA 2000 (December 11, 2000). The use of ~~p~~Permitted allocations in existence as of the date of enactment of WRDA 2000 which were not utilized would have incorporated could have resulted in incorporation of demands projected over the life of the permit that may not have been in existence at that date were not being utilized on the date of enactment.

#### Section 3.8, Intervening non-CERP Activities

Given the substantial investment of public funding to implement intervening non-CERP activities such as flood protection improvements or ecological restoration projects in Miami-Dade County and the potential consequences of impacting those improvements as a result of a CERP project, we suggest that PDT's be given the flexibility to consider mitigation for impacts to intervening non-CERP activities, just as GM 1 provides the PDT with flexibility to consider mitigation for recreational impacts.

#### Section 3.10.3 Identifying Elimination or Transfer of Water

The narrative and graphics provide guidance on volume of water, or identifying "reduction of volume", but there is no specific direction on water quality issues.

#### Section 3.10.4 How much of a difference...

It is noted that the brief narrative states that differences must be "significant", and that this can only be evaluated on a case-specific basis, but no framework or context is offered to help teams determine what this means. This is particularly difficult for teams, given the limitations of modeling tools available. It is suggested that more specific direction is needed, perhaps through inclusion of examples.

#### Section 3.10.5 How to Determine if a Replacement Source is Comparable

The section lists three factors that are to be evaluated: if the source meets demand; if it is legally feasible; and if it is sufficiently similar in terms of technical and economic feasibility. The second two factors require further clarification. There is a statement that the quality of water from the replacement source is to be compared to quality of the existing legal source, but no explanation or procedures are provided to explain how to do this. A reference is made to "see Section 3.10.7", but there is no such section. Definitions of "sufficiently similar" and procedures or examples demonstrating how to conduct and interpret such an evaluation are needed.

#### Section 3.11 (several subsections)

Terms such as "significant adverse reduction" or "sufficiently similar" are too subjective. More elaboration is needed.

#### Section 3.11.4

This section suggests consideration of approved performance measures for evaluations of Savings Clause issues. However, there are few performance measures for water quality or to address objectives related to the built environment. In addition, there are few models available and teams generally link performance measures to project objectives rather than project constraints, such as Savings Clause concerns. DERM staff have stressed in many venues that existing performance measures often do not address factors related to flood protection level of service and water quality. Until such measures are developed or improved, it will not be possible to use existing approved PMs to determine significant and adverse impacts.

#### Attachment 3H, Flow Chart for Elimination or Transfer

This chart provides guidance related only to volume of water. There is nothing in the process chart that acknowledges that an elimination or transfer may occur due to changes in water quality. It is important to clarify this issue, or at least include a footnote or warning that the chart does not address all causes of elimination or transfer.

CGM 4:

Section 4.5.2, Water for Estuaries

Figure 4-2 should be revised. It attempts to illustrate the concept of water meeting restoration targets for estuaries, however, it is misleading because it implies that conditions where the target is not being met should be counted as meeting the restoration target. The water needed to meet restoration targets is actually the area under the target hydrograph. The water currently available to the system is the area under the current hydrograph. The area under the two graphs should be compared to determine the system's surplus or deficit. If the area under the current hydrograph is greater than the area under the target hydrograph, then there is a net surplus, and water can be made available for other natural areas and/or other users. If there is no difference in area between the two curves, then the water available is sufficient to meet restoration targets, but there is a problem with timing (and possibly distribution) that should be addressed by the project. If the area under the current hydrograph is less than the area under the target hydrograph, however, then there is a net deficit of water to meet restoration targets, and additional water should be sought by the project team, in addition to addressing any timing and distribution problems.

Section 4.5.3, Hydrologically Separate Basins

We concur that the process for determining whether there is water that can be made available for the natural system and for other water-related needs should be conducted at a system-wide level using available regional and sub-regional hydrologic models. Knowledge of system-wide requirements is a RECOVER responsibility, however, so this section should indicate that this process should entail close coordination between the PDT and RECOVER unless the project is considered hydrologically separate from the regional water management system. Please provide additional guidance on how such water would be tracked and prioritized for distribution, as well as information on which project is expected to address the cost of conveying the water from the project that generates it to the project receiving it.

Section 4.5.4, Significant Natural System Areas located within Other Water-Related Needs Basins

Has a list of "basins identified as other water-related needs basins" been developed? If so this list, along with available restoration targets for these basins, should be made available to each of the project teams whose projects might affect water relations in one or more of the basins on the list. Project teams may not be familiar with significant natural system areas that may be located outside the immediate project area.

We are concerned that no alternative methodology has been developed for determining restoration water needs for small basins that are too small to model at the regional or sub-regional level. A lack of information risks having water needs not be met for these basins because of oversight and/or the challenges of developing an alternative method for evaluation under the tight schedules experienced by some projects. Lack of information and an appropriate methodology for these small basins also risks having a project create unintended harm that would not be properly quantified because of the lack of regional or sub-regional modeling tools. For example, quality wetlands basins such as Pennsuco or portions of Model Lands are included in LECSA3, and needs may be obscured by larger volumes needed for regional ag/urban users.

#### Section 4.6.1, Volume-Probability Analysis of IOR and NAI Condition

This section is complicated and confusing. It also emphasizes only volume or volume changes, without regard to water quality. A determination that a project produces a volume of water that may be available is not complete without an evaluation of that water quality, and whether it is comparable to the water needed by other projects.

Comparison of the Initial Operating Regime (IOR) to the Next-Added Increment (NAI) Condition appears to yield only the total water necessary to achieve the benefits of the project under partial implementation of CERP, and does not apparently address the interaction of the project at hand with future CERP projects. If this is true, this could result in reallocation of water to other water users that will be needed at a later date to achieve full project benefits of a future CERP project. This section should clarify how this methodology protects total water necessary for full project benefits under full CERP implementation from being allocated to other water users prior to full implementation of CERP.

The paragraph beginning on line 22 on page 4-5 is confusing. Please confirm whether the GM is trying to convey the following, and if so, we suggest substituting this language for clarity: The identification of the water made available by the project will be determined by comparing the Initial Operating Regime (IOR) to the Existing Conditions Baseline to provide an initial quantity made available, followed by comparing the Next-Added Increment (NAI) Condition to the Next-Added Increment Baseline to provide a future quantity made available.

This same paragraph states that the initial quantity made available is the amount to be reserved or allocated by the state. Further clarification is needed to distinguish reservation vs. allocation – is water made available reserved first to meet current and future project needs, THEN reallocated to other water users if anything's left? Is there a fixed split or portioning? If so, projects that only make available water that is already needed for natural system restoration could lose a portion of that to other users, constantly cutting natural system benefits over what was originally projected by CERP and over what the PIR projects.

Figure 4-3 (Inflow Volumes for Basins of Interest) on page 4-7 does not provide arrows indicating groundwater flow/seepage to Biscayne Bay, yet data collected in Biscayne Bay clearly indicate that groundwater flow is a small but not insignificant portion of the water budget for the Bay, particularly in nearshore areas. If this figure is to be used as a template by project teams, it should be amended to show that groundwater flows to Biscayne Bay (and possibly Florida Bay) should be included in the calculations.

Figure 4-4 (Example of a Volume-Probability Curve) would be more easily interpreted if there were more separation in the lines used in the graphic. The only lines that are clearly distinguishable are the ones for Target and IOR 2006 Base. The lines for NAI 2050 Base and NAI 2050 with Project are indistinguishable, and the line for IOR 2006 with Project is only poorly distinguishable from those.

Please provide more explanation and graphical assistance for how a team would utilize Figures 4-4 and 4-5 to identify the total water necessary to achieve the benefits of the project and the

water made available by a project. Shading portions of the graph that would be considered "total water necessary to achieve the benefits of the project" or "water made available by a project" would be helpful.

Please provide more explanation and assistance for how a team would utilize the information in Figures 4-5 through 4-9. Why are the graphs and tables divided into various exceedance probabilities?

Attachment 4-B, State Tools for Providing Assurances, Minimum Flows and Levels Minimum flows and levels are "established to identify where further withdrawals would cause significant harm to the water resources, or to the ecology of the area." We are concerned about the statement that "The recovery strategy for meeting these MFLs includes implementation of CERP and the SFWMD's Lower East Coast Regional Water Supply Plan (2000), which includes Plan components." This statement implies that MFLs are being used as a restoration target for implementation of CERP and the lower East Coast Regional Water Supply Plan. MFLs should be utilized only for water shortage planning under extreme drought conditions, not restoration planning. Please clarify how MFLs fit into restoration planning.

Appendix A:

The Design Coordination Team (DCT) is defined on Page A-1, lines 25-26 as "the team established pursuant to the design agreement between the Corps of Engineers and the non-Federal sponsor." Please elaborate on the composition and function of this team.

The Quality Review Board (QRB) is defined on Page A-3, lines 22-24 as "the periodic meetings chaired by the Jacksonville District Commander and the Executive Director of the South Florida Water Management District to discuss the status of the CERP program." Please elaborate on the composition and function of this team.