

January 10, 2005

Colonel Robert Carpenter
Commander
United States Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, Florida 32232-0019

Dear Colonel Carpenter:

Thank you for this opportunity to comment on the November 2004 drafts of the *Six Program-Wide Guidance Memoranda* (GM) and *Pre-CERP Baseline*. United States Army Corps of Engineers (Corps) staff has made an exemplary effort to speedily complete these documents while resolving a myriad of issues.

Although the Department of the Interior (Department) generally agrees with the content of the guidance memoranda, issues remain to be resolved prior to Department concurrence. The most crucial issues for the Department revolve around achieving and maintaining the benefits to the natural system described in the Comprehensive Everglades Restoration Plan (CERP or Plan) as required by the Water Resource Development Act (WRDA) of 2000 and the Programmatic Regulations for the CERP.

The Department strongly supports the assurances language presently contained in the guidance memoranda, especially GM 3 and GM 4. In particular, the Department supports incorporation of the *Model Language For PIR Recommendations*, Attachment 4-D of Guidance Memorandum (GM) 4 and Attachment 1 to this letter, into the "Recommendations" section of each Project Implementation Report (PIR) as recommended in GM 4.

The Department continues to review the feasibility of utilizing the Modified Next-Added Increment methodology for identifying water that will be made available by the project for the natural system that will in turn be reserved and protected by the State. The Department is concerned that this methodology may not be workable and it may not adequately ensure that water necessary to achieve 2050 natural system benefits described in CERP will be protected and available. These concerns are exacerbated because rainfall-driven operations and environmental restoration projects such as Modified Water Deliveries to Everglades National Park are not initially included in the Modified Next-Added Increment. This methodology must be modeled and the outputs reviewed to confirm its workability. It is our understanding that this process is underway. A decision on methodology should not be made until these concerns have been resolved. Once concerns related to the Modified Next-Added Increment methodology are resolved, a further decision as to using proportionality versus a cap must be made. It would also be

helpful to include some explanatory language to describe the intent in using the Modified Next Added Increment methodology.

Whatever methodology is utilized for quantifying water that will be made available by CERP and identified to be protected by the State, the Department strongly recommends the following to further ensure achieving and maintaining the benefits to the natural system described in the Plan:

- The language contained in Attachment 2 of this letter should be included in Attachment 4-C to GM 4. We believe inclusion of similar language has already been agreed upon by agency staff from the Corps and the South Florida Water Management District (SFWMD).
- In Section 4.4.2 of GM 4, the following should be added on line 24 as the last sentence of the second paragraph in that section: “The water made available for the natural system shall also be quantified utilizing the system formulation analysis (comparison of the 2050 without CERP condition to the 2050 with CERP condition). This information shall be included as supplemental information to reflect the ultimate projected performance of the project and further ensure that the benefits to the natural system described in the Plan are achieved and maintained.” Similar language has been discussed and appeared in earlier drafts.

Additionally, the Department is concerned that the language contained in GM 5 does not reflect adequately the range of operations related to the natural system. Attachment 3 to this letter contains recommended language to be added. An adequate description of the range of operations related to the natural system is especially important as rainfall-based operational rules have not yet been fully developed and approved. Decisions were made to include only “approved” operations. Development of rainfall-based operational rules should be a high priority so that environmental water deliveries can be explicitly included in project operating manuals. Operating manuals should be reviewed and revised as appropriate, at least every five years, to ensure incorporation of newly approved operational rules such as rainfall-based operations. We believe the guidance regarding project operations to achieve restoration benefits should be as complete as guidance for other water related benefits.

The Programmatic Regulations require the Corps and the non-Federal sponsors to implement the CERP in a manner to continuously improve the expected performance level of the CERP. Throughout development and implementation of CERP, the underlying intent has been to improve the Plan through adaptive management. The Department recommends that more emphasis on improving benefits consistent with the Plan be included in GM 1 and GM 2 while making it clear that any significant restructuring of benefits be done through Plan reformulation rather than through PIR formulation.

The Department supports the proposed *Pre-CERP Baseline*, along with its utilization in accordance with GM 3. In particular, the Department supports the assurances for the natural system contained in GM 3 and the methodology to be utilized when the pre-CERP

baseline condition has already been altered by an intervening non-CERP project or condition. The Department supports the inclusion of Attachments 3-C and 3-D to provide necessary guidance on other constraints on the Plan that are mentioned in Attachments 3-A and 3-B. With regards Attachment 3-C to GM 3, the Department recommends the inclusion of the Critical Projects authorized by WRDA 96. Suggested language appears in Attachment 4 to this letter. Our staff will be working with the staff from the Corps on inclusion of the Critical Projects and other appropriate examples of constraints on the Plan.

The *Fish and Wildlife Service (FWS) Comments on the Programmatic Regulations Guidance Memoranda* and the *National Park Service Comments on Guidance Memoranda and Pre-CERP Baseline Memorandum* are incorporated as Attachments 5 and 6 to this letter.

We understand that there will be a formal comment period after the guidance memoranda and pre-CERP baseline are published in the Federal Register for agencies and stakeholders. We urge the Corps to continue to meet with agencies and stakeholders during the comment period to ensure that the best possible products emerge from this process. Additionally, based on consultation input, we understand that it may be appropriate to revise model assumptions in the pre-CERP baseline regarding the Seminole Brighton Reservation and rerun the model. If this is the case, we recommend that stakeholders be given adequate time to comment on the revised model run.

Again, congratulations to your staff on a job well done. We look forward to working with the Corps to resolve the remaining issues prior to Department concurrence.

Sincerely,

Terrence C. Salt
Director of Everglades Restoration Initiatives

Attachment 1

Model Language for PIR Recommendations

The Non-Federal Sponsor shall maintain an appropriate quantity, quality, timing, and distribution of water to ensure the restoration, preservation, and protection of the natural system [meaning all land and water managed by the Federal Government or the State within the South Florida ecosystem, including, but not limited to, water conservation areas; sovereign submerged land; Everglades National Park; Big Cypress National Preserve; other Federal and State (including a political subdivision of the State) land that is designated and managed for conservation purposes; the contiguous near-shore coastal water of South Florida; and any tribal land that is designated and managed for conservation purposes, as approved by the tribe] for so long as the Project remains authorized. This quantity, quality, timing, and distribution of water shall meet applicable water quality standards and be consistent with the natural system restoration goals and objectives of the CERP, as the Plan is defined in the programmatic regulations. In fulfillment of this obligation, the Non-Federal Sponsor shall:

1. Ensure, through appropriate and legally enforceable means under Florida law, that the quantity, quality, timing, and distribution of water, which this Project Implementation Report identifies is available to the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE] and is necessary to achieve the restoration goals and objectives for the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE], will be available to the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE], at the time the Project becomes operational and will remain available to the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE] for so long as the Project remains authorized.

2a. Prior to the execution of the Project Cooperation Agreement, reserve from the additional water that will be made available by implementation of the Project the water identified in this Project Implementation Report determined to be necessary to achieve the restoration goals and objectives for the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE] and the natural system.

2b. After the Project Cooperation Agreement is signed and the Project becomes operational, make such adjustments to this reservation of water that are determined under the Programmatic Regulations to be necessary to achieve the restoration goals and objectives for the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE] and the natural system.

3. Provide the Government with written certification that the requirements of subparagraphs 1 and 2 of this paragraph have been fulfilled.

4. For so long as the Project remains authorized, notify and consult with the Secretary of the Army should any change in the reservation of water or other legally enforceable means of protecting water be proposed, so the Government can assure itself that the changed reservation or legally enforceable means of protecting water conforms with the State's obligations under this paragraph and continues to ensure that the appropriate, quantity, quality, timing, and distribution of water is dedicated and managed to achieve the restoration goals and objectives for the [INSERT PROJECT NAME, LOCATION AND/OR WATER BODY HERE] and the natural system. Any change to a reservation of additional water made available by implementation of this Project shall require an amendment to the Project Cooperation Agreement.

Attachment 2

Add the following language to Attachment 4-C of GM 4, on page 4-50 in the “Reservations of Water for the Natural System” section after the next to last paragraph on that page (this section begins with “the water made available for the natural system”)

“There are protections to ensure the 2050 benefits for the natural system are achieved in concert with the reservation of project water based on the modified next added increment analysis. This analysis includes the 2050 demand projections in the approved Comprehensive Plan. The State will use the following to protect these benefits:

- 1) Develop a reservation rule that includes supplemental information identifying the expected water to be made available for the natural system and other water related needs based on the system formulation analysis to reflect the projected performance of the project through time up to 2050 ensuring the benefits of the Plan are achieved. The reservation rule will include language that the reservation will be updated in the future as necessary to meet the actual changed conditions as quantified in future PIRs. The reservation rule will be reviewed as revised appropriately, at least every five years.
- 2) Include a limiting condition in consumptive use permits stating that upon renewal a permit shall be modified as necessary to comply with consumptive use permit rules that ensure such use is consistent with the CERP goals and objectives, including adopted reservations.”

Insert the following language to Attachment 4-C of GM 4 on page 4-51 in the “Consumptive Use Permitting” section as new paragraph 3:

“Permit durations under Florida law are tied to the time period for which the applicant can provide reasonable assurances that the use will not be harmful to the water resources of the area and are consistent with the overall objectives of the district. Under current district rules, duration of permits for water from the Central and Southern Florida Project are limited to allow renewal of existing levels of use for up to 20 years and to allow increased allocations over existing levels of use for a five year interval.”

Add the following sentence to Attachment 4-C of GM 4 on page 4-51 in the “Consumptive Use Permitting” section as the last sentence of the last paragraph (paragraph 4) in that section:

“Section 373.1502(2)(a) provides that implementation of CERP is in the public interest.”

Attachment 3

Page 5-20 Line 18

(a) **Achieving Natural systems Benefits and Protection of the Natural System**

State the primary ecological objectives for the project features as outlined in the PIR with a description of the ecological criteria designed to meet those objectives.

Environmental operations such as marsh-driven or rainfall-driven operational rules should include descriptions of operational intent and how the operational rule was designed to meet desired objectives. Included in the description of the operations should be detailed descriptions of the hydrologic targets, complete descriptions of predictive tools used to estimate targets (including estimates of the predictive uncertainty), and discussions of operational latitude allowable in meeting the targets. When structures are designed for multipurpose objectives, the description of the operations should describe the operational priorities, including the situations when achieving natural benefits is suspended in favor of other operational objectives. For multipurpose structures, the operational rules should also include descriptions of sensitive environmental resources potentially affected by operations, and include recommendations on operations and operational strategy that would protect those resources.

Attachment 4

Title: change the title to reflect the addition of WRDA 96 Critical Projects, such as to “Other Analyses and Protections for Non-CERP Restoration Projects”.

Page 3-21

Line 6:

Add as the first sentence of the first paragraph: “As mentioned in Attachment 3-A, there may be constraints other than the Savings Clause on CERP projects reducing, eliminating or transferring water quantity or quality.

Line 14:

Replace the word “and” appearing between the words “Project” and “the” with a comma and add a comma and the words “and WRDA 96 Critical Projects.” After the word “CSOP”

Lines 17-18:

Modify the last sentence to read as follows “To assure the benefits of the Plan are achieved, these building blocks for CERP must be protected.”

Attachment 5

Fish and Wildlife Service (FWS) Comments on the Programmatic Regulations Guidance Memoranda (Public Release Draft of November 23, 2004)

The purpose of the six guidance memoranda is to provide a guide for CERP implementation that will ultimately lead to restoration of the south Florida ecosystem while maintaining the ability to meet future needs for water and flood protection. The guidance memoranda cover several key requirements that were not detailed in the Programmatic Regulations, but that are essential to the success of the CERP program. The current guidance memoranda outline important steps in developing Project Implementation Reports (PIRs), meeting WRDA 2000 requirements, and assessing the success of the Plan. They also provide new procedures for quantifying beneficial water for natural systems so that existing legal sources and water made available for restoration can be protected. The FWS has been an active participant in developing the guidance memoranda, providing technical assistance and commenting on multiple earlier drafts. Technical comments on the individual guidance memoranda are provided in the attached table.

This document summarizes our overall assessment of the November 2004 draft guidance memoranda, asking the question, “Will this guidance ensure that CERP implementation will support sustained progress toward restoration?” In answer, we believe that the guidance will help implement projects consistently and that it can be applied in a way that strongly promotes achievement of restoration. However, we are concerned that the guidance memoranda may not sufficiently ensure this, but rather could lead to reduced exploration of opportunities to improve on the Plan, and limited protection for existing and future water for natural systems. The features of the guidance memoranda that, in combination, could undermine successful implementation of CERP are the streamlined “reaffirmation” PIR process, the method for doing the Next-Added Increment analysis, uncertainty about how existing water for natural systems will be protected, and an overly-conservative procedure for quantifying water to be reserved. The following paragraphs describe these concerns.

Streamlined Plan Formulation Process (GM 1&2).

Guidance Memoranda 1 and 2 describe a new abbreviated plan formulation process that potentially could be applied to many projects. If a project team determines that a Yellow Book project still meets its purposes and objectives, and receives approval following an In-Progress Review, additional formulation of alternatives will not be done and planning will focus solely on optimizing the design of the Yellow Book project. The FWS supports the use of a streamlined planning process as a means to expedite projects that have already undergone considerable formulation and for which alternative configurations are not feasible. However, the criteria for qualifying for a “reaffirmation” PIR are not explicit in the guidance memorandum, and this could potentially allow many CERP projects to be deemed eligible for limited additional formulation. This would

effectively foreclose most opportunities to improve on the Plan and to remedy shortcomings identified during the Restudy.

Additionally, the reaffirmation PIR process could allow resources to be invested in planning of projects that have no identifiable benefits for restoration. The Restudy modeling and evaluation did not demonstrate the contribution of any individual CERP project to system-wide performance; hence, the ability of a Yellow Book project to provide system-wide benefits cannot actually be proved until late in the planning process during the Next-Added Increment evaluation of the selected alternative. We recommend therefore that the criteria for qualifying projects for limited formulation be more explicitly detailed, and that the guidance clearly affirm that planning teams should seek out opportunities to improve system-wide performance. Additionally, we recommend that the guidance memorandum clearly define a significant role for RECOVER in identifying opportunities to improve the CERP as well as candidate CERP projects that could contribute to this.

Next-Added-Increment Analysis

Guidance Memorandum 2 describes a procedure for conducting the Next-Added Increment analysis as the final step in plan formulation and evaluation. As explained above, the Next-Added Increment analysis is needed to document that the project has stand-alone restoration benefits. Because the Next-Added Increment analysis is deferred to the final step and conducted only on the selected alternative, there remains throughout planning the possibility that few or no ecosystem benefits will be identified for the project. For this reason, we recommend that the Next-Added Increment evaluation of the Yellow Book version of the project be conducted before a decision is made about the extent of additional formulation required.

Next-Added-Increment Analysis of Acceler8 Projects (GM 2)

Guidance Memorandum 2 describes a difference between Acceler8 projects and other CERP projects in the procedure for conducting the Next-Added Increment analysis. Specifically, the Yellow Book version of the Acceler8 projects will be included in the baseline for the Next-Added Increment analysis of each individual Acceler8's selected alternative plan. We recognize that this approach acknowledges an additional level of commitment by the State to build the Acceler8 projects. However, we question why Acceler8 projects will only to be included in the baseline for Next-Added Increment analysis of other Acceler8 projects, rather than for all CERP projects. It is logically inconsistent to assume Acceler8 in the baseline for some PIRs and not for others.

Existing Water for Fish and Wildlife (GM 3&4)

It is of utmost concern to the FWS to avoid the loss of necessary and beneficial water from existing fish and wildlife habitat, whether as a consequence of non-CERP activities such as consumptive uses or as an incidental consequence of the CERP itself. The current method for evaluating existing legal sources could permit water for fish and wildlife to be eliminated by non-CERP activities without a remedy provided through CERP. We recognize that this is an intrinsic limitation to the legal protection afforded by the WRDA 2000 savings clause, but we are concerned that non-CERP activities could

continue to reduce water for fish and wildlife beyond any ability of the CERP to replace it. We strongly support the inclusion of assurances language in Guidance Memoranda 3 and 4 documenting the State's commitment to protecting existing water for natural systems. The attached detailed comments resubmit proposed language that we believe is important to capture the expectations for how currently available water for fish and wildlife will be protected. In addition, we urge the Corps to enlist the expertise of fish and wildlife biologists from the FWS early in the project planning process, in order to identify habitat where water resources should be protected under the savings clause or through CERP project features. The FWS has developed a draft document, referenced in Guidance Memorandum 3, that should be consulted by all planning teams as a starting point for identifying fish and wildlife habitat that should be protected and, if possible, included in restoration planning.

Quantification of Water to be Reserved (GM 4)

The proposed procedure for identifying water to be reserved under Florida law will use a "Modified Next-Added Increment" analysis in which the water made available by the project is quantified using a baseline that includes authorized CERP projects, non-CERP projects with approved operating manuals, and 2050 water supply demands. The Modified Next-Added Increment model differs from the Existing Conditions model in including 2050 rather than existing demands for water supply. Thus a lesser amount of water is likely to be identified for natural systems, and a greater amount for other water-related needs, than would occur if the quantification was based on the Existing conditions PIR Baseline.

The Modified Next-Added Increment model differs from the Next-Added Increment model by excluding certain non-CERP projects from the model assumptions, notably Modified Water Deliveries, Everglades Rainfall Operations, and some parts of the Everglades Construction Project. The Modified Next-Added Increment analysis thus does not include non-CERP projects that were included in the future without project condition for the Restudy and that provide important foundational benefits upon which CERP is expected to build. Additionally, because Everglades Rainfall Operations are not included in the Modified Next-Added Increment model assumptions, water for natural systems can be identified without explicit operational rules for delivering water to meet environmental needs. Thus a lesser amount of water is likely to be identified for natural systems, and a greater amount for other water-related needs, than would occur if the quantification was based on the Next-Added Increment analysis.

In order to prevent an imbalance of benefits between the Next-Added Increment analysis used to justify the plan and the Modified Next-Added Increment analysis used to identify water to be reserved, Guidance Memorandum 4 requires that the proportionality between natural systems and human uses found in the Next-Added Increment analysis be preserved. This approach may succeed at retaining a fair balance of water for differing needs, but modeling and computation to achieve this proportionality may be difficult. We recommend that the Corps revisit the use of the Modified Next-Added Increment analysis method in light of ongoing modeling aimed at determining its feasibility. We also recommend that in developing the Existing Conditions and Modified Next-Added

Increment models, rainfall-based operational rules be developed so that environmental water deliveries can be explicitly included in project operating manuals.

The Modified Next-Added Increment procedure also imposes an additional burden of modeling on project teams, one that could be avoided if already-required modeling could be used to achieve equivalent results in quantifying water to restore natural systems and meet future human demands. We recommend that the Corps evaluate an alternative that has not been fully considered, which is based on a combined Existing Conditions and Next-Added Increment analysis; this method would identify water to be reserved and water for other water-related needs using the lesser of the two quantities identified from the Existing Conditions and Next-Added Increment analyses. This approach would identify for a reservation no more water than would be available both at the inception of the project and throughout its life, and it would identify for other water-related needs no more water than is presently anticipated to be available once planned non-CERP projects are implemented. The approach would maintain the balance between natural systems and other uses anticipated over the life of the project, would allow incremental reservations to converge on a final quantity that would be consistent with 2050 water supply demands, and would ensure that errors in predicting future water availability were likely to be conservative, thereby reducing the chance that a reservation or consumptive use permit would need to be reduced in the future.

Summary of Specific Recommendations:

1. GM 1&2: Include more specific criteria for qualifying projects for limited additional formulation.
2. GM 2: Emphasize a requirement for planning teams to seek out opportunities to improve system-wide performance.
3. GM 1&2: Establish a role for RECOVER in identifying opportunities for improving the CERP as well as candidate projects for additional versus limited formulation.
4. GM 2: Conduct Next-Added Increment evaluation of the Yellow Book version of a project prior to deciding whether additional formulation should be conducted.
5. GM 2: Be consistent in guidance concerning the inclusion of Acceler8 projects in the baseline for Next-Added Increment evaluations; either include Acceler8 projects in the analysis for all CERP projects or for none of them.
6. GM 3&4: Include assurances language documenting expectations for how water for natural systems will be protected.
7. GM 2&3: Engage FWS early in the project planning process to help identify habitat and water resources that should be protected during CERP planning.
8. GM 4&5: Include rainfall-based operational features in the modeling assumptions for the Existing Conditions and/or Modified Next-Added Increment baselines, and incorporate these into project operating manuals.
9. GM 4: Reconsider the use of the Modified Next-Added Increment analysis method pending results of ongoing modeling, and consider an alternative method based on identifying the lesser of the quantities from the Existing Conditions and Next-Added Increment analyses.

Page#/line#	Comment
1-2/3-14	Add bullet #5: "System-wide issues will be coordinated by RECOVER and provided to the appropriate PIR team"
1-6/22-25	Need to ensure that responsibility to seek further improvements to the Plan is covered in other CERP activities, i.e., RECOVER, and a reference to these activities should be included here. Suggest the following change: "The project team is responsible for <u>consulting with RECOVER and</u> conducting other activities to affirm that the project components(s) continue to contribute to meeting the goals and purposes of the Plan. . . "
1-7/27	Missing word: "Relate <u>ecosystem</u> performance measures. . . "
1-15/16	In addition to documenting how project-level performance measures are related to system-wide performance measures and to project objectives and constraints, it is important for PIRs to document how project-level performance measures are related to Interim Goals and Targets, and to include appropriate documentation for any Conceptual Ecological Models that were employed or developed by the project team. We suggest inserting the following text: Relationship to Interim Goals and Interim Targets Describe any linkages between project performance measures and IG/IT indicators and tools. Description of Conceptual Ecological Models Describe any new conceptual ecological models that were created or existing conceptual ecological models that were adopted or modified in developing ecological performance measures and targets. "
1-16/1-12	Please add to box: "Include description of existing and future conditions in the project area as simulated in the regional model, if applicable."
1-12/25	Add language: " In this case, <u>Until ecological tools are developed and accepted,</u> . . .
1-19/1	This is labeled section "B," but there appears to be no section "A." It is not clear in the text if the steps outlined in this section apply only to newly formulated alternatives, or if it also applies to optimized design alternatives.
1-26/35	Insert the following text: "In determining the water to be managed and dedicated for the natural system, the analyses must take into account: 1) the natural fluctuations of water made available in any given year based on an appropriate period of record; 2) the need for protection of existing uses transferred to new sources; 3) the objective or restoration of the natural system; 4) contingencies for drought protection; and 5) the need to identify the water made available by a new project component while maintaining a system-wide perspective on the amount of water made available by the Plan."
GM1/2	GM 1 or 2 should contain model selection guidance for alternative evaluation. Additionally, they should include a reference to specific model selection requirements found in GM 3 and 4.
2-4/28-32	This section should include guidance for project teams that are developing new system-wide performance measures. New system-wide PMs will probably require a more detailed review and acceptance process by RECOVER than is provided by the consistency review for project-level PMs.

Page#/line#	Comment
2-5/26	<p>The guidance states that “when the PIR is focused on optimization of a project, the selected alternative plan will be compared to the without project condition in the NEPA evaluation.” Will the evaluation of only one alternative satisfy the NEPA/EIS requirements found in 40 CFR 1502.14?:</p> <p>(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.</p> <p>(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.</p>
2-9/4	<p>The guidance states that “when projects described in the Plan no longer continue to . . . provide the benefits contemplated in the Plan, additional formulation will be required prior to initiating detailed design of the selected plan.” It would be useful to include some additional guidance on how to determine if a project’s benefits are still being provided as contemplated in the Plan.</p>
2-9/17	<p>The guidance states that “when a project is further optimized in a PIR . . . it should be conducted on a system-wide basis. . . .” Does this mean that system-wide benefits should be calculated for each design alternative?</p>
2-9/25	<p>It would be useful to describe whether RECOVER is involved at all with projects that are hydrologically separate from the rest of the Plan.</p>
2-10/36	<p>We suggest language (“Benefits should be based on metrics that can be assessed as well as predicted, and that are consistent with RECOVER measures used in evaluation, assessment and development of interim goals and interim targets.”) The importance of this is that there should be strong concordance between calculated benefits, interim goals/targets, and the measures used to assess CERP success.</p>
2-10/42	<p>The amount of water stored in a reservoir is not an appropriate metric for ecosystem benefits. As a surrogate for ecological benefits, the amount of <i>beneficial</i> water made available to natural areas may be a useful hydrologic output, but this will not necessarily be directly related to the total amount stored, because beneficial water (see GM3 for procedures) includes not only quantity but also consideration of timing and distribution. Suggest either omitting the text “amount of water stored for reservoir projects,” or replacing it with “amount of beneficial water made available by reservoir projects.”</p>
2-12/5-35	<p>No direction has yet been included on how to optimize the NAI formulation or whether or not to compare NAI alternatives. This will be important if the NAI is used for identifying water to be reserved.</p>
GM3	<p>The technical methodology developed in GM4 should be used in GM3 to evaluate ELS and LOS for the natural system.</p>
3-1 to 3-2	<p>The section that introduces the savings clause and the term existing legal source, Section 3.4, should come before the section that provides a definition of the term existing legal source, section 3.3.</p>
3-7/24	<p>Insert a sentence that states the level of evaluation performed must be consistent for urban, agricultural and natural system flood protection.</p>
3-8/28-31	<p>Insert the words “to optimize model runs” in the list of things that evaluation criteria should not be used for.</p>
3-11/23-25	<p>The model selection criteria for GM3 should be similar to GM4. Revise the sentence as follows to reflect that:</p> <p>“The project team should use its best professional judgement to determine the most appropriate model to use for Savings Clause analyses. In addition to the model selection criteria found in Attachment 4B of GM4, the following general guidance applies:”</p>

Page#/line#	Comment
3-12/4-15	<p>Revise the paragraph as follows: The model chosen for the evaluation should incorporate the full range of available meteorological conditions since the determination of elimination or transfer and levels of service for flood protection are based on the performance of the system as modeled against a range of weather conditions. However, it is recognized that the project teams may determine that modeling with the full period of record for level of service of flood protection is impractical and that, in their professional judgment, modeling a subset of the full period of record and storm events is an adequate substitute. In that case, project teams may model a group of specific events as an indication of the effect of implementation of the Plan on the December 2000 conditions. If a subset of years or events is chosen it must should be representative of the range of conditions in the historical period of record including intra- and inter-annual variations <u>that are relevant to the protection of existing legal sources or levels of service for flood protection</u>. The project team should document the selection of period of record used in the model.</p>
3-12/17	<p>Two simulations are necessary for the Savings Clause analysis: the pre-CERP baseline and the with-project condition. Revise the sentence to reflect that the assumptions for each should be identical if a smaller scale model is used.</p>
3-13/4-16	<p>Insert the following bullet: Utilize the procedures in Attachment 4B in GM4 that describe how to create volume probability curves based on stage and flow.</p>
3-27/ Attachment 3-F	<p>This flow chart needs to be more explicit about how the planning team should evaluate whether changes are due to intervening non-CERP projects.</p>
3-28/ Figure 3-G-1	<p>This figure is not referenced in the text. Please explain how it will be used. We are concerned that while this figure may provides a high level overview of water use basins, the basins do not provide adequate resolution for evaluation of existing legal sources and levels of service for flood protection for the natural system. Smaller natural areas, both within and outside the SFWMM domain, should be evaluated at an appropriate (smaller) scale, either with the 2x2 or with subregional models.</p>
3-29/Table 3-G-1	<p>The sources listed for the natural system do not represent the complete list of sources for natural systems. Please include a column for the LEC Service Areas and indicate where appropriate the service areas are a source of water for the natural system basins. Also please include text in the GM as to how this table should be used by the PDT. Is this table supporting information?</p>
4-4/20-24	<p>Maintaining the same proportion of water from the next added increment analysis to the modified next added increment analysis is not sufficient to ensure that neither the natural system or other water related needs are quantifying water above and beyond what CERP intends to provide them. The proportional volume must also be capped at the amount identified in the next added increment method.</p>
4-9/14-23	<p>The project team should quantify existing water regardless of whether the State has taken previous action to protect the existing water. This is necessary because baseline water can change due to the completion of non-CERP projects or due to the simultaneous planning of multiple CERP projects. For example when planning for two projects is occurring simultaneously, neither project includes the operational and structural features of the other in its baseline. Yet, the one that is finished first could change the baseline quantity of water for the other. The result of the current language is that identifications of water would occur for each project independently of the other. Operational manuals for the two projects will also be written independently of each other. However when combined after construction, the two projects could operate much differently on the ground.</p>

Page#/line#	Comment
4-9/25 to 4-10/7	<p>The concept of water made available by CERP needs to be clarified because it served as the basis for the federal interest in CERP. Revised Text:</p> <p>It is recognized that the volume of water to be delivered by CERP features is currently available in the regional system, however due to a lack of infrastructure the capacity to harness available water for beneficial purposes does not exist. CERP will provide the infrastructure and means to harness existing quantities of water and make it available for the natural system and other water related needs. For purposes of quantifying water made available for the natural system, this quantification includes any changes that are a result of the project. This is the water that will be reserved by the State pursuant to Section 601(h)(4)(A)(iii)(V) of WRDA 2000.</p>
4-11/21-40	<p>We are concerned that a project team may identify and quantify this water without ensuring that it is really available for use. Project teams should have to demonstrate that the use of this water does not affect benefits achieved by the project. It is also important to note that this water may be needed by a future CERP project to meet its expected benefits.</p>
4-26/32	<p>Add existing conditions to the list of states for which water should be identified. Water must also be quantified for the existing condition baseline in order to calculate what portion of the beneficial water is being made available by the project.</p>
4-27/6 and 4-28/23-28	<p>In order to maintain consistency between quantification procedures, volume probability curves for the natural system that are based on stage should include volume of water above the bottom of the aquifer rather than land surface.</p>
4-50/43	<p>We recommend that the following text be inserted to maintain consistency with the guidance in Section 4.4.2.3: “The water made available by the Plan in the system formulation analysis should be quantified and included as supplemental information for the purpose and intent section of the reservation rule to reflect the projected performance of the project through time up to 2050 ensuring the benefits of the Plan are achieved.”</p>
4-51/4	<p>This section should address the need to update project reservations when non-CERP projects acquire approved operating manuals:</p> <p>“The reservation rule and Operating Manuals will be reviewed and revised periodically as appropriate, at least every five years. This review will be of both the project and system-wide reservations for the purpose of quantifying and incorporating the cumulative benefits of the authorized CERP projects and non-CERP projects with approved operational plans.”</p>
6-1/28	<p>Insert the following text at the end of the line:</p> <p>The GM development team originally proposed to include the IAT guidance document as an appendix. Without the appendix it is important to note in the GM that the GM itself does not provide complete guidance on how to conduct assessments. Guidance should be added to consult supplemental documentation (e.g. MAP I and II and the IAT Guidance Document - Assessing the Response of the Everglades Ecosystem to Implementation of the Comprehensive Everglades Restoration Plan (under review)).</p>

Page#/line#	Comment
<p>General Comment 1</p>	<p>Method for Updating Reservations and Operating Manuals. The GMs lack a process for updating operating manuals and quantifications. This guidance is necessary due to the long planning horizon of CERP. Multiple projects (CERP and non-CERP) are often planned at the same time. However, neither of the projects includes the other one in its baseline. The result of this is a set of operational manuals and reservations for individual project benefits neither of which reflects the true on the ground operations of the project working together to provide the benefits of the Plan. The individual projects of the Plan were selected because together they provided the expected benefits. Reservations for the natural system must be based on these synergistic effects of the Plan as a whole as it is constructed. A process for updating individual project reservations to Plan reservations needs to be developed so that this Plan water is protected from future consumptive use. There are many ways for quantifications and reservations to be updated. Two ideas are presented here:</p> <ol style="list-style-type: none"> 1. During construction but before operation, PIRs could be required to determine if any other CERP or non-CERP projects have been constructed since the time their PIR was initiated. If other projects have been constructed, the project team should update their modeling to reflect what will actually be on the ground when their project is constructed and operated. Once the modeling is updated, operating manuals and reservations should also be updated. 2. RECOVER could be responsible for checking on a regular basis to see if the synergistic effect of projects is captured through the individual project reservations. If it is not, RECOVER could update the system operating manual and perform new quantifications of water to be reserved.
<p>Glossary</p>	<p>Does “selected alternative plan” need to be defined? Not sure if this was used in the ProRegs or if “tentatively selected plan” was the term. Need to clarify if both terms are still in use or if one has supplanted the other.</p>
<p>Glossary</p>	<p>Will probably need definitions of “initial operating state”/“expected initial state” and “final operating state”/“expected final state”</p>
<p>Pre-CERP Baseline</p>	<p>It is critical to document structural operations from 2000 as included in the pre-CERP baseline. In the future, new models may allow us to more accurately simulate structural operations, regulation schedules, and management practices. In order to take advantage of improving technology, documentation of existing operations and policies in 2000 must exist.</p>
<p>Pre-CERP Baseline</p>	<p>Include as an appendix or an attachment, or make available as supplemental information, all rules that were in existence in December 2000 and are included in the pre-CERP baseline (e.g., 1991 version of rules 40E-21 and 40E-22). We are concerned that once these rules and regulation schedules are updated (e.g., 40E-21 in 2003) they will not be maintained or made available to the public on the District’s website.</p>

Attachment 6

National Park Service Comments on Guidance Memoranda and Pre-CERP Baseline Memorandum

Priority 1 Comments (Critical Issue)

GM #4

Page 4-53

We agree that the PIR should contain language such as this model language to assure project benefits, both indirect and direct, as well as current and future, are protected.

Priority 2 Comments (Serious Concern)

GM #1

Page 1-6 Lines 14-36

The description of the process should have more emphasis on the possibility of project improvement beyond the Plan; the term “opportunities” is insufficient to convey this concept. The intent to expedite project planning by allowing project development to be guided heavily by the Plan is heavily emphasized throughout the GM. Consistent with WRDA 2000’s description of the Plan as a “framework”, it should also be recognized that a commitment to improve the plan was made in the programmatic regulations (385.8 (d)): “The Corps of Engineers and non-Federal sponsors shall implement the Plan in a manner to continuously improve the expected performance level of the Plan ...”

Page 1-7 Lines 14-15

The possibility that each PIR could significantly modify the overall Plan benefits is a serious concern. The statement “Use existing and future conditions in the Plan and update with new information if necessary” does not preclude the PIR from restructuring the Plan. Recommend “Use existing and future conditions consistent with the Plan. The best available scientific and technical information should be applied. If this new information requires a significant restructuring of Plan benefits, this should be done by Plan reformulation, and not in the PIR.”

GM #2

Page 2-7 Lines 4-35

Same concern as with GM#1; “opportunities” does not convey concept of project and plan improvement. Section 2.6.1 states that the “Goals, problems, and opportunities, objectives and constraints should be directly taken from the Plan.” The next sentence does not help clarify this when it refers to “previously developed criteria.” Does previously developed mean in the Plan or by the Corps and the non-Federal sponsor?

What does “criteria” mean in this context? However, GM1 seems to indicate a scoping process to develop these. Also, GM2 follows GM1’s language of ‘optimization’ versus ‘formulation’. In practice there is no clear line and somewhat misleading to imply that the process can be significantly accelerated by reducing the planning level from formulation to optimization.

Page 2-8 Line 23

The GM needs to specify that Existing Conditions PIR baseline must be consistent with the Plan formulation, or each PIR could re-allocate the Plan benefits. Recommended language: “The Existing Conditions PIR Baseline includes existing deliveries of water by the C&SF Project system, existing legal users and existing level of flood protection, and the status of existing ecological systems within the project boundaries. The Existing Conditions PIR Baseline must be consistent with the assumptions in the Plan.”

GM #4

Page 4-6 Line 7

This section needs clarification, particularly about the intended purpose. The purpose of the calculation should be to determine to quantity of water the project makes available with the rest of CERP in place, i.e., the ultimate benefit the project provides as part of CERP. This would be compared to the Modified Next Added Increment, which is the benefit produced by the project given the “existing condition.” It currently could be interpreted as simply a determination of the quantity of water the Plan makes available compared to the 2050 base, with no need to determine what portion is related to the project.

GM#5

Page 5-20 Line 18

This section should be improved to better describe the range of operations that are related to the natural system. Proposed revised language is below.

(a) Achieving Natural Systems Benefits and Protection of the Natural System.

State the primary ecological objectives for the project features as outlined in the PIR with a description of the ecological criteria designed to meet those objectives. Environmental operations such as marsh-driven or rainfall-driven operational rules should include descriptions operational intent and how operational rule was designed to meet desired objectives. Included in the description of the operations should be detailed description of the hydrologic targets, complete descriptions of predictive tools used to estimate targets (including estimates of the predictive uncertainty), and discussions of operational latitude allowable in meeting the targets. When structures are designed for multipurpose objectives, the description of the operations should describe the operational priorities, including the situations when achieving natural system benefits is suspended in favor of other operational objectives. For multipurpose structures, the operational rules should also include

descriptions of sensitive environmental resources potentially affected by operations, and include recommendations on operations and operational strategy that would protect those resources.

Page 5-20 Line 28

Page 5-21 Line 1

Page 5-22 Line 23

This description creates several new categories of operations for flood damage reduction; the operations for flood control now include “Normal”, “Emergency”, “Hurricane or Tropical Storm”, and “Pre-Storm/Storm Operations.” Moreover, “emergency” is later used on page 5-23 line 21 in a context other than flood damage reduction. “Hurricane or Tropical Storm Operations” (Page 5-21 Line 1-10) should combined with “Pre-Storm/Storm Operations” (Page 5-22 Lines 23-32) and re-titled “Emergency Flood Damage Reduction Operations”.

Priority 3 Comments (Substantive Comment)

GM #1

Page 1-2 Line 14.

Statement implies that PIR are required to consider opportunities for additional flood protection. Should read: “...with applicable law; and may consider, as appropriate, opportunities to provide additional flood protection.”

Page 1-6 Lines 14-36

There is considerable confusion at present concerning which parties are invited to participate in the planning process at the various stages. It would be helpful if this GM identified the involved parties in the section describing each activity. This aspect could be covered through the GM, but may best be placed within Section 1.9 or in Figure 1-1. In particular, we would like to see broad participation when the goals, purposes, and objectives are established.

Page 1-6 Line 38

The title of Section 1.9.1 leads a reader to think they will find guidance on model development or selection here, but they won't. A reference to the model selection criteria of GM 4 or 5 could be included, or the text from those GMs could be copied here.

Page 1-7 Line 27

The Conceptual Ecological Models cannot (nor were they designed to) capture every possible ecological response. Should state, “The conceptual ecological models can guide the selection of the ecological performance measures; other ecological and hydrologic performance measures can be applied as needed.”

Page 1-8 Line 35-37

Page 1-13 Line 16-17

In general the GMs need a clearer definition of what is and is not included in each of the base runs, particularly the existing and next-added-increment runs. One place this specificity is needed is in 1.9.3. Another is Page 1-13. Is it intended that this description be based on the Pre-CERP baseline (without MWD) or would MWD be included?

GM #2

Page 2-4 Line 1

Current CEM do not capture all possible ecological and hydrologic responses and characteristics in the natural system. Better statement would read, “1. Ecological performance measures should be based on the conceptual ecological models; hydrologic performance measures should be based upon the essential hydrologic characteristics of the natural system; performance measures for other water-related needs should be related to defined project objectives for other water-related needs;”

Page 2-10 Lines 28-33

It is not clear what the comparison this paragraph is meant to address. Is this system-wide plan formulation, or is it related to the specific project component? If it is project specific, it proposes to use a comparison which may be insensitive. Additionally, the NAI comparison described in 2.7.2 may be a more useful tool in project alternative development and evaluation, but Section 2.7.2 does not specify which of the steps in 2.7.1 it is used for.

Page 2-12 Lines 20-21

Consistent with the comment about baseline definition under GM1, section 2.6.3 should have a clearer definition of the assumptions in the Existing Conditions PIR Baseline. It seems to make sense to include all authorized projects, especially because section 2.7.2 describes the comparison between NAI and existing and would include all projects that “are likely to have been implemented by the time the selected alternative plan is completed.”

Page 2-12 Lines 29-35

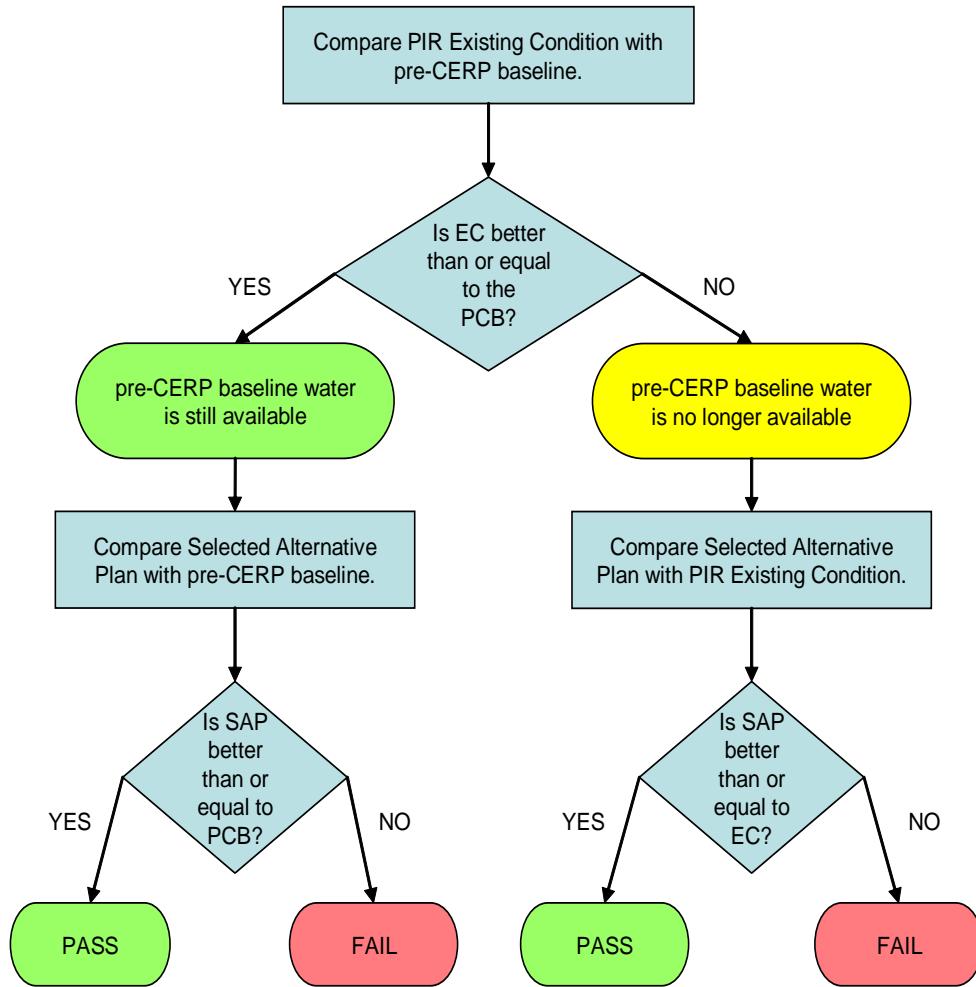
It’s not clear why or how the Acceler8 projects can be treated together as a band for the NAI analysis.

GM #3

Page 3-27 Attachment 3-F

Recommend replacing this figure with figure appended here.

Savings Clause Test Procedure



GM #4

Page 4-7 Line 26

Some clarifying language would make the concept clearer. Suggest the following.

Water will be identified for a wide range of natural systems, including fresh and salt-water bodies, impounded and free-flowing marshes and rivers, and lakes; the concepts developed here will apply to all situations. The essential idea is to quantify the components of the water budget, and then determine which of those components are most important in defining and maintaining the characteristics of a particular natural system. In general, three water budget components for a given basin and specified time period must be identified: inflow volumes, outflow volumes, and storage within the basin. Any of the three or any combination of the three could be essential in capturing the essential characteristics of the natural system.

Page 4-53 Line 31

Clarify by "...reserve from the additional water that will be made available directly and indirectly by the implementation of the Project..."

GM#5

Page 5-2 Lines 11-12

This statement reflects only one use of the POM. Suggest following modification. "One main purpose of the Project Operating Manual (POM) is for day-to-day use in water resources management, covering as many foreseeable conditions as possible. The POM also documents how the project objectives were translated into operational rules, thereby providing guidance when unforeseen situations arise or conditions change."

Priority 4 Comments (Editorial Comment)**Introduction**

Page 1, Line 12: "implemented over a 35-year period" – do we mean "over the next 35 years" (i.e. by 2040) or "by 2035"

Page 1, Line 18: caps; "water" should be "Water"

Page 3, Line 24: grammar; delete ",", replace with programmatic regulations "and" applicable law

Page 5, Line 14: move comma; "and where appropriate, draft copies"

Page 5, Line 26: grammar; "products and elevate" should be "products and to elevate"

GM #1

Page 1-3, Lines 37-39: If an “abbreviated document” contains all the information “necessary to meet the requirements of WRDA 2000 and NEPA” what doesn’t it contain? What makes it abbreviated?

Page 1-4, Lines 18-20: The first sentence of this paragraph is a lovely pat-on-the-back, but it is a status report, an opinion that may or may not be shared, and does not belong in the guidance memoranda.

Page 1-5, Line 10: We have no idea what “OMRR&R” refers to. Define in the document?

Page 1-6, Lines 14-16 and 22-25: The first sentence and the fourth sentence seem to be redundant.

Page 1-6, Lines 32-35: Suggest rewrite: “PIR – 1) develop base conditions and models (prior analyses and updated information), 2) formulate and evaluate; and 3) plan selection and design.

Page 1-7, Line 14: Need another line break between 3. and 4.

Page 1-7, Line 38: “approved to continue” – approved by whom?

Page 1-8, Line 27: grammar: “to identify the plan” change to “by identifying the plan”

Page 1-8, Line 28: suggest delete (i.e., the selected alternative plan” (it’s obvious.)

Page 1-8, Line 41-42: How does inflation affect the cost issue referred to here?

Page 1-13, Line 38: move comma: “...as well as objectives and constraints, should...”

GM #2

Page 2-2, Lines 32- Page 2-3, Line 11: This list is a subset of the list in Section 1.4 and it’s not really clear why it’s different.

Page 2-3, Lines 19: delete extra “in the”

Page 2-3, Lines 19: add ‘in’: “...and then in the formulation...”

Page 2-4, Line 1: use of the word “one” to refer to performance measures is awkward. Could abbreviate by just using “measure”.

Page 2-6, Line 4: plural: “...so that decisions can be made...”

Page 2-6, Line 33: reword: “Project teams should continue detailed design of the component as described in the Plan if it continues...”

Page 2-6, Line 42: add ‘to’: “...alternatives prior to identifying...”

Page 2-9, Line 4: delete “continue to”

Page 2-9, Line 26: replace ‘in’ with ‘by’: “...cannot be captured by the regional model.”

Page 2-21, Line 30: need period after ‘projects’ before ‘For’

GM #3

Page 3-3 Line 2: reference: Does ‘this document’ refer to the GM or to the Pre-CERP Baseline document?

Page 3-3, Line 10-11: This first sentence is confusing. What is being compared to what? It seems that the pre-CERP baseline defines the ELS.

Page 3-4, Line 2: “...conditions have been altered by this kind of intervening non-CERP condition, a different analysis is applied.” should be replaced with the following language. “...conditions have been altered by this kind of intervening non-CERP condition, see Attachments 3-B, 3-C, and 3-D for guidance.”

Page 3-8, Line 27: add ‘be’: “identified and be available...”

Page 3-11, Line 24: replace ‘following’: “...analyses considering the following general...”

Page 3-11, Line 37: delete ‘accepted’: “model as the regional modeling tool...”

Page 3-12, Line 1: reword: “modeling of a proposed alternative indicates a negative response in those evaluation criteria,...” (Or get rid of the whole sentence – it’s somewhat obvious.)

Page 3-21, Line 22: add ‘the’: “...protections prevent the Plan...”

Page 3-21, Line 37: is the point of this bullet that the future without-project condition includes the non-CERP projects anyway? Would this be clarified if the sentence was amended: “...of the benefits provided by the component with the benefits provided by the future without-project condition, which includes non-CERP projects.”

GM #4

Page 4-2, Line 42: ‘past’ should be ‘part’

Page 4-3, Line 2: 'are' should be 'is'

Page 4-4, Line 4: reword: Examples of natural areas and other water-related needs to be evaluated

Page 4-4, Line 5: delete the word 'natural' to make the bullet more of a summary

Page 4-4, Line 22: 'proportion' should be 'proportions'

Page 4-4, Line 24: add comma: next-added increment method, will be maintained.

Page 4-4, Line 27: reword: "...in water that is in excess of or deficient of the needs of the natural system and other water-related needs."

Page 4-5, Figure 4.2 and Page 4-6, Figure 4.3: Graphics print with a strange box on them.

Page 4-7, Line 30: End paragraph after parenthesis. New paragraph begins, "This approach was selected because," continue with next sentence "if water level alone is used, ..."

Page 4-7, Line 35: End paragraph after 'specified.' New paragraph begins, "The importance of each of these components..."

Page 4-8, Line 3: reword: "...beneficial, and is described in Section 4.5.1."

GM#5

Page 5-20 Line 18

"Achieving Natural System Goals..." should be (a) under 8. "Flood Damage Reduction" should be (b), etc.

GM#6

Page 6-1

The third paragraph beginning with WRDA 2000 is out of place. It would make more sense to include this paragraph as part of the background associated with Adaptive Management (section 6.3)

Page 6-1

The sentence beginning with "The major components..." in the final paragraph should be revised. The term hierarchical assessment is used here but is not defined until much later in the document.

Page 6-3

In the Box 3 paragraph, it is stated first that Box 3 creates a new organizational body for the purpose of reviewing the assessment reports, but the next sentence states that the management/science team will produce an Assessment report. Which is it?

Page 6-11

The lowest box in Figure 6-2 says “Evaluate System Wide Performance.” Should this be “Assess System Wide Performance”?

Page 6-17 Section B. This section needs some clarification. If there are additional protocols for establishing reference conditions, than they should be referenced in this section. As it is currently written, this section is too vague to be considered as a technical guideline. At a minimum, statements beginning with “Describe” should be amended or replaced with the requirement to “Quantify”.

Page 6-17 Section B.

The statement “Describe the approaches used to address measuring variability” is unclear. Is this the variability in measurements?

Page 6-17 Section C.

What is a drafted journal article? This term is used more than once, but I don’t understand its meaning. Also, does this mean that the only peer review at the PI level will consist of journal articles? What kind of peer review will take place if the PI does not submit an article to a peer reviewed journal?

Page 6-17 Section E.

The last sentence should be revised. A hypothesis is not something that is typically “achieved”.