RECORD OF DECISION

8.5 Square Mile Area
Modified Water Deliveries to Everglades National Park

DECISION

I have reviewed the General Reevaluation Report (GRR) and Final Supplement to the 1992 Final Environmental Impact Statement on the Modified Water Deliveries (MWD) to Everglades National Park (ENP) Project for the 8.5 Square Mile Area (SMA). I have also reviewed all correspondence, including comments on the Draft and Final Supplemental Environmental Impact Statement (SEIS), and all pertinent documents for this project. Based on this review and after review of the views of other agencies, Native American Tribes, non-governmental organizations, and the general public, I find that Alternative 6D is the final recommended plan for providing flood mitigation to the 8.5 SMA. This plan is technically sound, economically justified, in accordance with environmental statutes, and in the public interest. All practicable means to avoid or minimize environmental harm from the recommended alternative have been adopted. Therefore, I recommend that the 8.5 SMA flood mitigation plan, described in the General Reevaluation Report (GRR) and the Final SEIS, be implemented with the added assurances and conditions described below:

- The perimeter levee location and footprint shall maximize the amount of wetlands included in the west and north of the perimeter levee, following the approximate boundary in Alternative 6D;

- Following the approximate boundary in Alternative 6D, the levees and seepage canal system should be optimized to minimize impacts to the residents of the 8.5 SMA and maximize wetland benefits. For example, the levee's location should avoid residences and wetlands where practicable;

- Water quality treatment for the Recommended Plan assumes state regulatory controls are in effect and that current runoff at the time of implementation meets water quality standards. To the extent additional treatment is required solely due to the implementation of the modifications in the Recommended Plan, they shall be implemented to the extent necessary to meet applicable water quality standards;

- The Recommended Plan, including all required lands, shall become a project feature of the MWD Project. Therefore, construction and land acquisition shall be implemented as part of the project. The Federal government will transfer title of the project lands to the non-Federal sponsor, with the exception of those lands for which the non-Federal sponsor already holds title to, retaining such interests as may be necessary for inspections and other appropriate activities in the operation and maintenance phase of the project;

- The periodic flooding of landowners east of the proposed levee, before and after project implementation, will remain unchanged from conditions in existence prior to implementation of the MWD Project except where flowage easements are required. As with the 1992 General Design Memorandum (GDM) plan, flood mitigation, not flood protection, should be provided by the design and operation of the Recommended Plan. No deviations are intended from the operations specified in the operations and maintenance manual (i.e. increased pumping in the seepage canal or the inclusion of additional pumps) due to anticipated public demand for increased flood relief inside the perimeter levee of the 8.5 SMA project;

- Implementation of the Recommended Plan should not adversely impact the restoration levels of Everglade National Park's hydrology greater than that simulated through modeling of Alternative 6D. A monitoring, evaluation, and reporting program shall be implemented to ensure operations are consistent with these levels;

- Operations of the 8.5 SMA Project shall be detailed in an operations and maintenance manual. As appropriate, this manual shall be developed in coordination with Everglades National Park, the U.S. Fish and Wildlife Service (USFWS), the South Florida Water Management District (SFWMD), and the Corps of Engineers, and include provisions for management of project lands, monitoring, emergency operations as well as mechanisms for dispute resolution to assure compliance in a manner satisfactory to the maximum extent to all agencies. Final decisions on operations and maintenance shall be made by the Secretary of the Army;

- Seepage canal design will incorporate, insofar as practicable, enhancements that will increase the potential for improved water quality through biological treatment, and increase habitat for fish and wildlife. Additionally, all lands north and west of the perimeter levee and within the 8.5 SMA will be restored and managed to maximize the ecological quality of the area to the extent practicable; and

- A Biological Assessment (BA) has been prepared under Section 7 of the Endangered Species Act. The BA evaluated likely project effects on five listed species that are known to, or might occur in the area affected by the project, including the wood stork, snail kite, eastern indigo snake, Florida panther, and Cape Sable Seaside Sparrow. This BA concluded that the project is not likely to adversely affect any of the listed species. Coordination with the USFWS has been initiated and their concurrence with this determination has been requested.

The Recommended Plan consists of perimeter and interior levees as well as a seepage canal that would be constructed as shown on Figure 1. The location of the perimeter levee would be generally east of the Phase 1 – Save Our Rivers (SOR) boundary line.

The perimeter levee on the western boundary of the Recommended Plan ranges from approximately 500 to 5,500 feet east of the westernmost boundary of the 8.5 SMA (the 1992 GDM plan levee alignment), depending on the location along the boundary. To implement this plan, the Corps of Engineers would purchase a total of about 2,900 acres in fee simple and flowage easement with funds from the Department of Interior (of which 663 acres have already been acquired under the 1992 GDM plan acquisition). The seepage canal system and interior levees would run along 205th Avenue north from 168th Street to 132nd Street, then east along 132nd Street to the L-31N canal. The seepage collection canal is designed to maintain the groundwater levels within the area interior of the outer levee at the same levels as existed prior to the implementation of the MWD Project. Two interior levees, one on either side of the seepage canal, would be positioned to prevent surface water from directly entering the seepage canal. The proposed pumping station (S-357), located at the southern terminus of the seepage canal, would discharge seepage water south into a treatment area to be constructed in the C-111 Project buffer area.

ALTERNATIVES AND CONSIDERATIONS BALANCED IN MAKING THE DECISION

The Everglades National Park Protection and Expansion Act of 1989 (Public Law 101-229, Section 104) authorized the Secretary of the Army, upon completion of a GDM, to modify the C&SF Project to improve water deliveries to ENP and take steps to restore ENP natural hydrological conditions. The Corps completed the MWD GDM in 1992, which was approved in June of that year by Headquarters, U.S. Army Corps of Engineers. A Record of Decision was signed on 13 May 1993 by the Acting Assistant Secretary of the Army (Civil Works). The 1992 GDM plan to provide flood mitigation for residents of the 8.5 SMA consists of a protection levee, interior berm and a seepage collection system. More recent enhanced modeling capabilities and an expanded scientific understanding of the ecosystem function and structure has resulted in the need to reevaluate the 1992 GDM plan.

The purpose of the GRR and Final SEIS was to study, develop and evaluate a full array of alternatives for protecting the 8.5 SMA from the additional flooding that would be occasioned by implementation of the MWD Project. In addition to the 1992 GDM plan, eight other alternatives and two variations of one alternative were formulated and evaluated through a public and interagency process preceding selection of the final recommended plan. All of those alternatives were described in the GRR and Final SEIS completed by the Army Corps of Engineers in July 2000.

All the above alternatives were fully developed, evaluated and compared, after receiving extensive public participation. Technical and economic criteria used in the formulation of alternative plans were those specified in the Water Resources Council's Principles and Guidelines. The results of the Corps' study demonstrate that the 1992 GDM plan does not achieve the best overall balance of restoration benefits in light of cost and socio-economic impact as well as the Recommended Plan.

Through the evaluation process it became clear that Alternative 5, total land acquisition, was the environmentally preferred alternative because, with the entire 8.5 SMA in Federal ownership, the land could be managed primarily for environmental benefits. However, that alternative had several negative aspects that overcame the somewhat greater environmental benefit of the plan relative to Alternative 6D, the recommended plan. Alternative 5 is by far the most expensive alternative; yet Alternative 6D delivers 93 percent of the environmental benefits in terms of wetland function at 49 percent of the cost of implementing Alternative 5, when compared to Alternative 1, the 1992 GDM plan. Moreover, Alternative 5 would entirely eliminate a cohesive primarily minority and low income rural farming community. Alternative 6D significantly reduces the impacts on community cohesiveness. The record also indicates a widespread concern over the loss of over 2,500 acres of unique farmland. Finally, the high cost of Alternative 5 and the large number of real estate acquisitions that would be required pose serious obstacles to prompt implementation of this important restoration feature.

Some commenters, upon receiving their copy of the final SEIS document, noted that evaluation of the number of homes within the flowage easement portion of the project area was not precisely correct. I have concluded that the precise number of homes within the area to be impacted is not the critical factor and does not constitute significant new information or changed circumstances that would require either an additional round of hearings and coordination, or an additional supplemental environmental impact statement. The critical factors are: understanding the full array of alternatives that would achieve the project purpose; the effectiveness of each alternative; and the full array of impacts the alternative would have if implemented. I have that information and the public has been fully informed and has given valuable comment on those matters. Public comment and input has been fully taken into account. Indeed, one alternative presented to the public for comment was the removal of all residences from the 8.5 SMA through complete acquisition of the area. I note that in the Final Fish and Wildlife Coordination Act Report (FWCAR), in discussing the 6D alternative, the Department of the Interior expressed a clear understanding of what we had discussed in public meetings:

> The Recommended Plan does not fully provide structural flood mitigation for 540 acres (primarily in the northern portion of the 8.5 SMA and east of the perimeter levee). It is our understanding that supplemental non-structural options shall be implemented including re-alignment of the perimeter levee in final design, fee simple acquisition, and/or the purchase of flowage easements. (p. 111 Final SEIS)

As a result of the extensive public coordination and comment, our non-Federal project sponsor for this project has requested (p. 10-11 Final SEIS) that:

> Following the approximate boundary in Alternative 6D, the levees and seepage canal system should be optimized to minimize impacts to the residents of the 8.5 SMA. For example, the levee's location

should avoid residences and wetlands where practicable.
(p. 137 Final SEIS)

In summary, I have a full understanding of the consequences of this decision. I understand the general area in which the impact will occur and the nature of the impact, and every effort will be made in final design of the project to minimize the project impacts on residences and wetlands. The record reflects a full and robust public discussion of the land acquisition, both in fee and flowage easements. The residents of the 8.5 SMA have fully participated in the discussion and the project has been refined in response to their comments. Should significant new information come to light as we complete our final design, appropriate documentation will be prepared in accordance with National Environmental Policy Act (NEPA).

Real Estate considerations and costs are based on available and known information at this point and time in the project's history. Regarding the need for acquisition of real property interests referenced in the report as flowage easement to be acquired for flood mitigation purposes, additional evaluation and analysis, including public health and safety concerns, will be conducted to determine exactly what real estate interests are required based on the operation of the project.

Controversial social impacts related to imposing requirements for changes in land ownership will be addressed by continued planning and design efforts to further increase environmental benefits while minimizing the effects on landowners and the requirements for land acquisition. The recommended plan only impacts about 17% of the total household and removes approximately 8% of agricultural land from production when compared to the environmentally preferred alternative (Alternative 5). Additional environmental benefits will result in the changed land use of the purchased real estate interests. The recommended plan is also the plan supported by the non-Federal Sponsor, the SFWMD, for adoption by the Federal Government as the Federal project for the 8.5 SMA.

MEANS TO AVOID OR MINIMZE ADVERSE ENVIRONMENTAL EFFECTS

All practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. There will inevitably be some loss of wetlands associated with the footprints of the levee and seepage canal to be located within the 8.5 SMA. However this loss is more than offset by the lands being acquired and taken out of urban use combined with the overall project's restoration of the hydrologic regime within Everglades National Park. The Fish and Wildlife Service has determined that there will be a significant net gain in wetland functional value under the recommended plan. The lands purchased under this plan will be managed in accordance with a jointly developed fish and wildlife management plan (consistent with the purposes of the overall MWD Project) to: maximize ecological function and structure; restore hydrological conditions; effectively control exotic species; incorporate fish and wildlife enhancement features; and maintain wetland function. The current alignment of the levee and seepage canal is approximate. Hydraulic modeling combined with continued design and ground

surveying will be used so that the footprint of both these features will reach an optimum point where wetlands preservation is maximized and impacts to residents are minimized. Seepage canal construction will incorporate enhancements that will increase the potential for improved water quality through biological treatment and increase habitat for fish and wildlife.

COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

The recommended plan is in compliance with all applicable environmental laws and requirements including but not limited to, the National Environmental Policy Act of 1969, the Endangered Species Act (ESA) of 1973, the Fish and Wildlife Coordination Act of 1958, the National Historic Preservation Act of 1966, the Clean Water Act of 1972, the Clean Air Act of 1972, as amended, the Coastal Zone Management Act of 1972, and Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Recommendations in the FWCAR have been incorporated into the recommended plan. Both the draft and final documents were distributed for public comment; public comment was incorporated and considered. A Biological Assessment has been prepared, which concluded that the project would not likely adversely affect any listed species. Species of concern included the endangered Florida Panther, Wood Stork and Cape Sable Seaside Sparrow. Coordination with the USFWS has been initiated and concurrence with this determination requested. Construction of the structural features of the recommended plan will consider any recommendations made to ensure that endangered and threatened species are not adversely impacted and disturbance to residents is minimized. While one of the purposes of this project is to restore a healthy hydrologic regime in ENP and promote the needs of all species residing there, and while the Corps has a Final FWCAR that addresses endangered species, the subject of endangered species is covered by an independent, distinct set of regulations and procedures under the ESA. This document adequately addresses project impacts on endangered species, based upon the best available scientific information. If any new information or issues surface, we will address these in full compliance with both the consultation requirements of the ESA and the environmental documentation requirements of NEPA. The Recommended Plan requires that Alternative 6D be adjusted during final design to maximize environmental benefits while minimizing adverse social impacts.

SUMMARY

After carefully weighing all project data, benefits, and potential impacts, Alternative 6D, with the conditions as specified above, provides a significant increase in environmental benefits over the 1992 GDM plan at an acceptable increase in cost and social impact. It was therefore selected as the recommended plan to be implemented in lieu of the 1992 GDM plan for the 8.5 SMA. It is consistent with the Federal objectives and is the National Ecosystem Restoration (NER) plan for this project. It is also the plan recommended by the non-Federal sponsor, the SFWMD, for adoption by the Federal Government as the Federal project for the 8.5 SMA.

In view of the above, I find that any adverse effects of the recommended action described in the Final SEIS have been avoided and/or minimized to the extent practicable, and I am confident that the recommended plan best meets the overall Federal objectives. The recommended action is consistent with all-applicable laws, regulations, national policy, and administrative directives. The total public interest will best be served by implementing as expeditiously as possible, the recommended plan as described in the GRR and Final SEIS.

06 DEC 2000
Date

Joseph W. Westphal
Assistant Secretary of the Army
(Civil Works)