

Everglades Law Center
National Parks Conservation Association
Everglades Foundation
Audubon Florida

January 22, 2017

Melissa Nasuti
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Re: Supplemental Environmental Assessment and Proposed Finding of No Significant Impact
-- G-3273 Constraint Relaxation/S-356 Field Test and S-357N Revised Operational
Strategy: Increment 1 Plus (Increment 1.1/1.2)

Via electronic mail

Dear Ms. Nasuti:

We write in response to the December 2016 Supplemental Environmental Assessment and Proposed Finding of No Significant Impact -- G-3273 Constraint Relaxation/S-356 Field Test and S-357N Revised Operational Strategy: Increment 1 Plus (Increment 1.1/ 1.2) (“December 2016 Draft Supplemental EA”). In short, we strongly support the United States Army Corps of Engineers (“Corps”) proposal to move ahead with actions, consistent with the original Modified Water Deliveries plan (“ModWaters”), to implement operational changes needed to realize our shared plan for Everglades restoration, the Comprehensive Everglades Restoration Plan (“CERP”). We also appreciate the coordination between the Corps and the United States Fish and Wildlife Service (“Service”) to promote both Everglades restoration and the protection of the endangered species that depend on Everglades habitat.

We again oppose operations which would lower S-18C and/or increase S-197 discharges,¹ which are counter to restoration goals and operating plans for the C-111 Western Spreader Canal Project, are not reflected in the original ModWaters plan, and set a dangerous precedent. Before allowing these operations – contrary to CERP – to continue, data must be compiled and analyzed to discern whether these changes are needed to address increases in flooding risk as a result of increased flows in Northeast Shark River Slough (“NESRS”).

¹ We have long opposed these operations. See Attachments A-D (two sets of comments on an earlier increment of ModWaters implementation in 2015, as well as comments in March and May, 2016 regarding the temporary, expedited implementation of additional aspects of ModWaters).

We have long supported implementation of ModWaters, with its operations that move more water south through the historic Everglades flowway – through NESRS, Shark River Slough, Taylor Slough and into Florida Bay. We want to reiterate that a central element of this project is to reestablish the historic connection that occurred when water in NESRS would pond high enough during the wet season that a direct flow connection from NESRS to Taylor Slough was established annually across the Rocky Glades and that this flow persisted well into the dry season. The proposal now under consideration – the second stage in the ModWaters incremental operations plan, Increment 1.1/1.2 – would eliminate the stage constraint at the G-3273 structure, change operations at many structures in the southern portion of the Central and Southern Florida System (“C&SF System”), and add protections for the Cape Sable Seaside Sparrow (“Sparrow”) populations with habitat both east and west of Shark River Slough. *See* December 2016 Draft Supplemental EA at 2-43, 2-44.

We strongly support moving ahead with operations that allow for Everglades restoration without delay. However, there are some issues of concern that remain within the Preferred Alternative (Alternative D).

The Timeline for Implementation

The Service’s July 2016 Biological Opinion for the Everglades Restoration Transition Plan (“July 2016 ERTTP BiOp”) set forth a Reasonable and Prudent Alternative (“RPA”) for southern C&SF System operations that included an expedited timeline for the implementation of remaining portions of the C-111 South Dade Project. *See* July 2016 BiOp at § 7.1.2 (page 189). According to the July 2016 ERTTP BiOp, a subset of that project was to be completed in time to allow operations that would allow the stage in the L-29 Canal to rise up to 7.8 feet NGVD to begin in March 2017, and further parts of the projects were to be completed in time to allow “Increment 2” operations to begin in March 2018.

However, the December 2016 Draft Supplemental EA suggests that this timeline has already slipped. In discussing the Preferred Alternative, it states:

The combined duration of Increment 1 and Increment 1.1/1.2 may extend beyond the two calendar years initially envisioned for Increment 1 to compensate for the temporary suspension of the Increment 1 field test during the 2016 Temporary Emergency Deviation and extended recovery period (February-November 2016). In addition to the 2016 Temporary Emergency Deviation, extension of the Increment 1 and Increment 1.1/1.2 field test duration to up to three years will allow sufficient time to complete the C-111 South Dade construction components needed to operate the [Northern Detention Area] during Increment 2 of the [ModWaters] Project. Increment 1.1/1.2 will extend until implementation of Increment 2.

December 2016 Draft Supplemental EA at 2-44. To similar effect, it notes that work to allow the stage in the L-29 Canal to rise up to 7.8 feet will not be complete until the summer or fall of 2017:

Real estate acquisition is ongoing and is expected to be complete by October 2017. Based on the current construction schedule for C-111 South Dade Contract 8, the earliest opportunity to consider incremental raising of the L-29 Canal above 7.5 feet, NGVD is expected between July and October 2017, coincident with the 2017 wet season. Following completion of the C-111 South Dade [Northern Detention Area], the Corps anticipates that the L-29 Canal stage maximum operating limit will be further raised up to 8.5 feet, NGVD under Increment 2 of the [ModWaters] Project.

Id. at 1-23. These apparent delays are troubling. We emphasize the need to ensure that project implementation happens expeditiously to meet the Service’s RPA designed to stop the continuing downward slide in the Sparrow population.

Protecting the Cape Sable seaside sparrow

Subpopulation A

The Preferred Alternative would implement the RPA set forth in the July 2016 ERTTP BiOp. First, it is important to note that the impact of the RPA is to move a greater amount of water from Water Conservation Area 3 into Everglades National Park, while slightly extending the closure periods for the S-12A, S-12B, S-343A/B and S-344 structures to increase the amount of nesting habitat available to Sparrow Subpopulation A and to improve hydroperiods in that habitat overall. Modelling suggests that the extended closure dates will improve Subpopulation A’s habitat and nesting success.² Areas south of these structures should remain dry during the dry season, not only for the Sparrow, but for all wildlife that rely on this habitat.

However, the modeling did not include what the Service and Corps refer to as the “high water strategy” – an exception to the extended closure period for the S-12A and S-12B structures, allowing those structures to open in October and November under specified conditions to mitigate the need for later openings to avoid “overtopping” the structures (which can threaten their structural integrity). *See* December 2016 Draft Supplemental EA at 4-13.

Both overtopping and opening the S-12A and S-12B structures during Cape Sable Seaside Sparrow nesting season are problematic. As the Service explains in the July 2016 ERTTP BiOp, during last year’s C&SF Project emergency deviations, imminent overtopping of those gates led the Corps to open them in the middle of Sparrow nesting season to protect their structural integrity (“to allow the equivalent amount of water that would have otherwise been released by overtopping”). *See* July 2016 ERTTP BiOp at 26-27. The exceptionally high water levels Water Conservation Area 3A (“WCA-3A”) in 2016 led to this event, but the harmful impacts were felt. “While the effect of opening this structure was negligible on water levels in WCA-3A, the impact to [Sparrow Subpopulation A] was noticeable and resulted in a reversal of water levels and elimination of available nesting habitat two weeks into the sparrow nesting season as a result of an additional 4 inches of water across the western marl prairie south of S-12A.” July 2016 ERTTP BiOp at 26-27.

² The July 2016 ERTTP BiOp discusses the need for additional improvements in Subpopulation A beyond those modelled for Increments 1.1/1.2 and 2. *See* July 2016 ERTTP BiOp at 204-06.

The impact of allowing earlier opening of the gates under specified conditions to reduce the need for this kind of “emergency” opening during nesting season remains uncertain. A limited analysis of recent years with high water stages in WCA-3A showed that four of four of the years analyzed would have had S-12A and S-12B open into October (beyond their extended closure dates) and two of four would have also had S-12B remain open into November (beyond its extended closure date). It is unclear whether and how this “high water strategy” will be evaluated in the proposed monitoring plan, and whether and how other operational options will be considered going forward into future increments of ModWaters implementation. We respectfully request that monitoring be implemented to assess the need for and effect of violating the extended closure periods for S-12A/B, as well as other operational strategies to avoid overtopping the S-12 gates in high water.³

Eastern Subpopulations

Although modelling of the Preferred Alternative shows benefits to Subpopulation A, it shows “variable effects” on the eastern subpopulations. *Id.* at 2-24; *see also* July 2016 ERTTP BiOp at 205. Of particular concern are potential effects on Subpopulation E. *Id.* As the Service has emphasized, the effects on eastern Sparrow subpopulations must be closely monitored, and adaptive management is critical to ensure their protection and conservation. *Id.* at 205-06. The July 2016 ERTTP BiOp sets targets for all subpopulations, reconsultation triggers, and monitoring of habitat conditions and breeding success. We urge the agencies to work expeditiously to advance Everglades restoration while continuing to ensure an adequate nesting window for all Sparrow subpopulations and hydrologic regimes that support the bird’s habitat – short-hydroperiod freshwater marl prairies in the southern Everglades.

To that end, we look forward to reviewing the Corps’ annual monitoring reports (see July 2016 ERTTP BiOp at 191) regarding effects of increased flows to NESRS (as well other operational changes worked in the L-31N and C-111 basins as part of Increment 1.1/1.2) on the habitat and nesting success of eastern Shark River Slough Sparrow populations, and to being part of work to ensure the species’ continued survival and recovery.

S-328 and S-332D Operations

The Preferred Alternative incorporates a portion of the South Florida Water Management District (“SFWMD”)’s “Florida Bay Plan.” *See* December 2016 Draft Supplemental EA at 4-20, 21. Specifically, it would allow increased flows through a gated structure, S-328, with the goal of moving additional water south in L-31W toward the L-31W levee gap, and then out into Taylor Slough. However, experts have identified the potential for water quality problems as a result of

³ The Service made a similar request, asking:

... that the Corps provide a strategy for pre-emptively operating structures in order to avoid the need for the exit strategy openings of the S-12A/B. The Service requests that discharges prior to October 1 be aggressive enough to allow as much water to be moved towards the east as possible. Pre-emptive operations should strive to avoid S-12A/B openings in October and November, when practicable.

these proposed increased flows: “concerns were expressed that the S-328 operation would potentially limit the opportunity of nutrient uptake by the wetland vegetation within the S-332D Detention Area, resulting in an increased nutrient load into Taylor Slough.” *Id.* at 4-21. As a result, the Corps’ Preferred Alternative limits the amount of flow through S-328 and requires that additional L-31W plugs identified in the 2016 C-111 South Dade Contract 9 EA between S-328 and the L-31W gap be completed prior to its operation. *Id.* Although the Corps recognizes the need for monitoring both to discern water quality problems,⁴ *id.*, no proposed monitoring plan for S-328 operations is available for review. *Id.* at 4-55 (monitoring plan still “being developed”). It is unclear whether and how the public will be able to comment on this plan. We request an opportunity to review the proposed monitoring plan before it is finalized.

In addition, the Preferred Alternative includes operations to move water away from Everglades restoration project construction areas along the South Dade canals. *See* December 2016 Draft Supplemental EA at 4-21; *see also id.* at 4-40. To “make up” flows to Taylor Slough that may be lost as a result of these operations, the Preferred Alternative allows for additional flows out of S-332D (and potentially other neighboring structures). Again, the EA acknowledges the potential for water quality problems as a result of these operations,⁵ but cursorily concludes that the proposed operations are unlikely to have the adverse effects that had been observed in the past because of “the limited duration and limited spatial extent of the operational changes.” *Id.*

The District’s Florida Bay Plan as proposed has point discharges, and these point flows will result in localized disruptions to flora and fauna, as they are entirely inconsistent with natural Everglades flow patterns. We emphasize the need to gather and evaluate data about the specific operations included in the Preferred Alternative to ensure they are effective hydrologically and not harmful from a water quality perspective. *See* Attachment E.

Changing rationales for increasing flows through S-197 and the Need to Increase Stages at S-18C.

We have repeatedly raised concerns about plans to increase discharges from the S-197 structure, purportedly to reduce increased flood risks being taken on by agricultural landowners in South Dade County as a result of increased flows in the historic Everglades flowway. *See, e.g.,* Attachments A-D. Neither the need for, nor the adverse effects of, the increased S-197

⁴ Monitoring is also needed to determine the extent to which flows pushed into Taylor Slough by way of these operations return to the canals to the south in the form of groundwater seepage.

⁵ The December 2016 Draft Supplemental EA explains at page 4-40:

Experimentation with surface water flow to Taylor Slough and its effect on the vegetation within and adjacent to the slough has been well studied (Armentano et al. 2000, 2006, Nott et al. 1998, Olmstead et al. 1980, Van Lent et al. 1993, 1999). From 1980-1999, as part of the C&SF Project, various amounts of overland flow were discharged through the now decommissioned S-332 pump station which was located in the south western corner of L-31W. Rapid vegetation changes were observed where habitats dominated by short hydroperiod species such as *Muhlenbergia* were replaced by sawgrass and where sawgrass dominated habitats were replaced by more aquatic species such as *Eleocharis*. Cattail also became established near the pumping station potentially due to increased phosphorous loading.

discharges has been evaluated in a data-driven way.⁶ To the contrary, as we stated in past comments, the NEPA documentation for these operations has generally been loaded with conditional terms such as “potential flood risks,” “may be affected,” and “may result in,” although the available data suggest that any increased flood risks are unrelated to ModWaters operations. Data also shows that the amount of water discharged through S-197 in 2015-16 was much more than necessary to keep agricultural lands dry. Discharges through S-197 directly reduce the amount of water that is able to enter Florida Bay through Taylor Slough. To prevent repeated hyper-salinity in Florida Bay, flows through S-197 must be reduced. We continue to oppose operations that run counter to CERP, and which are purportedly designed to protect against unsubstantiated claims of increased flooding risks.

The December 2016 Draft Supplemental EA also suggests that additional flows through S-197 may be necessitated by the need to hold water levels lower in the L-31N Canal both to minimize flooding of Sparrow habitat east of Shark River Slough, and to allow water managers flexibility to keep dry the areas where construction of critical restoration projects is being expedited. *See* December 2016 Draft Supplemental EA at 4-35.⁷ In turn:

the frequency of opening S-197 will be highly dependent on . . . (1) conditions necessary upstream to facilitate completion of the C-111 South Dade construction needed prior to [ModWaters] Increment 2; and (2) operational modifications required to provide the necessary suitable hydrologic conditions for the eastern [Sparrow] sub-populations.

December 2016 Draft Supplemental EA at 4-19.

We are concerned by the apparent merging of rationales for additional flows through S-197. We emphasize that it is critical to separately analyze increased discharges from S-197 and related southern structures, both in terms of their need and effect. Understanding what discharges are

⁶ For example, in the December 2016 Draft Supplemental EA, the Corps dismisses potential adverse effects to nearshore areas:

Potential effects to mangrove habitats and seagrass beds within the coastal estuaries under Alternative D would be similar to that as discussed under Alternative E as a result of the minor to moderate increases in the frequency and duration of low-volume (less than 500 cfs) S-197 discharges to Manatee Bay/Barnes Sound. Due to the short duration of the Proposed Action, significant vegetation changes are not anticipated.

December 2016 Draft Supplemental EA at 4-37. And to similar effect, it concludes that adverse effects from the “salinity fluctuations” that may accompany the additional freshwater flows into Manatee Bay and Barnes Sound are “not anticipated” simply because “these areas are relatively large bodies of water.” *Id.* at 4-41.

⁷ It states:

The Increment 1.1/1.2 operational strategy proposes to generally lower the target operational ranges for the . . . L-31N Canal . . . in order to facilitate the construction of C-111 South Dade Contract 8 and Contract 8A and provide increased operational flexibility to achieve the hydroperiod and nesting condition targets specified by the [July] 2016 [BiOp] RPA for the Eastern [Cape Sable Seaside Sparrow] subpopulations.

needed to accomplish different purposes is critical to determining whether and when they are necessary.

The Final Project Implementation Report and Environmental Impact Statement (“FPIR/FEIS”) for the C-111 Spreader Canal Western Project indicates that the Western Project is intended to implement incremental changes to raise water levels at S-18C. While the project has been operational for four years, no increase at S-18C has occurred. The FPIR/FEIS Executive Summary lists “incremental operational changes at S-18C” as one of the project components, up to four 0.1 foot incremental adjustments. *See* Final C-111 PIR/EIS at es-xi, xii. The detailed discussion of the selected plan (starting on page 6-1) again emphasizes that “incremental changes at existing structure S-18C” are part of this project.

Failure to raise the canal stage at S-18C results in seepage from Taylor Slough into the entire length of the C-111 canal from S-200 south to S-18C. Much of this seepage is the same water that was discharged at S-197. Therefore, raising the canal stage at S-18C will have the dual benefits of moving more water into Taylor Slough where it is needed and preventing the need to discharge extreme amount of water through S-197.

* * * * *

We appreciate the efforts of both the Corps and the Service to expedite ModWaters and CERP implementation with a view to Everglades restoration and protecting and conserving the endangered species that depend on Everglades habitat. We look forward to continuing to work with you to expedite construction and implementation of CERP features to facilitate true multi-species, ecosystem-based management and allow for more appropriate, sustainable water levels and flows across south Florida ecosystems.

Sincerely,

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Direct of Science and Policy
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Attachment A

Everglades Law Center
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May 24, 2016

Melissa Nasuti
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Re: Continuance of L-29 Canal and South Dade Conveyance System emergency deviation operations to alleviate high water levels in Water Conservation Area (“WCA”) 3A

Via electronic mail

Dear Ms. Nasuti:

We write to urge expeditious action to allow the continuation of operations included in the “emergency deviation” approved in the United States Army Corps of Engineers’ (“Corps”) February 2016 Environmental Assessment and Finding of No Significant Impact (“February 2016 EA”). Whether these operations are included in a so-called “planned deviation” (because emergency conditions no longer exist) or in the next iteration of the Everglades Restoration Transition Plan (“ERTP”), **we emphasize the need to move forward as quickly as possible to allow these operations to continue at least through the end of the 2016 wet season.** With strong monitoring in place to assess the effects of, and need for, different aspects of the operations, their continuation could help not only address current environmental crises but also plan for additional operational changes.

In our March 18, 2016 letter (attached as Exhibit A) responding to the Corps’ request for public comment on the emergency deviation, we strongly supported actions, consistent with the Modified Water Deliveries plan, that effectively expedited critical operational changes needed to realize our shared plan for Everglades restoration, the Comprehensive Everglades Restoration Plan (“CERP”). Effectively expediting CERP implementation facilitates true multi-species, ecosystem-based management and allows for more appropriate, sustainable water levels and flows across south Florida ecosystems. We again oppose (as we did in March) operations which would lower S-18C and/or increase S-197 discharges, which are unrelated to the purpose of providing high water relief in WCA 3A, are counter to restoration goals, are not reflected in the Modified Water Deliveries plan, and set a dangerous precedent. Before allowing these operations – contrary to CERP – to continue, data must be compiled and analyzed to discern

whether these changes are needed to address increases in flooding risk as a result of increased flows in Northeast Shark River Slough (“NESRS”).

As described in the February 2016 EA, the emergency deviation operations release water from WCA 3A via the S-333 pump station into the L-29 Canal and raise water levels in that canal up to no more than 8.5 feet 1929 NGVD, allowing for flows to NESRS to increase. *See* February 2016 EA at page 1, A-3. In addition, structures along the levees dividing WCA 3A and WCA 3B, S-151 and S-152, provide an additional exit for water from WCA 3A by passing flows to WCA 3B. *See* February 2016 EA at pages 1-2; A5. According to the February 2016 EA (at page 4):

Potential reductions in high water levels and decreased periods of prolonged flooding is expected to provide temporary benefits to vegetation and fish and wildlife resources, including Federally threatened and endangered species such as the Cape Sable Seaside Sparrow (*Ammodramus maritimus mirabilis*), Wood Stork (*Mycteria americana*) and Everglades snail kite (*Rostrhamus sociabilis plumbeus*). Prolonged periods of flooding eliminates foraging and nesting opportunities for wading birds. Moving water south, through ENP will also have the added ecological benefit of improving salinity conditions of Florida Bay.

The February 2016 EA also acknowledges that moving excess water out of WCA 3A will help avoid “losses in tree islands as a result of high water levels [that] are expected to occur if the proposed action is not taken.” February 2016 EA at page 5 (“Loss of tree islands has the potential to impact cultural resources and culturally important ceremonies practiced by Native American Tribes within the project area.”)

As we emphasized in our March 18, 2016 comments, these operational changes represent important parts of what has long been proposed to accomplish restoration in the decades-old plans for Modified Waters Deliveries (“ModWaters”) and CERP. And all indications are that these operations effectively expediting restoration are working both to reduce high water levels in WCA 3A and to move more water east and south through NESRS – how water historically flowed and should flow in the Everglades – without adverse effects. We have exceeded the flow capacity of the S-333 structure (1,350 cfs) without going above 8.2 feet in the L-29 Canal. This shows the feasibility of moving more water east and south (as restoration would direct most water flows). Especially given the repeated water-related crises we have faced over the past few years across south Florida, this success both suggests the value in continuing these operations and lends support to the urgency of working to find additional ways to expedite Everglades restoration, a multi-species management approach that recognizes the need to protect and restore all parts of the South Florida ecosystem.

The successes of these new operations reinforce the importance of Everglades restoration, as envisioned in ModWaters and CERP, in solving the problems of water extremes in south Florida. We should accelerate our efforts to implement restoration by moving forward to continue these operations; allowing increased flows east and then south under the Tamiami Trail – as envisioned in CERP – is feasible and in all of our best interests.

Sincerely,

Ansley Samson
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John Adornato III
Senior Regional Director
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Director of Everglades Policy
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Frank Jackalone
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cc: Colonel Jason Kirk, Army Corps of Engineers

Exhibit A

Everglades Law Center
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March 18, 2016

Melissa Nasuti
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Re: Environmental documents for temporary emergency deviation to alleviate high water levels in Water Conservation Area 3A available for 30-day public and agency review

Via electronic mail

Dear Ms. Nasuti:

We write in response to the request for public comment related to the temporary emergency deviation to alleviate high water levels in Water Conservation Area (“WCA”) 3A. We strongly support the temporary emergency deviation. We further advocate for the continued implementation of measures that are consistent with the Modified Water Deliveries plan to expedite critical operational changes needed to realize our shared plan for Everglades restoration, and to move toward true multi-species, ecosystem-based management that allows for more appropriate, sustainable water levels and flows across south Florida ecosystems. We remain opposed to operations which lower S-18C and/or increase S-197 discharges, which are unrelated to the purpose of providing high water relief in WCA 3A, counter to restoration goals, are not reflected in the Modified Water Deliveries plan and which set a dangerous precedent.

As described in the Environmental Assessment (“EA”) for the temporary emergency deviation, the emergency operational changes release water from WCA 3A via the S-333 pump station into the L-29 Canal and raise water levels in that canal up to no more than 8.5 feet 1929 NGVD, allowing for flows to Northeast Shark River Slough (“NESRS”) to increase. *See* EA at page 1, A-3. In addition, structures along the levees dividing WCA 3A and WCA 3B, S-151 and S-152, provide an additional exit for water from WCA 3A by passing flows to WCA 3B. *See* EA at pages 1-2; A5. According to the EA (at page 4):

Potential reductions in high water levels and decreased periods of prolonged flooding is expected to provide temporary benefits to vegetation and fish and wildlife resources, including Federally threatened and endangered species such as the Cape Sable Seaside Sparrow (*Ammodramus maritimus mirabilis*), Wood Stork (*Mycteria americana*) and Everglades snail kite (*Rostrhamus sociabilis plumbeus*). Prolonged periods of flooding eliminates foraging and nesting opportunities for wading birds. Moving water south, through ENP will also have the added ecological benefit of improving salinity conditions of Florida Bay.

The EA also acknowledges that moving excess water out of WCA 3A will help avoid “losses in tree islands as a result of high water levels [that] are expected to occur if the proposed action is not taken.” EA at page 5 (“Loss of tree islands has the potential to impact cultural resources and culturally important ceremonies practiced by Native American Tribes within the project area.”)

These operational changes represent important parts of what has long been proposed to accomplish restoration in the decades-old plans for Modified Waters Deliveries (“ModWaters”) and the Comprehensive Everglades Restoration Plan (“CERP”). *See e.g.*, Modified Water Deliveries to Everglades National Park: G-3273 & S-256 Pump Station Field Test Fact Sheet (attached as Exhibit A); March 17, 2005 CRS Report for Congress: Everglades Restoration: Modified Water Deliveries Project at pages 3-4 (“Increased water flow to the Northeast Shark River Slough will increase water supplies in the park and is expected to improve the natural habitat and hydrology of a portion of the Everglades ecosystem.”)(attached as Exhibit B); May 2015 Water Conservation Area 3A Decompartmentalization Physical Model Fact Sheet (attached as Exhibit C). By expediting – in this temporary emergency deviation – these long-needed and delayed actions to restore America’s Everglades, Florida and the U.S. Army Corps of Engineers are also able to “mitigate for severe economic losses currently being experienced as a result of high water levels” in the central Everglades and Water Conservation Areas.

All indications are, at this point, that these operational changes are working both to reduce high water levels in WCA 3A and to move more water east and south through Northeast Shark River Slough – how water historically flowed and should flow in the Everglades – without adverse effects. With this emergency deviation, we have exceeded the flow capacity of the S-333 structure (1,350 cfs) without going above 8.2 feet in the L-29 canal. This shows the feasibility of moving more water east and south (as restoration would direct most water flows). Especially given the repeated short term water-related crises we have faced over the past few years in south Florida, this success also lends support to the urgency of working to expedite Everglades restoration, a multi-species management approach that recognizes the need to protect and restore all parts of the South Florida ecosystem.

We hope that the successes of this “emergency deviation” show that Everglades restoration, as envisioned in ModWaters and CERP, is the solution to the problems of water extremes in south Florida. We should accelerate our efforts to implement restoration; the temporary emergency deviation shows that increasing flows south and east south of Tamiami Trail – as envisioned in CERP – is feasible and in all of our best interests.

Sincerely,

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Exhibit A



MAY 2015

The G-3273 Constraint Relaxation and S-356 Pump Station Field Test is the critical first step to improve hydrologic conditions for Northeast Shark River Slough in Everglades National Park, while maintaining the multiple congressionally-authorized purposes of the Central and Southern Florida (C&SF) project. The C&SF project purposes include providing flood control; water supply for municipal, industrial and agricultural purposes; prevention of saltwater intrusion; water supply for Everglades National Park; and preservation of fish and wildlife.

The data collected during the incremental field test will be used to develop a comprehensive integrated water control plan for the operation of water management infrastructure associated with the Modified Water Deliveries to Everglades National Park (Mod Waters) and C-III South Dade projects, while balancing the ecological restoration objectives for these projects.

BACKGROUND

Restoring historic water flows and ecological viability to Everglades National Park is a complex endeavor that requires many projects to work in concert.

The Mod Waters and C-III South Dade projects provide critical infrastructure that will enable larger quantities of water to flow into the Park. The majority of construction for both these projects has been completed and construction of the remaining components are scheduled to be completed within the next few years.

Currently operational constraints exist to mitigate for potential flooding risks to adjacent residential, commercial and agricultural lands, and impacts to endangered species. The relaxation of the G-3273 constraint and use of S-356 (Increment 1), along with future acquisition of real estate interests south of the Tamiami Trail (necessary for Increment 2) will allow additional operational flexibility within the existing infrastructure.

Since 1985, the G-3273 constraint has served as a trigger to cease S-333 discharges from flowing south into Northeast Shark River Slough when water levels reach 6.8 feet at G-3273 in eastern Everglades National Park. This has been used as a protective measure for residential areas to the east, particularly the 8.5 Square Mile Area.

Since the majority of features for the Mod Waters project have been built, opportunities exist to begin relaxation of the G-3273 constraint and increase water deliveries to Northeast Shark River Slough.

FIELD TEST PURPOSE

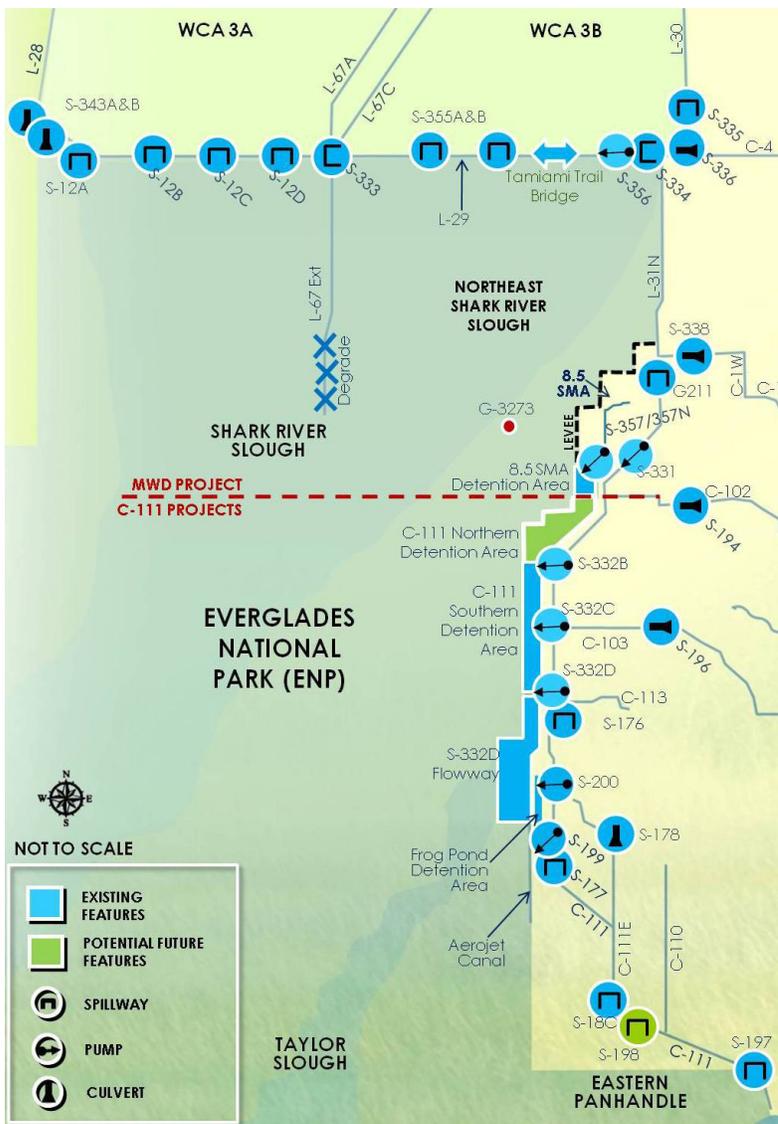
Water management is a key element in restoring historic flows to Everglades National Park and an integrated water control plan is needed to operate infrastructure connected to both the Mod Waters and C-III South Dade projects.

In order to develop this integrated water control plan, known as the Combined Operating Plan, additional information is needed on how newly-operational project infrastructure integrates with the current water management system, and how to maximize ecological restoration objectives.

Information collected through the Field Test will evaluate the effects of incremental increases in flows to Northeast Shark River Slough in Everglades National Park. This information includes:

- Ecological responses due to increased inflows and changes in distribution of water entering Everglades National Park
- Potential effects on water quality entering Everglades National Park
- Potential effects on changing water levels in Water Conservation Areas (WCA) 3A and 3B
- Potential effects on levels of service for water supply and flood protection in Miami-Dade County
- Potential effects on flood mitigation performance for the 8.5 Square Mile Area Flood Mitigation Project, a component of the Mod Waters project
- Potential effects on water management operations
- Potential effects on cultural resources for future increments.

MODIFIED WATER DELIVERIES TO ENP | G-3273 & S-356 Pump Station Field Test



FIELD TEST STRUCTURES

The following structures and operational constraints will be incorporated into the test:

- The S-333 spillway, which releases water from WCA-3A to the L-29 Canal
- The L-29 Canal that runs parallel to the Tamiami Trail, adjacent to Everglades National Park
- The S-356 Pump Station located alongside the L-29 Canal
- The G-3273 gage in eastern Everglades National Park
- The components of the Mod Waters project, which includes the Tamiami Trail Modifications and 8.5 Square Mile Area Flood Mitigation projects
- The components of the C-111 South Dade project, which includes the Northern and Southern Detention Areas.
- S-197 will be operated as needed to mitigate potential risks to flood protection for areas in south Miami Dade County. S-197 operations will be reassessed once the C-111 South Dade Northern Detention Area is constructed and operable and/or upon completion of Increment 1.

FIELD TEST APPROACH

The field test will be conducted in three increments. During the duration of the first two increments, data will be collected and analyzed; natural, agricultural and urban system responses to project operations will be assessed; and ecological monitoring will be maintained.

INCREMENT 1

The first increment of the field test is scheduled to begin in summer 2015 and is planned for approximately two years, with a minimum duration of one year. It involves:

- Maintaining the maximum operating limit for the L-29 Canal water level at 7.5 feet
- Relaxing the maximum stage constraint (currently 6.8 ft) at the downstream G-3273 gage in Everglades National Park
- Operating the S-356 pump station for control of seepage into the L-31N Canal
- These operations will produce a small but important increase in the net flow of water into Northeast Shark River Slough

INCREMENT 2

The second increment of the field test will be implemented for two years and is scheduled to begin in 2017. It involves:

- Raising the maximum operating limit of the L-29 Canal, up to a maximum of 8.5 feet
- Raising the L-29 Canal above 8 feet will be dependent on the acquisition of additional real estate within the Park and completion of the Northern Detention Area for the C-111 South Dade project

INCREMENT 3

The information obtained from the first two increments will be used in the development of the Combined Operating Plan. This will serve as the water management plan for the southern portion of the Everglades ecosystem and includes:

- Water Conservations Areas 3A and 3B
- Everglades National Park
- South Dade Conveyance System, which includes the Mod Waters and C-111 South Dade projects.

FOR MORE INFORMATION



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US ARMY CORPS OF ENGINEERS

Exhibit B

CRS Report for Congress

Received through the CRS Web

Everglades Restoration: Modified Water Deliveries Project

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Summary

The Modified Water Deliveries Project (Mod Waters) is a controversial ecological restoration project in south Florida designed to improve water delivery to Everglades National Park. The implementation schedule of Mod Waters is of interest to Congress partly because its completion is required before the implementation of portions of the Comprehensive Everglades Restoration Plan. Concerns have been raised in hearings on the Administration's FY2006 budget request regarding the cost of implementing the project and the U.S. Army Corps of Engineers' authority to fund the project. Further, due to concerns regarding phosphorus pollution in the Everglades, Congress enacted a provision in the FY2004 and FY2005 Interior Appropriations Acts that conditions funding for Mod Waters on meeting state water quality standards. In addition, the use of eminent domain to acquire land for a flood control plan adjacent to the park has been controversial. Several landowners who were unwilling to sell their land obtained a ruling in federal court that prevented further land acquisitions in the area. The Corps appealed this decision, and Congress authorized a plan, which included land acquisition, in the Consolidated Appropriations Resolution for FY2003. This report provides background on Mod Waters and discusses issues relating to its current status, funding, and land acquisition needs. This report will be updated as warranted.

Most Recent Developments

The Modified Waters Deliveries Project (Mod Waters) is being implemented by the Department of the Interior and the U.S. Army Corps of Engineers in southern Florida. (See **Figure 1**.) For FY2006, the Administration has requested a total of \$60 million for the project: \$35 million through the Corps and \$25 million through the Department of the Interior. The President's request for the Everglades has drawn attention because of a proposed change in the funding of Mod Waters. The request called for the Corps to broaden its role by jointly funding the project with the Department of Interior, which previously had solely funded the project. This proposal has raised a question: Is the Corps authorized to receive appropriations to work on the project? The Administration's

position appears to be for the Corps to pay for roughly two-thirds of the remaining \$191 million required to complete the project during next four fiscal years (FY2006-FY2009).¹

A provision in the Consolidated Appropriations Act for FY2005 (P.L. 108-447) conditions funding for Mod Waters on meeting state water quality standards. This provision cites provisions in the FY2004 Interior Appropriations Act, which states that funds appropriated for Mod Waters will be provided *unless* the Secretary of the Interior, Secretary of the Army, Administrator of the EPA, and Attorney General indicate in a joint report (to be filed annually until December 31, 2006) that water entering the A.R.M. Loxahatchee National Wildlife Refuge and Everglades National Park does not meet state water quality standards, and the House and Senate Committees on Appropriations respond in writing disapproving the further expenditure of funds.²

To help implement Mod Waters, Congress included a provision in the Consolidated Appropriations Resolution for FY2003 (Division F, Title I, §157 of P.L. 108-7) that authorizes the Corps to implement a flood protection plan (Alternative 6D) for the “8.5 Square Mile Area”(8.5 SMA) as *part* of Mod Waters. Three conditions are specified in the section authorizing implementation of Alternative 6D: (1) the Corps may acquire residential property needed to carry out Alternative 6D if the owners are first offered comparable property in the 8.5 SMA that will be provided with flood protection; (2) the Corps is authorized to acquire land from willing sellers in the flood-protected portion of the 8.5 SMA to carry out the first condition; and (3) the Corps and the nonfederal sponsor may carry out these provisions with funds provided under the Everglades National Park Protection and Expansion Act of 1989 (P.L. 101-229; 16 U.S.C. §410r-8) and funds provided by the DOI for land acquisition for restoring the Everglades.

Background

The Modified Water Deliveries Project was authorized by the Everglades National Park Protection and Expansion Act of 1989 (P.L. 101-229) to improve water deliveries to Everglades National Park and, to the extent possible, restore the natural hydrological conditions within the park. The completion of Mod Waters is expected to be a central part of the Comprehensive Everglades Restoration Plan (CERP; Title VI, P.L. 106-541, the Water Resources Development Act of 2000 [WRDA 2000]).³

Mod Waters is expected to consist of structural modifications and additions to the Central and Southern Florida Project (C&SF Project) to improve the timing, distribution, and quantity of water flow to the Northeast Shark River Slough.⁴ Increased water flow

¹ U.S. Dept. of the Interior, News Release, “FY2006 Interior Budget Emphasizes Commitments, Cooperative Efforts, Performance and Fiscal Restraint,” Feb. 7, 2005. Accessed March 14, 2005 at [http://www.doi.gov/news/05_News_Releases/050207a].

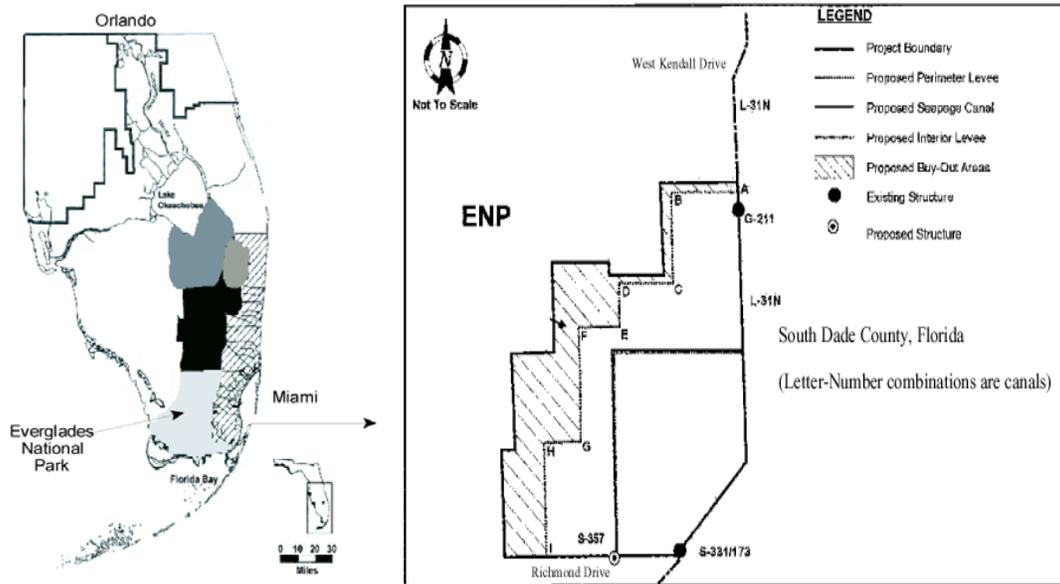
² For more information, see CRS Report RL32131, *Phosphorus Mitigation in the Everglades*, by Pervaze Sheikh and Barbara Johnson.

³ For more information Florida Everglades restoration, see CRS Report RS20702, *South Florida Ecosystem Restoration and the Comprehensive Ecosystem Restoration Plan*, by Nicole Carter.

⁴ Originally, the Corps was asked to alter water flow in the Everglades to control flooding, open
(continued...)

to the Northeast Shark River Slough will increase water supplies in the park and is expected to improve the natural habitat and hydrology of a portion of the Everglades ecosystem.⁵

Figure 1. The 8.5 Square Mile Area in Southern Florida



Source: Adapted from the U.S. Army Corps of Engineers.

Mod Waters is expected to flood some residential and agricultural areas adjacent to the park. Legislation authorizing this project instructs the Secretary of the Army to determine if residential and agricultural areas within or adjacent to the 8.5 SMA will be flooded from the hydrological changes of Mod Waters (§104(a)). If these areas are under threat of flooding, the law mandates that a flood protection system must be developed for the area (§104(b)). To prevent flooding, several mitigation features have been developed. One of these features is called Alternative 6D, which is a plan for protecting residents in the 8.5 SMA from flood waters resulting from the project (discussed further below).

The importance of Mod Waters goes beyond its expected direct results. Legislation authorizing CERP provides that the Mod Waters must be completed before several CERP projects involving water flows on the east side of the park can receive appropriations (§601(b)(2)(D)(iv) of WRDA 2000).

⁴ (...continued)

land for agriculture, and provide water supplies to urban areas. The cornerstone of this effort was the Central and Southern Florida Project, which was authorized by the Flood Control Project Act of 1948 (ch. 771, 62 Stat. 1171). This project resulted in nearly 1,000 miles of canals, 720 miles of levees, and more than 200 water control structures (e.g., dikes, dams and pumping stations).

⁵ For more details, see U.S. Army Corps of Engineers, *Modified Water Deliveries to Everglades National Park and South Dade Canals (C-111) Projects* accessed on March 14, 2005, at [<http://www.saj.usace.army.mil/dp/MWDC111.htm>].

Issues Surrounding the Modified Water Deliveries Project

Three issues are being debated about the implementation of Mod Waters, including its estimated funding level, the relevance of its completion to overall restoration efforts in the Everglades, and the controversy surrounding land acquisition in the 8.5 SMA.

Funding. Rising project costs for Mod Waters led some critics to question its viability. The original cost of completing Mod Waters was estimated at \$81.3 million in 1990.⁶ The current estimated cost for completing the project is \$398 million.⁷ To date, approximately \$192 million has been appropriated for constructing and implementing Mod Waters, and \$206 million more is estimated to be needed to finish the project (i.e., FY2005-FY2009).⁸ Some supporters of Mod Waters argue that changes in the implementation plan, the rising cost of land acquisition, and flood mitigation requirements have led to higher costs. This was reflected, according to some, in the changes in the 1992 General Design Memorandum, which were derived from improved modeling data and the project's need to be compatible with CERP.

Project Delays. Mod Waters was originally estimated to be completed by 1997, yet now some argue it is unclear as to when or even whether the project will be completed. The FY2006 Administration request indicates that funding will be requested through FY2009. Some argue that the delay in implementing Mod Waters jeopardizes implementation of CERP projects, causes further degradation within Everglades National Park, and will set a precedent for delays and deliberation regarding land acquisition activities when CERP projects are being implemented. Section 601(b)(2)(D)(iv) of WRDA 2000 provides that Mod Waters must be completed before appropriations can be made to construct other restoration projects in the east Everglades.

Land Acquisition in the 8.5 Square Mile Area. Implementation of Mod Waters was dependent on acquiring land in the 8.5 SMA. Land acquisition in this area was controversial because there were several unwilling sellers and the Corps had to exercise eminent domain to acquire the necessary lands.

The 8.5 SMA is a region adjacent to Everglades National Park of approximately 5,600 acres with a residential community of approximately 1,500 people. Due to its low topography (ranging from 5.0 to 8.5 feet NGVD⁹) and lack of drainage, parts of the 8.5 SMA frequently flood for several months during the rainy season (typically from May to October). With the implementation of Mod Waters, the Corps expected that most of the 8.5 SMA would flood. The Corps developed a flood mitigation plan in 1992 (the 1992

⁶ U.S. Army Corps of Engineers, *Modified Water Deliveries to Everglades National Park*, General Design Memorandum, Jacksonville District, June 1992.

⁷ U.S. Dept. of the Interior, *FY2006 Budget Justification, National Park Service* (Washington, DC, 2005).

⁸ Of the total amount of funds already spent and estimated to complete Mod Waters, approximately \$200 million is for land acquisitions and approximately \$198 million is for construction, design, and monitoring, among other things.

⁹ NGVD is the National Geodetic Vertical Datum, which is used to assess elevation relative to sea level.

General Design Report and EIS for Modified Water Deliveries to Everglades National Park [1992 Plan]). The 1992 Plan was expected to provide flood control for residents in the 8.5 SMA and allow for the implementation of Mod Waters. However, the 1992 Plan was later deemed “unworkable” by the superintendent of Everglades National Park, who claimed that it would not provide full flood protection for current and future residents in the 8.5 SMA.¹⁰

The Corps began to devise a new plan for Mod Waters and the 8.5 SMA in 1999, which considered several alternative plans, including the complete buyout of the 8.5 SMA. A new plan, referred to as Alternative 6D, was proposed by the Corps in 2000. This plan includes a perimeter levee, seepage canal, pump station, and storm water drainage for flood protection in the 8.5 SMA. Instead of a complete buyout of the 8.5 SMA, this plan proposed the acquisition of approximately 2,100 acres in the 8.5 SMA (39% of the total area) and the removal of 77 residential tracts (24 tenant-occupied tracts and 53 owner-occupied tracts) in the 8.5 SMA (13% of the total number of “residential areas” in the 8.5 SMA).¹¹ Properties of the remaining families would receive flood control.¹²

On February 23, 2001, some residents who are unwilling to sell their land in the 8.5 SMA filed a case against the Corps with two complaints. They asserted that the Corps does not have the authority to implement a plan that does not protect the entire 8.5 SMA from flooding, and that the Corps does not have the authority to exercise eminent domain or spend money to acquire their land through condemnation.¹³ On July 5, 2002, a district judge adopted an earlier ruling by a federal magistrate that restricted the Corps from veering from its original mandate to protect the entire community from flooding, and prevented the Corps from acquiring land in the 8.5 SMA. The Corps appealed this decision to the U.S. Court of Appeals for the Eleventh Circuit on September 4, 2002, and Congress authorized implementation of the Alternative 6D plan in the Consolidated Appropriations Resolution for FY2003.

Some critics of land acquisition in the 8.5 SMA base their arguments on the same principles used to criticize the acquisition of the entire 8.5 SMA — that the federal government should not exercise eminent domain to remove unwilling sellers and that the federal government is obligated to protect all residential areas from floods under P.L. 101-229. Some critics also argue that there are several unwilling sellers in the area and that if condemnations proceed, delays due to litigation will be inevitable and will eventually

¹⁰ U.S. House Resources Subcommittee on National Parks and Lands, *Issues Regarding Everglades National Park and Surrounding Areas Impacted by Management of the Everglades*, oversight hearing, April 27, 1999, 106th Cong., 1st sess. (Washington, DC: GPO), Serial No. 106-24.

¹¹ A residential area contains either a fixed home, mobile home, or travel trailer.

¹² Details of the plan were taken from U.S. Army Corps of Engineers, *Modified Water Deliveries to Everglades National Park and Impact of Implementation of Recommended Plan Alternative 6D for the Comprehensive Everglades Restoration Plan*, accessed March 15, 2005 at [<http://www.saj.usace.army.mil/dp/MWDC111.htm>].

¹³ *Garcia vs. United States*, No. 01-801-CIV-Moore, slip op. (D.S.D. FL. July 5, 2002).

harm the ecosystem.¹⁴ Some supporters of acquiring land in the 8.5 SMA and implementing Alternative 6D argue that if this plan is not implemented, delays may be even longer in implementing Mod Waters and restoring the regional ecosystem, to the detriment of Everglades National Park.

The use of condemnation by the Corps to acquire lands is controversial. Some critics assert that the Corps should not use eminent domain to acquire lands in the 8.5 SMA from unwilling sellers, and that the Corps may not have the authority to use condemnation.¹⁵ The Corps asserts that it has the authority to condemn lands if necessary, and furthermore that there are several willing sellers in the 8.5 SMA.¹⁶

¹⁴ Michael Grunwald, "Dispute Stalls Everglades Project," *Washington Post* (July 17, 2002): A21.

¹⁵ A provision in the FY2005 Consolidated Appropriations Law (P.L. 108-447; §329), requires that no funds appropriated for acquiring lands may be expended for the filing of declarations of taking or complaints in condemnation without the approval of the House and Senate Committees on Appropriations. An exception to this provision is funds appropriated to implement the Everglades National Park Protection and Expansion Act of 1989, or to funds appropriated for federal assistance to the State of Florida to acquire lands for Everglades restoration purposes.

¹⁶ The Corps asserts its power for condemnation is authorized under 40 U.S.C. §257 and 33 U.S.C. §591. This authority is extended to practices of flood control under 33 U.S.C. §701 according to the Corps. Personal communication with Barry Vorse, U.S. Army Corps of Engineers, on Sept. 7, 2002.