APPENDIX 1
Public and Peer Review Panel Comments

Appendix 1-2
Comments from the Public and Consultants

Appendix 1-2f
Miscellaneous Comments

A1-2f Comments by Darren Rumbold, SFWMD, on mercury raised issues from reviewer, Goro Uehara..............................................................Page A1-2f-1

Thank you Dr. Uehara, for your comment. As Dr. Atkeson stated in his post, the potential for a post-ECP reduction in water column TP to increase MeHg concentrations in the aquatic food web has been brought to the District's attention previously (PTI, 1994; 1995a,b; 1997; Exponent, 1998, 1999, 2000). The issue was addressed in the first two Consolidated Reports, which are available at http://www.sfwmd.gov/org/wre/eir/index.html. For review of the biodilution effect, see pages 7-20 to 7-24 in the Everglades Interim Report (1999) and pages 7-52 to 7-56 in the Everglades Consolidated Report (2000). Additional assessments can be found also in the appendices to these reports.
Subject: Final Comment on ECR  
Date: Fri, 13 Oct 2000 16:22:16 EDT  
From: JamInfo@aol.com  
To: Gredfiel@sfwmd.gov, Sharitz@srel.edu  
CC: RWilliam@sfwmd.gov, mhinton@sfwmd.gov, mpietruc@sfwmd.gov, cmcvoy@sfwmd.gov, Ronnie_Best@usgs.gov, JOgden@sfwmd.gov

Close-out Comment on Everglades Consolidated Report (ECR)

Dear Garth, et al;

Thanks very much for the opportunity to follow up on my previous written comment dated 4 Oct 2K; also for the professional way Peer Review on the ECR has been handled in this review, as well in previous reviews.

Here is some public comment on general issues raised by ECR Peer Review Panelists, from the viewpoint of a system scientist based on observing the process at close range going on three years.

This comment may be more applicable to bigger issues outside the scope of the ECR, and/or applicable to ECR Panelists who are also members of the Committee for Restoration of the Greater Everglades Ecosystem (CROGEE). For whatever this is worth and the fact that the panelists raised the right (good) questions, here goes.

One panelist asked in the Discussion of the Tetra-Tech report: Is there any scientific reason why trees should not be considered in other areas (or words to that effect).

Here is the observation of a person that has closely monitored the scientific discussion and modeling, leading to the Comprehensive Everglades Restoration Plan (CERP):

Regarding the discussion of the role of trees in the Greater Everglades Ecosystem, during the ECR Peer review, catalyzed by the Tetra-Tech Report, that recognized the Pond Apple Forest south of the lake (I call it the filter forest): This appeared to be the most extensive discussion of trees encountered during the past three years of CERP development effort. Restoration of Florida's ancient forests has yet to be rigorously considered in the CERP.

In cooperation with knowledgeable scientists at the University of Florida, the Marshall Foundation took two proposals forward that would have researched and documented ancient vegetation that should be considered in the restoration process. These two proposals got buried deeper in bureaucracy than Chis McVoy's historical Everglades study.
On the question raised by a panelist of baselining the system, or words to that effect, baselines have not been established, as indicated by the above anecdotal summary.

The same thing can be said for the consideration of the flow-function and its role in dynamic storage (fancy name for the water-cycle), which appears in a majority of papers in the 1984 Davis and Ogden tome. In cases when scientists raised the issue of re-establishing flow and connectivity throughout the system during the CERP process, a primary goal of the CERP was shoved under the table, but not without some Congressional head-scratching. The case was also never modeled. A flow-function workshop will finally be put on the table at the upcoming GEER conference in December, at Naples. The stifling of flow-function discussion during the CERP/Public Comment process begging for same, is much longer than one paragraph. Last time I looked this was still an open issue on the SFWMD Ombudsman's plate.

The absence of a Conceptual Ecological Model for the area south of Lake Okeechobee and north of the water conservation areas seem to have mitigated the under-consideration of swamps and flow, especially the prehistoric pond apple forest south of the Lake.

Regarding the baseline question, the first necessity of a strategic plan based on performance and results, is to establish baselines to compare progress in meeting strategic goals, such as increasing spatial extent and re-establishing flow (not mutually exclusive requirements!).

Recently the undersigned has pursued baselining the first stated goal of the CERP: Increase the total spatial extent of natural areas. (Wetlands and Uplands). Rigorous definition of a widely touted conceptual baseline - Reduction of the Everglades by about 50% - has been hard to pin down (baseline) exactly. A round figures start is found in Everglades: The Ecosystem and its Restoration (Ogden & Davis, 1984), page 428.

Recent data obtained from the SFWMD indicates that the figure could be as high as 62%, depending on how this is mapped. The difficulty of pinning this number down (and that it does not jump right out of the CERP) is an indication that not much thought has been given to baselining actual figures, since 1994 (Or have they? Does anybody on the list know? It didn't come across my view in the monitoring effort and a conscious effort to hear the subject matter of spatial extent raised, and making public comment often, because it wasn't). Efforts to sort this out continue.

It is also interesting to note from the 1994 data that 60ha of swamp forest south of the lake and 12,000ha of cypress forest are shown zeroed out. Never-the-less still insufficient consideration of trees, in scientific discussion of Everglades restoration, and as a result, insufficient
consideration in the CERP.

The actual spatial extent figure becomes very important in tracking progress:
- Is total spatial extent of natural area increasing or decreasing?

Knowing the exact figure helps to determine the cause-effect relationships of increasing-decreasing area on increasing-decreasing carrying capacity, i.e., the potential of the remnant systems to further absorb nutrients that urban sprawl and ag imposes upon it. Such baselining is all-important to adaptive management. Absent a baseline as a basis for science-based decision support, adaptive management too, remains a concept, and judgmental decisions sometimes based on little more than social consensus, prevail.

The system summary from the viewpoint of a system scientist is:
- Overall restoration of the natural system remains under-considered, for example:
  - Where are the trees in CERP?
  - Where is consideration of flow-function and its role in dynamic storage?
- The first stated goal is yet to be baselined, as have many others.
  - \( \frac{\text{Everglades Remaining}}{\text{Everglades Pre-drainage}} = ? \)
- Without baselining, there is no basis for adaptive management.

The absence of a strategic plan, and/or an overview Conceptual Ecological Model, and/or baselining, and/or an adaptive management plan, provides the basis for a final system summary comment:

The approach remains a bottom-up approach, absent a top-down model to focus the effort, and eliminate confusion that ultimately prevails in a bottom-up approach, where integration of effort and results is left more to chance than design.

In December at Naples, a presentation and discussion of top-down approach(s) will be considered at the Greater Everglades Ecosystem Restoration (GEER) Symposium, more than it has been in the past. Hopefully this will illuminate the future.

Well, this is enough for Friday the 13th.

Respectfully submitted,

John Arthur Marshall
Arthur R. Marshall Foundation