

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



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April 17, 2002

Colonel James G. May
District Engineer
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

Re: Interim Operational Plan: Central and South
Florida Project; Second Fish and Wildlife
Coordination Act Report, Multiple Counties

Dear Colonel May:

The Florida Fish and Wildlife Conservation Commission has reviewed the revised final recommended plan (Alternative 7R) of the U.S. Army Corps of Engineers (COE) for the referenced project, and provides the following comments and recommendations. This Coordination Act Report (CAR) is being submitted under the authority of the Fish and Wildlife Coordination Act of 1973.

The Interim Operational Plan (IOP) for the Central and South Florida Project was developed in response to a Jeopardy Opinion issued on February 19, 1999 under the Endangered Species Act by the U.S. Fish and Wildlife Service (FWS) for the endangered Cape Sable seaside sparrow (CSSS). The opinion declared that the continuation of Test Iteration 7 (Phase I) of the Experimental Program of Water Deliveries to Everglades National Park would jeopardize the possibility of recovering this subspecies of seaside sparrow. The biological opinion developed by the FWS and adopted by the COE included a reasonable and prudent alternative (RPA) whereby jeopardy could be avoided. Upon review of the suite of alternatives presented in the COE's February 2001 draft Interim Operational Plan Environmental Impact Statement (EIS), the FWS determined that none of the available alternatives (including Alternative 6) would be likely to provide for water management operations in South Florida that would comply with the February 1999 RPA and incidental take statement requirements for the CSSS. For a detailed description of the RPA and the process that led to its development, please refer to our previous preliminary CAR (attached) to Colonel James G. May, dated April 9, 2001. Consequently, closed door discussions ensued between the COE, FWS, National Park Service, and the South Florida Water Management District (SFWMD), utilizing the U.S. Institute for Environmental Conflict Resolution, in an effort to reach consensus on an IOP alternative amenable to all four

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parties. These negotiations eventually resulted in the adoption of Interim Operational Plan Alternative 7 (IOP-Alt.7) as the preliminarily recommended plan.

Unfortunately, the SFWMD subsequently backed out of the IOP-Alt.7 agreement due to concerns that higher canal stages in the L-31N may increase flooding risks above acceptable levels in the South Dade agricultural area. This resulted in an intensive renegotiation process among the previously mentioned four parties to resolve the flood risk issue. The end result was the formulation and adoption of Interim Operational Plan Alternative 7R (IOP-Alt.7R), which is being presented by the COE as the final recommended plan for the IOP. This plan will be presented formally in a Supplemental Draft EIS that is scheduled for release later this month. Emergency contracts for an expedited construction of the structural features associated with IOP-Alt 7R have already been awarded, and the work is scheduled for completion by June 28, 2002.

Description of New Structural and Operational Components

This report will focus on the additional structural and operational features of IOP-Alt. 7R. To compensate for the higher canal stages that are to be maintained in the L-31N Canal, two additional seepage reservoirs and two new pump stations are to be constructed. The two new pump stations (S-332C and S-356) have already been authorized under the 1994 C-111 General Re-evaluation Report and the 1992 Mod Waters General Design Memorandum (GDM), respectively, and will be placed at their predetermined locations. The S-332C pump station will be located adjacent to the L-31N Canal where intersected by Canal 103, and will deliver water from the L-31N Canal via five 2,200-foot-long steel pipes into a 325-acre seepage reservoir (S-332C) situated on the boundary of Everglades National Park (ENP). A connector cell will be constructed between the S-332B and S-332C seepage reservoirs in order to prevent overtopping of the S-332B Levee by diverting excess water through the connector cell and into the larger S-332C Reservoir. At a minimum, 206 acres will be encompassed in the connector cell, with the possibility that this cell could be expanded to 1,271 acres if outstanding private parcels can be purchased quickly enough and the "land swap" agreement between ENP and the SFWMD can be completed. Also, an 800-acre detention area (Frog Pond Seepage Reservoir) will be built to receive pumpage from the existing S-332D Pump Station, in order to attenuate flows into Taylor Slough. This detention area will consist of an initial high-head distribution cell and two additional treatment cells, culminating in the final discharge across a flowway and through a 2,000-foot breach in the L-31W Levee into Taylor Slough. Finally, the S-356 Pump Station, with a 500-cfs capacity, will be constructed on the existing L-29 Levee in WCA-3B, to recapture seepage water from the L-30 and/or L-31 Canals for reintroduction into the L-29 Canal west of the S-334 Structure and conveyance under the Tamiami Trail into Northeast Shark River Slough. The operational criteria for L-31N Canal stage levels in both IOP-Alt. 7 and Alt. 7R resemble Test 7 Phase I operations, except that S-194 and S-196 canal stage levels will be held at the slightly higher Test 7 Phase II levels when no regulatory releases are being made from WCA-3A.

Concern 1: Limited Participation in Plan Development

We continue to remain concerned about the closed door process that has led to the current iteration of a recommended IOP, particularly with the addition of the S-356 Pump Station. Nevertheless, coordination with COE staff has improved following "federal family" agreement on the current Alternative 7R plan. For a detailed description, analysis, and evaluation of the previous six alternatives considered for the IOP and our concerns about the overall coordination process, please refer to our previous report to Colonel James G. May dated April 9, 2001.

Concern 2: Impacts to Existing Recreational Facilities

The construction of the S-356 Pump Station at its preauthorized location in WCA-3B may eliminate the concrete boat ramp and undeveloped parking area that provides for airboat access into the Francis S. Taylor Wildlife Management Area, which we manage. The intake pipes for uptake of water by the pump station from the eastern portion of the L-29 Canal are likely to impact the designated recreation area (Recreation Site No. 1) situated between the crest of the L-29 Levee and the L-29 Canal, and immediately east of the current S-334 Structure. If this airboat ramp and associated parking area are impacted, we request that a replacement concrete ramp of a comparable size be constructed on the new L-29 Levee immediately north of the current ramp location, and that the amount of parking space not be reduced from current levels. A new wildlife management area sign was recently erected at the airboat ramp that will need to be either relocated to the new boat ramp or replaced. Furthermore, if the intake pipes for the pump station displace the existing recreation site, we request that recreational facilities be relocated to a nearby suitable location. At a minimum, the landscaping should be re-established by relocating the existing sabal palms, if possible, and planting additional native trees (strangler fig, gumbo limbo, etc.) if space permits. The amount of available parking space should not be reduced from current levels. Replacement of the picnic tables and benches that were part of the original recreation site design would also be appreciated.

Concern 3: Operational Use of the S-356 and S-335 Structures

Although the S-356 Pump Station was approved under the 1992 GDM for the Mod Waters project, its construction at this time for its intended operations appears to be premature. The original purpose of the S-356 Pump Station was to collect seepage and flood water discharges from the L-31N via the eastern portion of the L-29 Canal and to redistribute the water into North East Shark River Slough (NESRS) by pumping it into that portion of the L-29 Canal west of the S-334 Structure. However, the utility of the S-356 Pump Station is questionable due to the modest amount of seepage passing from ENP into the L-31N Canal, and the severe limitations on its use imposed by the current G-3273 trigger well constraint in NESRS as well as the L-29 Canal stage level constraint. The COE's description of IOP-Alt.7R states that the S-356 pump would be used to collect seepage from WCA-3B via the L-30 Canal, which is not an

intended operational use of the S-356 pump under the 1992 Mod Waters GDM. We understand that a more probable reason that this pump station is being built is to improve the level of flood protection for western developed areas in Sweetwater and West Miami, rather than for environmental benefits.

We have become aware that there is interagency disagreement on what constitutes the pre-ISOP operational criteria for the S-335, specifically whether the headwater level in the L-30 Canal should be set at 6.0 ft. or 7.0 ft msl. We believe that this issue should be resolved prior to the final acceptance of the recommended plan. It is our belief that higher stage levels in the L-30 Canal are beneficial in protecting the integrity of wetland communities in both WCA-3B and the Pennsuco wetlands during low rainfall periods. For a more detailed discussion of our concerns on the use of the S-335 Structure to regulate water levels in the L-30 Canal, please refer to our previous CAR (attached) to Colonel James G. May, dated September 28, 2001.

Concern 4: Modeling

No attempt has been made to model the actual water management operations through the South Dade Conveyance System (SDCS) that will be employed in Alt.7R. However, the bounds of operations that are anticipated to occur under IOP-Alt.7R can be derived from two previous runs of the South Florida Water Management Model (SFWMM) for IOP-Alt.7. One run (IOP-Alt.7a) involved no regulatory releases from WCA-3A into the SDCS over the 31-year period of record, and the other run (IOP-Alt.7b) incorporated regulatory releases from WCA-3A into the SDCS over the 31-year period of record. In actuality, the mode of operation at any particular point in time would vary, depending on the requirements of the proposed regulation schedule to release or retain water in WCA-3A. Consequently, we would expect that hydrological conditions for IOP-Alt.7R would lie somewhere between those predicted for IOP-Alt.7a and IOP-Alt.7b. Furthermore, due to the inherent limitations of the 2 x 2 SFWMM to accurately portray hydrological conditions at canal boundaries and for small features like the seepage reservoirs, additional modeling that utilizes Mod Branch or another appropriate model should be performed to refine an operational plan prior to actual implementation. The previous concern that the S-332B Seepage Reservoirs could overflow into ENP during storm events has been resolved under IOP-Alt.7R by providing an overflow weir that would channel those flows into the S-332C Seepage Reservoir situated to the south.

A review of relevant model output for WCA-3A and WCA-3B suggests that IOP-Alt.7R yields essentially the same hydrological results as did Alternative 6. The somewhat deeper water conditions in eastern and southern WCA-3A, and in WCA-3B that were a concern following wet years under Alternative 6 remain. Examination of model output for indicator regions in WCA-3B indicates that recession rates would be retarded and that water level reversals would occur more frequently during years with above average rainfall. Although the reason for this performance is unclear, we speculate that the increased deliveries into WCA-3B via the S-151

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Structure may be a significant factor. Also, the higher stages of 9.0 feet msl. that may be attained in the L-29 Canal under IOP-Alt. 7R may be exerting a large effect on seepage rates out of WCA-3B across the L-29 Levee.

Concern 5: Actual ISOP 2001 Operations in Relation to IOP

Another important point to consider is that operations modeled by the SFWMM cannot truly reflect the actual field operations that will occur or situations that may arise once the IOP has been implemented. For example, we are aware that operations during the current ISOP 2001 (Alternative 1) have resulted in an increased use of the S-151 Structure to make regulatory releases from WCA-3A into WCA-3B. These releases have indeed greatly reduced the recession rate this year in WCA-3B in comparison to rates experienced in WCA-3A; these releases have occurred while stage levels have been maintained below 8.0 feet msl. in the L-29 Canal. The recommended IOP-Alt. 7R operations for the S-151 Structure and the L-29 Canal will remain essentially unchanged from the current ISOP 2001 operations. Consequently, we are concerned that the very slow recession rates observed in WCA-3B this year are likely to continue under IOP-Alt. 7R, and could slow even further, with additional pumping into the L-29 Canal from the new S-356 structure. Furthermore, although the S-355A and B structures could theoretically be used to lower water levels in WCA-3B, due to the high stage levels that would be expected to occur in the L-29 Canal, their use would be restricted to only those periods when water levels in WCA-3B are relatively high. Likewise, interpretation of SFWMM output for IOP-Alt. 7R in WCA-2B does not indicate any more extreme high water level conditions than would occur under the 1995 base condition. However, actual operations conducted under ISOP 2001, which included no regulatory releases from Lake Okeechobee, have resulted in prolonged high water conditions in WCA-2B. Because IOP-Alt. 7R operations for WCA-2 will be identical to those employed in ISOP 2001, we recommend that an operational decision tree be developed whereby the operation of the S-144, S-145, and S-146 structures, that regulate flows from WCA-2A into WCA-2B, are aligned more appropriately with the regulation schedule for WCA-2A. We hope that our staff can work cooperatively with your operational staff to improve upon the environmental success of the IOP whenever flexibility allows.

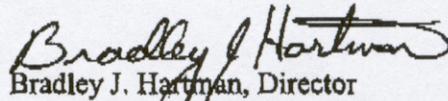
Conclusion

In conclusion, we are pleased that a suitable IOP alternative has been agreed upon whereby the Endangered Species Act requirements for the Cape Sable seaside sparrow will be met, while keeping adverse impacts to the remainder of the Everglades ecosystem at a relatively low level. We find that this final recommended plan (IOP-Alt. 7R) is unlikely to affect fish and wildlife habitat in Lake Okeechobee, Holey Land and Rotenberger wildlife management areas, WCA-1, or northern WCA-3A in a fashion that would be ecologically, significantly different from either Alternative 6 or how the system was operated under ISOP 2001. In addition to concerns stated here with IOP-Alt. 7R, we believe it is necessary to mention that we also have

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concerns about any potential future interactions between S-356 operations and the recommended IOP-Alt.7R. More specifically, we are concerned about the possibility of additional flood water being pumped into southern WCA-3B. We strongly believe that the integration of WCA-3B into the Everglades water conveyance system should include the formulation of a water regulation schedule or a set of water level criteria to ensure that the environmental integrity of this area is not compromised. We look forward to our staff participating as members of any technical team that would be assembled to evaluate pumping limits and operations under IOP-Alt.7R.

Sincerely,


Bradley J. Hartman, Director
Office of Environmental Services

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Enclosures

cc: Mr. Jay Slack, FWS, Vero Beach
Superintendent Maureen Finnerty, ENP, Homestead
Mr. Daniel Nehler, FWS, Vero Beach
Mr. Jon Moulding, Environmental Branch, COE, Jacksonville

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September 28, 2001

Colonel James G. May
District Engineer
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P.O. Box 4970
Jacksonville, Florida 32232-0019

Re: Interim Operational Plan: Central and South
Florida Project; Fish and Wildlife
Coordination Act Report, Multiple Counties

Dear Colonel May:

The Florida Fish and Wildlife Conservation Commission has reviewed the new preliminarily recommended plan (Alternative 7) of the U.S. Army Corps of Engineers (COE) for the referenced project, and provides the following comments and recommendations. This Coordination Act Report (CAR) is being submitted under the authority of the Fish and Wildlife Coordination Act (FWCA) of 1973.

The Interim Operational Plan (IOP) for the Central and South Florida Project was developed in response to a Jeopardy Opinion issued on February 19, 1999 under the Endangered Species Act by the U.S. Fish and Wildlife Service (FWS) for the endangered Cape Sable seaside sparrow. The opinion declared that the continuation of Test Iteration 7 (Phase I) of the Experimental Program of Water Deliveries to Everglades National Park would jeopardize the possibility of recovering this subspecies of seaside sparrow. The biological opinion developed by the FWS and adopted by the COE included a reasonable and prudent alternative (RPA) whereby jeopardy could be avoided. Upon review of the suite of alternatives presented in the COE's February 2001 draft Interim Operational Plan Environmental Impact Statement (EIS), the FWS determined that none of the available alternatives (including Alternative 6) would be likely to provide for water management operations in South Florida that would comply with the February 1999 RPA and incidental take statement requirements for the sparrow. For a detailed description of the RPA and the process that led to its development, please refer to our previous preliminary CAR to Colonel James G. May, dated April 9, 2001. Consequently, closed-door discussions ensued between the COE, FWS, National Park Service, and the South Florida Water Management District, utilizing the U.S. Institute for Environmental Conflict Resolution, in an effort to reach consensus on an IOP alternative amenable to all four parties. These negotiations

ultimately resulted in the adoption of Alternative 7 as the new preliminarily recommended plan, and it is to be formally presented in a Supplemental Draft EIS that is scheduled for release later this month.

This report will focus on the performance of the new preferred alternative, Alternative 7, an outgrowth of Alternative 6. The majority of differences between these two alternatives concern the operation of water levels in canals along the eastern perimeter levee system in Miami-Dade County and operating criteria for the two S-332B seepage reservoirs. The northernmost water management structures for which operating criteria have changed include the S-335 structure on the L-30 Canal near the southeast corner of water conservation area (WCA)-3B and the two new S-355 structures located in the L-29 levee between WCA-3B and the L-29 Canal. Under Alternative 7, the use of the S-335 structure would be allowed for water supply releases when there is downstream capacity consistent with pre-ISOP (Interim Structural and Operational Plan) operations and no WCA-3A regulatory releases are being made to the South Dade Conveyance System or Shark Slough. When WCA-3A regulatory releases are occurring through the S-151 structure, then the S-335 outflows would be matched with the inflows from the S-151 and S-337 structures so as to not unduly lower canal stage levels in the L-30 Canal. The operation of the two S-355 structures has been changed such that they are opened only when the headwater stage in WCA-3B is greater than the tailwater stage in the L-29 Canal. An added structural component to Alternative 7 is the removal of the lower 4 miles of the L-67 Extension Levee. Canal water levels in the L-31N and stage criteria for S-332B pump operations have also been raised above those levels previously proposed. The operational criteria for the S-332B seepage reservoirs has been modified to include specific storm-related actions to ensure that overflow does not occur which would result in the discharge of untreated surface water directly into Everglades National Park.

For a detailed description, analysis, and evaluation of the other alternatives considered for the IOP, and our concerns about the overall coordination process, please refer to our previous report dated April 9, 2001. In terms of coordination with the COE, the overall process has shown little improvement. We have learned that negotiations were occurring between COE staff and other non-federal entities concerning IOP operations in early June. This has demonstrated the COE's willingness to consult with other interests outside the "federal family" during the development of this preferred IOP plan, while still excluding our agency from these discussions. Furthermore, we had established a process whereby we would be formally noticed as soon as a final alternative had been decided upon by the FWS, ENP, and COE staff, but we did not receive this notification until September 17, even though the preferred plan was supposedly agreed upon by August 1. We assume that our interpretations of the model output contained in our previous preliminary CAR were correct, and remain applicable, since we have received no response indicating otherwise from the COE.

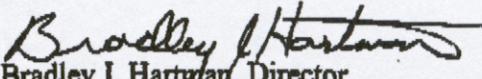
We find that this new preliminarily preferred alternative is unlikely to significantly affect fish and wildlife habitat in Lake Okeechobee, Holey Land and Rotenberger wildlife management areas, WCA-1, or northern WCA-3A differently than either Alternative 6 or how the system was operated during ISOP 2000. A review of relevant model output for WCA-3A and WCA-3B suggests that Alternative 7 yields essentially the same hydrological results as did Alternative 6. The somewhat deeper water conditions following wet years in eastern and southern WCA-3A, and in western WCA-3B remain. However, we have learned that the hydrological modeling results posted for eastern WCA-3B should be viewed with caution, since they may not accurately reflect operations conducted under ISOP during this past year. It is stated that the currently preferred alternative will comply with the water management guidelines for the L-30 canal upstream of the S-335 structure that were being followed prior to the implementation of ISOP operations. We are in agreement with the operational guidelines described under Alternative 7 for the S-335 structure. The failure to maintain appropriate canal stages in conjunction with the new proposed water releases through the S-355 structures during or prior to drought events could lead to a decrease in hydroperiods, an increase in the invasion of exotic plants, and an increase in the risk of peat fires in both WCA-3B and the adjacent Pennsuco wetlands. This integration of WCA-3B into the Everglades water conveyance system should include the adoption of a water regulation schedule or a set of water level criteria to ensure that the environmental integrity of this area is not compromised. We further understand that the proposed operational criteria for the S-335 would help reduce pumping demands at the S-332B and S-332D structures, thus reducing the likelihood of overtopping the weirs of the S-332B reservoirs or of adversely impacting subpopulation C of the Cape Sable seaside sparrow. Additionally, with these S-335 operations, the demand for delivering excess water to the C-111 basin should be reduced, which we hope would result in drier conditions in the critical habitat of subpopulation D of the Cape Sable seaside sparrow, located primarily west of the C-111 Canal on the Southern Glades Wildlife Management Area.

Although modeling results appear inconclusive, based on local topography we believe that the removal of the lower 4 miles of the L-67 Extension Levee may produce slightly longer hydroperiods in the habitat of Cape Sable seaside sparrow subpopulation E, may slightly improve the capacity of the S-12D structure to move water out of WCA-3A, and may lead to slightly drier conditions in central Shark River Slough. We understand that hydrological results predicted by the 2x2 South Florida Water Management Model may not be very reliable near canal boundaries; nonetheless, we believe that the maintenance of higher canal stages in the L-31N Canal and the concomitant reduction in pumping at the S-332 structures should benefit sparrow habitat in subpopulations F and C. In conclusion, we are pleased that a suitable IOP alternative has been agreed upon whereby the Endangered Species Act requirements for the Cape Sable seaside sparrow will be met, while keeping adverse impacts to the remainder of the Everglades ecosystem at a low level.

Colonel James G. May
September 28, 2001
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We understand that you are in the process of developing a supplemental draft EIS that will take the description and analyses of actions taken during ISOP 2000 and incorporate them into the IOP Environmental Impact Statement. Consequently, we may wish to provide additional comments in a supplement to this FWCA Report, if appropriate.

Sincerely,


Bradley J. Hartman, Director
Office of Environmental Services

BJH/DTT
ENV 2-16

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cc: Mr. Jay Slack, FWS, Vero Beach
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FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



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April 9, 2001

Col. James G. May
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Re: Interim Operational Plan: Central
and South Florida Project;
Preliminary Fish and Wildlife
Coordination Act Report and Review
of Draft Environmental Impact
Statement, Multiple Counties

Dear Col. May:

The Florida Fish and Wildlife Conservation Commission has reviewed the preferred alternative of the U.S. Army Corps of Engineers (COE) for the referenced project and the draft Environmental Impact Statement (EIS), and provides the following comments and recommendations. The first part of this letter is submitted as a preliminary Fish and Wildlife Coordination Act Report under the Fish and Wildlife Coordination Act of 1973, while the second portion is submitted as agency comment on the draft EIS.

PRELIMINARY FISH AND WILDLIFE COORDINATION ACT REPORT

The Interim Operational Plan for the Central and South Florida Project was developed in response to a Jeopardy Opinion issued in February 1999 under the Endangered Species Act by the U.S. Fish and Wildlife Service (FWS) for the endangered Cape Sable seaside sparrow. This opinion declared that the releases of water through the S-12 structures under the program of Experimental Deliveries to Everglades National Park jeopardizes the possibility of recovering this subspecies of seaside sparrow. This opinion was based primarily on data collected by Mr. "Sonny" Bass, of Everglades National Park (ENP), and a team of scientists led by Dr. Stuart Pimm under contract with the U.S. Department of the Interior and the COE. These data were used in conjunction with output from the South Florida Water Management Model to predict that at least

three stable subpopulations of the Cape Sable Seaside sparrow must be maintained in order for the species to remain recoverable under the Endangered Species Act. The Jeopardy Opinion determined that one of these three subpopulations, termed subpopulation A and located on the western flank of Shark River Slough, had suffered a significant decline due to water releases through the S-12 structures immediately north of this subpopulation; while the subpopulations along the eastern flank of the slough were endangered by unnaturally dry conditions that led to the invasion of brushy vegetation that is not consistent with the sparrow's open-habitat needs and would increase the risk of unnaturally timed fire. The Jeopardy Opinion required that at least 60 consecutive days of sufficiently dry conditions be met during the breeding season for subpopulation A in order to ensure that it become reestablished as one of the three base breeding subpopulations that would sustain the species as a whole.

The COE and FWS have been debating how to meet this criterion, while avoiding overdrainage of the subpopulations east of Shark River Slough, since the Biological Opinion was released in February 1999. At the heart of the debate is the apparent conflict between the COE's interpretation of their mandate to provide flood protection for the developed areas east of the remaining Everglades versus the FWS's interpretation, in light of their mandate under the Endangered Species Act, of sparrow census data collected in the early 1980s as compared to those data collected in the 1990s. A comparison of these separate data sources indicates a worrisome decline in the sparrow population. The proposed plan, which stems from 24 model runs ("RPA alternatives") to produce a scenario that would meet the hydrologic equivalent of the Reasonable and Prudent Alternatives set forth by the biological Opinion; 39 model runs ("ISOP alternatives") to determine how to operate the Central and South Florida Project during recent years to avoid exacerbating the Jeopardy Opinion while federal debate continued; and 18 model runs to determine how to operate through 2003, the date at which we understand that the Council on Environmental Quality mandated that this issue be resolved through the implementation of the Modified Water Deliveries to Everglades National Park.

In the end, six alternatives have been identified by the draft EIS, and model results for five of these have been presented in the draft EIS. Alternative 1 is the no-action alternative; that is, operating under the same conditions, ISOP9dR, as was done last year. Each of the subsequent alternatives has two phases, one for operations before and one for after the 8.5 Square Mile Area project is completed. Alternatives 2 (IOP2b and IOP2) and 3 (IOP2a and IOP2) differ primarily in the operation of the S-333 structure, while Alternative 4 (IOP3a and IOP3) assesses the effect of varying schedules for WCAs-2A and -3A, but not WCA-1. Alternative 5 (ISOP9dR1 and ISOP9dR2), the currently Preferred Alternative, would improve on Alternative 1 by eliminating the deviation to the schedule for WCA-2A, and would include a new 160-acre retention area for discharges from the S-332B pump. During its second phase, it would also increase discharges made through the S-332B and D pumps, and would slightly elevate the trigger levels for operating the S-176 structure. A place-holder is made for a sixth alternative, which the draft EIS describes as identical to the currently Preferred Alternative but with

an additional approximately 240-acre retention area to augment the 160-acre retention area proposed under Alternative 5. No model output is available for this last alternative because, as we understand the status, it is still in negotiation with the FWS and ENP.

Summary of the Analysis of Preferred Alternative

Our analysis of the Preferred Alternative is based primarily on the normalized weekly stage hydrographs and, to a lesser extent, the summary tables available on the COE's sparrow website, but not included in the draft EIS. Examination of the weekly stage hydrographs provides a picture that allows one to determine how the proposed actions would affect water levels throughout the 31-year period record of rainfall used by the South Florida Water Management Model. The other forms of output rely primarily on averaging conditions over this period of record, an approach that can be used to flag potential problems but is less meaningful in terms of biological responses. Often, it is the extreme event that produces significant ecological change.

In addition, we have concentrated on the effects of the Preferred Alternative as compared to the no-action alternative, since this appears to be the most likely default condition. In relevant cases, we refer to the modeled current condition (95Base), and RPA102. Because Alternatives 2 and 3, which retain the raised regulation schedule for WCA-2A, would produce unacceptably deep water in both WCA-2A and -2B, we refer to them only with respect to performance in the area where subpopulation A of the Cape Sable seaside sparrow is found. Since no normalized weekly hydrographs were available for IOP3 (Phase 2 of Alternative 4), we assume that this alternative is not under serious consideration; consequently, we have not included it in our analysis. A system-by-system outline of our findings is presented in the attached staff report.

In general, we find that the Preferred Alternative is unlikely to significantly affect fish and wildlife habitat in Lake Okeechobee, Holey Land and Rotenberger wildlife management areas, WCA-1, or northern WCA 3-A differently than would the no-action alternative, or how the system was operated during the past year. Removing the deviation to the regulation schedule for WCA-2A greatly improved performance of this area as well as WCA-2B. Eastern WCA-3A and southern WCA-3A, two areas that seem to mimic each other in terms of hydrologic performance in most model runs that we have reviewed, are predicted to see somewhat deeper water under Phase 2, but only during years that follow wet years (i.e., when modeled water depths exceed 2.5 feet for several months). A similar trend is seen in western WCA-3B; however, eastern WCA-3B and, in particular, southern Pennsuko wetlands appear to respond to other hydrologic phenomena. The draft EIS does not provide sufficient information to ascertain why this occurs, but we assume that it involves changes in the operations of the South Dade Conveyance System once the 8.5 Square Mile Area project is in place. Finally, there appear to be modest improvements in the northern and middle reaches of Shark River Slough, and both phases of the Preferred Alternative appear to closely resemble, at least for the first 60 days of the two nesting windows analyzed, output for RPA102 in the

indicator region that represents subpopulation A of the Cape Sable seaside sparrow. On the other hand, Alternatives 2 and 3 provide a closer match, and do so for many more days. Since the FWS has teamed with the hydrologists at ENP to couple the population modeling that led to the Jeopardy Opinion with the output of the South Florida Water Management Model, it will be up to the FWS to determine if the Preferred Alternative performs sufficiently well to meet the Reasonable and Prudent Alternatives.

Concern about the Coordination Process

Initially, the debates as to how to resolve these differences were held in an open forum, but lawsuits by the National Resources Defense Council and the Miccosukee Tribe of Indians limited all discussion to the "federal family," with limited participation of the South Florida Water Management District. As we understand it, the concern on the part of the federal attorneys was that involvement of any agency not named by the lawsuits would allow the opposing litigants access to the files of that agency under the Florida Sunshine Act or the Freedom of Information Act. Such access would essentially constitute free discovery for the entities initiating the lawsuit.

Due to the aforementioned legal considerations, coordination with the FWC has been next to nonexistent. If it can be considered "coordination," it has consisted only of informal discussions and email correspondence with individual COE staff, usually at the initiation of FWC staff. We learned of new alternatives in the same manner as did the interested public; that is, through emailed announcements that a new suite of alternatives had been posted on the COE's sparrow website or by periodically checking this website. Although we noticed that COE staff eliminated the assumed deviation to WCA-2A in response to one of our Planning Aid Letters, no attempt was made by the COE to coordinate with us in a formal manner. This lack of recognition of the FWC as a coordinating agency is further, and dishearteningly, reflected in the fact that the draft consolidated feasibility report and environmental impact statement includes no section with our two Planning Aid Letters, nor is there a place-holder, as there is for the FWS's Fish and Wildlife Coordination Act report, for our independent report. Please note that we had committed to providing an independent report when we responded (letter dated November 22, 1999) to the scoping notice.

In terms of improving coordination with this project, we request that (1) we are formally notified as soon as a final alternative is chosen by the FWS, ENP, and COE staff, and that this notification fully outline the key components of the alternative; and (2) since the opportunities to discuss the model output with COE staff have been so limited, we receive written input at least two weeks before our final report is due if any of our interpretations in the attached report are in error, with clarifications if so.

Far more significantly, we believe that some sort of accommodation can be worked out for similar situations that are likely to arise during the planning and implementation of the Comprehensive Everglades Restoration Plan. This is a concern

that we had stated in our most recent Planning Aid Letter, and which we believe is imperative to resolve if the spirit of the Fish and Wildlife Coordination Act is to be realized. Consequently, we request that the COE contact us, preferably during this calendar year, so that staff may cobble a method by which we can improve coordination in the future.

REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

We have reviewed two portions of the draft EIS: the main body of the draft EIS (pp. 1 through 74) and Appendix J, which provides operational details. Overall, we find the main body of the draft EIS to be very general and lacking in some key areas of information. Most remarkable, however, has been the decision to publish a draft EIS, the only real opportunity for the public to see and provide timely input on the suite of alternatives, before what is likely to be the final Preferred Alternative (Alternative 6) has been modeled. Although Alternative 6 is essentially the currently Preferred Alternative plus an additional 240-acre impoundment, the performance of this impoundment is likely to have impacts on at least one subpopulation of Cape Sable seaside sparrow, the subject of this draft EIS and the entire modeling effort.

Main Body of the Draft Environmental Impact Statement

Three areas that would greatly benefit from additional or improved information include water quality in the area of the South Dade Conveyance System; clarification as to whether the additional 240 acres would require a land swap with ENP, similar to that needed by the C-111 Project to replace native lands lost from the park via construction of a retention area within current park boundaries; and a description of the interests managing nonfederal lands that would be affected by the alternatives. We understand that water-quality concerns have been identified in terms of the suitability of water to be discharged into ENP, and that these water quality concerns are not limited to phosphorus, but may include contaminants related to pesticides and other agricultural agents. These issues are not mentioned in the draft EIS, nor are the results of the test run for the S-332B pump. The location of the additional detention area should be identified. If it falls within the boundary of ENP, then additional time may need to be factored in for a land exchange in order to comply with the federal mandate to avoid losing park acreage. If that exchange is proposed to occur in Southern Glades Wildlife and Environmental Area, which we manage, then it would be of concern to us. Finally, although A.R.M. Loxahatchee Wildlife Refuge and various designations for ENP are mentioned, the draft EIS makes no mention of the fact that WCAs 2 and 3 are managed by us for a combination of ecological and recreational considerations as the Everglades Wildlife Management Area. In addition, the Miccosukee Tribe of Indians has a reservation in western WCA-3A, rights to traditional activities in much of the rest of WCA-3A, and a Special Use Permit Area just downstream of the S-12 structures.

Finally, we note that the summary and introduction imply that there was full interagency coordination in developing and reviewing the 81 alternatives as they were produced. As described above in our Preliminary Fish and Wildlife Coordination Act report, this was not the case. Once the lawsuits by the Miccosukee Tribe and the Natural Resources Defense Council were filed, interaction was extremely limited. Notices were posted to all concerned when new alternatives were available, but we are unaware of any opportunity to have had interagency discussion in any meaningful form after the lawsuits caused the detailed discussions leading to alternative development to be limited to the "federal family." The extent to which interagency input occurred needs to be more accurately portrayed.

Appendix J: Detailed Operation for Proposed Action

The description of the detailed operation for the Preferred Alternative provides information on the planned operation of Lake Okeechobee, each of the WCAs, and the South Dade Conveyance System. Contingencies are also provided for operating the South Dade Conveyance System once a storm event is predicted; during the storm; and after the storm, leading to resumption of normal operations. We are concerned, however, that there are no similar guidelines provided for the possible deviations mentioned for nearly all parts of the system as being "needed in the case of a regional drought." While we recognize that extreme or regional droughts do occur, and that all parts of the hydrologic system are likely to suffer to some degree, we strongly believe that it is necessary to provide guidelines as to how and under what circumstances those deviations may be instituted if the public is to be fully informed about the proposed operations. The fact that the system has been operated in "emergency" mode for four years gives us cold comfort that the current level of information will provide adequate guidance for the future, either for water managers or for resource managers.

In addition, the description does not discriminate between actions to be taken under Phase 1 and Phase 2 of the Preferred Alternative; and, unless one is intimately familiar with the current operations (ISOP9d) of each of the areas and structures

RESPONSES TO RECOMMENDATIONS IN THE
US FISH AND WILDLIFE SERVICE AND THE
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
FINAL COORDINATION ACT REPORTS

US Fish and Wildlife Service

1. **Recommendation:** An update is needed for the SFWMM to yield a finer scale to better analyze alternatives in the future.

Corps Response: There is not time to develop another version of the SFWMM with finer resolution for analyses in the future for CSOP. However, the CSOP modeling team plans to utilize other hydrologic models in conjunction with the current version of the SFWMM to achieve the same end.

2. **Recommendation:** Baseline monitoring to assess marsh restoration should be done in the vicinity of the construction sites for the life of the project.

Corps Response: Vegetation monitoring is presently being carried out in conjunction with the recommendations in the 1999 Biological Opinion, and will be in effect for the expected duration of the IOP. Monitoring needs will be re-assessed during CSOP plan development.

3. **Recommendation:** Monitoring in conjunction with the operations of the S-356 pump station should be done.

Corps Response: S-356 is an interim structure that may be considerably changed during CSOP and/or CERP. As such, a monitoring plan should be deferred until its final configuration is determined.

4. **Recommendation:** In areas where unnatural water fluctuations could be expected, monitoring of aquatic communities, habitats, and water quality is needed to determine if significant ecological impacts are occurring.

Corps Response: Water quality monitoring is presently being conducted, or will be conducted, in accordance with FDEP requirements. A comprehensive look at other monitoring needs will be a part of the CSOP development process and should be integrated with the CERP monitoring program.

5. **Recommendation:** All means consistent with protection of the sparrow under IOP should be taken to protect fish and wildlife resources and habitats in the WCAs.

Corps Response: Concur.

6. **Recommendation:** Performance measures (PMs) should be adopted for aquatic slough communities that would sustain the habitat.

Corps Response: Concur. The PMs could be used to evaluate the effects of IOP on the habitat, and apply it during development of the CSOP.

7. **Recommendation:** To avoid degradation of marl wet prairie habitat adjacent to the seepage reservoirs, minimize the number of events considered for implementation of emergency storm operations, to the extent practicable.

Corps Response: Concur. Implementation of emergency storm operations for non-named events would be considered only after receipt of a recommendation by the SFWMD. The Corps would advise the FWS of the conditions prior to making a decision.

8. **Recommendation:** Adopt a set of measures that can be used to evaluate the effects on the timing of wood stork colony formation of alternative water management scenarios that will be examined during hydrologic modeling for S-356 operations.

Corps response: Concur.

9. **Recommendation:** Water quality monitoring needs to include monitoring of the flora and fauna as well as groundwater.

Corps Response; Water quality monitoring is presently being conducted, or will be conducted, in accordance with FDEP requirements. A comprehensive look at other monitoring needs will be a part of the CSOP development process and should be integrated with the CERP monitoring program.

Florida Fish and Wildlife Conservation Commission

1. **Recommendation:** The boat ramp at the S-356 construction site should be replaced or relocated.

Corps Response: The S-356 site plan has been re-designed such that the existing boat ramp will be unaffected. Access to it will be blocked during construction, but opened thereafter.

2. **Recommendation:** Additional modeling that utilizes Mod Branch or another appropriate model should be performed to refine an operational plan prior to actual implementation.

Corps Response: Additional modeling, as suggested, will be performed during the development of CSOP.

3. **Recommendation:** An operational decision tree should be developed whereby the operation of the S-144, S-145, and S-146 structures, which regulate flows from WCA 2A into WCA 2B, are aligned more appropriately with the regulation schedule for WCA 2A.

Corps Response: The IOP will be superseded by the more comprehensive CSOP within a few years. Since the IOP is narrowly focused on protection of the sparrow, the more comprehensive CSOP development process would be a more appropriate vehicle to consider changes in water routing and management for structures remote from sparrow habitats.