Record Of Decision

Environmental Impact Statement
On Improving The Regulatory Process
In Southwest Florida, Lee And Collier Counties, Florida

U.S. Army Corps Of Engineers, Jacksonville District

CESAJ-RD (1145b)

AUG 18 2003

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Record of Decision on the Final Environmental Impact Statement on Improving the Regulatory Process in Southwest Florida, Lee and Collier Counties, Florida.

1. Purpose of EIS. This EIS was prepared to improve the U.S. Army Corps of Engineers' reviews of permit applications under Section 404 of the Clean Water Act. A landowner must apply for and receive a Department of the Army Permit (Permit) before placing fill in Waters of the United States, including wetlands. The Corps review process for such applications include: determination whether the Corps has and the extent of jurisdiction over the proposed work; solicitation of comments from the general public, adjacent landowners, and government agencies; dialog with the applicant to clarify and supplement the site-specific information in the application; assessment of the benefits and detriments caused by the proposed work to fish and wildlife values, wetlands, and other public interest factors; determination of compliance with other legal requirements such as the Endangered Species Act and the Clean Water Act Section 404(b)(1) Guidelines; and, if the decision is to issue a Permit, monitoring the compliance with the terms and conditions associated with the authorization. The purpose of the EIS is to introduce better information into this process, not to change the process itself.

a. The EIS document had other purposes. It disclosed the potential cumulative effects on a wide variety of issues as a result of five alternative predictions of future conditions. Each future depicts what the landscape may or may not look like in 20+/- years as a result of many individual decisions by the Corps, landowners, Counties and others. Some but not all of the changes in the landscape will involve a Department of the Army Permit. However, by depicting all changes, the EIS provides to the Corps staff the context of wetland permitting within the whole set of actions that change the landscape.

b. The EIS document also compares the cumulative environmental and other effects resulting from each future for a wide variety of issues. This enables the Corps staff to better understand the context of the individual project impacts within the whole cumulative impact. With these two perspectives now

available, Corps staff can better appreciate the potential effects of each individual permit application. An ancillary benefit is that landowners have this same information and can include in their applications how their proposals addressed the applicable issues. This should result both in better projects and more predictable reviews. In addition, since EIS document clarifies terminology and provides the essential background knowledge on an issue, members of the public can provide more site-specific and comprehensive comment letters. However, as is the case with most reports issued at the end of a complicated study, the EIS document is long and contains much detail and many cross-references.

c. The EIS document also described the Corps' proposal that its staff would use a document, called the "Permit Review Criteria" in their day-to-day review of incoming applications. The draft of that document was attached as Appendix H to EIS. The appendix provided a set of maps and associated narratives for a subset of issues covered by the EIS. The maps described the locations where wetland fill will possibly affect an issue for which the Corps has concerns arising from the potential individual and cumulative effects.

d. The purpose of this memorandum is to describe the revision and implementation of that proposal.

2. Background. The Corps initiated the EIS out of concern whether the incremental (permit-by-permit) reviews were adequately addressing cumulative direct and secondary effects of the wetland fill in the rapidly growing Southwest Florida area.

a. The Corps concern focused particularly on the Estero Bay watershed when several large applications and pre-application discussions were on going along Daniels Road, Alico Road, and Corkscrew Roads. Each of the applications had the similar recurring issues of loss of spatial habitat (particularly for endangered species), changes in water quality and flows/timing on downstream water bodies, and appropriate amount and location of wetland mitigation. The issues especially came to the public eye with the submission of the

application for the campus of a new university, the tenth in the State system (now named Florida Gulf Coast University.) The proposed campus location was viewed by several commentors as "jumping" the edge of suburban development into the remaining rural area. One concern was that the university would act as a magnet for development of this rural area that would not otherwise occur. A second concern was that the permitting would set a precedent for future development. However, since it was recognized that these concerns were not arising from the campus itself, but from the projection of future development, the concept of building a local group to look at these issues was discussed informally during the timeframe of the application review and ultimately two groups were created through a negotiated settlement of an administrative challenge to the State permit and as a consideration to address Federal concerns relative to the Corps permit. The first group is the Estero Bay Agency on Bay Management as an entity of the Southwest Florida Regional Planning Council that to the present day brings key persons together to discuss issues relative to the watershed. (Two documents produced by this group are included in Appendix F of the EIS.) The second group, the Arnold Committee, chaired by Representative J. Keith Arnold, Florida House of Representatives, consisted of a private citizens and landowners along with representatives of non-profit groups and Federal, State, and local governments. The committee produced a report that provided an assessment of overall land uses and natural systems, environmental protection and mitigation tools. Since the report was not accepted by the entire membership, the Corps remained concerned that it needed another document to better understand the potential future cumulative environmental effects.

b. To clarify its needs, the Corps drafted a "white paper" to compare various procedural vehicles to obtain this information. The paper considered five options: continue Permit by Permit Review; perform a Carrying Capacity Study; perform an EIS on the next application for a large project; perform a non-application-specific EIS; and, participate in a sub-committee or similar cooperative effort with a group such as the then-existing Southwest Florida Issues Group of the

Governor's Commission for a Sustainable South Florida. The Corps approached, formally and informally, a wide variety of existing inter-governmental groups and expressed willingness to work with others. The Corps also considered using the results of the Comprehensive Wetlands Conservation, Permitting, and Mitigation Strategy then being prepared for the Working Group of the South Florida Ecosystem Restoration Task Force. The Strategy's tasks included assembling natural resource mapping information, developing a computer-based tool to report that information rapidly for any selected location, developing assessments for various wetland functions, identifying areas of potential development, and identifying opportunities for restoration. This was a joint Federal-State effort and some of the work products that were available at the time were used in preparation of the EIS. The EIS process was selected to avoid inventing a new study process. The EIS process provides for full disclosure of available information, identifies and compares alternatives, requires public involvement, and utilizes existing administrative processes in each federal agency for coordination.

c. Subsequently, the Corps worked with Lee County and Collier County to develop a Memorandum of Understanding to guide the partnering of the three in the effort. The MOU laid out the procedure and the expected products. The drafts were mailed to interested parties of the public for their information. Ultimately, the MOU was not adopted at a unique joint session of the two County Commissions.

d. After soliciting and reviewing public comments on the proposed scope of the EIS, the Corps determined that the study could not confine itself to the Estero Bay watershed because natural areas and species ranges cross multiple watersheds. To discuss one location of concern would also require looking at the relationships to the surrounding location. The watershed of concern was characterized as the hub and the surrounding areas as the spokes. The study area established measured 1,556 square miles, the northwest corner roughly defined by the cities of Ft Myers/Sanibel, the northeast by Lehigh Acres/Immokalee, the southwest by Naples and the southeast by Everglades City.

e. The Corps created and hosted an Alternative Development Group (ADG) composed of citizens, landowners, non-governmental organizations, agencies, and other stakeholders affected in some way by the Corps Regulatory Program in order to represent the wide range of views of the community and to provide a mix of expertise. Through professionally facilitated meetings, the ADG defined 12 issues that they felt should be evaluated, gathered and shared existing knowledge to understand the concerns relative to the issues, agreed to 62 factors to be used as measurements to support evaluation of the issues, and then created and compared 28 alternative future landscapes. The futures depict what the landscape may or may not look like in 20+/- years based on expected actions (such as those identified by the County Comprehensive Plans) or actions that various members of the group suggested could or should occur. The group's role was limited to visualization of these alternative futures, the Corps did not ask the ADG to create any group advice or recommendations concerning them.

f. The Corps analyzed the alternative future maps created by the ADG to develop an "Overlay of Alternatives" map. This analysis indicated the group had a good degree of common vision where development and where natural resource areas would be in the future but with a greater degree of differences as to site design and other constraints. In 8% of the area there was multiple predictions and in 25% of the area the difference in predictions was generally on the boundary between development and preserve areas. The ADG's report was included as an appendix in the EIS. The Corps used the ADG work to assemble the five potential alternative futures in the EIS. The Corps then prepared comparative evaluations of each of the futures for the issues identified by the ADG. The Corps also developed, along with the U.S. Environmental Protection Agency and U.S. Fish and Wildlife, descriptions of the existing natural resource conditions, analysis of historic vegetation, report of permitting information, description of socio-economic considerations, evaluation of endangered species effects, and assessments of water quality.

g. The EIS as a document provides several things including the following. First, it places information in one document so that the public and reviewers are better informed of the terminology and interrelationships of the issues relevant to future reviews of permit applications. Second, it discloses estimates of the future total effects so the reviewer can give appropriate weight to the individual project's effect. While the five futures do not represent all the possible combinations of projects (including the subset of those with Corps permit decisions), they do represent a range of possible collective total benefits and detriments. Third, it lists concerns that landowners can anticipate may arise during application reviews. Fourth, it shows those geographic areas with fewer concerns and therefore provides information to guide future development of General Permits or other mechanisms to expedite the Corps' administrative processes. This, on the other hand, also shows those areas of greater concern. Other products flowing from the preparation of the EIS include, but are not limited to: facilitating 22 days of open discussion amongst widely disparate special interests on environmental issues in the region; providing support to increase staff levels at the local office; conducting public meetings on the role of the Corps program and what we are attempting to do; contributed to the development of procedures for consultations for various endangered species; and contributed to the heightened awareness of water quality issues.

3. Alternatives.

a. No action Alternative (permit by permit review.) The Corps presently makes its determinations of the benefit and detriments of proposed fills on a case-by-case basis. The factors to be considered, and the weight to be afforded each factor, are presently left to the professional judgment of the Corps project manager with oversight from Regulatory Division management. The "no action" alternative would be to continue evaluating permit applications in the same manner as before the EIS. Under this alternative, the project manager would identify issues relevant to an application based on one or a combination of: comments in reply to a public notice on the application, a

site visit, results of reviews of neighboring sites, and personal knowledge of the region's ecosystems.

b. Originally Proposed Alternative. Appendix H of the Final EIS provides a draft "Permit Review Criteria" that included several maps. The following is quoted from Section 2.2.2 of the EIS. "This document will be used by Corps Project Managers to base the level of effort in reviewing a applications for Department of the Army Permit under Section 404 of the Clean Water Act on the potential cumulative direct and indirect effects. ... The Corps will use this document to focus effort on those factors relevant to the review of the individual projects. In geographic areas where there are few concerns the Corps may at some time in the future be able to reduce the processing time through administrative mechanisms such as General Permits. The document lists many issues. Each issue has its own map. For example, a particular species has a map showing areas with a high probability that species habitat is present and a high potential that the loss of that habitat will adversely affect the species. The number of issues applicable to a particular project will depend on how many of the individual maps intersect the project location in addition to other information. A location with a larger number of issues will receive a greater rigor of review. However, the maps do not predetermine the Corps permit decision. The maps are necessarily based on regional or statewide mapping programs. The applicant can submit and the Corps will use site-specific information to confirm the map (for example, whether habitat is actually present) or find the issue is not applicable due to the nature of the project." The benefits of the original proposal are described at Section 4.0 of the Final EIS as follows. "The use of the Permit Review Criteria and the Natural Resource Overlay Map will decrease the probability of potential effect being inadvertently overlooked on a project. The use of the assessments described in the permit review criteria will more quickly identify the degree of that effect and thereby the level of concern. The convenient reference to pertinent information compiled in this EIS will increase the knowledge and expertise of the project reviewer and applicant to address the adverse effect"

c. Develop general permits. The Corps was hoping to streamline permitting through General Permits but many commentors, both landowners and resource proponents, identified a variety of site-specific information that should be included, particularly for wildlife concerns. We will continue to work with U.S. Fish and Wildlife Service on developing more detailed assessment tools for the various listed species in this region since we believe that will remove some of the difficulties with implementing a General Permit.

d. Coordination with State or local regulatory programs. Conceptually, this provides that the Corps would utilize the decisions of these other programs except for those things for which the Federal government only has jurisdiction. In practice, the programs don't overlap evenly. For example, the State and Federal definitions of wetlands are not the same. The Corps and FDEP have has a long history of working to blend the programs and they do in several places. For example, the Corps accepts the use of the State Permit Application form in lieu of the Federal one. The Corps had hoped that this EIS effort would have resulted in some or many of the issues to be defined to such a degree that the State or local program could incorporate them into their evaluations so that the Corps would not have to perform a duplicate review. The preparation of maps and criteria with sufficient detail to do this has proven more difficult then anticipated for a variety of technical and legal reasons. We will continue to strive to improve the clarity and acceptance of assessment methods with all our Federal, State, and local partners.

4. Decision. Corps project managers will utilize enclosure (1) during their reviews of applications. The enclosure describes four tasks that will be performed. Attachments to the enclosure provide additional wildlife and water quality information. These tasks are: (1) screen the incoming applications project locations against a set of maps to identify potential issues; (2) use site specific information provided as part of the application process to determine whether the issue is relevant to the project at hand; (3) if relevant, use the information accompanying the maps as well as information provided by the

applicant or others to assess the effect, if any; and, (4) compare the project location to the predicted futures presented by the EIS. The tasks are designed to use the information in the EIS as a supplement to the normal permit-by-permit review process. The purposes of these supplemental tasks are to increase assurance that important natural resource issues are identified early in the review process and to provide information on the possible project effects on an issue in the context of potential future cumulative effects. The maps do not represent permittable/non-permittable areas.

a. The decision reflects a modification of the originally proposed Appendix H. This is based on public and agency comments, enclosure (2), and on experiences with the review of applications since the release of the EIS document. For information purposes, the changes from Appendix H are described in enclosure (3).

b. Since the decision to adopt enclosure (1) is strictly procedural, there are no direct environmental effects. However, the Corps considers the decision to be the most practicable means to avoid or minimize environmental harm that may otherwise result from permitting actions, consistent with existing laws and regulations. Measures to avoid or minimize harm are part of each individual decision on permit applications. This decision does not remove any of these protections from the current process, will increase the assurance that some issue is not missed in a review, and is designed to increase the understanding of the possible ecological effects of the wetland fill proposal under review.

c. The Corps anticipates periodically comparing actual permit data to the EIS predicted futures and to the screening maps. Enclosure (4) provides such an analysis.

5. Conclusion. Many of Regulated public and environmental interests who have commented on the EIS in general fear that the maps will represent either permittable areas or non-permittable areas. However, the Corps is only using these to strengthen the analysis of the cumulative effects in the region and increase

the assurance that some issue is identified early in the process. This effort has resulted in a compilation of information that improves the understanding of some of the important issues in the watersheds within the study area.

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Encls
1. Permit Review Criteria
2. Comments and Responses
3. Changes from Appendix H
4. Monitoring Report

Permit Review Criteria

1. Purpose. This document is to assist the Corps Project Managers to perform certain supplemental tasks when reviewing applications for Department of the Army Permits under Section 404 of the Clean Water Act. These tasks are: (a) Screen the incoming applications project locations against a set of maps to identify potential issues; (b) Use site specific information provided as part of the application process to determine whether the issue is relevant to the project at hand; (c) If relevant, use the suggested methodology accompanying the maps or another appropriate methodology provided by the applicant or others to assess the effect, if any; (d) Compare the project location to the predicted futures presented by the EIS. This document applies to the study area of the Environmental Impact Statement for Improving the Regulatory Process in Southwest Florida (EIS) shown by Figure 1.

2. Background. The Corps of Engineers has regulatory authority to permit the discharge of dredged or fill material into wetlands and other waters of the United States at specified disposal sites. The Corps conducts a public interest review of the probable impact of the proposed activity and its intended use. The review covers numerous public interest factors including effects upon conservation, fish and wildlife values, recreation, water quality, property interests, economics, land use, and cultural values. The guidelines pursuant to Section 404(b) of the Act require that impacts to the aquatic environment be avoided and minimized to the maximum extent practicable. Also, unavoidable impacts are to be compensated (mitigated) to the extent practicable. A permit is typically issued provided that the proposed use is not contrary to the public interest, and is in compliance with the guidelines promulgated by the EPA pursuant to Section 404(b) of the Clean Water Act. The maps do not represent permittable/non-permittable areas. The public interest factors covered by the screening maps include fish and wildlife values, wetlands, coastal activities, and water quality. The importance of any of these factors will depend on the site-specific circumstances of each individual project. A specific factor may be given substantial weight on one project while it may not be present or as important on another. For example, where a project proposes to fill nesting habitat for the wood stork, the fish and wildlife factor may be given substantial weight. On the other hand, the weight given this factor may be less where a project

impacts an area that constitutes only potential or suitable habitat for an endangered species without evidence of use. Moreover, consistent with existing regulations, the permit reviewer will not only review any relevant public interest factors identified when compared to the maps but will also review all factors relevant to the public interest, including property rights, economics, and land use, and these other factors are given appropriate weight along with the issues identified in the review process when determining whether issuance of the permit, on balance, is not contrary to the public interest and is in compliance with the Section 404(b)(1) Guidelines.

3. Updates. These maps and suggested analysis methodologies are based on regional or statewide information rather then site-specific information due to the size of the EIS study area. This document is expected to be modified in the future based on new information. Any party with information relevant to these issues may submit that to the Corps so that revisions to this document can be made. With respect to particular parcels or sites, the Corps project manager will use site-specific information provided by the applicant to confirm whether the issue is applicable to the application under review. The project manager may depart from the suggested methodology to assess effect so long as the assessment is appropriate to the site-specific circumstances. Another methodology provided by the applicant or others may be used if appropriate. The Corps will also continue to work with the U.S. Fish and Wildlife Agency, U. S. Environmental Protection Agency and others to develop more detailed analysis tools.

4. Permit Review. The Corps' decision whether to issue or deny a Permit is based on site and project specific information. This intent of these supplemental tasks is to strengthen the analysis of the cumulative effects in the region and increase assurance that some issue is not missed in a review. They are a management tool to ensure manpower/review resources are prioritized toward that subset of permit applications for which a more elaborate cumulative assessment is warranted. A location with a larger number of confirmed issues will receive a greater rigor of review. However, the maps do not predetermine the Corps permit decision. In addition, this document does not apply to projects holding unexpired Department of the Army permits. For applications that are pending at the date of this

document, the project manager will compare the project to the screening maps to see if the issue has already been considered and, if considered, then this document will not be referenced as the basis for initiating additional work on that issue. For example, if the Corps has already made an initial determination on the project's potential effect on a particular listed species, then a re-determination will not be performed solely because this document was issued. (This does not preclude re-determination if there is other site-specific or other new information.)

5. Cumulative Effects. The EIS document presents five maps depicting what the landscape may or may not look like in 20+/- years. The maps delineate areas of "development", "agriculture", and "preserves" based on various ideas of how the land in the study area may be or should be distributed in 20+ years. These maps represent the potential result of many individual decisions by the landowners, Counties, Corps, and others. The five maps are labeled Q, R, S, T, and U. Map R represents the County Comprehensive Plans, that is, if all individual decisions collectively matched these plans and these plans were never amended. Q provides a larger acreage of development than the comprehensive plan (R). S provides greater emphasis on listed species and their habitat. T seeks to increase the area of preserves. U proposes the largest areas of preserve. These maps were used to prepare five estimates of acres of wetland fill, area of habitat lost, change in water quality, and many other issues. These estimates and accompanying evaluations provide a range of potential cumulative effects. The Corps project manager will include in the decision document for each application a comparison of the project location with the five maps. If a project is consistent with at least one of the five maps, then the potential cumulative effect of this and future projects can be expected to fall within the range of effects described by the EIS. The EIS naturally could not predict what each applicant would propose as project-specific avoidance, minimization, or compensatory actions that would mitigate the potential cumulative effects. Therefore, mitigation actions incorporated into the project would reduce and in some cases eliminate that project's contribution to the total potential cumulative effects described by the EIS.

6. Immokalee Reservation, Seminole Tribe of Florida. The Immokalee Reservation is not assigned individual maps. The

approximate location of the reservation is blacked out on the maps, labeled "A" on Figure 1. Therefore, there is no prepared list of issues for reviewing the cumulative effects of projects proposed within the Immokalee Reservation. The identification of natural resource issues on lands surrounding the reservation will not be considered when evaluating projects proposed by the Tribe on tribal lands. Corps Project Managers will continue to recognize the status, governmental authority, and powers of the Seminole Tribe of Florida and the rights under any tribal agreement with any agency of the U.S. Government.

7. Immokalee Area Study. On June 22, 1999, the State of Florida Administration Commission adopted Final Order No. AC-99-002, which directed Collier County to conduct a Rural and Agricultural Area Assessment. Collier County divided the Assessment into two geographic areas, the Rural Fringe Area and the Eastern Lands Area, also known as the "Immokalee Area Study." On April 29, 2002, the Rural Lands Oversight Committee voted to forward their report and recommendations to the Board of County Commissioners. A portion of the study area overlaps the EIS study area, the approximate boundary is labeled "B" in Figure 1. One product among many of that effort is a revision of the land use mapping data that was used in the original EIS. The screening maps are still based on the original land use mapping since that mapping covers the entire EIS study area. However, the Corps project manager is to refer to the more detailed land cover mapping and other site information found in that report when screening projects within the boundary of the Immokalee Area Study.

8. SLOPES. The Corps and U.S. Fish and Wildlife Service continue to develop Standard Local Operating Procedures for Endangered Species (SLOPES) for many of the species that are frequently the topic of consultations under Section 7 of the Endangered Species Act. A general introduction to these documents is found at Attachment A of this enclosure.

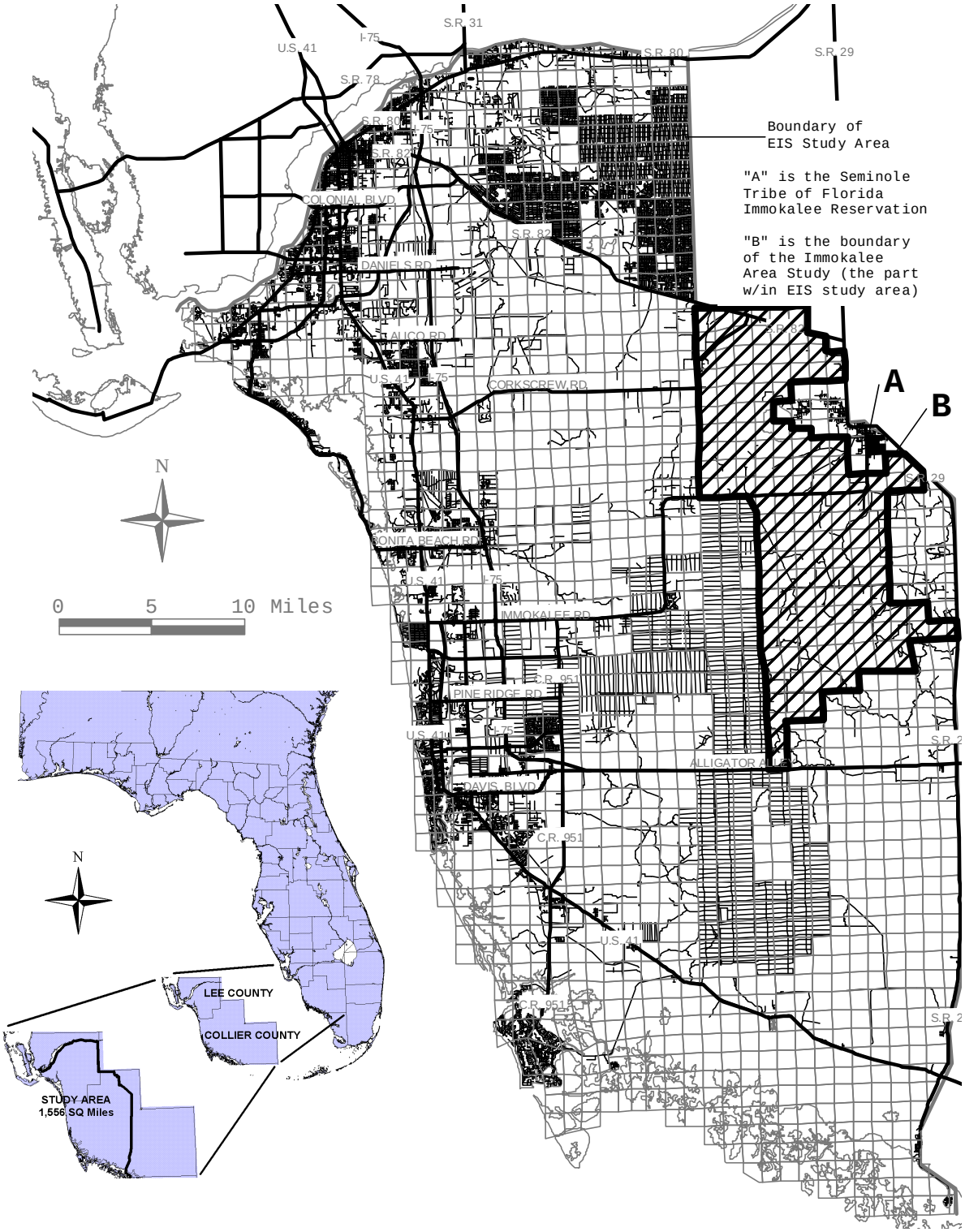


Figure 1. Base Map.

9. Audubon's crested caracara.

a. The primary cause for the decline of this species has been habitat loss. This species prefers native range and unimproved pasture for foraging. All of the futures in the EIS predict a decline in existing agricultural area.

b. The project manager will use the draft local operating procedure, Attachment B of this enclosure. The first step of the procedure is to screen for the presence of nests and of suitable habitat. The "consultation area" shown on Figure 2 encompasses locations of currently known nests, plus a buffer that represents potential unknown nest locations that may be present due to dispersal from known locations. Within the EIS study area, this buffer is up to approximately 12 miles from existing known locations. The area mapped overlaps areas within the Immokalee Area Study, Lehigh Acres, and lands between the Caloosahatchee River and Lehigh Acres. Nests are typically in cabbage palms *(Sabal palmetto)* surrounded by areas of described as wet and dry prairies (with scattered saw palmetto, scrub oaks or cypress) and improved and semi-improved pastures and range lands. Due to the availability of the more current land use mapping for the Immokalee Study Area and the subdivided nature of Lehigh Acres, a map of potential habitat has not been prepared.

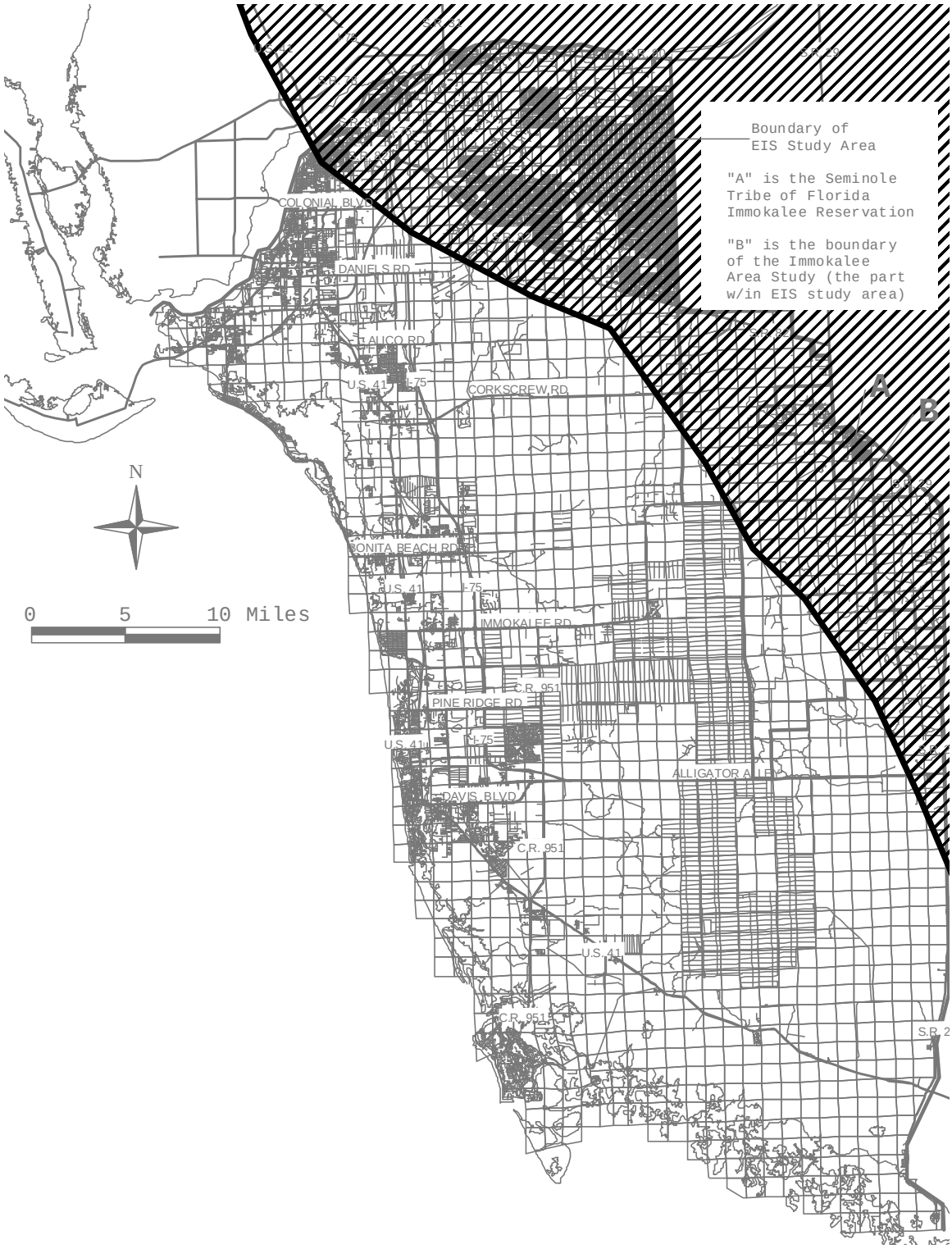


Figure 2. Audubon's crested caracara consultation area

10. Bald eagle.

a. Bald eagle population was decimated in the 19th and early 20th centuries by habitat destruction, hunting, pesticide use and lead poisoning. Twenty-six active nests are recorded in the study area as of the 1996 winter census. Some of the nests will have future development occurring near them.

b. The project manager will use the draft local operating procedure, Attachment C of this enclosure. The first step of the procedure is to screen for the presence of nests and of suitable habitat. For nests, the black squares shown on Figure 3 encompass the known locations of nests as reported by the Florida Fish and Wildlife Conservation Commission's Eagle Nest Locator for the 2002 nesting season survey. This is provided for information purposes. The locator enables searches by project location. The web address is: http://www.wildflorida.org/eagle/eaglenests/default.asp Suitable habitat is described as forest canopy within 3 kilometers of open water (includes borrow pits, lakes, rivers, and large canals.) There is potential that cell, radio, television and power transmission towers will be used for nests. Due to the large quantity of forested areas, a screening map was not prepared since it would not be meaningful because data is not refined enough to attempt to identify locations with taller trees, flyways, and other characteristics that may serve to predict nest locations.

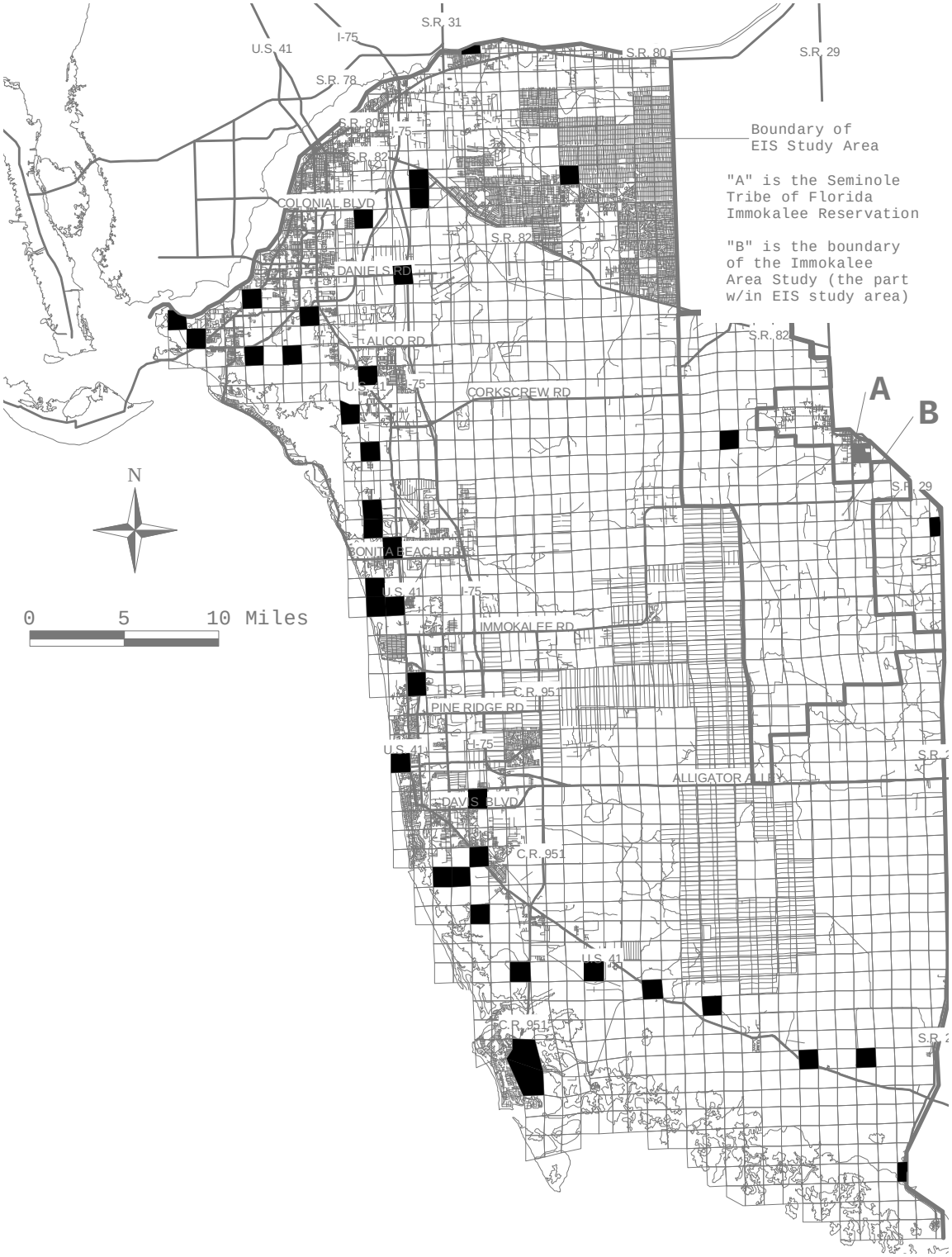


Figure 3. Bale eagle nest locations

11. Flowways

a. The study area has many man-made changes to the historic flow patterns, including drainage canals, roads that block historic sheet-flow, and berms. Many ideas have been developed in the past to retrofit structures or to restore areas. Wider flowways or preservation of wetlands in flowways are evaluated to be beneficial generally because these actions may reduce the potential for changes in flood depth, maintained historic flow patterns, and reduced reliance on structural water management solutions.

b. Project managers will evaluate alternatives that maintain, enhance, create, preserve or restore wetlands within the footprint of the slough of sufficient width for wet season flows. If a site has a canal, consider restoration of the original slough by partial blocking of the canal or other actions. Potential locations of flowways are shown on Figure 4. Within the study area, lands typically once drained to sloughs that eventually reached streams on the coast. Many sloughs have now been intercepted/converted to canals. Figure 4 is based on the assumption that potential locations of remaining natural flowways can be identified by the land-use mapping that was performed by the South Florida Water Management District. First, land uses identified as sloughs (560), inland sloughs (616), cypress (621), bottomland (615), and streams (510) were separated from the entire map. Then, where the individual polygons were either very small or not adjacent to others were eliminated. The remaining map was compared to the maps prepared by the ADG where flowway locations were annotated. Further refinement of the map was not performed since the areas mapped were sufficient to indicate potential flows and refinement of the actual boundary/centerline would need site-specific information that would be generated during the permit review.

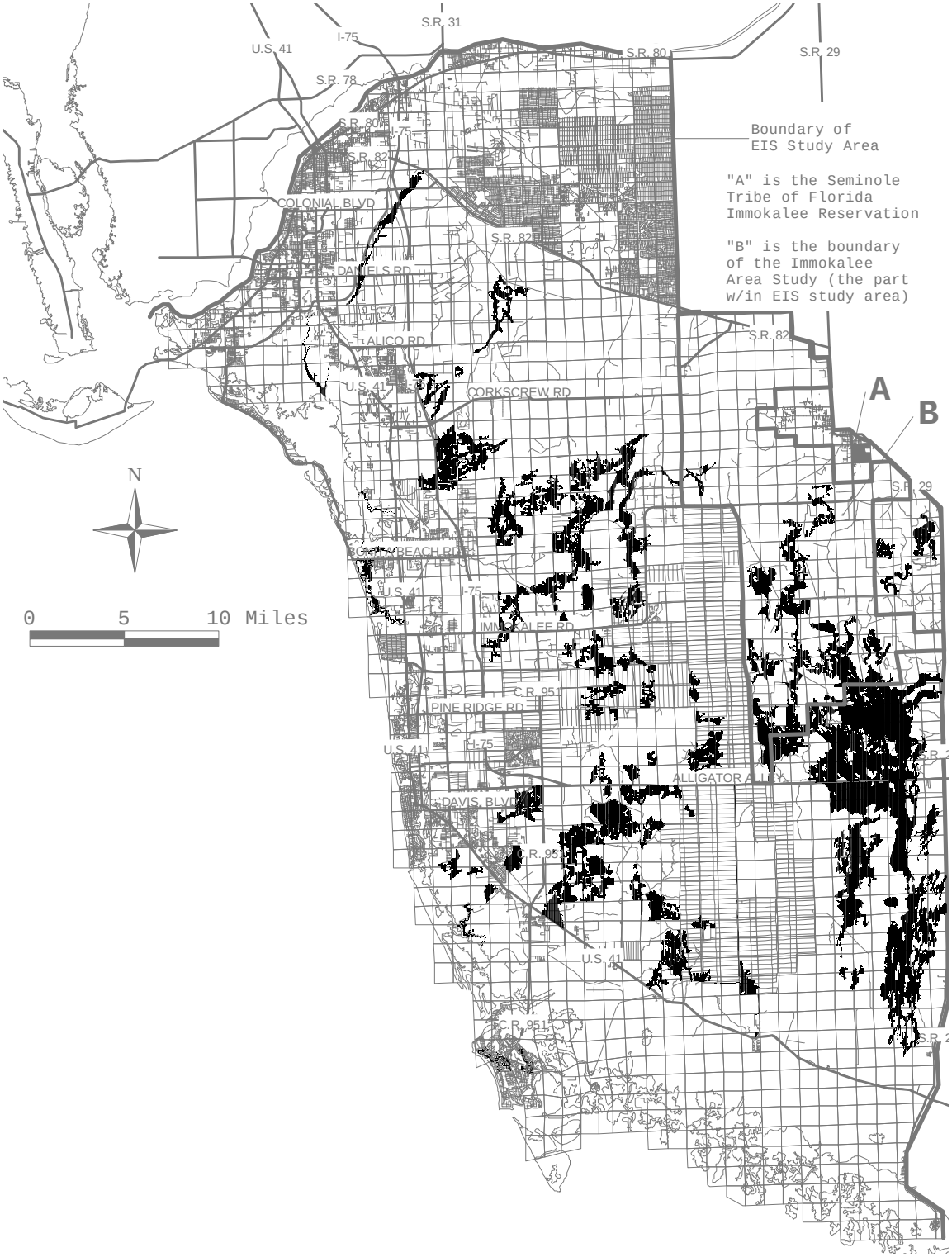


Figure 4. Flowways

12. Habitat Fragmentation

a. The area still has a wide variety and large populations of wildlife. Suburban development has been expanding inland from the urban centers of Fort Myers, Bonita Springs, and Naples to meet with the build-out of Lehigh Acres and Golden Gate Estates. Large expanses of the historically characteristic pinelands are becoming more fragmented. Many species forage over large areas and require a mixture of vegetative communities for their life histories. Connections between the large islands of existing preserves are evaluated to be beneficial generally because they are considered to potentially retain a sustainable fabric of habitat.

b. Project managers will evaluate alternatives that maintain, enhance, create, preserve or restore native cover for the species expected to utilize the connection. Figure 5 shows areas of habitat connections. Within the study area, remaining natural habitat connections tend to follow the wetter lands. Figure 5 is based on the assumption that potential locations of remaining habitat connections can be identified as natural vegetated areas adjacent to those that were mapped as flowways. Therefore, areas were selected as those identified by the South Florida Water Management District land use mapping as either upland (400) or wetland (600) and adjacent to flowways shown in figure 4. Then, any adjacent natural areas less then 1,000 feet in width were eliminated. There has been a lot of discussion on appropriate wildlife corridor widths and for some species 2,000 feet would not be wide enough if there was high disturbance on either side. On the other hand, for some species, widths considerably less then 1,000 feet would be appropriate. The 1,000 foot is essentially a mid-range that also resulted in a map that showed the connections highlighted by the EIS. Further refinement of the map was not performed since the assessment of connection/fragmentation depends on the site-specific circumstances, including the nature of the project (disturbance level, etc.) and the extent of exotics or other such factors that would influence the wildlife use of the connection.

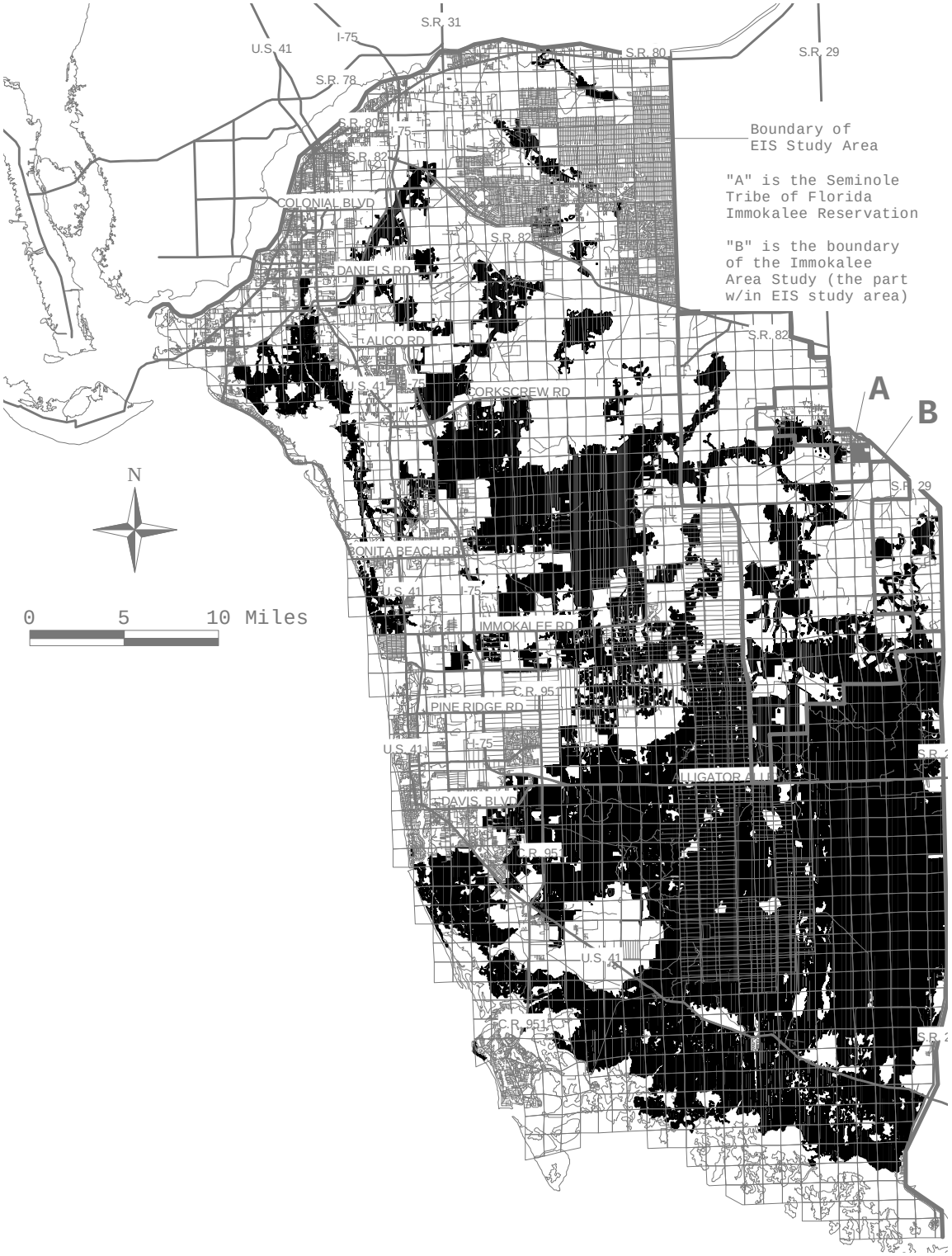


Figure 5. Fragmentation

13. Marshes.

a. Description. Wetlands are foraging areas for a wide variety of wading birds, including the federally listed Wood Stork and Snail kite, and are depended upon by other species. Because of their small size and shallow depth, these have been the ones most affected by drainage, direct fill, or changes in surrounding landscape. Preserving natural plant types around these wetlands is evaluated to be beneficial generally because that would maintain sheetflow connections between individual marshes, provide clean water runoff to hydrate the marshes, and provide cover for species. A large percentage of these marshes are expected to be surrounded in the future by development.

b. The project manager will use the draft local operating procedure, Attachment D of this enclosure. The first step of the procedure is to screen for the presence of nests and of suitable habitat. For nests, almost the entire EIS study area falls within the Core Foraging Area (CFA) of one or more rookeries, figure 6. For information purposes, this figure also shows some of the major nesting areas within the EIS study area, though additional sites may have been recorded and may be found in any year. The CFA is a distance of 18.6 miles (30 km) from these sites. For habitat, figure 6 show areas mapped by the National Wetland Inventory (NWI) as Palustrine Emergent within the CFA. This shows how proportionally small is the area of shallow herbaceous marshes that provide the typical forage locations for this species. However, the Supplemental habitat management guidelines for the wood storks in the South Florida Ecological Services consultation area (U.S. Fish and Wildlife, South Florida Ecological Services Office, Vero Beach, FL. 2002) states "good feeding conditions usually occur where the water is relatively calm and uncluttered by dense thickets of aquatic vegetation and successful foraging sites are those where the water is between 2 and 15 inches deep." In addition to freshwater marshes, it adds shallow and seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads, swamps and sloughs. "During wet season wood storks generally feed in the shallow water of the short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as these progressively dry down." Nest initiation begins roughly at the start of the dry season concurrent with

the concentration of fish from the dry-down. A recent Biological Opinion inventoried all "shallow wetlands with water depths of 2 to 15 inches" as suitable habitat (not just freshwater herbaceous.) While describing historic habitat loss, the Biological Opinion also listed "...habitat types known to be important foraging habitat..." cypress domes and strands, wet prairies, scrub cypress, freshwater marshes and sloughs, and sawgrass marshes. Of particular significance is any change to the hydroperiod (and thereby a change in the time of year forage fish would be concentrated).

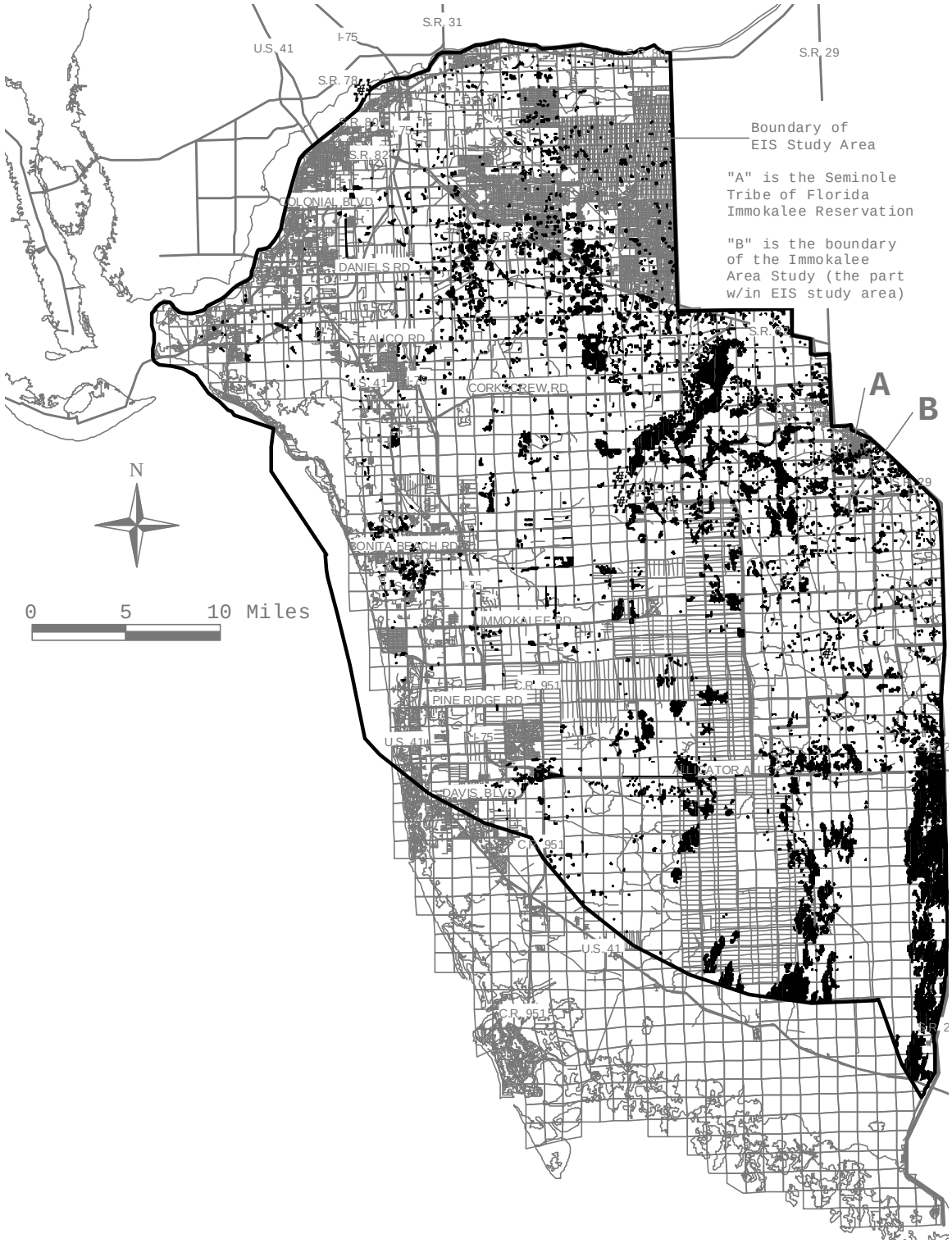


Figure 6. Wood stork Core Foraging Area

14. Florida Panther.

a. This wide-ranging species primarily uses large areas of a mixture of upland and wetlands. Correlation of telemetry data from radio-collared panthers and plant cover plus other observations suggest preference for forested areas, including hardwood swamp, mixed hardwood swamp, cypress swamp, hardwood hammock, and pinelands. Panther will cross other lands that have low human presence to travel to other patches of forested cover. Also, prey are found at the edges of forested and range, prairie, and agricultural areas. One key need for the recovery of this species is to preserve and manage lands within as well as adjacent to existing preserves to provide a contiguous mix of natural vegetation types.

b. The project manager will use the interim local operating procedure, Attachment E of this enclosure. The first step of the procedure is to screen whether the project falls within the "Consultation Area" defined as those portions of nine counties where Florida panthers may be present. The entire map is found in Attachment D. The second step is to review all the effects of the proposed project on the panther. This review includes, among other things, the evaluation of the telemetry locations of radio-collared panthers and road-kills to determine if the project site itself or adjacent areas that are affected by the project are being used by the species. With or without telemetry, the review will consider whether the project site includes substantial patches of forested cover that are connected range, prairie, agricultural and other forested areas to areas of known panther home ranges, such as the Florida Panther NWR. Areas of residential or commercial development and major highways are generally considered to be avoided by panther due to human disturbance or lack of prey. Recent Biological Opinions on projects within the EIS study area have identified the "take" (as defined by the Endangered Species Act) to include natural vegetated lands (forested and unforested) and agriculture (pasture). The lands were those directly filled/built upon by the project as well as those affected by the project (for example, by isolating lands by building intervening residential development.) The acres affected are compared to the total area that is known to be occupied by the Florida panther (2.2 million acres, described by the report The Florida panther and Private Lands, Maehr, D.S., Conservation Biology Vol 4 No 2 June 1990.) Note that the species may be

present outside of known areas (but not necessarily everywhere in the 4.96 million acre "Consultation Area.") On the "Consultation Area" map and in at least one recent Biological Opinion, references have been made to the Ecological Units defined by the Florida Panther Habitat Preservation Plan (HPP). For each Ecological Unit, the HPP also mapped lands adjacent to public preserves that "...considered essential to maintaining the Florida panther population..." and designated some as "Priority 1" and the remainder as "Priority 2". In situations where the loss of panther habitat has been determined to be unavoidable and the area of loss has been minimized to the maximum extent practicable, then the HPP mapping should be considered when evaluating locations when lands are being selected for preservation and restoration as compensation. For purposes of screening within the EIS study area, the various data sources mentioned above are overlaid in figure 7. The telemetry data is that available at the time of the preparation of the EIS document and does not include additional points recorded since that date.

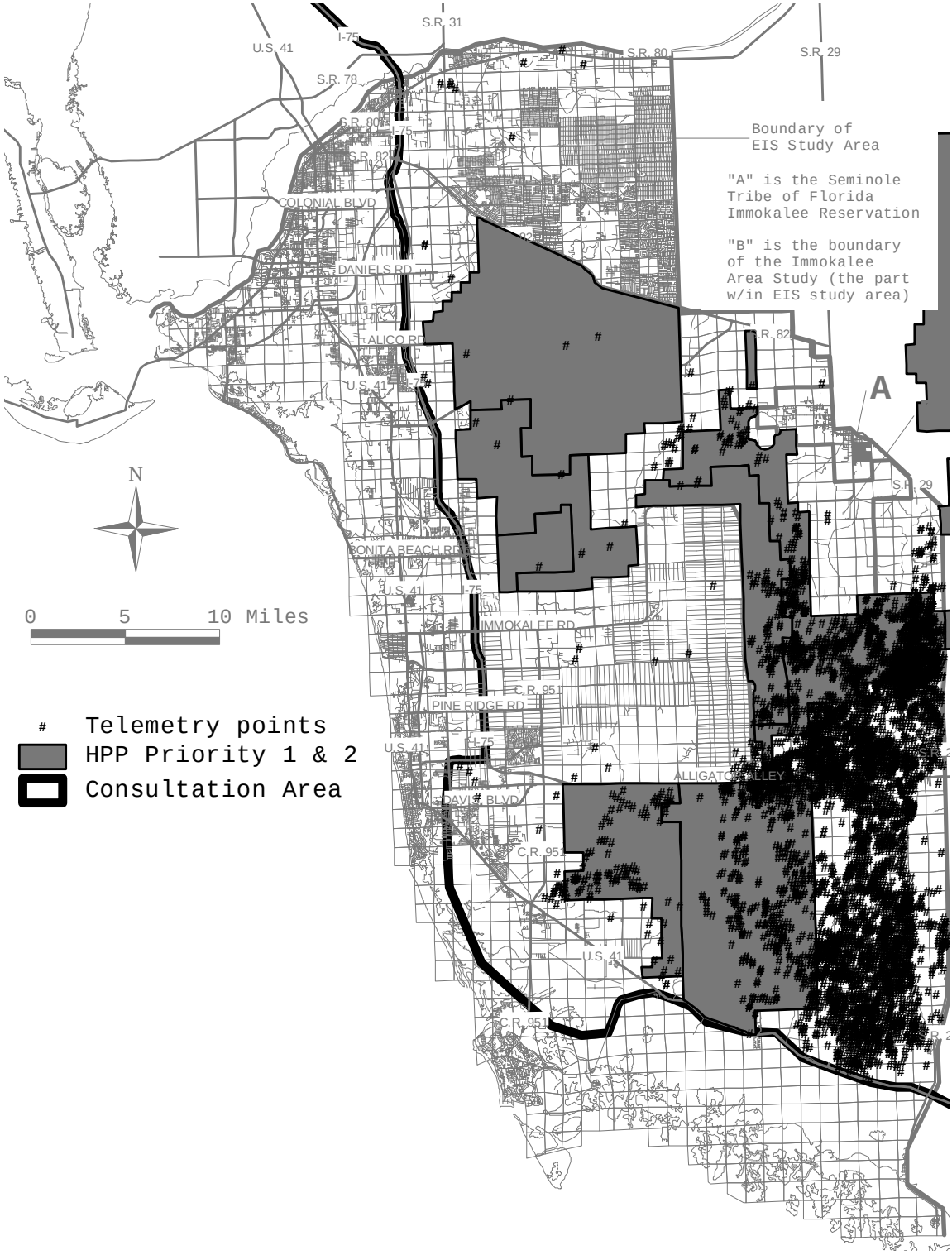


Figure 7. Florida panther maps.

15. Shorebirds.

a. Shorebirds in general, and the federally listed Piping plover in particular, use beaches within the study area. While direct impacts to these beaches are unlikely, indirect effects may occur as a result of human disturbance (pets, noise, nuisance animals) and fill activities associated with increased coastal development.

b. A screening map has not been prepared since the presence of beaches will be obvious from the site-specific information in the application. The project manager will ask the applicant of the practicability to avoid disturbance along undeveloped beaches. For the Piping plover, in addition to the species information found in the EIS, the project manager will also screen the project location against the location of designated critical habitat, described at attachment F of this enclosure.

16. Red-cockaded woodpecker.

a. At the time of the preparation of the EIS, there were 40 known groups of this species in the study area. Not all habitat has been surveyed so others may exist. Pinelands with mature pine trees, open midstory and regular burns are preferred colony and foraging habitat areas but this species will also forage in other pine forested areas. The U.S. Fish and Wildlife Service considers the average foraging territory in southern Florida to be approximately 500 acres or 1/2 mile radius around the center of a nesting cluster. Dispersal into other suitable habitat has been described to vary from approximately 2 miles (frequent) to 7 miles (infrequent).

b. The project manager will use the draft local operating procedure, Attachment G of this enclosure. The first step of the procedure is to screen for the occurrences of this species and of suitable habitat. Suitable habitat is described as any forested community that includes pines in the canopy. It does not include any forested areas smaller then 10 acres and separated from larger continuous stands by a tree-less habitat greater then 300 feet in width, although south Florida populations have been observed crossing areas much larger (300 to 500 feet). Figure 8 encompass known locations of clusters along with additional areas within which suitable habitat may be

found that is within dispersal distance. A more refined map has not been prepared due to the desire to not disclose the locations of known colonies and a map of potential habitat would not be meaningful because of the immense amount of forested cover that has some pine in within the EIS study area.

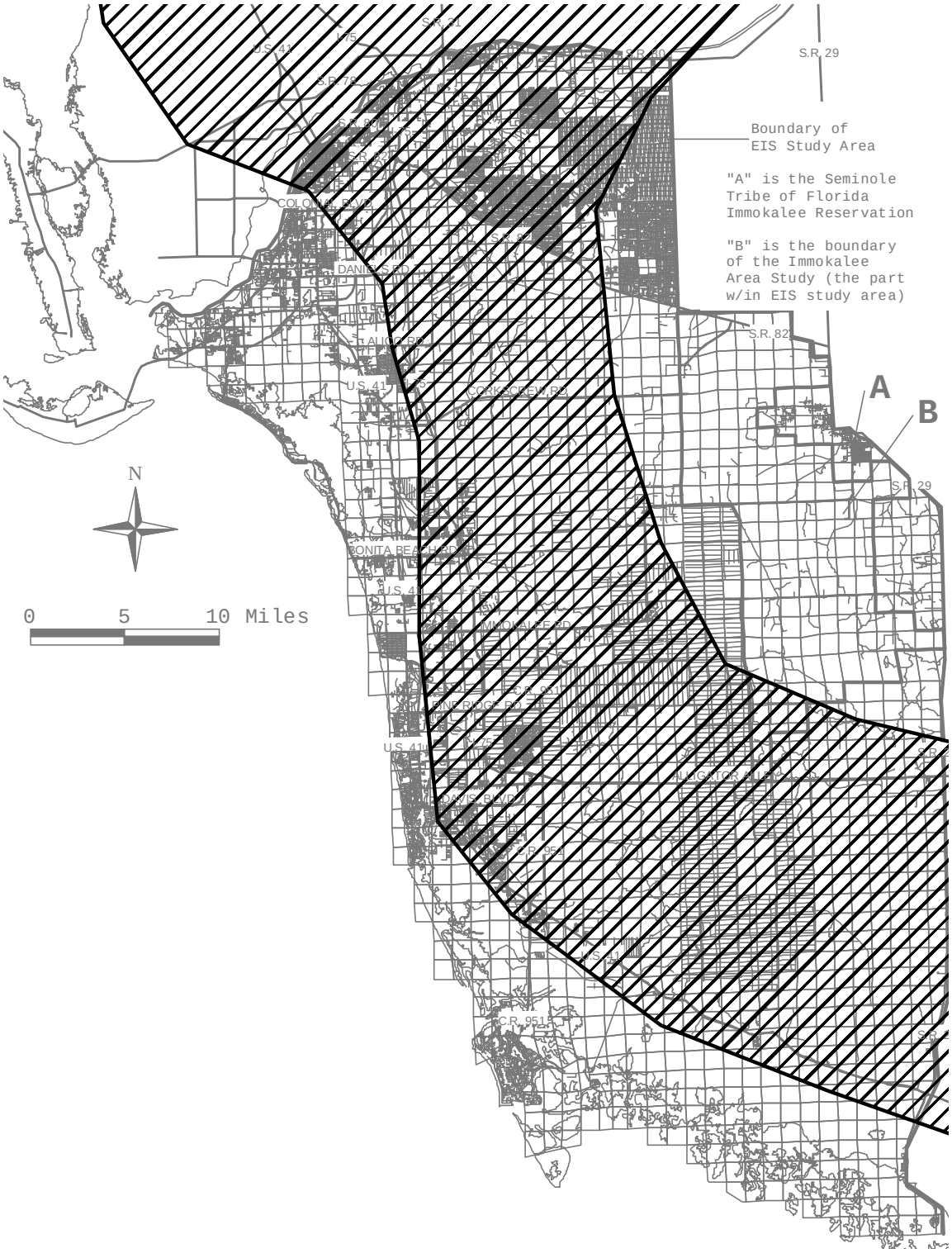


Figure 8. Red-cockaded woodpecker consultation area

17. Florida scrub jay.

a. This species has very narrow habitat requirements, being endemic to Florida' relic dune ecosystems and scrub. Scrub habitats are considered to be among the most threatened natural systems. There were 26 known families of scrub-jays in the study area at the time the EIS was prepared. Not all habitat has been surveyed, so others may exist, although there is only a limited amount of remaining scrub habitat. Mean territory size is about 25 acres although the size may vary depending on group size and suitability of habitat.

b. The project manager will use the draft local operating procedure, Attachment H of this enclosure. The first step of the procedure is to screen for the presence of occupied territories and of suitable habitat. Suitable habitat is the scrub communities (xeric oak scrub, scrubby pine flatwoods, scrubby coastal strand and sand pine scrub) and also areas that include improved, unimproved and woodland pastures; citrus groves; rangeland; pine flatwoods; longleaf pine xeric oak; sand pine; sand pine plantations; forest regeneration areas; sand (other then beaches); disturbed rural lands in transition; disturbed burned areas; and areas with the presence of scrub oaks, no matter how sparsely distributed. A screening map of potential habitat locations has not been prepared because the available vegetation cover mapping available is based on interpretation of aerial photography, from which is difficult to reliably differentiate small patches (average territory size is 25 acres) of scrub habitat from other cover types. For information purposes, figure 9 shows metapopulations within the EIS study area derived from an analysis the U.S. Fish and Wildlife performed as part of its memorandum "Guidance for assessing mitigation needs for the Florida scrub jay" and for the Multi-Species Recovery Plan. These are locations that have several scrub jay families. The shaded areas represent a buffer around those locations. There have been other families found within the study area outside these mapped areas.

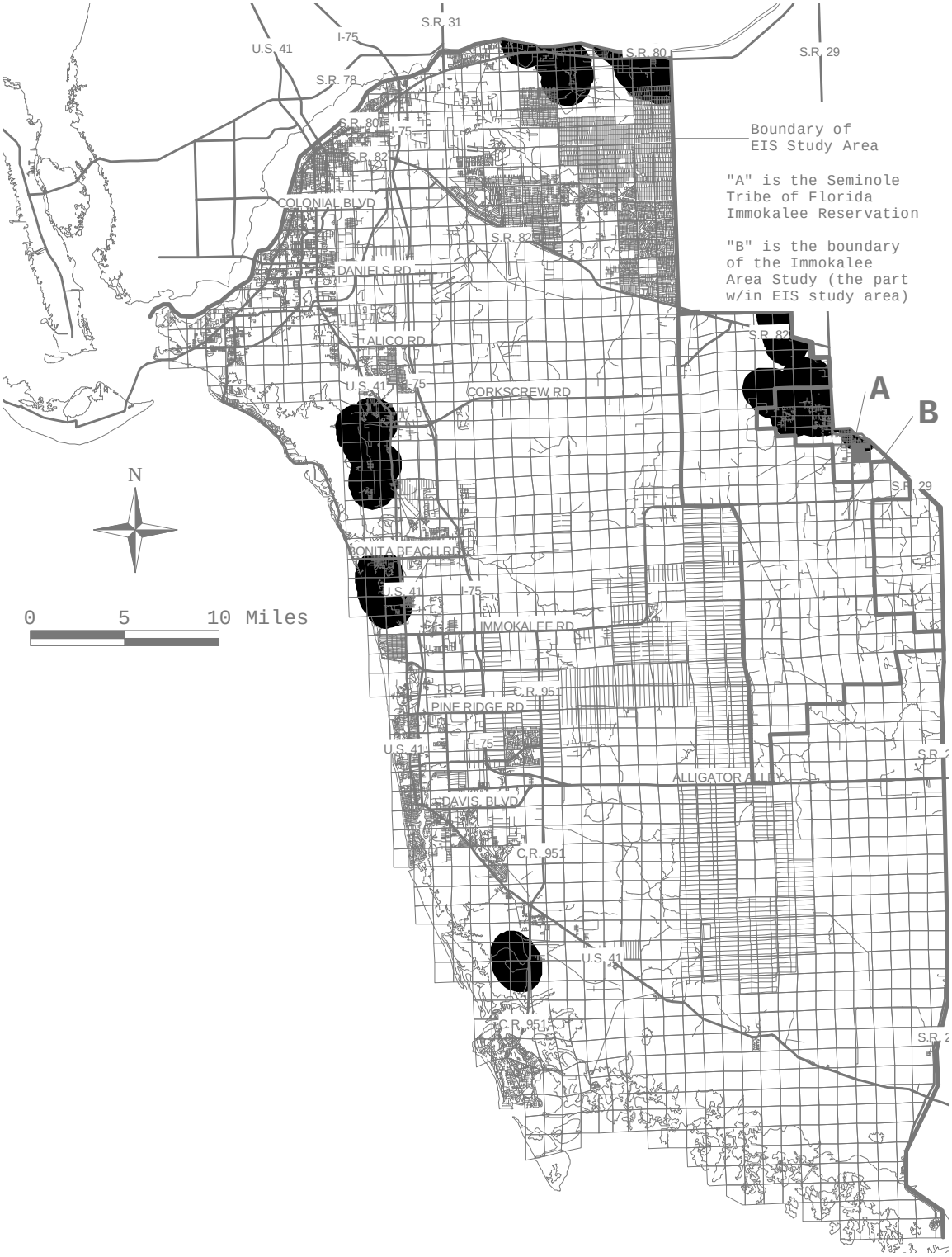


Figure 9. Florida scrub jay meta-populations.

18. Water Quality.

a. The EIS included two analyses of the watersheds within the study area. The first analysis used actual sampling data collected from the past 30 years to develop a trend analysis based on the calculation of an Index of Water Quality (IWQ) for each of the three decades. This reported an overall degradation of water quality in all of the ten basins for which sufficient data was available. The second analysis used land cover maps and runoff rates to estimate an IWQ for both the current landscape and two potential futures (20 years.) This analysis reported potential degradation in all of the basins. A further comparison of the results from the two futures indicates that a reduction in acres of development or the implementation of more effective BMPs could reduce the degree of water quality degradation.

b. The Corps and EPA have a concern that in some cases increased loading as a result of placement of fill authorized by Section 404 permits could contribute to degradation of receiving waters. 40 CFR 230.10(c) states "...no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of waters of the United States." This is one of four restrictions found in the guidelines issued under Section 404(b)(1) of the Clean Water Act. This concern is based on: (1) the pollutant removal limitations of Stormwater Management Systems (SMS) authorized by State permits; and (2) the potential deleterious impacts that direct and cumulative pollutant discharges will have on sensitive aquatic resources in this region.

c. To date, EPA has notified the Corps of this concern through individual letters in response to the Corps public notices of permit applications. This is in accordance with the procedural requirement in the regulations for evaluating permit applications. Specifically, 33 CFR 320.4(d) states the Corps' policy to be that the State certification of compliance under the provisions of Section 401 will be considered conclusive with respect to water quality unless the Regional Administrator, EPA, advises of other water quality aspects of be taken into consideration. The Corps, EPA, FDEP, and the State’s Water Management Districts are coordinating efforts to address water quality impacts associated with Sections 404 and 401 permitting.

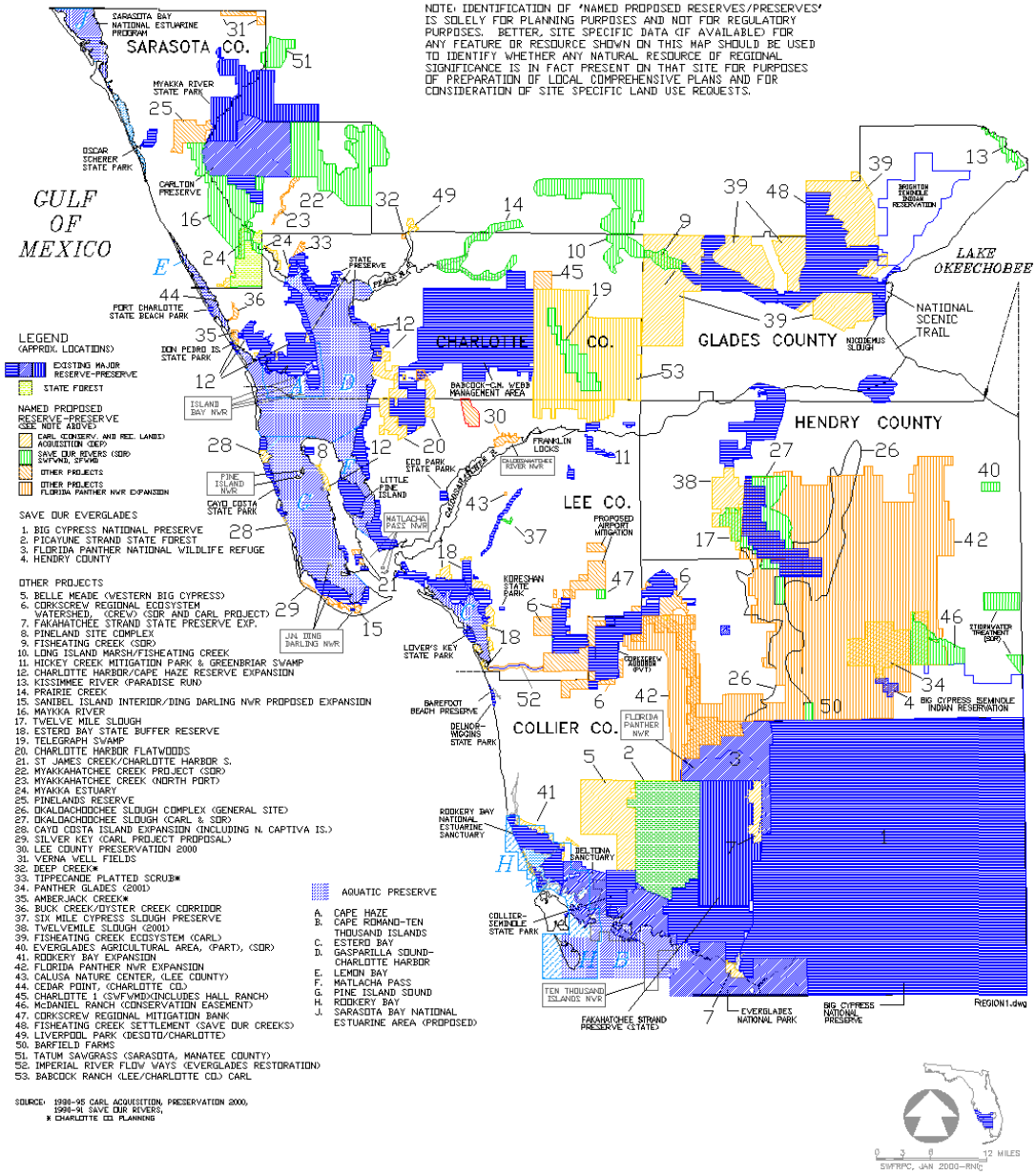
d. In the interim, for projects identified by the EPA, the Project Manager will request of the applicant an analysis of the water quality loadings for the pre-project and post-project condition. A project where the post-quantity is equal to the pre-quantity would be considered less likely to cause or contribute to significant degradation of water quality. The EPA will identify the water quality constituent on which to perform the analysis. There is no restriction on the level of detail for the analysis. Among others, both the areal and the concentration methods have been used, these described in "Stormwater Loading Rate Parameters for Central and South Florida" Dr. Harvey H. Harper, Environmental Research & Design, Inc., Orlando FL, 1994. That publication also provides tables of various water quality parameters needed for the analysis, the tables based on field work in Central and Southern Florida. The same author also has provided information on stormwater management system pollution removal efficiencies in the 1995 report "Pollution Removal Efficiencies for Typical Stormwater Systems for Florida." The author has prepared for the Water Enhancement and Restoration Coalition, Inc. (WERC), an analysis methodology that has been tailored to the EIS study area, "Evaluation of Alternative Stormwater Regulations for Southwest Florida, Draft Final Report", March 2003. At the presentation of this report on April 30, 2003, to representatives of WERC, EPA, SFWMD, DEP and the Corps, there was general acceptance of the method with suggestions for minor revisions of the document.

19. Regionally Significant Natural Resources.

a. The Southwest Florida Regional Planning Council (SWFRPC) periodically updates its map, figure 10, showing lands currently owned by government agencies or non-government organizations that are managed for natural resource values. The lands were typically acquired and managed for multiple other purposes, including recreation, protection of unique wildlife, water supply protection, or hunting. The map also shows some proposed expansions or additions to these lands. These often reflect some valued natural resource function, for example, a wildlife corridor. However, the designation/labeling of the land by itself does not give weight either for or against in the decision whether to issue a permit.

b. For projects in the vicinity of an existing preserve, the Project Manager will assess whether the project affects the

natural resources within the preserve. The SWFRPC map is used based on the assumption that it provides a regional perspective, reflects community input, and will be periodically updated. Its use here is soley to ensure Corps staff does not inadvertently overlook the relationship between an application and some locally-valued natural resource.



SOUTHWEST FLORIDA REGION
REGIONALLY SIGNIFICANT NATURAL RESOURCES
Figure 10.

Standard Local Operating Procedures for Endangered Species
The Process
June 18, 2003 Draft
USFWS South Florida Ecological Services Office

The Fish and Wildlife Service (Service) in consultation with the Corps of Engineers (Corps) is developing procedures for improving coordination on projects that may affect listed species or critical habitats designated under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*). The intent of the Standard Local Operating Procedures for Endangered Species (SLOPES) is to provide the Corps with a stepwise process to assist in determining if a proposed action affects listed species or critical habitats, what are the effects the action has on listed species or critical habitats, and options available to avoid or minimize the action's effects to listed species or critical habitats. Because mitigation for project effects to listed species or critical habitats is not an authorized action under section 7 of the ESA, modifications to the Federal action are usually proposed, which if implemented, provide the Service with reasonable assurance that "take" of listed species or "adverse modification" of critical habitat has been reduced to the maximum practicable extent, i.e., the Federal action can be completed as authorized by Federal law, or that "take" or "adverse modification" is not expected to occur.

The following discussion provides a sequential guide through the SLOPES process. At each junction in the guide, a decision point is provided to assist the user in determining the effect to listed species or critical habitats and the next course of action. Figure 1 provides a schematic flowchart representation of the sequential guide.

The first step in evaluating potential effects to listed species or critical habitats is to determine which county the project is located in. The Service has prepared a list of federally threatened and endangered species and critical habitats present in each of Florida's counties. The Service has also prepared a companion list of suitable habitat types for each of the species. Suitable habitats are those that are capable of providing the basic physical and biological parameters necessary for survival of the listed species. The Service also maintains a database of species occurrence records that may be queried for site-specific species occurrences. The database is a

compilation of data received from several sources and is periodically updated. Listed species may be present in suitable habitats even if no known locations are identified in our database.

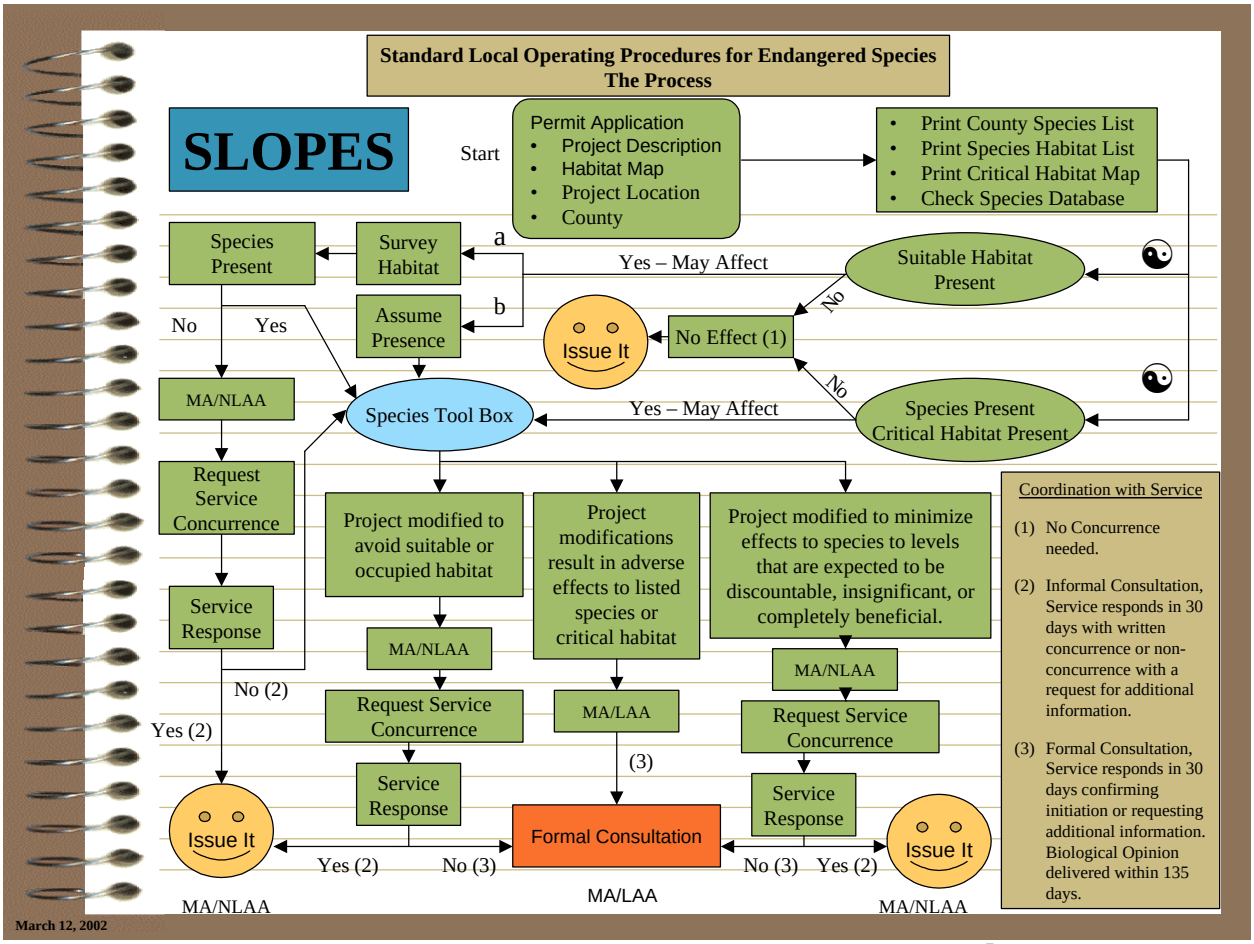


Figure 1 Schematic representation of the sequential guide.

The Service has synthesized data on species occurrence, suitable habitat, and historical range information into a consultation area map to help simplify the process of determining when a consultation with the Service is necessary, If a project falls within the consultation area and a suitable habitat is present then a "may affect" determination can be assumed and the process can proceed to the on-site survey.

In order to determine the likelihood of listed species presence, this list of species and suitable habitats are compared to those communities present on the project site. The Service also

recommended that for small projects, i.e., less than four ha (10 ac), the vegetative communities in the surrounding properties also be mapped. For the Service's evaluations, the surrounding properties are those within a radius of 0.8 km (0.5 1/2-mi) of the project site boundaries. Habitat characterization for the surrounding properties is necessary because several species, including red-cockaded woodpeckers, scrub-jays, eagles, etc., inhabit territories that encompass large tracts of lands.

The Service prefers habitat descriptions that mimic those provided in the "South Florida Multi-Species Recovery Plan" (Service 1999), which is available on the Service's web site at http://verobeach.fws.gov. The "Florida Land Use, Cover and Forms Classification System, Third Edition" (FLUCCS) is the preferred habitat classification (FDOT 1999). Providing the FLUCCS code in describing the project habitats helps expedite review of impacts to listed species.

The intent of the habitat descriptions is to provide the Corps and Service with the habitat types present on the project site and in the project area. The communities can be mapped on aerial photographs, topographic maps, or other GIS maps. A companion text narrative of the community descriptions is required.

If a project falls within the consultation area and suitable habitats are present then a may affect determination is made and a site survey is necessary.

In the SLOPES flowchart, a comparison of the species list by county, suitable habitats, species occurrence records, and consultation maps to the project site habitat maps provides a yes/no option at this point. The Service has synthesized the best available scientific data on species occurrence, suitable habitats, and historical range into a consultation area map for many listed species to simplify the process of determining when a consultation with the Service is necessary. If a project falls outside the consultation areas for listed species then a "no effect" determination can be made and other permitting actions can proceed.

If the habitat descriptions for the project and the project area do not identify suitable habitats for listed species, then the Corps could make the determination, as the action agency, that

the project will have “no effect” on listed species or critical habitat and can proceed with other permit actions. If desired, the Corps can request a concurrence letter from the Service.

The concurrence request should include the project description, the listed species present in the county, the habitat types where these species are usually found, the project area habitat map, and the text descriptions of these habitats. The letter should also include the Corps determination and the reason for the determination, i.e., no suitable habitats present on the project site. Upon receipt of the concurrence request and the supporting habitat data, the Service could provide concurrence with the “no effect” determination.

In the SLOPES flowchart, the yes option that suitable habitats for listed species is present, listed species are known to be present on the property, or critical habitat is present, guides the Corps to the determination that the proposed action “may affect” listed species and additional consultation is warranted.

The “may affect” decision concludes with either a “may affect, not likely to adversely affect” determination or a “may affect, likely to adversely affect” determination (adverse effects are likely to occur). The same options are available for designated “critical habitat,” i.e., “not likely to adversely modify” or “likely to adversely modify.” For the most part, the Service includes beneficial effects in the “not likely to adversely affect” category under informal consultation.

The “may affect, not likely to adversely affect” determination is reached after the supporting data leads to the conclusion that the effects of the action are expected to be discountable, insignificant, or completely beneficial. Insignificant effects relate to the magnitude of the impact and should never reach the scale where “take” occurs. Discountable effects are those that are extremely unlikely to occur. Based on best judgment, a person would not (1) be able to meaningfully measure, detect, or evaluate insignificant effects or (2) expect discountable effects to occur.

The “may affect, likely to adversely affect” determination triggers the need for formal consultation and concludes with the Service’s “Biological Opinion.” The Biological Opinion includes the Service’s evaluation of the proposed action on the listed

species and determines if the action will jeopardize the continued existence of the species. For non-jeopardy opinions, the Biological Opinion includes the amount of “incidental take” that may result from the action and the reasonable and prudent measures and terms and conditions the Service believes are necessary to minimize the amount of “incidental take.” For jeopardy opinions, the Biological Opinion also identifies reasonable and prudent alternatives, if any, that the Service believes will avoid jeopardizing the species.

The Service assumes that suitable habitats within the historical range still supports listed species. In the SLOPES flowchart, two options are available to assess suitable habitat issues. The first option (option a) provides for the use of species-specific surveys of the property to determine the presence or absence of listed species in suitable habitats. The second option (option b) assumes that suitable habitats supports listed species. In option a, species-specific surveys have been developed by the Service or have been adopted from other resource agencies and are available for many listed species. The species-specific survey protocols are the minimum levels of effort the Service believes are necessary to determine the presence or absence of the listed species on the project and in the project area. Suitable habitats on the property may not be the nesting/denning sites of the species in question, but could be part of the foraging habitat, which is considered by the Service as occupied, because the habitat fulfills part of the species life history needs.

If the species-specific survey protocols do not detect the presence of listed species, then a “may affect, not likely to adversely affect” determination may be reached. To receive concurrence with this determination from the Service, supporting data documenting the level of survey effort in suitable habitats must be provided as well as the data needs discussed previously for the “no effects” concurrence request.

Upon receipt of the request and the supporting data, the Service will review the analysis and may provide concurrence with the “may affect, not likely to adversely affect” determination. The supporting documentation needs to include all components of the data identified in each of the survey protocols (i.e., data sheets, transect lines, weather conditions, duration and time of surveys, etc.). However, if the species-specific surveys detect

the presence of listed species, then a “may affect” determination is appropriate and the Corps is directed to the “Species Tool Box.”

For the suitable habitat scenario, the second option (option b) allows the Corps to assume that suitable habitats supports listed species and directs the procedure to the Species Tool Box. The SLOPES flowchart also provides direction for projects where listed species presence is known and/or critical habitat is present. In these situations, the procedure is again directed to the Species Tool Box.

Species Tool Box

The Species Tool Box is a series of species-specific fact sheets, report content guides, survey protocols, species assessment guides, and monitoring protocols that the Service believes will assist the Corps in minimizing adverse effects to listed species and adverse modifications to critical habitat. In many situations, the recommendations in the guides and protocols, if incorporated into the proposed Federal action, may allow the Corps to determine that the project “may affect, but is not likely to adversely affect” the species or “adversely modify” critical habitat.

As an example of how the Species Tool Box should work, take for instance a project that has a listed species present on the site and the project proposes to impact the occupied habitat. The Species Tool Box provides a recommendation to modify the project to avoid impacting the occupied habitat. The incorporation of this recommendation into the project would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the Corps “may affect, not likely to adversely affect” determination.

Another example of the use of the Species Tool Box is in a project that has a listed species present on the site and the project proposes to impact the occupied habitat. However, surveys of the habitat have noted that the habitat has been physically altered by exotic species invasion, lack of fire, or other anthropogenic actions. These alterations have produced

on-site habitat conditions resulting in marginally suitable habitat for the survival and propagation of the listed species. Through project redesign, the planned action has avoided impacting a substantial portion of the listed species habitat, however some habitat loss will still occur. The project proposes on-site habitat enhancements and management actions that provide habitat quality improvements, which balance losses of small amounts of marginally suitable habitat. Because of the habitat improvements proposed, the potential for adverse effects of the action are expected to be discountable, insignificant, or completely beneficial and would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the “may affect, but is not likely to adversely affect” determination. The supporting data needs to include documentation of habitat preservation, conservation easements or reservations in the deeds, and a monitoring program of the success of the enhancement actions.

The last example for the use of the Species Tool Box provides the scenario where the recommendations assist the Corps in developing alternative actions and modifications to the proposed action minimizing adverse effects to listed species or critical habitats. In this instance, “take” of a listed species or “adverse modification” of critical habitat will still occur and formal consultation with the Service is required. The “Species Tool Box” in this situation is an integral component in minimizing adverse effects from the proposed action.

When a request is received for formal consultation, the Service will provide within 30 days, acknowledgment that formal consultation has begun or that the Service believes that additional data are needed before formal consultation can begin. Formal consultation concludes 90 days following receipt of the initial request or following receipt of the additional data. An integral part of the initial data submittal is an analysis of how the action may affect listed species. This analysis needs to also include an estimation of the extent of take. The Biological Opinion is completed within 45 days following conclusion of formal consultation. The additional data, as defined in 50 CFR 402.14(c), is the best scientific or commercial data available that would assist the Service in

formulating its Biological Opinion and is not to be a request for a special research project.

To assist in the preparation of the “may affect” analysis for listed species, the Service has prepared an analysis guideline as part of the Species Tool Box. The guideline also includes the typical data needs, which the Service believes are necessary to prepare the Biological Opinion. In projects where take occurs and the take will not jeopardize the continued existence of the species, the Biological Opinion will include an “Incidental Take Statement” quantifying the amount of take for the project and the non-discretionary reasonable and prudent measures and terms and conditions that are necessary to minimize take. The terms and conditions will also include monitoring and reporting requirements necessary to document the Federal action and its effects on listed species. The completion of the Biological Opinion concludes the formal consultation for the Federal agency action.

In general, the process described above is also applicable to critical habitat designations. In Florida, critical habitats have been designated for eight species in 50 CFR 17.95. See individual species accounts for boundaries.

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Florida Department of Transportation (FDOT). 1999. Florida Land Use, Cover and Forms Classification System Handbook. Department of Transportation, Surveying and Mapping, Geographic Mapping Section. Third Edition.

U.S. Fish and Wildlife Service (Service). 1999. South Florida multi-species recovery plan. Atlanta, Georgia. 2172 pp. http://verobeach.fws.gov/Programs/Recovery/vbms5.html

Standard Local Operating Procedures for Endangered Species
Audubon's Crested Caracara
June 28, 2002 Draft
USFWS South Florida Ecological Services Office

The Standard Local Operating Procedures for Endangered Species (SLOPES) for Audubon's crested caracara provides a tool to assist the user in determining if an action, *i.e.,* a Federal permit, a Federal construction project, or other such action, may adversely affect crested caracaras. The SLOPES for Audubon's crested caracara provide the user with a stepwise process to determine if the proposed action will affect caracaras, what effect will the action have on caracaras, and options available that may avoid or minimize the action's effects to caracaras.

The Fish and Wildlife Service (Service) encourages Federal agencies to utilize the guidelines set forth in the Service's *Habitat Management Guidelines for Audubon's Crested Caracara in Central and Southern Florida* (caracara guidelines) (Service 2002a) for any action they propose that may have an affect on caracaras. In addition, the *South Florida Multi-Species Recovery Plan, Volume I: the Species* (Service 1999) and the *Recommended Management Practices and Survey Protocols for Audubon's Crested Caracara (Caracara cheriway audubonii)* (Morrison 2001) provide a synopses of Audubon's crested caracara ecology.

In evaluating project effects to caracaras in Florida, the Service views all primary and secondary protection zones as 300 meters (985 feet) and 2,000 meters (6,600 feet) outward from the nest tree, respectively (Service 2002a). Some activities not recommended to occur within the primary zone may be allowed if data are available to support their implementation. Modifications of both the primary and secondary zone activity restrictions are reviewed and decided on a case-by-case basis.

SLOPES for Caracaras Flowchart Guide (see Figure 1)

As with the "SLOPES Process" flowchart, the first step is to require project specific information, which generally includes a project description, habitat maps, project location, and county. On the project maps, determine the boundaries of the project and a 6,600-foot buffer surrounding the property. The reason for

the 6,600-foot radius is that the caracara guidelines identify a primary zone of 985 feet and a secondary zone of 6,600 feet. To identify off-site primary and secondary zones that may overlap onto the property, the Service has determined the center point of a 6,600-foot circular secondary zone as the furthest point that would allow for overlap of an off-site territory onto the property.

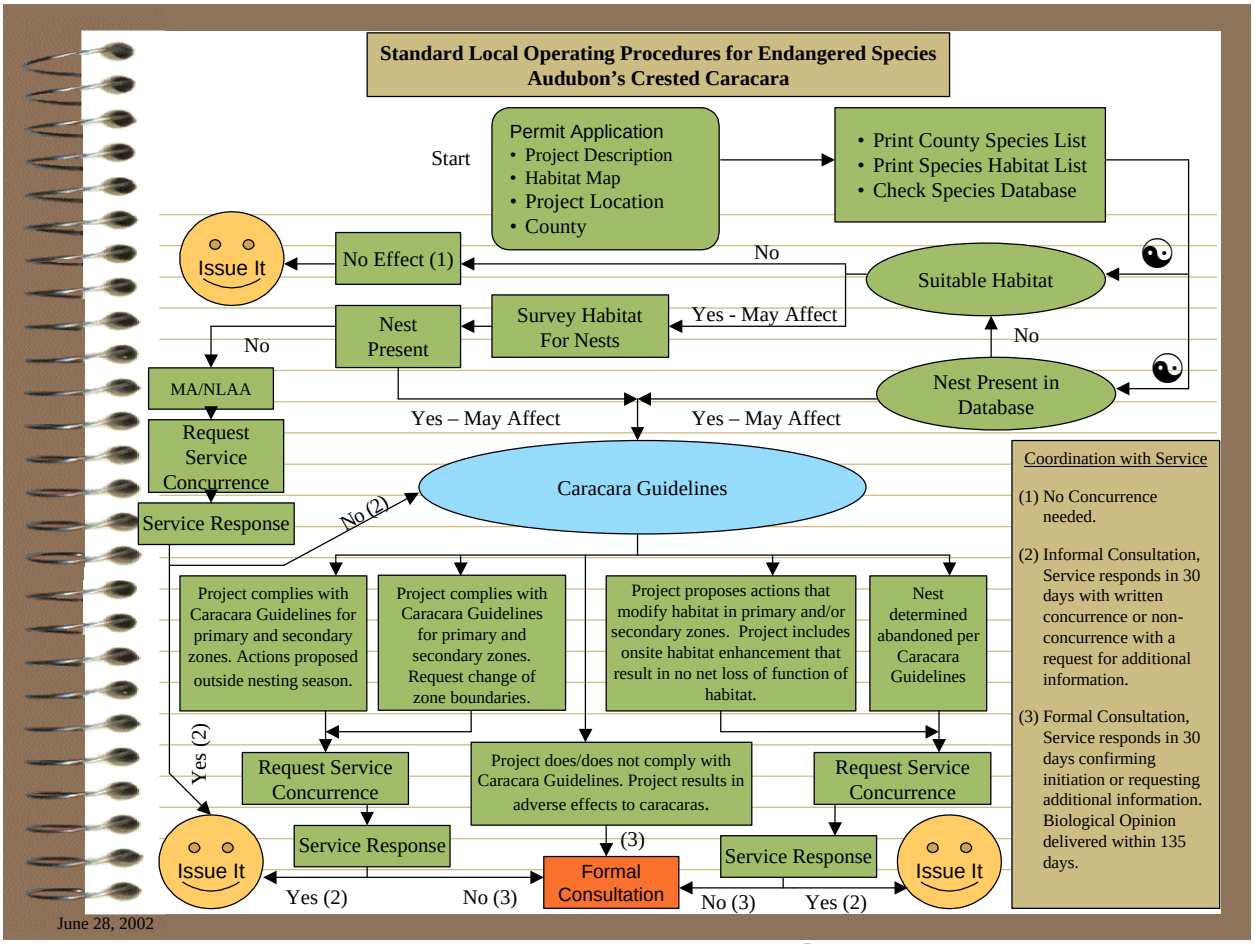

Figure 1 SLOPES for Caracaras Flowchart Guide

The next step is to map the vegetative communities present on the property and in the property buffer area using one of the community profile guides referenced in the "SLOPES Process" narrative. Also, a review of caracara nests records available from the Florida Natural Areas Inventory database or databases maintained by the Service or other organizations needs to be conducted to identify known nests locations.

Nest Present/Suitable Habitat Present - Yes/No

The SLOPES flowchart provides yes/no options for presence or absence of nests and suitable habitat. If no nests are recorded in the databases and no suitable habitat is present, then the Corp may make the determination that the project will have “no effect” on caracaras and can proceed with the Federal action. If desired, the Corps can request a concurrence letter from the Service.

If suitable habitat is present in the project area and no recorded nests, the Service presumes that suitable habitat is occupied and would result in a determination of “may affect” for the listed species. The option provided in the SLOPES for caracaras flowchart recommends surveys of suitable habitat. For this purpose, suitable habitat for caracaras includes wet and dry prairies, with scattered saw palmetto, scrub oaks, or cypress, and improved and semi-improved pastures and range lands. Heavily forested communities are not considered suitable habitat for caracaras.

Breeding activity can occur from September through June with the primary season being November through April. Peak egg laying occurs from late December through early February (Morrison 1999). The post-fledging dependency period is approximately 8 weeks. Therefore, surveys for territory occupancy or to find new breeding pairs are best conducted during the months of January, February, March, and April when nesting within the overall population is at its peak and adults are most likely feeding nestlings (Morrison 2001). Since caracaras are most sensitive during the nest building, incubation, and early stages of the nesting cycle, surveys made earlier than January, *i.e.* December, may unduly disturb the birds and result in nest abandonment. Therefore, the Service does not recommend surveys during the month of December, due to the birds' sensitivity to disturbances during nest building and early periods of incubation.

When surveying for caracara nests in areas where the nest site is not known, observers should search all freestanding palm trees, cabbage palm hammocks and other tree groupings once a day for 3 consecutive days. The 3-day search should be repeated again in 2 weeks and again in 4 weeks. Generally, three observation periods are sufficient to assess caracara presence,

territory size, and population distribution. Note the locations, with GPS coordinates on the site survey maps.

If the surveys do not detect caracara nests, then a “may affect, not likely to adversely affect” determination may be reached. To receive concurrence with this determination from the Service, supporting data documenting the level of survey effort in suitable habitat must be provided as well as the project description, the project area habitat map, the text descriptions of these habitats, and the reason for the determination, *i.e.,* nest surveys of suitable habitats did not detect caracara nests.

May Affect Determination

If the surveys detected caracara nests or the database searches show the presence of nests, then the determination is “may affect” and further consultation with the Service is warranted and the Corps is directed to the caracara guidelines. The caracara guidelines provide a series of recommended restrictions for activities in the primary and secondary zones both during nesting season and outside the nesting season. These recommendations are the basis for the Service’s concurrence with “no effect,” “may affect, not likely to adversely affect,” “may beneficially affect,” and “may affect, likely to adversely affect” determinations. The flowchart provides five “may affect” scenarios for consultations, with four providing for “may affect, not likely to adversely affect” determinations, and the fifth requiring formal consultation.

Project Complies With Caracara Guidelines - Construction Outside Nesting Season.

The first scenario provides the least amount of technical review. In this scenario, the project provides for full restriction of intrusive actions in the primary (985 feet) and the secondary zones (6,600 feet), with any acceptable land uses in the primary and secondary zones occurring outside the nesting season. Primary zone restrictions are listed in the caracara guidelines and generally include the following types of land use changes: removal of pasture, removal of natural or man-made wetlands within pastures, removal of nest trees, removal of protective cover for fledged chicks, no construction of any buildings, roads, powerlines or canals, no changes in current land management, and no use of chemicals harmful to wildlife.

The primary zone is set aside by deed restriction, easement, or other protective covenant as an environmentally sensitive area. During the nesting season, unauthorized human entry is restricted and helicopter or fixed-wing flyovers within 500 feet vertical and 1,000 feet horizontal are prohibited. The nest and the nest tree are protected by both Federal and State law and removal or other means of physical damage is prohibited year-round. However, during the non-nesting season, exotic species control, normal agricultural operations, and other wildlife enhancement actions may be permitted in the primary zone.

Restrictions in the secondary zone as listed in the caracara guidelines include: restrictions on new construction activities, including vehicles traffic, equipment storage, material storage, and earth stockpiling, no new commercial or industrial sites, no multi-story buildings, no high density housing developments or apartment complexes, no removal of cover vegetation or trees, no conversion of pasture and wetland habitats to row crops, sugarcane, citrus groves, pine plantations, or hardwood forest, and no use of chemicals harmful to wildlife. Routine agricultural practices are not restricted. Again, these restrictions should be assigned by deed restrictions, easements, or other protective covenants.

The incorporation of these primary and secondary zone designations and prohibitions into land use restriction documents and provided as a component of a caracara management plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” caracaras and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Project Complies With Caracara Guidelines - Construction Outside Nesting Season - Request Changes of Primary and Secondary Zone Boundaries.

This option provides guidance to the Corps for projects where the proponent is requesting modification of the caracara guideline’s recommended dimensions for the primary and secondary zones. Modifications of the primary and secondary zone boundaries are viewed on a site-specific, project-specific basis and are based on the existing habitat qualities in the primary and secondary zones and the flight and feeding patterns of the

caracaras. In order to support a request to modify the dimensions of the zones, data are necessary on the vegetative community profiles in each of the zones, the flight patterns of the caracaras, the available foraging areas, and foraging routes. The proponent providing the data must include a biological evaluation of the monitoring data and why the proposed modifications would not adversely affect the nesting caracaras. This information is incorporated as a component of the caracara management plan. If the data in the caracara management plan biologically supports the proponents request to modify the primary and secondary zones, the Corps may make the determination that the project “may affect, but is not likely to adversely affect” caracaras and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence. However, the Service believes that there are very few circumstances that biologically justify modifications of the primary zone.

Project proposes actions that modify habitat in primary and/or secondary zones. Project includes onsite habitat enhancement that result in no net loss of function of habitat.

This option provides guidance to the Corps for projects where the proponent is proposes modifications to habitat in the primary and/or secondary zones. Normally, such a request would be considered as a “take” issue by the Service and would require formal consultation. For instance, surveys of the habitats within the territory of a resident pair of birds have identified that the habitat has been physically altered by exotic species invasion, lack of fire, or other anthropogenic actions. These alterations have produced conditions onsite, either in the primary or secondary zones, that have resulted in marginally suitable habitat for the survival and propagation of caracaras. The planned action proposes land use changes to these marginally suitable habitats or to suitable habitats in the territory. The project also proposes onsite habitat enhancements and management actions that provide habitat quality improvements that balance losses of small amounts of marginally suitable habitat onsite. The incorporation of these recommendations into the project and documented in a caracara management plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide

concurrence with the “may affect, but is not likely to adversely affect” determination. The management plan, in this scenario, also needs a monitoring program to document the success of the enhancement actions.

Nest Abandoned or Blown Down

This “may affect” scenario provides guidance to the Corps in assessing adverse effects to caracara nests that may have been abandoned or blown down during storm events. Documented caracara nests are protected both by Federal and State laws. In situations, where nests are blown down or damaged during storm events, the caracaras will usually rebuild the nest during the next nesting season in the same tree or in an adjacent tree. In certain circumstances, several years may past before a new nest is constructed. Caracaras will also abandon a nest if the basic physical and biological parameters necessary for survival of the species are lost.

To evaluate such situations, the caracara guidelines provide recommendations that a nest site be protected for no less than 3 years for blown down nests and no less than 3 years for abandoned nests.

The incorporation of these recommendations into the project and documented in the caracara management plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” caracaras and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Formal Consultation

The fifth “may affect” scenario in the SLOPES for caracaras flowchart addresses the circumstances where an action results in a “may affect, likely to adversely affect” determination for caracaras. In these situations, the project proponent has proposed actions that because of a variety of project-specific circumstances either cannot be achieved during the non-nesting season, require intrusion into the primary zone, or other actions that will result in adverse effects to either the eggs in the nest, the nestlings, the nest tree, the primary zone or the secondary zone. In these situations, formal consultation is

required with the Service. The importance of the caracara guidelines in this situation is in determining the options that may be available to minimize the proposed action's adverse effects to caracaras and options that may be available to reduce the amount of incidental take. Actions that may be appropriate to minimize project-specific effects could include habitat enhancement actions, muffling of equipment, less intrusive constructions methods, and other project specific recommendations. In this scenario, the Service recommends early consultation to identify issues and options available to reduce the project's adverse effects to caracaras.

As discussed in the SLOPES Process, when a request is received for formal consultation, the Service will provide within 30 days, acknowledgment that formal consultation has begun or that the Service believes that additional data are needed before formal consultation can begin. Formal consultation concludes 90 days following receipt of the initial request or following receipt of the additional data. An integral part of the initial data submittal is an analysis of the manner in which the action may affect listed species. This analysis needs to also include an estimation of the extent of take. The Biological Opinion is completed within 45 days following conclusion of formal consultation. As defined in 50 CFR 402.14(c), the additional data is the best scientific or commercial data available that would assist the Service in formulating its Biological Opinion and is not to be a request for a special research project.

Reports

Biological Assessment/Biological Evaluation Report.

In general, the report should include a project description (proposed action and defined project area), project habitat descriptions, effects of the proposed action on the species, conservation measures to minimize effects to the species, and a conclusion (effects determination). The report should also include the survey protocol, survey data sheets, and primary and secondary zones of the nesting caracaras, if caracaras are present. If habitat preservation and enhancements are proposed, the report needs to include a habitat monitoring component and a proposed land preservation conservation easement. Refer to the Service's *Outline Example for a Biological Assessment or a Biological Evaluation* (2002b) for a more detailed discussion of

report requirements, format, explanations of common ESA questions, and level of detail needed in the report.

Caracara Management Plan

A caracara management plan is necessary when a proponent proposes actions that may affect caracaras. The plan addresses primary and secondary zone issues and compliance with the caracara guidelines. The plan includes any proposed monitoring and mitigation, baseline surveys, and actions proposed to minimize adverse effects to caracaras. The caracara management plan can be a component of the Biological Assessment/Evaluation.

The management plan includes a discussion of project effects to the species and should include the following components.

All projects should be carefully considered on a case-by-case basis. Consider the following when assessing project effects to caracaras:

What is the level of use of the project area by caracaras? You may need to conduct surveys.

How is the area used? Why are caracaras there? Are they transient, foraging, perching, roosting, nesting?

What effect will the project have on the caracaras primary food stocks and foraging areas in all areas influenced by the project?

What actions are proposed to minimize potential effects to caracaras; include baseline monitoring, construction monitoring, and site enhancement actions, if any.

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Standard Local Operating Procedures for Endangered Species
Bald Eagles
June 16, 2003 Draft
USFWS South Florida Ecological Services Office

The Standard Local Operating Procedures for Endangered Species (SLOPES) for the bald eagle provides a tool to assist the user in determining if an action, i.e., a Federal permit, a Federal construction project, or other such action, may adversely affect bald eagles. These procedures provide the user with a stepwise process to determine what effect the action will have on eagles and options available that may avoid or minimize the action's effects to eagles.

The Fish and Wildlife Service (Service) encourages Federal agencies to utilize the guidelines set forth in the "Habitat Management Guidelines for the Bald Eagle in the Southeast Region" (Habitat Management Guidelines) (Service 1987) for any action they propose that may have an effect on bald eagles. Another useful document, when dealing with power line issues is the "Suggested Practices for Raptor Protection on Power Lines, the State of the Art in 1996" (APLIC 1996). The "South Florida Multi-Species Recovery Plan" (Service 1999) provides a synopsis of bald eagle ecology in this area.

The bald eagle SLOPES flowchart can be found in Figure 1. The first step requires project-specific information that includes a project description, habitat maps, and project location. On the project map, determine the boundaries of the project and a 457-m (1,500 ft) wide buffer surrounding the project boundaries. In evaluating project effects to the bald eagle in south Florida, the Service regards the primary protective zone as 229 m (750 ft) and the secondary protection zone as 457 m (1,500 ft) surrounding the nest tree (Service 1998). The buffer identifies the area where the primary and secondary protective zones of a bald eagle nest might overlap with project activities.

Suitable habitat for bald eagles is forested canopies that are within 3 km (1.9 mi) of open water, such as borrow pits, lakes, rivers, and large canals. Suitable nest sites also include utility and communication transmission towers. Nesting habitat comprises a nest tree, perch, and roost sites, and adjacent high-use areas, but usually does not include foraging areas.

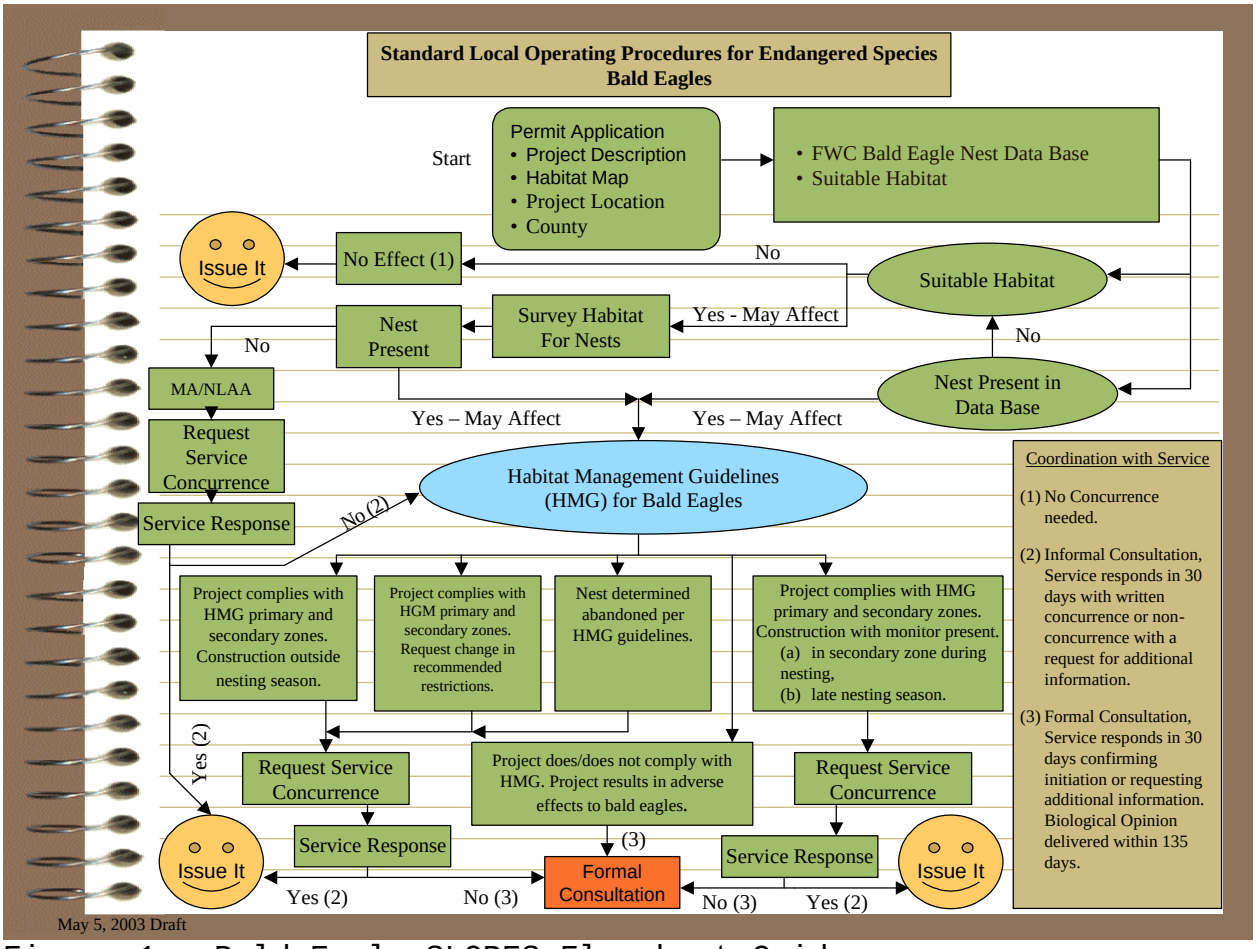

Figure 1. Bald Eagle SLOPES Flowchart Guide

The active nest, perch, roost sites, and use areas around the nest, comprise the nesting territory. Most eagles select nest trees that are larger and taller than surrounding trees, except in extreme southern Florida where nests are typically located in mangrove snags (Service 1999). Forest stands containing the nest site are usually multi-layered, mature, or old-growth stands. Nests are usually positioned below the treetop in live conifers, although many tree species have been used for nesting. The structure of the tree appears to be more important to nesting eagles than the tree species. In south Florida, nests are often in the ecotone between forest and marsh or water, and are constructed in dominant or co-dominant living pines (*Pinus* spp.) or bald cypress (*Taxodium distichum*) (McEwan and Hirth 1979). About 10 percent of eagle nests are located in dead pine trees, while 2 to 3 percent occur in other species, such as Australian pine (*Casuarina equisetifolia*) and live oak *(Quercus*

virginiana). The stature of nest trees decreases from north to south (Wood et al. 1989) and in extreme southwest Florida eagles nest in black (*Avicennia germinans*) and red mangroves (*Rhizophora mangle*), half of which are snags (Curnutt and Robertson 1994). Nest trees in south Florida are smaller and shorter than reported elsewhere; however, comparatively they are the largest trees available. In this area, bald eagles breed and nest during the winter. Contrary to changes in habitat use exhibited by northern bald eagle populations, eagles in the south do not substantially alter habitat use throughout the year.

The Florida Fish and Wildlife Conservation Commission's (FWC) conducts annual aerial surveys for bald eagle nests throughout Florida. Bald eagle nests are found throughout the area (Figure 2). Known bald eagle nest locations can be found at the FWC web site http://www.wildflorida.org/eagle/eaglenests. Nest locations are approximate so some nest sites might require nest surveys.

Although bald eagles and nest trees are usually very easily observed during the annual FWC eagle nest surveys, the recruitment of young eagles into the adult breeding population and existing nest locations in visually restrictive tree canopies may result in an unrecorded nest in suitable habitat. To determine if unrecorded nests are present in the project area and buffer, the Service recommends that all suitable habitat, any forest canopy within 3 km (1.9 mi) of open water, be inspected for nesting bald eagles.

If no nests are reported in the database and no suitable habitat is present within the project area and buffer, then a determination that the project will have "no effect" on bald eagles can be made and other permitting action can proceed. If desired, a concurrence letter from the Service can be requested.

May Affect Determinations

If suitable habitat is present in the project area and no nests are reported in the FWC database, the Service presumes that suitable habitat is occupied and a determination of "may affect" for the bald eagle would result then a nest survey should be conducted.

If the nest surveys do not detect bald eagle nests, then a “may affect, not likely to adversely affect” determination can be reached. To receive concurrence with this determination from the Service, supporting data in a biological evaluation report (see below for details) documenting the level of survey effort in suitable habitat and the reason for the determination, i.e., surveys of suitable habitats did not detect bald eagle nests.

If the surveys detect a bald eagle nest or the FWC database shows a nest present within the property and buffer, then a “may affect, likely to adversely affect” determination is made and further consultation with the Service is warranted. The Habitat Management Guidelines (Service 1987) provide a series of recommended activity restrictions in the primary and secondary zones during both nesting and non-nesting season. These recommendations are the basis for a Service concurrence with “may affect” determination. Five “may affect” scenarios are provided below for consultations. Four provide for “may affect, not likely to adversely affect” determinations, and the fifth for a “may affect, likely to adversely affect” determination requiring formal consultation.

Project Complies With Habitat Management Guidelines
Non-nesting Season Construction

The first scenario requires the least amount of technical review. In this scenario, the project provides for full restriction of intrusive actions in the primary and secondary zones, with any acceptable land uses occurring outside the nesting season. Primary zone restrictions include no residential, commercial, or industrial development, no tree cutting or logging, no construction and mining, and no use of chemicals toxic to wildlife. The primary zone is set aside by deed restriction, easement, or other protective covenants as an environmentally sensitive area. During the nesting season, unauthorized human entry is restricted and helicopter or fixed-wing flyovers within 152 m (500 ft) vertically and 305 m (1,000 ft) horizontally are prohibited. The nest and the nest tree are protected by both Federal and State law and removal or other means of physical damage is prohibited year-round. However, during the non-nesting season, exotic species control and other wildlife enhancement actions may be permitted in the primary zone.

Restrictions in the secondary zone include no new commercial or industrial sites, no multi-story buildings, no high density housing developments or apartment complexes, no construction of new roads, trails, or canals that would facilitate access to the nest, and no use of chemicals toxic to wildlife. Again, these restrictions need to be assigned by deed restrictions, easements, or other protective covenants.

During the non-nesting season, activities not specifically restricted above for the secondary zone that are acceptable land uses include single family residential developments, parks, trails, etc.

The incorporation of these primary and secondary zone designations and prohibitions into land-use restriction documents and provided as a component of a Bald Eagle Management Plan would allow a determination that the project “may affect, but is not likely to adversely affect” the bald eagle and concurrence requested from the Service.

Project Complies With Habitat Management Guidelines
Non-nesting Season Construction
Modifications of Primary and Secondary Zone Areas

The Service believes that there are very few circumstances that biologically justify modifications of the primary zone. Some activities not recommended to occur within the primary zone may be allowed if data are available to support their implementation. This option provides guidance for projects where a modification of the recommended primary and secondary zones is requested. Modifications of the primary and secondary zone boundaries are viewed on a site-specific, project-specific basis and are based on the existing habitat qualities in these zones and the flight patterns of the eagles. In order to support a request to modify the dimensions of a zone, data are necessary on the habitat types in each of the zones, flight patterns of the eagles, available foraging areas, and foraging routes. A biological assessment of this data must be provided with an explanation of why the proposed modifications would not adversely affect the nesting eagles. This information should be incorporated as a component of the Bald Eagle Management Plan. If the data in the Bald Eagle Management Plan biologically supports a request to modify the primary and secondary zones, a

determination that the project “may affect, but is not likely to adversely affect” the bald eagle can be made and concurrence requested from the Service.

Nesting Season Construction
Secondary Zone Only

This “may affect” scenario provides for a project with the same site parameters as the first scenario, including the restrictions in the primary and secondary zone and the incorporation of the land development covenants into the project. The difference in this scenario, is that project construction activities are proposed in the secondary zone during the nesting season. In general, construction in the secondary zone during the nesting season is viewed by the Service as a “may adversely affect” for the species and may result in “take,” which would require formal consultation. However, based on past nest monitoring reports provided to the Service that evaluated nesting bald eagle responses to various types of disturbances and noise levels, the Service found that bald eagles appear to be tolerant of new disturbances that mimic existing levels of disturbance. Based on these monitoring reports, the Service believes that passive construction activities, i.e., surveying, landscaping, and other similar types of construction actions that do not generate high levels of noise, vibration, or dust, may be conducted in the secondary zone. Because a wide range of construction activities could be considered passive or active and the levels of disturbance can vary greatly from site to site, the Service believes that the potential for adverse effects is still present. To assist in determining when an action approaches adverse effects and provide the Service with reasonable assurance that the potential for “take” from the construction action in the secondary zone during nesting does not occur, the Service requires that a site monitor be present during construction. The monitor’s responsibilities and reporting requirements are discussed under the Bald Eagle Monitoring Report below.

The incorporation of the primary and secondary zone designations and prohibitions into land-use restriction documents, the commitment to provide a site monitor during passive construction actions in the secondary zone during the nesting season, and the preparation of a Bald Eagle Management Plan that documents the designations, prohibitions, and monitoring, would allow a

determination that the project “may affect, but is not likely to adversely affect” the bald eagle and concurrence requested from the Service.

Late Nesting Season Construction

This “may effect” scenario applies to a project where start of construction is proposed in the secondary zone prior to the end of the nesting season. In this situation, construction would be allowed provided the fledglings have left the nest and are capable of sustained flight. To determine if the fledglings have left the nest and are capable of flight, site monitoring is required. Specific monitoring requirements are discussed under the Bald Eagle Monitoring Report below. Documentation that the fledglings have left the nest and are capable of sustained flight would allow a determination that the project “may affect, but is not likely to adversely affect” the bald eagle and concurrence requested from the Service.

Nest Abandoned, Blown Down, or Taken Over by Other Raptors

This “may affect” scenario provides guidance in assessing adverse effects to bald eagle nests that may have been abandoned, blown down during storm events, or taken over by other nesting raptors. Documented bald eagle nests are protected both by Federal and State laws. In situations, where nests are blown down or damaged during storm events, the eagles will usually rebuild the nest during the next nesting season in the same or adjacent tree. In certain circumstances, several years may past before a new nest is constructed. It has been observed that bald eagle nests may be taken over by other raptors that precluded the eagles from nesting in their historical locations. Also, it has been observed that in these situations, if the raptors vacate the nest, the eagles will again occupy the site. Bald eagles will also abandon a nest if the basic ecological functions necessary for survival are lost. The Service does not consider a nest abandoned until it has been documented so for five consecutive breeding seasons.

To evaluate such situations, the Habitat Management Guidelines (Appendix A) provide recommendations that a nest site be protected for no less then two years for blown down nests and five years for abandoned nests; no recommendations are made for nests occupied by other raptors. The Service believes that

consistency in the review of these issues is important. Throughout the Habitat Management Guidelines the discussions center around the importance of the nest site, not the nest itself, to the survival and well-being of bald eagles. To provide consistency the Service believes that the guidelines for a lost nest or nest tree should be applied to a blown down nest and a nest occupied by other raptors and the guidelines for an abandoned nest be applied only to a documented non-use nest site where a nest still exists.
The incorporation of these recommendations into the project and documented in the Bald Eagle Management Plan would allow a determination that the project “may affect, but is not likely to adversely affect” the bald eagle and concurrence requested from the Service.

Formal Consultation

The fifth “may affect” scenario addresses the circumstances where an action results in a “may affect, likely to adversely affect” determination for the bald eagle. In these situations, the proposed actions because of a variety of project-specific circumstances either cannot be achieved during the non-nesting season in the secondary zone, require intrusion into the primary zone, or other actions that will result in adverse effects to either the eggs in the nest, the nestlings, the nest tree, or the primary zone. In these situations, formal consultation is required with the Service. The Habitat Management Guidelines (Service 1997) are essential in determining the options that may be available to minimize adverse effects to eagles and reduce the amount of incidental take. Activities that may be appropriate to minimize project effects could include habitat enhancement actions, muffling of equipment, less intrusive constructions methods, and other project specific recommendations. In this scenario, the Service recommends early consultation to identify issues and options available to reduce the project’s adverse effects to bald eagles.

When a request is received for formal consultation, the Service will provide within 30 days, acknowledgment that formal consultation has begun or that the Service believes that additional data are needed before formal consultation can begin. Formal consultation concludes 90 days following receipt of the initial request or following receipt of the additional data. An integral part of the initial review package is an analysis of

the manner in which the action may affect listed species. This analysis needs to also include an estimation of the extent of take. The Biological Opinion is completed within 45 days following conclusion of formal consultation. As defined in 50 CFR 402.14(c), the additional data is the best scientific or commercial data available that would assist the Service in formulating its Biological Opinion and is not to be a request for a special research project.

Report Guidelines

Three documents can help in the preparation of the analysis of actions that may affect the bald eagle.

Biological Evaluation/Biological Assessment Report

Guidelines for this report are found in Appendix A of the SLOPES Introduction and includes the typical data necessary to prepare the Biological Opinion (Service 2002). In general, the report includes a project introduction, proposed action, project habitat descriptions, project effects, recommendations to minimize project effects, and conclusions. More detail is required in a biological assessment report for formal consultation. This document is the basis for determination of effect and needs to include sufficient information to support the determination.

Bald Eagle Management Plan

A management plan is necessary when project actions may affect bald eagles. The plan addresses primary and secondary zone issues and compliance with the Habitat Management Guidelines. The plan includes any proposed monitoring and mitigation, baseline surveys, noise surveys, and actions proposed to minimize adverse effects to bald eagles. The management plan can be a component of the Biological Evaluation/Biological Assessment Report or may substitute if no other listed species are affected by the proposed action. All projects should be carefully considered on a case-by-case basis. Consider the following when assessing project effects to bald eagles:

What is the level of use of the project area by bald eagles? You may need to conduct surveys.

How is the area used? Why are eagles there? Are they transient, foraging, perching, roosting, nesting, etc.?

What effect will the project have on the eagle's primary food sources and foraging area in the areas influenced by the project?

What actions are proposed to minimize potential effects to bald eagles, include baseline monitoring, construction monitoring, and site enhancement actions, if any.

Methods to reduce impacts include conducting the activity out of the nesting season, limiting action to short duration, or using equipment that may reduce levels of noise or disturbing activity such as vibratory pile drivers, muffler systems or rubber mats, and use of a site monitor. Impacts may be different at each site, depending on the individual birds' tolerance, and existing levels of activity.

An outline for the Bald Eagle Management Plan is as follows:

1. Introduction
2. Project Description
3. Project History
4 Existing Environmental Setting
a. Habitat Description
b. Wildlife Description
5. Project Effects (include a discussion of the assessment factors listed in the preceding section)
6. Conclusion and Commitments

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Bald Eagle Monitoring Report

This report is a product resulting from specific monitoring requirements of the Bald Eagle Management Plan and is necessary for actions that have the potential to affect nesting eagles. The key component in the plan is the site monitor. A monitor is a person with knowledge and technical skills sufficient to distinguish between the various types of verbal and physical at-rest and stress displays exhibited by bald eagles. The monitor

is designated by the project to observe bald eagle activity during on-site activities and must have authority to halt ongoing construction, if bald eagle stress displays are observed. Commonly observed non-stress displays include perching, preening, courtship, feeding, nest building, copulation, or incubation. Commonly observed stress displays include alarm calls, screeching, dive bombing, head bobbing, and rapid head turning.

The monitoring report including the raw data should be submitted to the Service within 30 days following work completion. All correspondence with the Service should be copied to both the local and Tallahassee offices of the Florida Fish and Wildlife Conservation Commission for their database (see (Service 1998) for details).

An outline for the monitoring report is as follows:

1. Introduction
2. Project Description
3. Project History
4. Existing Environmental Setting
a. Habitat Descriptions
b. Wildlife Descriptions
5. Monitoring Methodology
a. Literature Review and Agency Coordination
b. Baseline Monitoring Method
c. Noise Level Readings
d. Current Site Activity
6. Results
7. Conclusions

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Standard Local Operating Procedures for Endangered Species
Wood Storks
July 28, 2002 Draft
USFWS South Florida Ecological Services Office

The Standard Local Operating Procedures for Endangered Species (SLOPES) for Wood Storks provides a tool to assist the user in determining if an action, *i.e.,* a Federal permit, a Federal construction project, or other such action, may adversely affect wood storks. The Wood Stork SLOPES provide the user with a stepwise process to determine if the proposed action will affect wood storks, what effect will the action have on wood storks, and options available that may avoid or minimize the action's effects to wood storks.

The Fish and Wildlife Service (Service) encourages Federal agencies to use the guidelines set forth in the *Habitat Management Guidelines for the Wood Stork in the Southeast Region* (HMG) (Service 1990) for any actions they propose that may have an affect on wood storks. The Service has also prepared supplemental guidelines for south Florida that provide additional assistance to the user in addressing species-specific resource questions (Service 2002a). Additional information on the ecology of wood storks can be found in the *South Florida Multi-Species Recovery Plan* (Service 1999), the *Wood Stork Recovery Plan* (1996), and the *Species Profile: Wood Storks on Military Installations in the Southeastern United States* (Mitchell 1999).
In evaluating project effects to wood storks in Florida, the Service considers effects to the colony, the primary zone, the secondary zone, and the core foraging area (CFA) as direct effects and effects to foraging areas outside the CFA as indirect effects. The Service's HMG and supplemental guidelines define the limits for each of the zones and provide guidance in determining what types of actions may produce adverse effects to wood storks and actions that may be implemented to reduce these effects.

For the purpose of the wood stork SLOPES, the Service considers the colony boundary to include all nests and a 100 meter (325 feet) buffer surrounding the nests. The primary zone adds an additional 400 meters to the colony boundary and the secondary zone adds an additional 350 meters to the primary zone boundary. The CFA is a 30-kilometer (18.6 mile) zone surrounding the

colony boundary. The guidelines recommend restrictions in each of the zones that correspond to nesting and non-nesting season cycles. A nesting season cycle averages 115 to 120 days. Nest sites are generally in woody vegetation over standing water, or on islands surrounded by broad expanses of open water. In south Florida, the nesting season is generally from November through May. For central and north Florida, the nesting season is generally from February through August.

The HMG guidelines address primarily effects to the colony, the primary zone, and the secondary zone. The supplemental guidelines incorporate these assessments and also include effect evaluations to the CFA and to the foraging area outside the CFA. General restriction for each of the zones is provided below, however, refer to the HMG and supplemental guidelines for specific details. Compliance with the HMG and supplemental guidelines are the basis for the Service's concurrence with "no effect," "may affect, not likely to adversely affect," "may beneficially affect," and "may affect, likely to adversely affect" determinations.

Colony: a) no entry during nesting season, b) water levels below rookery sufficient to protect rookery from land based predators during nesting cycle, and c) hydrologic cycle provides periodic dry-down of nest colony (outside the active nesting season) sufficient to promote recruitment of new nest trees.

Primary Zone: Year round: a) no vegetation removal, b) no change in hydroperiod, and
c) no construction of building, roadways, towers, powerlines, or canals. Nesting season:
a) no increase or change in human activity above existing levels, b) no increase or change in pattern of livestock management, and c) no aircraft/airboat operation closer than 500 feet of colony. Nuisance species removal and normal maintenance activities may occur outside the nesting season.

Secondary Zone: Year round: a) no alterations in hydrology that might affect hydrology of primary zone and b) no removal of wetlands or woods of potential value to wood storks for roosting and feeding. Nesting season: a) no change in human activity above existing levels. Nuisance species removal and normal maintenance activities may occur outside the nesting season.

Powerline and cell towers: a) less than 200 feet in height - no closer than 1 mile from colony and b) greater than 200 feet in height - no closer than 3 miles from colony.

CFA: Nesting season: a) no change in hydroperiod that affects colony, primary zone, or secondary zone, and b) no change in hydroperiod that reduces or changes the acreage or type of wetlands. Wetland enhancements or nuisance species removal may occur year-round outside the primary and secondary zones. Wetland impacts: a) must provide compensation ratio of 1 to 1 with temporal lag factor, and b) must provide type for type replacement (short hydroperiod, long hydroperiod, forested, etc.).

Year Round Foraging Area: Wetland impacts: a) must provide compensation ratio of 1 to 1 with temporal lag factor and b) recommend type for type replacement.

Wood Stork SLOPES Flowchart Guide (see Figure 1)

As with the “SLOPES Process” flowchart, the first step is to require project specific information, which generally includes a project description, habitat maps, project location, and county. The location of the nearest wood stork colony is also necessary. The location of the colony influences the evaluation of the project’s effects to the colony, the primary zone, secondary zone, and the CFA. Because wood storks are a wetland dependent species, the habitat map needs to also show the wetlands on the property. Wetlands need to be classified as to type and hydroperiod.

Information on the presence of a wood stork colony can be found from a variety of sources. Colony location databases are maintained by the Service, the South Florida Water Management District (SFWMD), the Florida Fish and Wildlife Conservation Commission (FWC), the Florida Natural Areas Inventory, and county and local natural resource agencies. The SFWMD web site is http://www.sfwmd.gov/org/erd/coastal/wading/index.html. The FWC web site is http://wld.fwc.state.fl.us/bba/default.asp.

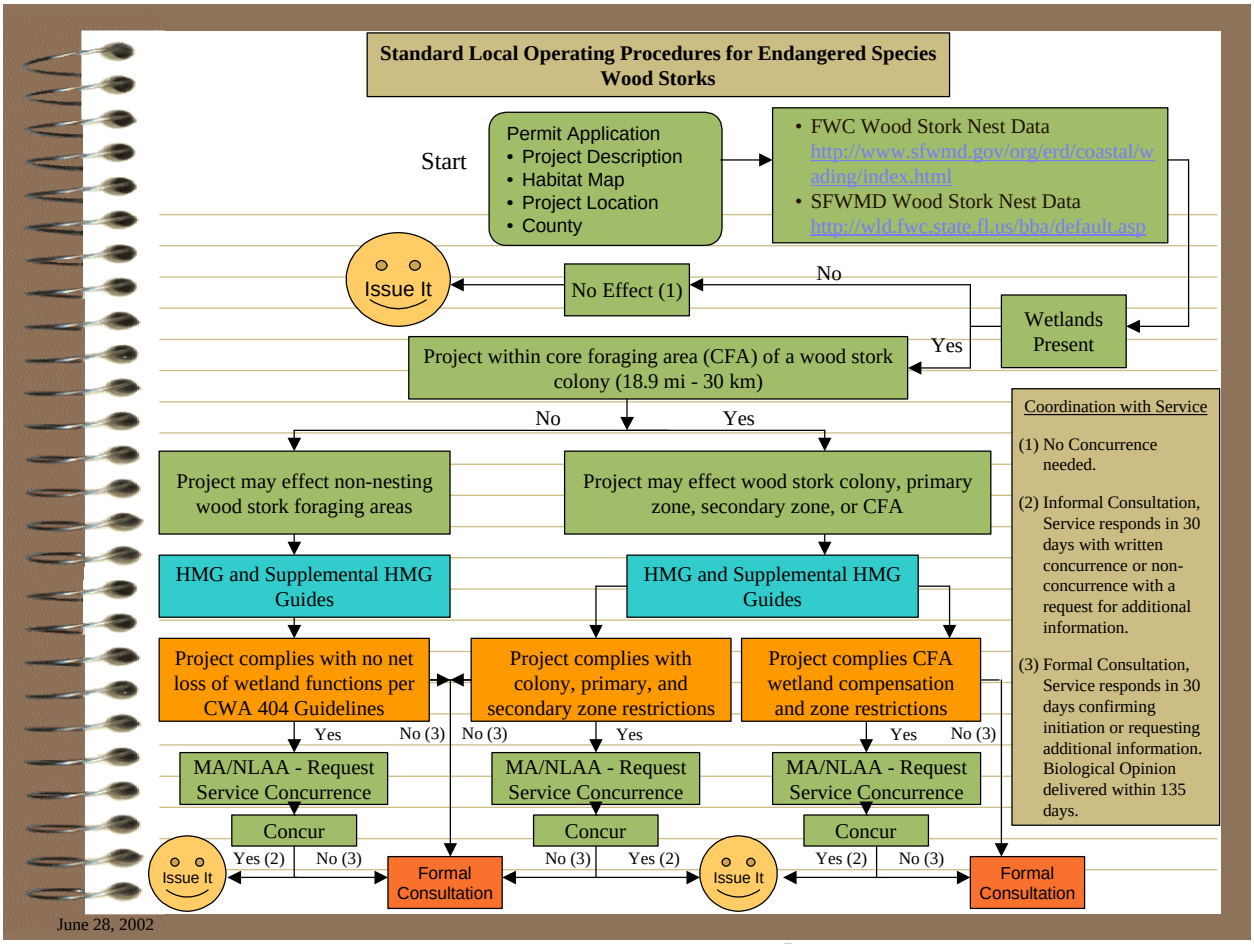

Figure 1. Wood Stork SLOPES Flowchart Guide

Wetlands Present in Project Footprint - Yes/No

With the information gathered, a determination can be made that a) no wetlands are within the project footprint, therefore the project will have no effect to wood storks or b) wetlands are present in the project footprint and further assessment is necessary. If no wetlands are present in the project footprint, then the U.S. Army Corps of Engineers (Corps) may make the determination that the project will have no effect on wood storks and can proceed with the Federal action. If desired, the Corps can request a concurrence letter from the Service.

Wetlands Present, Project Outside the Boundary of the Colony and its CFA -Yes/No

If wetlands (suitable habitat) are present on the property, the determination needs to be made as to rather the project may have an effect on a colony and its CFA or is the project outside the boundary of the CFA. If the project is outside the boundary of the CFA, the Services generally considers the compensation/mitigation requirements of EO 11990: Protection of Wetlands (3 C.F.R 121 (1978)) and/or the avoidance, minimization, and compensation requirements of Section 404 of the Clean Water Act (33 U.S.C. 1344) as acceptable measures to minimize adverse effects to adult foraging wood storks. In this scenario, the Corps may make the determination that the project may affect, but is not likely to adversely affect the endangered wood stork and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Wetlands Present, Project within CFA Boundary

At this point in the wood stork SLOPES process, additional guidance from the HMG and the supplemental guidelines is appropriate and the effects that the project may have on the survival and productivity of the wood stork colony are evaluated. If the project is outside the boundary of the colony and the primary and secondary zones, project effects are primarily related to foraging needs for the colony and include primarily wetland losses and hydrology pattern changes.

CFA Effect Assessments

The evaluation of effects to the CFA must address project-induced changes in wetland hydrology and direct loss of wetlands. In this scenario, loss of wetlands and/or a change in the wetland hydroperiod may adversely affect survival of nestlings and the productivity of the colony. The supplemental guidelines provide measures that may minimize adverse effects to the colony. If wetland alterations occur from the project, the supplemental guidelines recommend wetland compensation at a ratio of 1 to 1 with the inclusion of a temporal lag factor. The compensatory wetlands must be a type for type system, *i.e.*, a short hyroperiod wetland cannot replace a long hyroperiod wetland and vice-versa. A biological assessment that describes

the proposed project, its projected impacts, and measures proposed to minimize adverse effects is recommended.

To assist in the preparation of the biological assessment, the Service has prepared a *Biological Assessment/Biological Evaluation Guideline* (2002b). The Biological Assessment/Biological Evaluation Guideline includes the typical data needs that the Service believes are necessary to evaluate the project effects to listed species. In general, the report includes a project introduction, proposed action, project habitat descriptions, species effects, recommendations to minimize species effects, and conclusions and commitments. This document is the basis for the Corps determination of effects and needs to include sufficient information to support the determination.

In the above scenario, the Service considers projects that comply with the HMG and the supplemental guidelines as having provided acceptable measures that minimize adverse effects to wood storks foraging in the CFA. Upon receipt of the biological assessment, the Corps may make the determination that the project may affect, but is not likely to adversely affect the endangered wood stork and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Colony and Primary and Secondary Zone Assessments

The HMG and supplemental guidelines provide guidance on types of actions that the Service believes may have an adverse effect to wood storks if conducted within the boundaries of the colony, primary zone, and secondary zone. These guides also further define effects that may occur during the nesting season and non-nesting season. If an action is proposed that is restricted during the nesting season but allowed during the non-nesting season, then a project proposed with this stipulation would be viewed by the Service as having provided acceptable measures that would minimize adverse effects to wood storks. These measures would need to be documented in the biological assessment. Upon receipt of the biological assessment, the Corps may make the determination that the project may affect, but is not likely to adversely affect the endangered wood stork and request concurrence from the Service. Upon receipt of the

concurrence request and supporting data, the Service may provide concurrence.

Nesting Season Restrictions

The nesting period for wood storks covers a time frame that encompasses a 10-month window (November through August) and accounts for all nesting cycles for south, central, and north Florida populations. Because a nest cycle initiation and culmination are generally a 110 to 120-day event, refinements of the nesting period may be possible through the use of a site monitor. The site monitor's function is to determine if nesting activity has begun for early nesting season actions and if the fledglings have left the nest and are capable of sustained flight for late nesting season actions.

Early Nesting Season Actions

For early nesting season actions, the monitor's role is to document when courtship and/or nest building activities have began. Once courtship and/or nest building activities commence, construction related actions must cease. In situations where such a project is proposed, the inclusion of the site monitor into the project plan and documented in the biological assessment would provide assurance to the Service that acceptable measures have been implemented that would minimize adverse effects to nesting wood storks. Upon receipt of the biological assessment, the Corps may make the determination that the project may affect, but is not likely to adversely affect the endangered wood stork and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Late Nesting Season Construction

For late season nesting actions, the monitor's role is to document the end of the nesting season and that the fledglings have left the nest and are capable of sustained flight. Sustained flight is documented by defined, smooth flight by young wood storks from the colony to adjacent foraging areas without obvious signs of awkward wing patterns and loss of balance at landings. Sustained flight is documented by a 2-day survey event with the observations concentrated on the young

wood storks. In situations where such a project is proposed, the inclusion of the site monitor into the project plan and documented in the biological assessment would provide assurance to the Service that acceptable measures have been implemented that would minimize adverse effects to nesting wood storks. Upon receipt of the biological assessment, the Corps may make the determination that the project may affect, but is not likely to adversely affect the endangered wood stork and request concurrence from the Service. Upon receipt of the concurrence request and supporting data, the Service may provide concurrence.

Formal Consultation

The formal consultation scenario in the wood stork SLOPES flowchart addresses the circumstances where an action results in a “may affect, likely to adversely affect” determination for wood storks. In these situations, the project proponent has proposed actions that because of a variety of project specific circumstances either cannot be achieved during the non-nesting season, require intrusion into the primary zone, or other actions that will result in adverse effects to either the eggs in the nest, the nestlings, or the colony. In these situations, formal consultation is required with the Service. The importance of the wood stork HMG and supplemental guidelines is in determining the options that may be available to minimize the proposed action’s adverse effects to wood storks and options that may be available to reduce the amount of incidental take. Actions that may be appropriate to minimize project specific effects could include habitat enhancement actions, muffling of equipment, less intrusive construction’s methods, and other project specific recommendations. In this scenario, the Service recommends early consultation to identify issues and options available to reduce the project’s adverse effects to wood storks.

As discussed in the SLOPES Process, when a request is received for formal consultation, the Service will provide within 30 days, acknowledgment that formal consultation has begun or that the Service believes that additional data are needed before formal consultation can begin. Formal consultation concludes 90 days following receipt of the initial request or following receipt of the additional data. An integral part of the initial data submittal is an analysis of the manner in which the action

may affect listed species. This analysis needs to also include an estimation of the extent of take. The Biological Opinion is completed within 45 days following conclusion of formal consultation. As defined in 50 CFR 402.14(c), the additional data is the best scientific or commercial data available that would assist the Service in formulating its Biological Opinion and is not to be a request for a special research project.

Report Guidelines

To assist in the preparation of the analysis of the manner in which the action may affect listed species, the Service has prepared a Biological Assessment/Biological Evaluation Guideline. The Biological Assessment/Biological Evaluation Guideline includes the typical data needs that the Service believes are necessary to prepare the Biological Opinion. In general, the report includes a project introduction, proposed action, project habitat descriptions, species effects, recommendations to minimize species effects, and conclusions and commitments. This document is the basis for the Corps determination of effect and needs to include sufficient information to support the determination.

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Mitchell, W.A. 1999. Species profile: Wood stork (*Mycteria americana*) on military installations in the southeastern United States. Technical Report SERDP-99-2,
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960-3559

August 18, 2000

Colonel James G. May
District Engineer
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 323-0019

Dear colonel May:

The purpose of this letter is to provide to you the final interim Standard Local Operating Procedures for Endangered Species (SLOPES) for conducting consultations between the Fish and Wildlife Service and the Army Corps of Engineers (Corps) for permit applications regarding florida panthers (*Puma* (=*Felis*) *concolor coryi*) pursuant to the Endangered Species Act of 1973 (ESA). Enclosure 1 is a copy of these procedures that have been co-developed by our agencies as a consistent means to conduct section 7 consultations under the ESA. Effective immediately, I am directing my staff to use these procedures when consulting with the Corps.

In a letter dated, July 14, 2000, the Service described the Corps' section 7 responsibilities as the action agency which includes preparing a biological evaluation of the proposed action and working with the permit applicant to avoid and minimize effects where possible (Enclosure 2). Specifically, as required under 50 CFR Part 402.14(c), the Corps must provide an account of the factors considered in reaching its effects determination, including:

1. A description of how the anticipated project-related activities would result in adverse effects to panthers, considering the current baseline; the status of the species and its habitat in the action area; the current extent and adequacy of panther and panther habitat protection; cumulative effects of permit issuance; and any known, unrelated, future, non-federal activities reasonably certain to occur within the action area that are likely to affect the species.

2. A description of any measures considered by the applicant or the Corps to avoid or minimize the adverse impacts identified under # 1 above including a discussion of the reason(s) for including or excluding any measures considered from the project design.

Although any project in the consultation are (see Enclosure 1) may affect panthers, an additional determination (likely or not likely to adversely affect) and project-specific information is required before formal consultation can be initiated as outlined in Enclosures 1 and 2. We anticipate that the Corps will review a number of permit applications that have insignificant, discountable, or no effect on panthers or panther habitat within the delineated panther consultation area. For example, permit

applications within the consultation are that are not used by panthers or that do not increase human disturbance or modify panther habitat will generally not require formal consultation. The biological rationale should clearly be explained in the Corps administrative record to support their effect determination. In all cases, however, it is incumbent upon the Corps to conduct an analysis or adopt an applicant-conducted analysis of the effects of the proposed action on listed species as the basis for determining whether initiation of formal consultation is necessary.

The Corps and the Service have co-developed a number of conservation measures that may be appropriate, on a case-by-case basis, to incorporate into project designs to facilitate compliance with the requirements of the ESA. We encourage the Corps and applicants to use measures and conditions deemed appropriate to avoid and minimize adverse effects and in reaching effects determinations for permit applications that may result in adverse effects to and incidental take of panthers. The Service will be available to discuss appropriate measures for specific project with the Corps and the applicant.

We look forward to continuing to wok with you to uphold our mutual responsibilities under the ESA. We are also available to meet with you to discuss Federal agency responsibilities under section 7(a)(1) of the ESA to develop proactive conservation programs for endangered and threatened species. Should you have any questions regarding the issues referenced in this letter, please contact me. For questions regarding specific projects, please contact me at 561/562-3909 extension 234.

Sincerely yours,

James J. Slack
Field Supervisor

Enclosures (2)

cc:
Assistant regional Director-Ecological Services, FWS, Atlanta, eorgia (Ms. Cindy Dohner)
regional Solicitor, DOI, Atlanta, Georgia (Mr. Mike Stevens)
Solicitor, DOI, Washington, DC (Mr. Jeff Bemstein)
Florida State Supervisor, vero Beach, Florida, FWS
Field Supervisor, Jacksonville FO, FWS
Corps, Jacksonville District, Jacksonville, Florida (Mr. John Hall)
Corps, Jacksonville District, Jacksonville, Florida (Mr. James Duck)

Enclosure 1
April 18, 2000 - Florida Panther SLOPE

U.S. Army Corps of Engineers
Jacksonville District

U.S. Fish and Wildlife Service
South Florida Field Office

Standard Local Operation Procedures (SLOPES) for Section 404 Permits
Florida Panther

As outlined in the final Notice of Issuance and Modification of Nationwide Permits (NWP), dated March 9, 2000 (65 Fed. Reg. 12,818), to provide further assurance that the NWP program complies with section 7 of the Endangered Species Act (ESA), the Jacksonville District of the Corps of Engineers (Corps) has met with local representatives of the U.S. Fish and Wildlife Service (Service) to develop procedures for improving coordination on projects that may affect the Florida panther. The Service and the Corps believe that the standard local operating procedures (SLOPES) are an appropriate way to address section 7 procedures for all classes of activities permitted under Section 404 of the Clean Water Act.

Utilizing best available scientific information, the Service has developed an interim map (attached) which delineates an area within which a proposed project has the potential to affect the Florida panther. Proposed projects requiring a Section 404 permit and occurring in areas designated as "panther consultation area" on the attached map are subject to the requirements of the SLOPE and may require consultation pursuant to section 7 of the ESA.

The Service currently has, in place, a team of experts that is developing new information regarding panther habitat needs and actions necessary for ensuring the survival and recovery of the panther. Information generated by the panther team is expected to assist in instituting new conservation practices and initiatives, enhancing consultation and coordination procedures with state and federal agencies, and in modifying proposed project designs. Upon approval of the team's final product, the interim SLOPE map and procedure will be supplanted by the newer map and additional SLOPES, if appropriate.

The Corps seeks to reduce the possibility of potential effects to the Florida panther by implementing the following interim SLOPES for Section 404 permits:

1. The Corps will use the attached map developed by the Service to identify property that is within possible panther habitat. The Corps and the Service agree that the map constitute the best and most recent information available regarding existence and location of the Florida panther.[1]

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[1]Because panther habitat maps are in the process of revision, the procedures outlined herein should be considered interim SLOPES to be used until the Service develops revised habitat maps during 2001. When revised habitat maps become available, the Corps and the Service will reevaluate the SLOPES outlined herein. In addition to the attached map, a GIS data layer map has been supplied by the Service to provide more exact location data.

The Corps will use the map to make decisions about whether Section 404 permit activity may affect the Florida panther. While no critical habitat has been designated by the Service, Florida panthers may be present in the area on the map identified and "consultation area". Therefore, projects that occur within the area delineated on the map as "consultation area" should be scrutinized to determine if there is a potential for effects to panthers because of the project.

2. When the Corps reviews a proposed project for its potential to effect the Florida panther, it will consider both direct and indirect effects to the panther or panther habitat together with the effects of interrelated or interdependent actions associated with the project:

a Indirect effects - those effects that are caused by the proposed action and are later in time, but still reasonably certain to occur. (50 CFR § 402.02);

b Interrelated actions - those that are part of a larger action and depend on the larger action for their justification. (50 CFR § 402.02);

c Interdependent actions - those that have no independent utility apart from the action under consideration. (50 CFR § 402.02).

3. Based on a review of habitat maps and consideration of potential project effects, including indirect effects, and the effects of interrelated and interdependent actions, the Corps will determine if a proposed project may effect the Florida panther. The Corps' review will result in one of the following four (4) outcomes:

a If the project is located outside the consultation area as indicated on the Florida Panther Consultation Map, the project will be deemed to have no effect on the Florida panther and no further analysis is necessary, unless the Corps has specific, contrary information indicating potential project effects on florida panthers.

b If the project is located inside the consultation area, the Corps will review all the effects of the project on the panther and make its determination. If the Corps determines that the project not affect the Florida panther, no consultation is necessary. The Corps will, however, prepare a memorandum to its files summarizing its analysis and determination.

c If the Corps determines that the proposed project may affect the Florida panther, the Corps will initiate consulatation with the Service. The Corps may, through informal consultation, forgo formal consultation and implement the Section 404 permit activity if the Corps and Service agree, through written concurence, the Secton 404 permit activity is not likely to adversely affect the Florida panther. In addition, the Corps may forgo formal consultation if the applicant agrees to project

modifications that the Corps and Services believe will avoid adverse affects to the Florida panther and the service provides written concurrence for subsequent determinations by the Corps of "is not likely to adversely affect."

d If neither (a), (b), nor (c) applies, the Corps shall engage in formal consultations with the Service.

4. For actions proposed for verification under a NWP, if ESA consultation is conducted, the applicant will be informed in writing the work cannot proceed on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and the activity is authorized, as specified in NWP General Condition 11(a) Endangered Species.

5. The Corps and the Service will work cooperatively to achieve mutually shared objectives of ensuring jeopardy avoidance and panther recovery. The following tiered elevation procedure will be used to remedy any ESA issues which may arise during SLOPE implementation:

a Level I - Corps and Service staff personnel working at the local level to establish or modify SLOPES should discuss any issues with an attempt to resolve them without elevation. If those issues among the level I team members cannot be resolved within 60 days, they will be raised to the level II review team. Level I team members will prepare a written statement summarizing the issues to be resolved and notifying level II members of their intent to initiate elevation.

b Level II - The level II members should consist of the FWS field office supervisor and the Cops district branch chief. Level II members should review the level I summary and elevation request to ensure level I personnel have adequately attempted resolution and elevation is appropriate. Level II will make their best efforts to resolve the issues. If no resolution can be reached at level II within 30 days of having received the notification from the level I team, it shall be elevated to level III personnel. Level II personnel will provide in writing a description of the issues and each agencies' perspective.

c Level III - The level III personnel should consist of the FWS regional director and the Corps district engineer. They will review the material submitted and resolve the issues within 30 days of receiving the elevation. If they cannot reach a resolution the issues will be elevated to Headquarters. Level III personnel will provide in writing a description of the issues and each agencies' perspective.

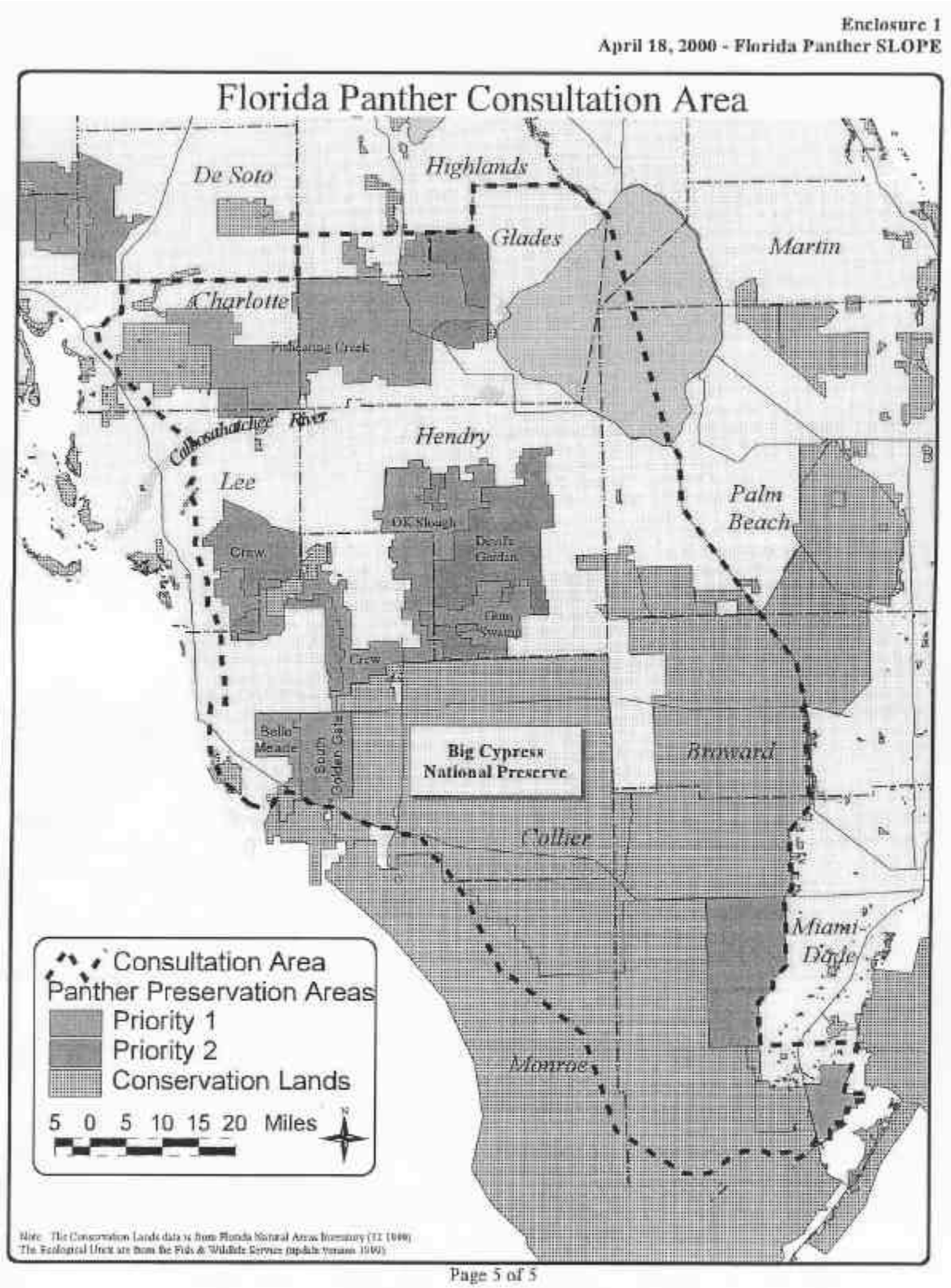
d Level IV - Level IV review personnel should be the Director if the Fish and Wildlife Service, and the Director of Civil Works. After a review and full consideration of all comments and each agencies' perspective, the Director of Civil Works will make a final decision within 60 days. The Service may determine

the final decision is not in compliance with section 7 of the ESA.

6. During implementation of the interim SLOPESm the Corps and the Service will evaluate whether there are alternatives for improving the interim SLOPES. If warranted and consistent with the requirements of federal law, following coordination with the Service, the Corps will consider additional interim SLOPES such as the institution of regional permitting conditions, and other necessary actions necessary to meet ESA requirements.

SLOPES for Florida panther

Enclosure 1
April 18, 2000 - Florida Panther SLOPE



Page 5 of 5

Endangered Species Act
Interagency Consultation Under Section 7
Army Corps of Engineers and Fish and Wildlife Service

U.S. Army Corps of Engineers' Responsibilities

1. Review proposed action and determine if there are any federally listed, proposed or candidate species in the project area.

2. Make a determination as to whether the direct, indirect, and cumulative impacts of the proposed action have "no effect", "may effect, are likely to adversely affect", or "may affect, are not likely to adversely affect" species.

3. **For a "may affect, not likely to adversely affect"** determination, contact the Service for written concurrence.

4. **For a "may affect, likely to adversely affect" determination,** work with the applicant to modify the proposed action to eliminate adverse effects when possible.

   a. If the "may affect" determination cannot be changed, prepare a biological evaluation/biological assessment in accordance with 50 CFR 402.12.

   b. Contact the Service to initiate formal consultation. Include project description and agency-prepared or applicant-prepared/agency-approved biological evaluation/assessment.

5. Work with the Service and applicant during formal consultation to eliminate or minimize any adverse effects.

6. Review the draft biological opinion and provide comments/concerns to the Service.

7. Review the biological opinion and other options available for compliance with the Act to determine what action will be taken.

8. Notify the Service as to what action was implemented for compliance with the Act.

9. If the biological opinion was accepted, monitor compliance and notify the Service if conditions identified in the opinion have been violated or exceeded.

Enclosure 2
April 18, 2000 - Florida Panther SLOPE

Endangered Species Act
Interagency Consultation Under Section 7
Army Corps of Engineers and Fish and Wildlife Service

U.S. Fish and Wildlife Service Responsibilities:

1. Provide updated table of listed/proposed/candidate species, their locations, and all current biological information to the Federal action agency.

2. Meet with the action agency, during informal consultation, to discuss project options to eliminate any adverse effects.

3. Review action agency's "not likely to adversely affect" determination for concurrence.

   a. If the Service concurs, provide a written response to the action agency.

   b. If the Service does not concur, provide a written response to the action agency indicating that formal consultation is required.

4. Respond in writing to a request to initiate formal consultation and identify what information is necessary to complete the biological opinion.

5. During formal consultation, work with the action agency for 90 days to understand and discuss the proposed project and its potential effects. Within 45 days of the 90-day period, complete the biological opinion and provide a draft for action agency review.

6. Review comments from the action agency and finalize the biological opinion.

7. Monitor implementation of the biological opinion, if appropriate.

8. Prepare administrative record for the action.

Critical Habitat for Piping Plover

Extracts from Federal Register Notice for 50 CFR Part 17
Endangered and Threatened Wildlife and Plants;
Final Determinations of Critical Habitat
for Wintering Piping Plovers; Final Rule

(Following is extract from page 36086 of the Federal Register / Vol. 66, No. 132 / Tuesday, July 10, 2001)

3. Amend § 17.95(b) by adding critical habitat for the piping plover (*Charadrius melodus*) in the same alphabetical order as this species occurs in § 17.11(h), to read as follows:

§ 17.95 Critical habitat-fish and wildlife.
* * * * *
(b) *Birds*.
* * * * *
Piping Plover (*Charadrius melodus*) Wintering Habitat

1. The primary constituent elements essential for the conservation of wintering piping plovers are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support these habitat components. The primary constituent elements include intertidal beaches and flats (between annual low tide and annual high tide) and associated dune systems and flats above annual high tide. Important components of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. In some cases, these flats may be covered or partially covered by a mat of blue-green algae. Adjacent non-or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers, and are primary constituent elements of piping plover wintering habitat. Such sites may have debris, detritus (decaying organic matter), or micro-topographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. Important components of the beach/dune ecosystem include surfcast algae, sparsely vegetated backbeach and salterns (beach area above mean high tide seaward of the permanent dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road), spits, and washover areas. Washover areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action.

2. Critical habitat does not include existing developed sites consisting of buildings, marinas, paved areas, boat ramps, exposed oil and gas pipelines and similar structures. Only those areas containing these primary constituent elements within the designated boundaries are considered critical habitat.

3. Below, we describe each unit in terms of its location, size, and ownership. These textual unit descriptions are the definitive source for determining the critical habitat boundaries. All distances and areas provided here are approximated. General location maps by State are provided at the end of each State's unit descriptions and are provided for general guidance purposes only, and not as a definitive source for determining critical habitat boundaries.

(Following extracted from pages 36105-6 of the Federal Register)

Florida (Maps were digitized using 1994–95 DOQQs)
* * * * *
Unit FL–25: Bunche Beach. 187 ha (461 ac) in Lee County This unit is mostly within a CARL Estero Bay acquisition project. Bunche Beach (also spelled Bunch) lies along San Carlos Bay, on the mainland between Sanibel Island and Estero Island (Fort Myers Beach), extending east from the Sanibel Causeway past the end of John Morris Road to a canal serving a residential subdivision. The unit also includes the western tip of Estero Island (Bodwitch Point, also spelled Bowditch Point), including Bowditch Regional Park, operated by Lee County and, on the southwest side of the island facing the Gulf, the beach south nearly to the northwesterly intersection of Estero Boulevard and Carlos Circle. It includes land from MLLW to where densely vegetated habitat or developed structures, not used by the piping plover, begin and where the constituent elements no longer occur or, along the developed portion of Estero Island.

Unit FL–26: Estero Island. 86 ha (211 ac) in Lee County The majority of the unit is privately owned. The unit consists of approximately the southern third of the island's Gulf-facing shoreline starting near Avenida Pescadora to near Redfish Road. The unit excludes south-facing shoreline at the south end of the island that faces Big Carlos Pass rather than the Gulf. It includes land from MLLW to where densely vegetated habitat (including grass or lawns) or developed structures, not used by

the piping plover, begin and where the constituent elements no longer occur.

Unit FL–27: Marco Island. 245 ha (606 ac) in Collier County Most of the unit is at the Tigertail Beach County Park. The unit's northern border is on the north side of Big Marco Pass, including Coconut Island and all emerging sand bars. On the south side of Big Marco Pass, the boundary starts at the north boundary of Tigertail Beach County Park and extends to just south of the fourth condominium tower south of the County Park. The placement of the southern boundary assures that the unit includes all of Sand Dollar Island, the changeable sandbar off Tigertail Beach. The western boundary includes all the sand bars in Big Marco Pass but excludes Hideaway Beach. It includes land from MLLW to where densely vegetated habitat (including grass or lawns) or developed structures, not used by the piping plover, begin and where the constituent elements no longer occur.

(Following extracted from pages 36114-5 of the Federal Register)

Standard Local Operating Procedures for Endangered Species
Red-cockaded Woodpeckers
July 23, 2002 Draft
USFWS South Florida Ecological Services Office

The Standard Local Operating Procedures for Endangered Species (SLOPES), Red-cockaded woodpecker (RCW), provides a tool to assist the user in determining if an action, *i.e.,* a Federal permit, a Federal construction project, or other such action, may adversely affect RCWs. The RCW SLOPES provide the user with a stepwise process to determine if the proposed action will affect RCWs, what effect will the action have on RCWs, and options available that may avoid or minimize the action's effects to RCWs.

The Fish and Wildlife Service (Service) encourages Federal agencies to use the *Technical/Agency Draft Revised Recovery Plan* (Recovery Plan) (Service 2000) for any onsite preservation, enhancement, or management actions they propose that may have an effect on RCWs. The Recovery Plan also provided guidance for offsite mitigation needs for occupied habitat losses, as well. The plan is available at http://rcwrecovery.fws.gov.

The Recovery Plan provides information on habitat needs, territory sizes, and species biology. The Service also views this guidance as being applicable to section 7 consultations as a tool to minimize adverse effects to RCWs from the proposed Federal action. The Service has also prepared a RCW survey protocol, which includes South Florida specific guides for RCW surveys, habitat needs, and territory sizes (Service 2002). In addition, the *South Florida Multi-Species Recovery Plan* (Service 1999) provides a synopsis of RCW ecology, as well.

RCW SLOPES Flowchart Guide (see Figure 1)

As with the "SLOPES Process" flowchart, the first step is to require project specific information, which generally includes a project description, habitat maps, project location, and county. On the project maps, determine the boundaries of the project and a ½ mile buffer surrounding the property. The reason for the ½ mile buffer is that the Service's RCW survey protocol (2002) identifies a typical South Florida RCW territory as an area of approximately 500 acres. To identify offsite territories that

may overlap onto the property, the Service determined the center point of a 500-acre circular territory as the furthest point that would allow for overlap of an offsite territory onto the property.

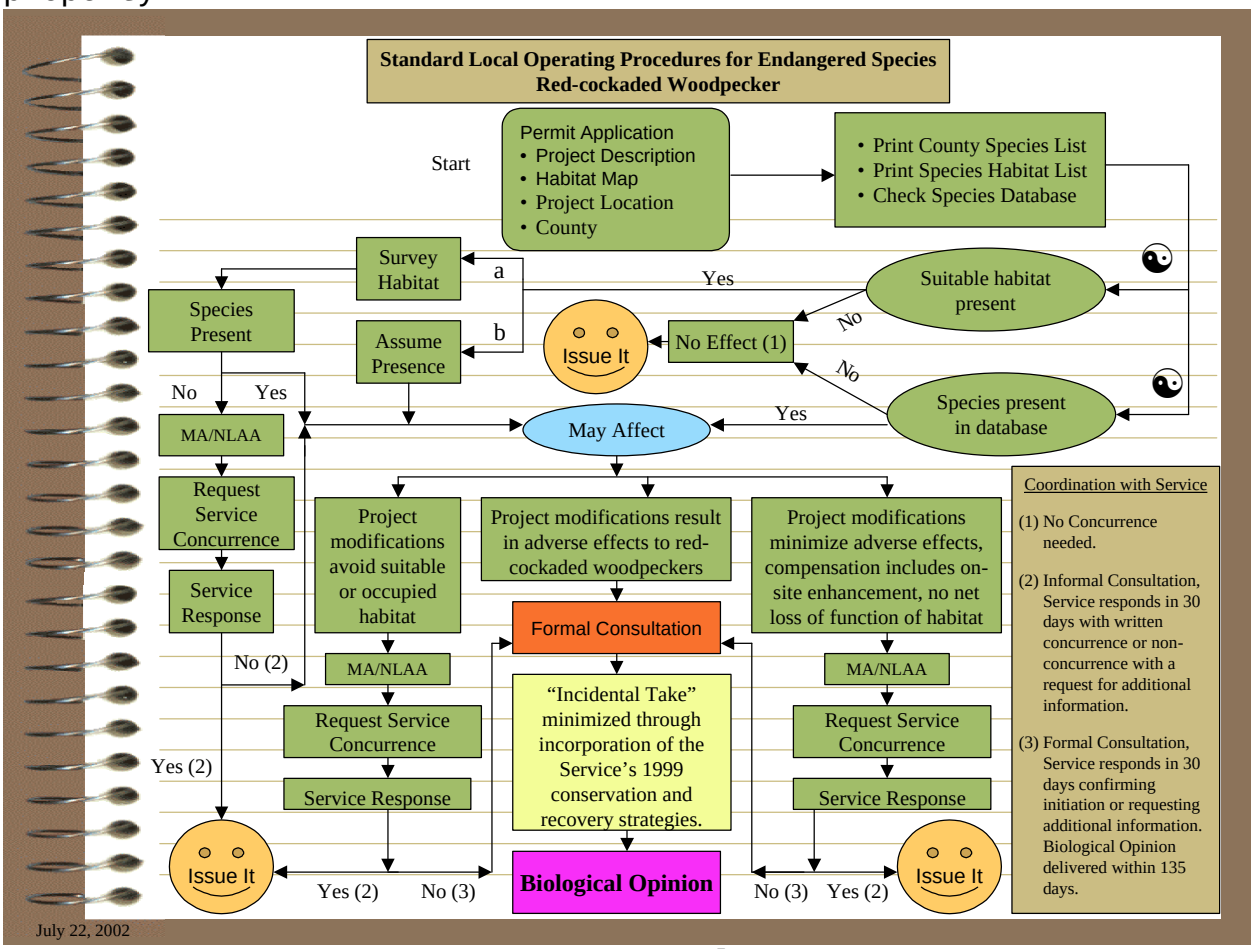


Figure 1. RCW SLOPES Flowchart Guide

The next step is to map the vegetative communities present on the property and in the property buffer area, using one of the community profile guides referenced in the "SLOPES Process" narrative. Also reviewing RCW occurrence records available from the Florida Natural Areas Inventory databases or databases maintained by the Service or other organizations, provides the basis for the first yes/no decision point in the flowchart.

Suitable Habitat/Species Present - Yes/No

The RCW flowchart provides yes/no options for presence or absence of RCWs or suitable habitat. If no occurrence records are present in the databases and no suitable habitat is present, then the Corps may make the determination that the project will have “no effect” on RCWs and can proceed with the Federal action. If desired, the Corps can request a concurrence letter from the Service.

The Service considers suitable habitat for RCWs to include any forested community that includes pines in the canopy. The forested community must be larger than 10 acres and includes both onsite and offsite acreage. If suitable habitat is present, the Service assumes that suitable habitat within the species’ historic range still supports listed species and a “may affect” determination is appropriate. In the RCW flowchart, two options are available to assess suitable habitat issues. The first option (option a) provides for the use of species-specific surveys of the property to determine the presence or presumed absence of RCWs in suitable habitat. The second option (option b) assumes that suitable habitat supports RCWs.

RCW Survey Protocol - Option a

Surveys are necessary to determine the presence/absence of cavity trees, cavity tree activity level, and foraging area. Surveys for cavity trees can be performed throughout the year. Cavity tree activity levels require a 14 consecutive day survey event during the nesting season (April 15 through June 15). The foraging area survey requires two survey events, each 14 consecutive days per event. One event is during the nesting season and one event is during the fall season (October 15 through December 15). The survey protocols are time-of-day specific. The time-of-day requirements are one hour after sunrise and ending four hours past sunrise or when local weather conditions become unfavorable (see protocol for specific of weather conditions). Surveys outside of these time frames are inconclusive.

The RCW survey protocols are the minimum levels of effort the Service believes are necessary to determine the presence or absence of this species on the project. A note of importance with species presence on the property, is that suitable habitats

on the property may not be the nest sites of the RCWs, but could be part of the RCWs foraging habitat, which is considered by the Service as occupied, because the habitat fulfills the species life history needs.

RCWs Not Present

If the surveys do not detect the presence of RCWs, then a “may affect, not likely to adversely affect” determination may be reached. To receive concurrence with this determination from the Service, supporting data documenting the level of survey effort in the suitable habitat must be provided, as well as the project description, the project area habitat map, the text descriptions of these habitats, and the reason for the determination, *i.e.,* site-specific surveys of suitable habitats did not detect RCWs. This information must be documented in a report to the Service.

RCWs Present - May Affect

In the flowchart, option b allows for the assumption that suitable habitat supports RCWs. The flowchart also provides for projects where RCWs are known to be present on the property. In both of these scenarios, the Corps is advised that a “may affect” determination is warranted and additional measures are necessary to minimize adverse effects to RCWs.

Habitat Avoidance

The first measure recommended by the Service is to modify the project footprint to avoid direct impacts to RCW habitat. The Service also recommends that the habitat be designated as an environmentally sensitive area and set aside by deed restriction, easement, or other protective covenant. If the occupied habitat exceeds 5 acres, then a habitat management plan is also recommended. The incorporation of these recommendations into the project design and documented in the habitat management plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the “may affect, but is not likely to adversely affect” determination.

Onsite Habitat Enhancement

This measure is recommended by the Service in situations where a project proposes to impact occupied RCW habitat. However, surveys of the habitat have noted that the habitat has been physically altered by exotic species invasion, lack of fire, or other anthropogenic actions. These alterations have produced habitat conditions onsite, which have resulted in marginally suitable habitat for the survival and propagation of RCWs. The planned action, through project redesign, has avoided impacting a substantial portion of the habitat, however some habitat loss will still occur. The project proposes onsite habitat enhancements and management actions that provide habitat quality improvements that balance losses of small amounts of marginally suitable habitat onsite. The incorporation of these recommendations into the project and documented in a habitat management plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the “may affect, but is not likely to adversely affect” determination. The management plan, in this scenario, also needs a monitoring program to document the success of the enhancement actions.

“Incidental Take” Likely

The remaining measures available to minimize “adverse effects” to RCWs are those associated with projects where onsite habitat avoidance, preservation, or enhancement are insufficient in minimizing “adverse effects” or are not appropriate and “incidental take” of RCWs is likely. The Service recommends that occupied habitat be avoided and preserved. However, if the amount of habitat onsite and in the adjacent offsite buffer is not sufficient to support a RCW family, then “incidental take” of the RCW family is likely. Sufficient habitat for this evaluation is 500 acres of suitable habitat, which is the average size of a RCW territory.

Since “incidental take” is the outcome of this scenario, formal consultation is necessary and the Service will prepare a Biological Opinion. The Biological Opinion will include the amount of “incidental take” anticipated and the non-

discretionary reasonable and prudent measures and terms and condition that are appropriate for the project.

To assist the Corps in minimizing “adverse effects” from anticipated “incidental take,” the Service has developed species-specific measures that are applicable to projects where compensation for “adverse effects” is appropriate. These species-specific measures further the Service’s goals for conservation and recovery of the species. The species-specific measures are discussed in detail in the Recovery Plan (Service 2000). The Service has also prepared a condensed “bulleted” version of the species-specific measures (see below).

The Recovery Plan identifies 11 RCW recovery units where conservation and recovery goals for the species can be achieved. One of the recovery units, the South/Central Florida Recovery Unit includes the RCW populations in southwest Florida, southeast Florida, and southcentral Florida. For the South/Central Florida Recovery Unit, the Recovery Plan also identifies essential support populations, which are included in the Service’s criteria for delisting. These populations are those found on Avon Park Air Force Range, Big Cypress National Preserve, Ocala National Forest, Three Lakes Wildlife Management Area, Withlachoochee State Forest, Webb Wildlife Management Area, J.W. Corbett Wildlife Management Area, Goethe State Forest, St. Sebastian River State Buffer Preserve, Howe Scott Preserve, and Picayune Strand State Forest.

The recovery goals can be achieved either through efforts to expand the boundaries of existing preserves or through efforts to protect and manage occupied and unoccupied habitats, which are contiguous to the preserved lands or are within unobstructed RCW dispersal distances (not to exceed 2 miles) from the preserved lands. The measures recommended are primarily acquisition and management functions. In general, the acquisition ratios are, 2 acres of occupied habitat for each acre of affected occupied habitat, or a minimum of 3 acres of unoccupied habitat for each acre of affected occupied habitat. The unoccupied habitat acquisition requires a restoration component, as well. The specifics of each of these measures are in the Recovery Plan and should be incorporated into the habitat management plan and submitted as part of the data needs for the Biological Opinion

As discussed in the SLOPES Process narrative and on each of the flowcharts, formal consultation, which concludes with the Service's Biological Opinion, generally requires up to 135 days. However, incorporation of the minimization recommendations into the project and provided to the Service in the habitat management plan can expedite the consultation process.

Habitat Management Plan

A Habitat Management Plan is necessary when a proponent proposes actions that may affect RCWs. In general, the plan includes a project introduction, proposed action, project habitat descriptions, species effects, recommendations to minimize species effects, and conclusions and commitments. The plan should also include the survey protocol, survey data sheets, territorial boundaries of the RCWs, if present, and any land preservation covenants. If habitat enhancements are proposed, the management plan needs to include a habitat monitoring component. Refer to the Service's *Outline Example for a Biological Assessment or a Biological Evaluation* (2002) for a more detailed discussion of report requirements, format, explanations of common ESA questions, and level of detail needed in the report.

RCW Management Options

Pine stands, or pine-dominated pine/hardwood stands, with a low or sparse midstory and ample old-growth pines, constitute primary RCW nesting, roosting, and foraging habitat. RCWs are the only North Americans species that excavates its roost and nest in living pine trees. The Service considers all cavities in living pines to be RCW cavities unless documented as being usurped by other cavity nesting/roosting species (pileated woodpecker, red-headed woodpecker, red-bellied woodpecker, blue bird, flying squirrels, etc.). The Service considers all clusters to be active unless cluster monitoring documents abandonment for five consecutive years.

a. RCWs will abandon otherwise suitable nesting/roosting areas (including existing cavities) when the midstory approaches cavity height (midstory height should generally be less than 12 feet with ample open grassy, savannah habitat). Growing season burns are recommended every three to five years to control the amount of young pine and hardwood midstory.

b. Colonization of unoccupied habitat is an exceedingly slow process, because cavities take long periods of time to excavate and birds do not occupy habitat without cavities. Artificial cavity construction has been shown to be successful in recruiting RCWs into otherwise unoccupied but suitable habitat. The Service recommends a minimum of four cavities (clustered together) within suitable RCW habitat. Dispersal range for recruitment should not exceed 2 miles.

c. Translocation of young from existing colonies to new clusters has been shown to be successful in establishing new colonies. Translocation is recommended when new clusters exceed the recommended dispersal distance from existing colonies.

d. Cluster management restrictions: (i) Minimum cluster boundaries, including all cavities and a 200-foot buffer, is 10 acres (400-foot radius), centered around primary cavity nesting tree, (ii) restrict midstory hardwood and thinning of overstory pines to outside the nesting season, (iii) provide minimum of 50 feet of fire suppression around each cavity tree, (iv) maintain minimum of four cavities in managed clusters, and (v) restrict human disturbance within the cluster during nesting season, restrictions include all-terrain and off-road vehicles, motorized logging equipment, and excessive noise and disturbance.

e. Colony management: (i) prescribed fire every three to five years and (ii) manage forest growth and density to provide open midstory and mixed age pine canopy.

Foraging Habitat Management Goals.

Good quality foraging habitat has some large old pines, low densities of small and medium pines, sparse or no hardwood midstory, and bunchgrass and forbs groundcover. Recommended management goals include:

a. North, central, and southeast Florida: (i) Provide 18 or more pines per acre that are at least 60 years in age and are at least 14 inches in diameter at breast height (dbh), (ii) manage the density of all pines ? 4 inch dbh to provide between 40 to 80 square feet per acre of basal area, (iii) manage the density of all pines between 4 and 10 inches in dbh to provide a basal area of less than 10 square feet per acre, and manage the

density of all pines to less than 20 stems per acre (Service 2000).

b. Southwest Florida: (i) Provide 5 to 8 pines per acre that are at least 60 years in age and are at least 10 inch dbh, (ii) manage the density of all pines to provide a basal area of approximately 20 square feet per acre, and manage the density of all pines to less than 54 stems per acres (Beever and Dryden).

c. All: (i) ground cover of native bunchgrass and/or other native, fire-tolerant, fire-dependent herbs totaling 40 percent or more of ground and midstory plants and dense enough to carry growing season fire at least once every five years, (ii) no hardwood midstory or a sparse hardwood midstory that is less than 7 feet in height, (iii) canopy hardwood absent or less than 10 to 20 percent, (iv) 50 percent or more of this habitat within 0.25 miles of the cluster, all must be within 0.5 miles of the cluster, and (vi) foraging habitat may nor be separated by more than 200 feet (north, central, and southeast Florida) and 300 feet (southwest Florida).

References

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U.S. Fish and Wildlife Service. 2000. Technical/agency draft revised recovery plan for the red-cockaded woodpecker. U.S. Fish and Wildlife Service; Atlanta, Georgia.

U.S. Fish and Wildlife Service. 1999. South Florida multi-species recovery plan. Atlanta, Georgia.

DRAFT

Standard Local Operating Procedures for Endangered Species
Scrub-jays
April 3, 2002 Draft
USFWS South Florida Ecological Services Office

The Standard Local Operating Procedures for Endangered Species (SLOPES), Scrub-jays, provides a tool to assist the user in determining if an action, *i.e.,* a Federal permit, a Federal construction project, or other such action, may adversely affect scrub-jays. The Scrub-jay SLOPES provide the user with a stepwise process to determine if the proposed action will affect jays, what effect will the action have on scrub-jays, and options available that may avoid or minimize the action's effects to scrub-jays.

The Fish and Wildlife Service (Service) encourages Federal agencies to use the Florida Fish and Wildlife Conservation Commission's (FWC) 1991 publication, *Ecology and Development-Related Habitat Requirements of the Florida Scrub Jay* for any on-site preservation, enhancement, or management actions they propose that may have an effect on scrub-jays. This publication, *i.e.,* the FWC Scrub-jay Habitat Guide, provides information on scrub-jay survey protocols, habitat needs, territory sizes, and species biology. In addition, the *South Florida Multi-Species Recovery Plan, Volume I: The Species* (Service 1999) provides a synopsis of scrub-jay ecology.

The Service has also provided guidance for off-site mitigation needs for occupied habitat losses for Incidental Take Permits under section 10 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*) (Service 1999). The Incidental Take Permit guidance delineates mitigation service areas throughout the range of the species and also recommends mitigation strategies to offset resource effects. The Service also views this guidance as also being applicable to section 7 consultations as a tool to minimize adverse effects to scrub-jays from the proposed Federal action.

Scrub-jay SLOPES Flowchart Guide (see Figure 1)

As with the "SLOPES Process" flowchart, the first step is to require project specific information, which generally includes a project description, habitat maps, project location, and county. On the project maps, determine the boundaries of the project and

a 600 foot buffer surrounding the property. The reason for the 600-foot radius is that the FWC Scrub-jay Habitat Guide identifies a typical scrub-jay territory as an area of approximately 25 acres. To identify off-site territories that may overlap onto the property, the Service determined the center point of a 25-acre circular territory as the furthest point that would allow for overlap of an off-site territory onto the property.

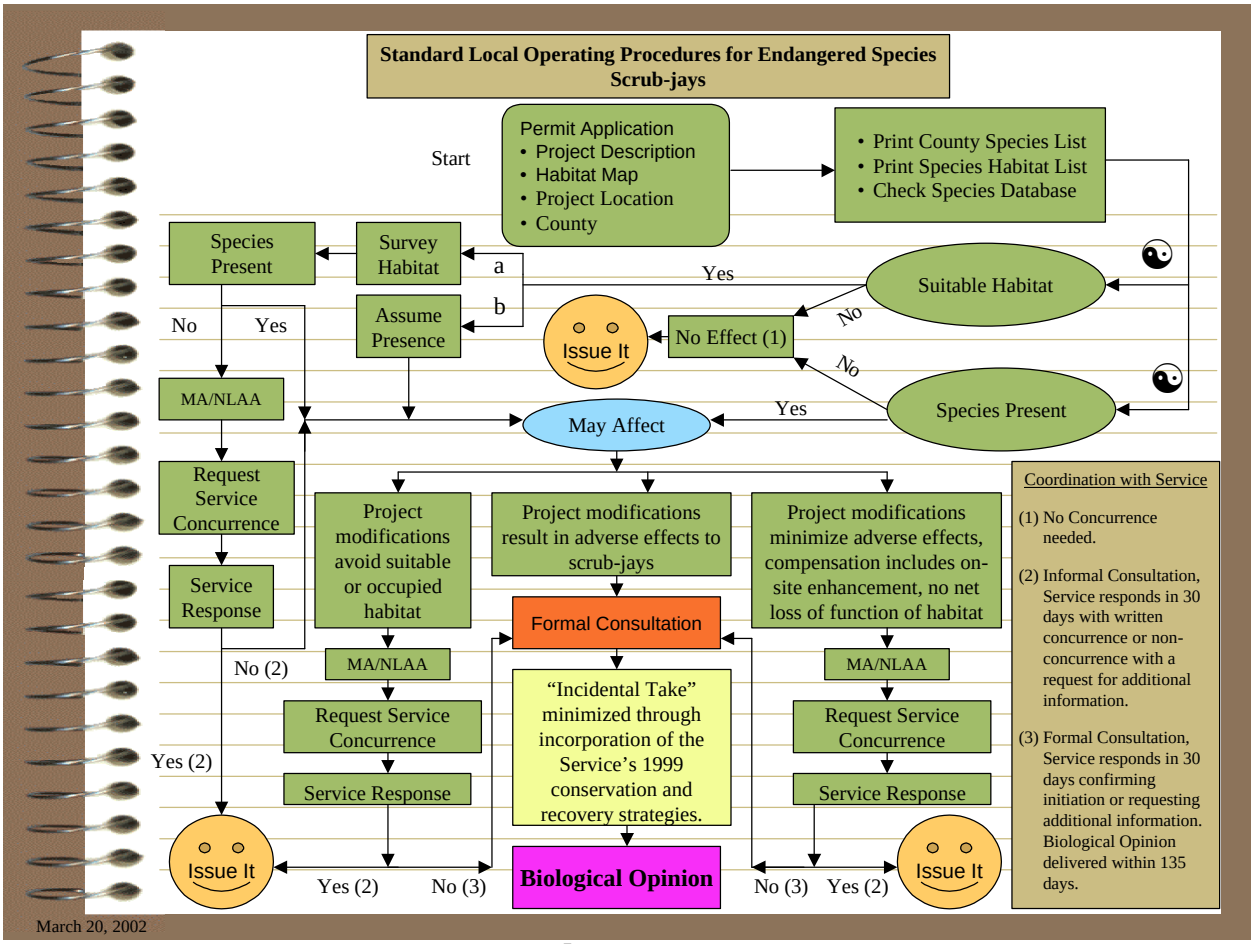

Figure 1. Scrub-jay SLOPES Flowchart Guide.

The next step is to map the vegetative communities present on the property and in the property buffer area using one of the community profile guides referenced in the "SLOPES Process" narrative. Also reviewing scrub-jay occurrence records available from the Florida Natural Areas Inventory databases or databases maintained by the Service or other organizations,

provides the basis for the first yes/no decision point in the flowchart.

Suitable Habitat/Species Present - Yes/No

The Scrub-jay flowchart provides yes/no options for presence or absence of scrub-jays or suitable habitat. If no occurrence records are present in the databases and no suitable habitat is present, then the Corps may make the determination that the project will have “no effect” on scrub-jays and can proceed with the Federal action. If desired, the Corps can request a concurrence letter from the Service.

If suitable habitat is present, the Service assumes that suitable habitat within the species’ historic range still supports listed species and a “may affect” determination is appropriate. In the scrub-jay flowchart, two options are available to assess suitable habitat issues. The first option (option a) provides for the use of species-specific surveys of the property to determine the presence or presumed absence of scrub-jays in suitable habitat. The second option (option b) assumes that suitable habitat supports scrub-jays.

Scrub-jay Survey Protocol - Option a

The Service’s survey protocol requires five consecutive days as the minimum length of survey effort necessary. The survey protocol is time-of-day specific and time-of-year specific. The time-of-day requirements are one hour after sunrise and ending by mid-day or when local weather conditions become unfavorable (see protocol for specific of weather conditions). The time-of-year specifics are spring (March), fall (September and October), or midsummer (July). Surveys outside of these time frames are inconclusive. In most applications, a one time survey event within the preferred time-of-year restrictions is sufficient for Service consultations.

The scrub-jay survey protocols are the minimum levels of effort the Service believes are necessary to determine the presence or absence of this species on the project and in the project area. A note of importance, with species presence on the property, is that suitable habitats on the property may not be the nest sites of the scrub-jays, but could be part of the scrub-jays foraging

habitat, which is considered by the Service as occupied, because the habitat fulfills the species life history needs.

Scrub-jays Not Present

If the surveys do not detect the presence of scrub-jays, then a "may affect, not likely to adversely affect" determination may be reached. To receive concurrence with this determination from the Service, supporting data documenting the level of survey effort in the suitable habitat must be provided, as well as the project description, the project area habitat map, the text descriptions of these habitats, and the reason for the determination, *i.e.,* site-specific surveys of suitable habitats did not detect scrub-jays. This information must be documented in the Scrub-jay Management Plan.

However, if site alterations do not begin prior to the next year's nesting season, then a follow-up survey is required prior to construction. If scrub-jays are observed, then reinitiation of consultation with the Service is required.

Scrub-jays Present - May Affect

In the flowchart, option b allows for the assumption that suitable habitat supports scrub-jays. The flowchart also provides for projects where scrub-jays are known to be present on the property. In both of these scenarios, the Corps is advised that a "may affect" determination is warranted and additional measures are necessary to minimize adverse effects to scrub-jays.

Habitat Avoidance

The first measure recommended by the Service is to modify the project footprint to avoid direct impacts to scrub-jay habitat. The Service also recommends that the habitat be designated as an environmentally sensitive area and set aside by deed restriction, easement, or other protective covenant. If the occupied habitat exceeds 5 acres, then a habitat management plan is also recommended. The incorporation of these recommendations into the project design and documented in a Scrub-jay Habitat Management Plan would allow the Corps to make the determination that the project "may affect, but is not likely to adversely affect" listed species and request concurrence from the Service.

Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the “may affect, but is not likely to adversely affect” determination.

On-site Habitat Enhancement

This measure is recommended by the Service in situations where a project proposes to impact the occupied scrub-jay habitat. However, surveys of the habitat have noted that the habitat has been physically altered by exotic species invasion, lack of fire, or other anthropogenic actions. These alterations have produced habitat conditions on-site, which have resulted in marginally suitable habitat for the survival and propagation of scrub-jays. The planned action, through project redesign, has avoided impacting a substantial portion of the scrub habitat, however some habitat loss will still occur. The project proposes on-site habitat enhancements and management actions that provide habitat quality improvements that balance losses of small amounts of marginally suitable habitat on-site. The incorporation of these recommendations into the project and documented in a Scrub-jay Management Plan would allow the Corps to make the determination that the project “may affect, but is not likely to adversely affect” listed species and request concurrence from the Service. Upon receipt of the concurrence request and the supporting data, the Service could provide concurrence with the “may affect, but is not likely to adversely affect” determination. The management plan, in this scenario, also needs a monitoring program to document the success of the enhancement actions.

“Incidental Take” Likely

The remaining measures available to minimize “adverse effects” to scrub-jays are those associated with projects where on-site habitat avoidance, preservation, or enhancement are insufficient in minimizing “adverse effects” or are not appropriate and “incidental take” of scrub-jays is likely. The Service recommends that occupied scrub habitat be avoided and preserved. However, if the amount of habitat on-site and in the adjacent off-site buffer is not sufficient to support a scrub-jay family, then “incidental take” of the scrub-jay family is likely. Sufficient habitat for this evaluation is 25 acres of suitable habitat, which is the average size of a scrub-jay territory.

Since “incidental take” is the outcome of this scenario, formal consultation is necessary and the Service will prepare a Biological Opinion. The Biological Opinion will include the amount of “incidental take” anticipated and the non-discretionary reasonable and prudent measures and terms and condition that are appropriate for the project.

To assist the Corps in minimizing “adverse effects” from anticipated “incidental take,” the Service has developed species-specific measures that are applicable to projects where compensation for “adverse effects” is appropriate. These species-specific measures further the Service’s goals for conservation and recovery of the species. The measures were originally developed by the Service (1999) to address minimization and mitigation needs for “Incidental Take Permits” under section 10 of the ESA. The measures identified scrub-jay metapopulation territories where conservation and recovery goals for the species can be achieved. These goals can be achieved either through efforts to expand the boundaries of existing preserves or through efforts to protect and manage occupied and unoccupied habitats, which are contiguous to the preserved lands or are within unobstructed scrub-jay dispersal distances (not to exceed 5 miles) from the preserved lands.

The measures developed are primarily acquisition and management functions. The acquisition ratios are a minimum of 2 acres of occupied habitat for each acre of affected occupied habitat, or a minimum of 3 acres of unoccupied habitat for each acre of affected occupied habitat. The unoccupied habitat acquisition requires a restoration component, as well. The specifics of each of these measures are in the Service’s 1999 correspondence and should be incorporated into the Scrub-jay Management Plan and submitted as part of the data needs for the Biological Opinion.

As discussed in the SLOPES Process narrative and on each of the flowcharts, formal consultation, which concludes with the Service’s Biological Opinion, generally requires up to 135 days. However, incorporation of the minimization recommendations into the project and provided to the Service in the Scrub-jay Management Plan can expedite the consultation process.

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Florida Fish and Wildlife Commission. 1991. Ecology and Development-Related Habitat Requirements of the Florida Scrub Jay. Fitzpatrick, J.W., G. E. Woolfenden, and M. T. Kopeny. Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program, Technical Report Number 8. 49pp.

U.S. Fish and Wildlife Service. 1999. Guidance for assessing mitigation needs for Florida Scrub Jays. Memorandum dated July 2, 1999, from the State Supervisor, U.S. Fish and Wildlife, Vero Beach, FL.

U.S. Fish and Wildlife Service. 2002. Biological assessment/biological evaluation guideline. U.S. Fish and Wildlife, South Florida Ecological Services Office, Vero Beach, FL.

U.S. Fish and Wildlife Service. 1999. South Florida multi-species recovery plan. U.S. Fish and Wildlife, Southeast Region, Atlanta GA.

1. Mr. Bernard McNamee by letters dated August 28, September 13, September 16 and December 11, 2000, suggested establishing an area in Southwest Florida like the Pineland Management Area in New Jersey whose ecology is protected from development and surface water is protected from being used for water supply. By letter dated August 11, 2000, he suggested periodic update of the study, that we consider giving tentative approvals for developers that apply now for development that the EIS envisions occurring in the latter part of the 20 years; expand discussion of areas of controversy to some Corps has no control over such as salt water intrusion; and start identifying locations for the inevitable water supply pipelines into the region.

Response: We do not have authority to establish such an area nor to acquire land. Updates will be made as needed on individual issues. Our long-duration permits typically provide for review periods. We recognize there are a wide variety of issues outside our jurisdiction that could have been added.

2. Ms. Beth Carlson, Lewis Longman & Walker, P.A. on behalf of Mirasol Development, L.L.C., Vanderbilt Partners II, Ltd., and Jack Parker Corporation, by letters dated October 27, 2000, and John A. Pulling by letter dated November 16, 2000, provides several suggestions. First, that there be a formal process for using site specific criteria to supercede information in the Permit Review Criteria and Individual Maps and adopt this process through appropriate rulemaking. Second, identify the data used to develop each map. Third, use current, accurate, peer reviewed data as the basis for developing the maps and criteria. Fourth, that the criteria and analysis tools be adopted through formal rulemaking procedures. Fifth, the presumption at Section 2.2.4 must be adopted through formal rulemaking ("The area shaded [on the Overlay Map in Appendix H] represent areas with high potential value for wildlife and other wetland functions compared to the remainder of the area....the Corps will presume alternative locations are available in areas of less value and expect an analysis over a large geographic area to determine whether any are practicable.")

Response: The decision is to direct Corps employees to perform certain tasks and consider certain methodologies in the performance of their reviews. This is within the normal prerogative of the agency to establish work methods and

procedures to ensure consistency and quality. These do not impose new requirements on applicants nor change the requirements for a permit decision.

3. Ms. Beth Carlson, Lewis Longman & Walker, P.A., on behalf of the Seminole Tribe of Florida, by letter dated October 27, 2000, requests that the language be included stating "...that the identification of natural resource issues on lands surrounding the reservation will not be considered when evaluating projects proposed by the Tribe on tribal lands."

Response: Language has been added.

4. Mr. Robert Pritt, Roetzel & Andress, on behalf of Michael C. Mamiye & Davide E. Mamiye, by letter dated November 8, 2000, requested that consideration be given to not include their property in the map for Panther.

Response: The panther map has been deleted.

5. Mr. Robert Pritt, Roetzel & Andress, on behalf of Katheryn Mollach, by letter dated November 8, 2000, requested that consideration be given to not include their property in the map for Panther.

Response: The panther map has been deleted.

6. Mr. Tim Durham, Wilson Miller Barton and Peek, Inc., by email dated October 2, and letter dated October 4, 2000, submitted copy of Appendix H with annotated adds and deleted language changes.

Response: Many of the changes were suggestions to include clarification of the relationship between the maps and basis on which the decision is made whether to issue a permit. Clarifications have been added.

7. National Association of Home Builders, by letter dated December 5, 2000, divided their comments into three categories. The first category is that the process used to develop the EIS are flawed in that: there is not an accurate inventory of wetland types, their functions and values, and cumulative gains or losses; that the reported 12,091 acres of mitigation compared to 4,068 acres of impacts "demonstrate that the

existing program is working well" and does not support the EIS assumption that existing mechanisms are not working well enough; does not report existing environmental benefits of mitigation banks, County purchase of lands, and other initiatives; a number of issues in the EIS are complex and confusing; all discussions regarding alternatives to the County comprehensive plans should be deleted since not related to the natural resource issues; not clear the relationship between the Overlay map and other maps; page 88 says is not a change yet page 143 says is a change from current regulatory process; is an insufficient analysis of the "no action" alternative; the Alternatives Development Group should have been formed as a formal FACA advisory committee; did not consider other alternatives such as improved coordination and general permits; instead of the EIS, develop guidance to measure cumulative effects or determining when a threshold would be reached; cumulative effects should be assessed on a watershed basis using large watersheds, that includes both impacts and mitigation, and whether impacts are temporary or permanent. The second category is that the EIS is overly broad and illegally expands the Corps' jurisdiction in that: all areas that have any probability of providing habitat are mapped and not "those areas that are truly in need of protection"; maps should be based on the process set up for designation of Critical Habitat or have site specific information to confirm natural resource; illegal to map areas with potential impacts since case law standard is actual take; cannot include other areas where only a portion of the work involves filling Waters of the United States; Corps lacks authority to dictate local land use; permit review criteria places environmental protection above all other public interest factors; includes presumptions, benchmarks and criteria instead of individualized balancing test; vagueness of proposed criteria increases difficulty to meet; presumptions need to established by facts; proposal is duplicative of Corps and State requirements; essential to develop General Permits since this is one way to improve permit review efficiency.

Response: The EIS itself discloses the cumulative effects of all actions, both those by the Corps and by others, as intended by the NEPA. The language of the decision is written differently from the original proposal to, among other things, make clear that the use of the EIS information is to ensure Corps staff does not overlook some issue or its importance. This effort is formally providing the type of

information to Corps staff that historically and continues to be added to the professional body of knowledge used in review of permit applications. The rewrite of the decision as well as the criteria were designed to address many of the concerns stated. Regarding FACA, the ADG was not an advisory committee and therefore not bound by the requirements of that act. It acted essentially as a focus group to help the Corps define important issues, gather information to measure those issues, and to develop and compare alternatives for the DEIS. Although members of the ADG certainly offered their individual opinions, the Corps did not solicit, and the ADG did not provide, any group advice or recommendations. The Corps alone is responsible for the content of the EIS, including the determination of what alternatives were included in the EIS and the presentation and interpretation of the evaluation of those alternatives.

8. Several individuals, having a copy of the summary of the EIS, asked by letters in August, 2000, how the project would affect their property in Lehigh Acres or asked whether their property would be acquired by the Corps. These individuals include: Mr. Arthur L. Detlefsen; Mrs. N. S. JainuDeen; Mr. Terry Biggs; Mr. Donald Wolff; Mr. George Koleas; Mr. Brian T. Parker; Mr. Daniel Scott; Mr. Joseph Finley; Mr. Daniel Scott; Mr. and Mrs. Dick Nelson; Ms. Rose Vaccaro; Ms. Elizabeth Wilson;

Response: The EIS summary that was mailed in response includes a section that answers this question. Nothing in this decision changes any current permitting requirements.

9. LTC Linda Green, USAR Ret, by letter dated August 7, 2000, asked for the full copy of the EIS and provided initial comments: should not the County be asking the Corps for review instead of the other way around? did the Clean Water Act remove the power of the State to deal with wetlands? perhaps a study and report would have been more appropriate then an EIS.

Response. Sent. Noted. Some narrative has been added to the decision memo to describe the choice of the EIS process.

10. Ms. Louis and Angela Meoli, by letter dated September 2, 2000, have no comment on the Draft EIS but willing to sell their property in Lehigh Acres.

Response. Noted.

11. Mr. Paul Midney, by letter dated September 1, 2000, asked that a synopsis be written of the EIS to make it more accessible to the public.

Response. A background section was added to the decision memo.

12. Mr. Kent E. Stonner, attorney for Shell Point Yacht Club, by facsimile dated August 25, 2000, asked that the Club be exempted from the EIS because their consultants had not received the digital maps of the study and cannot tell what the impact the EIS will have on their plans.

Response. The maps have been revised and the ones that affected this site (e.g., Coastal) have been dropped for other reasons.

13. Ms. Beverly Grady, on behalf of Kathryn Mollach, and separately on behalf of Mamiye Brothers Partnership, by letters dated September 7, 2000, states that the properties are misidentified on the maps as Preservation.

Response. The maps have been revised subsequent to the comment. The property is now within two maps. For "Panther", the site is within the nine-county "Consultation Area" boundary. For "marshes," some freshwater herbaceous marsh is identified near the properties, but site specific information would confirm the presence or absence. The narratives rewritten to clarify these maps are not designating property use.

14. Mr. Timothy P. Durham, Wilson Miller, by letter dated October 31, 2000, requested that the Red cockaded woodpecker and the Florida panther maps be corrected relative to the Winding Cypress project.

Response. The maps were revised for a variety of reasons and also addresses the request.

15. Mr. John W. Vaughn, by letter dated April 9, 2001, suggests the following needs to be addressed: verify aerial photography on the ground; geology played no part in the study; your

response to a homeowner on possible presence of wetlands; placed too many hurdles in the permitting process; broad brushing whole county as wetland; advent of mitigation bank has eliminated small parcels of isolated wetlands; your history of Sabel palm road is flawed; cattlemen in the area have not seen any Florida panther for the last 7 years; whole study "reeks of "Fuzzy Math" and ideologies from the "Utopian Ivory Tower""

Response. Some of the comments appear to be misunderstandings of statements made during a public workshop and we hope this revised document better explains the purpose.

16. Collection of signed petitions "Citizens for Public Access and Use" asking "...to stop prohibiting access to areas such as Picayune Strand State Forest, Southern Golden Gate Estates via Miller Road, Everglades Boulevard and Sabel Palm Road Extension, and to stop buying out areas such as Northern Golden Gate Estates for environmental conservancy purposes."

Response. The revisions clarify the purpose of this effort, which does not include prohibitions (that only can be made after a permit application is reviewed) nor acquisition.

17. Mr. Dennis Gilkey, Bonita Bay Properties, by letter dated October 2, 2000, continues to object to the EIS because of its failure to address the following criteria: limit activities to the regulatory authority of the Corps (goes beyond wetland impacts, wildlife issues elevated as a critical component in evaluation, not reconciled differences with local land use plan); streamline permitting process (all development gets rigorous review; maps do not utilize existing data; ignores State permit process; expands permit process, emphasizes wildlife; no general permits); respect property rights (mapping essentially places moratorium on growth); base conclusion on technically accurate data and analysis (maps not at useable scale, data sources not documented, inaccuracies such as panther map shows everything east of I-75, eagle being delisted, no data from property owners); and, evaluate economic impacts to local communities. Project-specific information contradict several of the maps: Map 13 Public Acquisition (agencies not willing to purchase); Map 15 Habitat Fragmentation (wetlands highly disturbed, project will improve); Map 21 Coastal (development will preserve mangroves); Map 25 Water Quality (project meets State standards, may improve current

runoff); Maps 10, 17, 20 Audubon's crested caracara, Florida panther, Florida scrub jay (species not on site, local regulations require protection); Map 22 Strategic Habitat Conservation Area (site plan takes habitat into consideration, surrounding land developed); Maps 11, 19, 23 Bald Eagle, Red cockaded woodpecker, Wading bird rookeries (local regulations require protection); Map 14 Flowways (not located in one).

Response. The EIS goes beyond wetlands so that it can disclose the effects of actions by the Corps and by others, this disclosure encouraged by the NEPA. Regarding specific comments: wildlife is receiving attention because it is an important value of wetlands in this area; the Corps recognize that local land use plans identify where development is expected and the EIS is identifying federal Endangered Species Act and other issues that result; the Corps was hoping to streamline permitting through General Permits but both landowners and resource proponents correctly identify the need to incorporate site specific information via individual permit review; revisions have been made to the description of the use of the EIS information to make clearer that there is no permit "moratorium"; the EIS fully acknowledges the level of accuracy of the information and maps are not the same as provided by a detailed site review but it is not necessary to obtain this level of detail across two counties to identify regional issues; the economic issues are discussed in the EIS, but this effort is not changing the review requirements for a permit, but is formally providing the type of information to Corps staff that historically and continues to add to the professional body of knowledge used in review of applications. Many of the maps described have been revised or deleted, though there will still be some differences between these and what site-specific information would show.

18. Mr. Ron Hamel, Gulf Citrus Growers, by letter dated September 21, 2000, states the EIS has the potential to have very serious negative economic impacts by placing additional restrictions and regulations on agricultural land owners; maps lack accuracy and ground truthing; Corps team overlooked the 1992 study of wildlife use in citrus development; does not analyze economic impact on farmers; process weighted on the environmental side.

Response. This effort is not changing the review requirements for a permit above those already present, but it

has attempted to identify and provide information on issues that were being raised on a permit-by-permit basis. The EIS fully acknowledges the level of accuracy of the information and maps are not the same as provided by a detailed site review but it is not necessary to obtain this level of detail across two counties to identify regional issues. The Corps is aware of the study and wildlife utilization of citrus areas. The environmental issues are given attention bucause these are the ones that have made permit reviews difficult.

19. Erin Deady, Audubon of Florida, by letter dated September 28, 2000, submitted a list of 23 suggested changes to the EIS or Appendix H and the following general questions and comments: Lehigh Acres is important from biological standpoint so why is excluded; EIS using Collier Comprehensive plan that has been found inadequate; permit criteria are very general and not specific; not clear what future NEPA documents that will tier from the EIS; unclear what level of effort/rigor of review means; will Corps deny a permit based on cumulative effects and if so, what quantifiable measure will lead to such a denial?; holistic mitigation plan preferred to case-by-case basis; How does the Corps expect to protect the resources more, if there is no change in the way permits are issued?

Response: The revisions to Appendix H have addressed many of the suggestions. Lehigh Acres is not excluded. The Comprehensive plan was used as one of several potential futures in order to estimate cumulative impacts so the "inadequacies" do not detract from how it was used in this study. The revised maps and narrative added more specificity. The future NEPA documents are EAs for individual permits. The meaning of "rigor of review" is meant to be a combination of number of manhours and level of expertise to be assigned but will necessarily remain vague as we expend time and resources on an adaptive basis in response to issues as they arise in the review process, the EIS effort is an attempt to identify these issues earlier. Cumulative effects are part of the permit decision but there are no thresholds. We also prefer holistic mitigation planning and some of the information in the EIS can contribute to that. This memo includes additional explanation of the difference between the permit process and what the EIS effort is contributing.

20. Ms. Janice L. Goldman-Carter, by facsimile dated September 7, 2000, forwarded a copy of a letter from the Big Cypress

Basin, South Florida Water Management District, to Collier County (providing suggestions for the Land Use Matrix of the revision to the Collier plan: absolute non-fragmentation of wetlands and non-disruption and restoration of historic flowways) and stated the Corps should adopt permit review criteria that are at least equally protective

Response. The Corps cannot issue such an absolute prohibition since the regulations provide for individual review.

21. Ms. Nancy Ann Payton and Mr. Kris W. Thoempke, National and Florida Wildlife Federations, by letter dated September 1, 2000, stated the ROD must: more clearly articulate the impacts described in the EIS (and that the EIS is not a complete cumulative impact assessment) and adopt criteria that actually restrict the cumulative adverse impacts of permits; adopt criteria that provides effective impact reduction instructions to reviewers and applicants (several specific recommendations provided); commit to a critical assessment of the Corps' compensatory mitigation practices; commit to implementing additional water quality mitigation measures; commit to a critical assessment of the use of Nationwides and other General Permits; include monitoring and re-evaluation provisions to update the cumulative impact analysis; and acknowledge and address the need for additional permit review staff. The letter also states the Corps has unlawfully issued permits in key natural resource areas during the EIS process, urging the corps to postpone issuance of permits. The letter also urges the Corps to supplement the EIS to incorporate best available scientific information. The specific suggestions for the criteria include: an explanation the 404(b)(1) guidelines applicability; Corps not rely just on applicant provided information; require EISs if impact key resources; preclude use of general permits if impact key resources; require avoidance of marshes or replacement must mimic hydroperiod; expand explanation of effects arising from impacts to "High Proportion Wetlands", should expand to cover all wetlands; EPA must joint Corps in requiring water quality conditions; assessment of effect shall be made in consultation with the U.S. Fish and Wildlife Service; stronger statement that Red cockaded woodpecker areas be avoided; additional clarification and cross-references to the EIS document and stronger statement that Habitat Fragmentation, Preserve, Public Acquisition, Coastal, and Strategic Habitat Conservation Areas and Flowway areas be avoided or replaced.

Response. We agree there would be advantages to going into more detail then the EIS did and developing more absolutes then provided by the proposed criteria, however, this effort was conducted within the limitation that the Corps would not be changing the regulations. The effort spent on analysis is to provide the appropriate level of detail to support permit reviews. The Corps cannot issue absolutes or restrictions but must perform individual reviews. The effort has resulted in greater specificity, understanding and explanation of the issues that has contributed to improved reviews. This effort is formally providing the type of information to Corps staff that historically and continues to add to the professional body of knowledge used in review of permit applications.

22. Ms. Nancy Ann Payton, Mr. Kris W. Thoempke, and Ms. Jan Goldman-Carter, National and Florida Wildlife Federations, by letter dated February 13, 2001, forwarded "An Economist's Critique of the Corps' Southwest Florida EIS and the Fishkind Report" by Dr. Fredrick W. Bell. Points stated include: EIS conclusions based on faulty premise that ecosystem protection detracts from, rather then contributing to, regional economic progress; EIS should have introduced more literature and examples of the relationship between wetlands to the animal populations and environmental and economic benefits to the region; EIS does not fully assess the economic benefits of the wetlands and should have used literature on non-market values rather then relying exclusively on market data; the EIS failed to recognize that tourism and retirement industries are attracted to the area by its natural amenities; the EIS did not perform an economic analysis and relied on flawed analysis of the ADG (inconsistent results), the crude explanation (fails to account for spending outside the region), and four studies (dollars per acre do not accurately measure economic benefits and do not include consideration of preserved wetlands); and the Fishkind Report that had different acre figures from the EIS, did not include changed in agricultural lands, incorrectly used a fixed productivity rate and other ratios, fails to consider the non-market value of wetlands; and incorrectly used various fixed ratios and other assumptions in the estimates of government revenues.

Response. We agree with the assessment of weaknesses of the studies incorporated into the EIS. However, one of the

premises of this effort was to gather into one place and examine existing information. For example, the four studies are the only ones that were found for this region. There is not an existing analysis of, say, the Future Land Use Plan that the Corps could have built on. By the policy in our regulations, the Corps balances on a permit-by-permit basis the economic and non-economic benefits and detriments of a wide variety of what are called public interest factors. The Regulatory Program has not converted the metric for all of these to dollars. While Dr. Bell is correct in that there are economic benefits of wetlands, there is also a very wide range in the literature on how that should be determined. The effort to resolve that is beyond this EIS effort.

23. Mr. Neil Dorrill, Partners for Environmental and Economic Progress, by letter dated October 31, 2000, submitted comments relative to sixteen concerns: FEIS is a significant departure from the DEIS and should be republished as a DEIS; fails to explain how maps were derived and how criteria will be applied during the application process; maps are overbroad or speculative; the two basis listed on which a landowner can contest the applicability of a map are too narrow; should not presume that project site on a mapped area will have potential to impact; provide a formal process to update maps and other information; presumption that "alternatives outside of mapped area are available" inconsistent with public interest review standard since based only on a single factor; none of the criteria state Corps will account for benefits of project; potential habitat (compared to occupied habitat) should not be protected or at most be given minimal weight; criteria of no net loss for specific species is modification of regulations; establishing mandatory mitigation circumscribes the flexible approach to mitigation under law; criteria 24 (requiring analysis of alternatives inside urban/suburban areas) eliminates consideration of the applicant's project purpose; for water quality, overrides structure of Clean Water Act (by improper use of the 303(d) list) and overrides State stormwater regulations (by requiring higher treatment); should consider information submitted to and decisions made by State or local agencies with overlapping jurisdiction over a resource; failed to perform an economic analysis of the resulting delays and de facto moratoriums; and, is ambiguous as to whether applies to pending applications.

Response. This memo has language clarifying the intended use of the information, among other things, that the use of the EIS information is to ensure Corps staff does not overlook some issue and that staff is cognizant of its regional and cumulative context. The major changes between the Draft and Final EIS documents were in Appendix H, which is how to implement the information in the body of the EIS. Explanations were expanded on the derivation and application of the maps. Several maps were revised or dropped for various reasons, including those that were overbroad. We removed the two listed criteria for contesting the applicability of a map and increased emphasis on use of site-specific information. Removed the presumptions related to the alternative analysis. The Corps will not adopt a formal process to update information, but will continue to provide the type of information to Corps staff that adds to the professional body of knowledge used in review of permit applications. Relative to the issue of potential vs. occupied habitat, the Corps will still identify potential habitat during its reviews in order to make its initial determination of a project's effect on a species, but the effect on the permit decision will depend on the subsequent site-specific assessment relative to the species, as explained in the greatly expanded narratives for each species. The "no net policy" is intended as a statement of a goal that individual natural resource functions impacts be offset, but the permit decision is still based on the public interest determination. The sections guiding the alternatives analysis were dropped to remove the confusion; the intent was not to change the regulations. Relative to water quality, a more comprehensive description of the basis of the action has been added. We agree and do attempt to reduce duplication with State and local regulatory agencies, but the Corps still has independent and in some areas differing role. Relative to the economic analysis, we disagree that we have imposed new restrictions or moratoriums above that already provided in the regulations, but have formally incorporated new knowledge into the reviews of issues that landowners already could and are facing in the permit process.

24. Mr. Bob Crawford, Commissioner of Agriculture, Florida Department of Agriculture & Consumer Services, by letter dated October 10, 2000, requested the comment period be extended for 120 days and that the Corps should coordinate with two State actions: the Growth Management Study Commission created by

Governor Bush; and, the revision of the Collier County Comprehensive Plan.

Response. The comment period was extended. The Study resulted in a report that included several recommendations, some of which related to natural resource issues. These generally relate to the State's implementation of actions relative to authorizations for development, and the Corps actions described by this memorandum are focused on the Corp's independent role. Compared to the original Corps proposal, revisions were made to further clarify that the Corps is not implementing new regulations relative to development that require individualized project specific reviews. The Corps action is ensuring Corps staff does not overlook some issue and that staff is cognizant of its regional and cumulative context. One product of the Collier effort, the land use-related mapping of the Immokalee Area Study, has been referenced by the revised criteria.

25. Horizon Council, Lee County, by letter dated August 31, 2000, complimented the revisions to Appendix H but have following concerns: there may be inaccuracies in the maps due to the scale; whether reviewers will apply the brief "assessment of affect" narratives in a more restrictive manner or as absolute mandates; and whether reviewers will not consider site-specific information to override the maps.

Response. The revision re-emphasizes the potential inaccuracies of the maps and use of site-specific information; for wildlife in particular, the narrative is greatly expanded to explain the assessment.

26. The U.S. Environmental Protection Agency, by letter dated September 14, 2000, recommends: the ROD makes a commitment to reduction of development-related pollutant loading and local, state and federal agencies meet to identify geographic areas best suited for use as mitigation bank sites.

Response. The Corps has worked very closely with the EPA on the water quality issue and the commitment is included in this memorandum. There are several private mitigation banks and other efforts underway. Subsequent to the comment letter, the Corps participated in several meetings hosted by the Regional Planning Council to develop a strategic conservation plan.

27. Lee County, by letter dated September 27, 2000, noted remaining key issues and then had 11 specific comments on various places in the text. The key issues are: an accurate calibrated water quality model is needed before making management decisions; trend analysis of water quality conditions need to be updated with all quality controlled available data; not able to meet until just before the comment period closed with EPA and FDEP over the water quality trend analysis; any proposed regulation changes should go through formal rulemaking; support a technical review of the EIS.

Response. The Corps recognizes the limitations of the assessment in the EIS and is careful in use of that. We agree a calibrated model with all available sampling data would be preferred, but what has been done is considered sufficient for identifying regional cumulative trends. This effort is not resulting in any changes to regulations. We continue to work with EPA and, through them, state and local agencies relative to the water quality concern.

28. Collier County Board of County Commissioners, by letter dated September 26, 2000, stated the final document should have no conflicts with the County Comprehensive Plans. Specific comments are: should include development of General Permits as an objective with specific time-frames; the appropriateness and availability of off-site mitigation is still not clear; recommend a more comprehensive water quality analysis be completed; should identify methods to minimize economic impacts to private property owners where there are conflicts with the local comprehensive plan.

Response. The Comprehensive Plan was used to estimate the potential impacts; the EIS describes potential impacts that result. The Corps was hoping to streamline permitting through General Permits but both landowners and resource proponents correctly identify the need to incorporate site-specific information via individual permit review. The narratives, particularly for wildlife, have been expanded to discuss off-site mitigation and the Corps has accepted (even preferred in some cases) off-site where the mitigation will contribute to regional natural resource protection. We agree a more comprehensive water quality analysis would be beneficial, but what has been done is considered sufficient for identifying regional cumulative trends. The EIS effort is not changing the

review requirements that already exist on property owners. It is formally providing the type of information to Corps staff that historically and continues to add to the professional body of knowledge used in review of permit applications.

29. Lee County Board of County Commissioners, by letter dated October 5, 2000, is concerned about the potential negative impact the EIS will have on the County's ability to implement their Comprehensive Plan and is not consistent with several of the "Guiding Principles" previously agreed to: the EIS has gone beyond the regulatory framework of the Corps; there is no analysis where inconsistencies with the local plans occur; rather then ensuring property rights and economic factors are given equal weight, they have been made subservient to the natural resource issues; the EIS essentially ignores the existence of State and local environmental review processes, does not shorten review time and other improvements, and instead expands the federal process; there is no analysis of the economic impacts; and failed to create the expected reliable and accurate database and question basis for maps and other conclusions. The Board recommends a technical review by State agencies.

Response. The EIS itself discloses the cumulative effects of all actions, both those by the Corps and by others, as intended by the NEPA and some of the revisions to Appendix H were made to reduce the appearance the Corps is outside its jurisdiction. Narrative has been added to clarify that the permit decision is still based on an overall balancing of the benefits and detriments of the project (the public interest factors), however the wildlife and other issues are the ones included in this memorandum since these are posing the greatest difficulty to address in current permit reviews. The Corps attempts to reduce duplication with State and local regulatory agencies but the Corps still has independent and in some areas differing role. Relative to the economic analysis, we disagree that we have imposed new restrictions or moratoriums above that already provided in the regulations, but are formally incorporated new knowledge into the reviews of issues that landowners already could and are facing in the permit process. While this did not result in a formal database, other then the bibliography, the information and the analysis are not dissimilar from those used in permit reviews. The particular map that the letter refers to (Florida panther) has been revised

to delete unpublished information. Rather then analyze the entire document, we continue to work with other Federal, State, and local agencies on the individual issues to ensure we are applying the information appropriately to permit decisions.

30. The Economic Development Council of Collier County, by letter dated October 30, 2000, was substantially identical in text to the letter from the Lee County Board of County Commissioners, dated October 5, 2000.

31. The State Clearinghouse, Florida Department of Community Affairs, by letter dated October 30, 2000, forwarded comments from the following agencies.

a. Florida Department of Environmental Protection notes: the EIS on page 47 states 17 federally listed and 45 state listed faunal species occurring in the study area could be affected but does not state whether positive or negative and the effects on plant species is not addressed and recommends the EIS should list which species could be delisted as the result of the proposed actions.

Response. Other then certain species, the EIS evaluates the effects on habitat in general terms.

b. Florida Fish and Wildlife Conservation Commission states: Table 3 of the EIS should reflect that all of the scrub jay, red-cockaded woodpecker clusters, bald eagle nests, and woodstork rookeries are protected under Ensemble S; Section on Florida panther should note presence in CREW and other counties; no criteria for West indian manatee, American crocodile, and sea turtles; the assumption by the Corps that proposals are economically viable and needed simply because an application has been filed is erroneous since many projects in the study area are pursued for permits and then do not develop; indicate how progress will be monitored; and, address the net wetland area losses that are occurring with the use of WRAP.

Response. Relative to Table 3, noted. The additional panther range has been included in the revised criteria. We did not include the Manatee, crocodile, and sea turtles since the EIS emphasis was on the watershed. For the Manatee, the Corps has prepared separately analysis. We recognize the speculative nature of some applications but by the

time of decision on the application we have worked with the applicant to understand the project purpose and alternatives. The loss of spatial extent of wetlands under the program is discussed in the EIS. This memorandum includes a monitoring report.

c. South Florida Water Management District states: there are extensive gaps in the water quality data used to generate the trend analysis, some should be left out, and document does not offer conclusions how to solve; there are no clear cut guidelines established for which actions may or may not effect listed species; there is no guidance regarding how the factors identified in Appendix H must be looked at as part of the total evaluation.

Response. Regarding water quality analysis, we note the comments and observe that any such analysis could be improved and further improved. The criteria for the species have been substantially expanded and we continue to work with the U.S. Fish and Wildlife Service to increase the celerity. This memorandum provides narrative to better explain the role within the total evaluation.

d. Southwest Florida Regional Planning Council, at their August 18, 2000, meeting, voted to request that the Corps hold a series of workshops to more fully explain how the EIS will improve the Regulatory Process.

Response. Workshops were held subsequent to this letter.

32. The National Wildlife Federation, by letter dated December 5, 2002, forwarded a copy of their "Road to Ruin" report on the Corps program in the EIS study area and asked the ROD: rigorously applies the avoidance and minimization requirements of the 404(b)(1) guidelines; announce a re-evaluation and modification of the Corps' wetland assessment and mitigation policies; adopts tougher water quality permit conditions; announces a re-evaluation and restriction of Nationwide Permits; announce a consultation and EIS regarding all Corps-permitted development that may affect the Florida panther; announce a decision to conduct Corps "isolated wetlands" determinations in consultation with EPA and consistent with U.S. Supreme Court and appellate court decisions; announces a decision to focus and

expedite West Everglades restoration efforts to acquire and restore key resource areas identified in Appendix H.

Response. The intent of this EIS was not to change current permit regulations and therefore the Corps will continue to apply the 404(b)(1) guidelines as so required. One result of this EIS is that the Corps is increasing the sophistication of the assessments: several years ago, we started using a numeric assessment and are working with the State on improvements and now, with the maps and associated narratives attached to this memorandum, are formally directing our Staff to overlay this "general purpose" assessment with assessment methods tailored for the particular issues that apply to the project. Regarding water quality, this memorandum includes provisions for assessing the post and pre-project water quality. Regarding Nationwide permits, this EIS looks at wetland fill and does not differentiate by permitting types. The applicability of the Nationwide permits within the EIS study area is appropriately done as part of a comprehensive review at the time the permits are being considered for renewal. Regarding the Florida panther, Section 7 of the Endangered Species Act provides consultations performed on individual applications. Regarding "isolated wetlands", the determination of jurisdiction was not within the scope of this EIS. Regarding acquisition, the Corps Regulatory Program has no authority to acquire land.

33. The report "Road to Ruin" included these major conclusions.

a. Corps is allowing a massive and extraordinary amount of wetland destruction.

Response. The EIS predicts that the wetland fill after 20 years ranges from 5.5 to 7% of total wetlands present. To put this into perspective, 48% of the study area is wetland, 13% is undeveloped upland, and the EIS predicts that from 38-42% of uplands will be developed.

b. The EIS confirms that current permitting ("status quo") is degrading the Western Everglades Ecosystem.

Response. The EIS presented five "futures" and the potential environmental effects for some issues and in some cases indicate a potential decline. The EIS did not include mitigation. The EIS information improves our ability too

incorporate into individual projects appropriate measures to avoid, minimize, and compensate for identified effects.

c. "There is good reason to believe Corps, EPA and FWS officials are backing down from their public trust duties because of pressure from powerful development interests and lobbyists."

Response. No examples are given to describe the generalized statement of opinion. However, we are applying the information gained from this EIS process in our permit reviews.

d. "The Corps and SFWMD are sanctioning drainage and development proposals...taxpayers may one day be forced to pay the Corps to repair the damage..."

Response. Permits are issued using best available information to incorporate measures in project designs to avoid, minimize and compensate for project effects.

e. "...actual recent rate of wetland loss...is substantially higher then the 500 acres/year that the Corps estimated it was permitting in this area before the EIS process ever began."

Response. Any statement on trend must recognize that wetland acre figures vary widely year to year, see figure 2 of Enclosure (4). The historic rate of permitting reported by the EIS (based on 8-1/2 years) is 508 acres per year. The NWF figure of 880 acres per year is based on a shorter period (4-1/4 years) and also includes excavation. If we dropped one very large permit (for the SWFL Regional Airport's new terminal) and also drop the excavation, the NWF number would be 585 acres per year, only 15% higher then the EIS historic rate. The EIS predictions (for 20 years) range from 728 to 1,059 acres per year, not surprising given development is moving into wetter areas.

f. The National Academy of Science study that shows some of the required mitigation is never attempted and that much of what is attempted does not successfully replace wetland acres or functions lost to development.

Response. Our permits require submittal of monitoring reports. We check for receipt of those reports as well as perform site inspections on a sample of projects. The general body of knowledge on how to design and assure success of mitigation has increased ever since the Regulatory Program started in the 70's. Some of the key lessons from the NAS report have been formally issued to Corps staff through Regulatory Guidance Letter 02-02

g. The Corps mitigation requirements result in a net loss of more then 2,700 acres in the past four years. Only 2.6% of the 8,800acres of mitigation will actually offset impacts.

Response. As described in Section 4.2 of the EIS, each project that degrades the functions & values of a wetland must replace those functions & values by either establishment of new wetlands or restoration of functions in degraded wetlands. This will result in fewer wetland acres but equivalent level of wetland functions. In Southwest Florida, one common form of restoration is to remove the exotic tree melaleuca since its presence degrades habitat functions. In calculating the 2.6%, NWF does not include this restoration effort.

h. Jacksonville District's annual wetland loss rate is high compared to most regions in the country.

Response. The ecological settings are different.

i. Permits are being issued in areas identified on the maps in Appendix H, further degrading these resources. 84% of the Individual Permits issued since 1998 have been in areas identified by the EIS as critical to at least two key natural resources. 45% of the Nationwide Permit approvals have been in areas identified as critical to five or more resources. Corps has allowed this significant harm to the environment with no public notice and minimal review.

Response. Just because a project is located in a mapped area does not mean that the resource is automatically degraded. First, the identification of which projects "hit" a mapped resource was designed to be conservative. Based on site-specific information, the issue may not have found to apply during the review of each application. Second, our individual

permit reviews look at how the project can avoid, minimize, and compensate for the project's effect on those resources. Regarding public notices, there is no requirement for individual public notices for requests landowners submit to the Corps requesting verification that their project meets the conditions of a Nationwide Permit. We wish to note that the 173 Nationwides in the NWF dataset reflect a total of 80 acres of fill while the 111 Individual permits reflected 3,000 acres of fill. Therefore, the potential effect from the Nationwides is relatively smaller and has enabled concentration of review effort on the larger individual permit applications.

j. The law prohibits issuance of a permit where there is an alternative, and a non-wetland alternative is presumed to be available for projects that don't have to be located in wetlands. Corps has accepted the developer's perfunctory alternatives analysis instead of requiring them to avoid the wetlands.

Response. The law is more complicated then this, for example, the "prohibitions" are "rebuttable" presumption. We review the applicant's submittals, match it with our knowledge of the area, and ask questions and supplement it as appropriate.

k. Corps issues determinations that wetlands are isolated (and therefore "no jurisdictional") at the behest of the developers only and without any public notice or consultation with EPA.

Response. Since the determination is whether or not wetlands are located on the developer's property, it is naturally the developer who asks for that determination. There is no requirement for public notice or consultation with EPA on JDs.

l. Corps not including in permitting statistics the acres of "isolated" wetlands that are lost.

Response. So we don't track since we do not regulate.

m. Recent "isolated" determinations ignore existing hydrologic connections, or dismiss them as being "severed" by roads, berms, developments, or man-made barriers.

Response. We do not ignore or dismiss hydrologic connections. Every site is unique and we make our determination based on site-specific information.

n. Corps continuing to make these determinations when EPA has told Corps that the barriers only "appear" to sever hydrologic connections.

Response. This appears to be a particular project and EPA nor we have not been able to identify.

o. Corps letting the developers renege on their promises to protect wetlands within their developments now those wetlands are isolated.

Response. If the wetland was enhanced, restored, or otherwise a component of mitigation for a permit, then they have to seek a modification of the permit.

p. Corps not responded to the Agency on Bay Management request for the location of wetlands where the Corps jurisdiction has changed.

Response. We have responded to the letter.

q. Developers are still buying key resource lands with the expectation of building on them and profiting from them. Corps delayed the EIS and therefore signaling "business as usual" to the developers.

Response. The developers are as aware as we are of the information in the EIS. Those undergoing permit reviews since the EIS have seen differences in our reviews depending on the location of the project. Developers buying land with hopes of profit is called "speculation" and that has occurred and will continue in Florida with or without the EIS. On the other hand, we have seen several applications incorporating information form the EIS, which propose the preservation and enhancement of flowways for example.

r. Corps continues to authorize projects located in historic flowways that are identified by the EIS.

Response. We are seeing projects submitted by the landowners are more responsive to the flowway issue. They are designing the footprint to remain out of the flowway and even restore them.

s. Corps continues to authorize projects that will likely continue water quality degradation.

Response. We presume that the permit issued by the State is conclusive that the project will meet water quality standards. The EIS analyzed past 30 years of data and detected a downward trend in many basins. It also looked at two future scenarios (20 year) and estimated a downward trend. Using this information, EPA identified several applications where additional water quality treatment above the State permit requirements was needed. This memorandum includes methods to assess incoming applications for this issue.

t. Corps is dismantling the Estero Bay Watershed.

Response. We are giving its watershed a lot of attention. Also, we continue to increase the staff in our Ft Myers office.

u. 36% of the 111 major development projects are in panther habitat identified by the EIS. 55% of the proposed projects are in panther habitat. Corps is issuing these when there no question that such a loss of habitat is substantially reducing the likelihood of the panther's survival.

Response. For projects that may affect the panther, we consult with FWS to obtain their opinion. We also do an independent review.

v. Corps continues to accept FWS concurrence of "no adverse effect" or "no jeopardy" opinions when there is no question that their opinions are being rewritten based on politics rather then "best scientific and commercial data available"

Response. We have no opinion on the NWF's accusation that FWS is acting out of politics rather then a professional evaluation of the facts. The FWS is the federal agency with the expertise in this area.

Changes from Appendix H

1. The "Purpose" paragraph is rewritten to describe the supplemental tasks. These are: (a) Screen incoming applications against a set of maps to identify potential issues; (b) Use site specific information to determine whether the issue is relevant to the project at hand; (c) If relevant, use the methodology accompanying the maps or another methodology provided by the applicant or others to assess the effect, if any; (d) Compare the project location to the predicted futures presented by the EIS.

2. A "Background" paragraph is added to describe the application review process and the role of the screening maps. The issues identified through the screening will be given the appropriate weighting and analysis along with the other public interest analysis and other requirements of the Corps permit regulations.

3. The "Format" paragraph is deleted. However, for each issue a narrative has been added to describe the assumptions underlying the map.

4. The "Status" and "Updating" paragraphs are combined into a single "Updates" paragraph and shortened to reflect the commitment to utilize new and site-specific information when available.

5. The "Permit Review" paragraph has been modified to delete the text describing the permit review process. An addition was made for applications that are pending at the date of this document to require that the screening maps be used to ensure some issue is not inadvertently missed. If the issue has already been identified in the normal review process then the work that has already been done will remain and not be re-done. We anticipate that the issues will have already been identified for most pending applications other then those that are at the very beginning of the review process.

6. The "Natural Resource Overlay Map" has been deleted since it was overbroad (covered most of the study area) therefore is not useful to prioritize manpower review resources.

7. The "Cumulative Impacts" paragraph has been rewritten to describe the use of the predicted future maps within the EIS.

The five maps depict what the landscape may or may not look like in 20+/- years and the accompanying evaluation provides estimates of acres of wetland fill, area of habitat lost, and other issues. If a project is consistent with any one of the five maps, then the potential cumulative effect of this and future projects can be expected to fall within the range of effects described by the EIS. The issues for which screening maps are developed are those for which the potential cumulative effects are particularly within the concern to the Corps. By highlighting these issues, there is an increased assurance that appropriate mitigation actions would be incorporated into the project to reduce and in some cases eliminate that project's contribution to the total potential cumulative effects described by the EIS.

8. An additional sentence has been added to the "Immokalee Reservation, Seminole Tribe of Florida" paragraph to reflect their concern that the Corps is pre-identifying issues within tribal lands.

9. The U.S. Fish and Wildlife Service has developed draft local operating procedures for several species. These include information and maps to screen a project location as well as suggested methodologies for evaluating the effect of the project. The process is described by Attachment A of Enclosure (1). These replace the originally proposed maps and criteria. The maps and evaluations are not inconsistent with those in the EIS, although much refined. Those changed are as follows.

a. Audubon's crested caracara. Both the revisions and the EIS utilize the presence of rangelands and similar habitats in the screening. The revision now provides a "Consultation Area" map based on known and suspected occurrences in south Florida. The original screening map inventoried rangeland throughout the study area, but now the more likely areas would be in the agricultural areas at the northeast portion of the study area. Because the Immokalee Area Study (after the EIS) has produced a more refined land use mapping, Corps staff are referred to that product.

b. Bald eagle. The screening map of known locations was revised with more recent nest reports. The revised criteria emphasize the importance of forested canopy near open water.

c. Red cockaded woodpecker. Both the revision and the EIS utilize the presence of pinelands in the screening. The screening map attempted to predict locations of colonies by mapping contiguous forested lands that are within dispersal distance of known colonies. This was dropped since does not reflect current practice in consultations.

d. Florida scrub jay. The original screening map inventoried scrub lands throughout the study area, but that map has been replaced by one showing more likely locations. The revision is based on an analysis of occupied and potential habitat throughout south Florida prepared as part of the interim "Guidelines for assessing mitigation needs for the Florida scrub jay." However, site-specific information obtained during the application process will still be reviewed to determine the presence of scrub vegetation, no matter the location.

e. Marshes. Both the revision and the EIS emphasize the importance of short-hydroperiod marshes for Wood stork foraging habitat. The original screening map inventoried freshwater herbaceous marshes based on the South Florida Water Management District land cover mapping, since that was used for the EIS. The revision uses the National Wetland Inventory since that was used by the U.S. Fish and Wildlife Service in a post-EIS consultation. The revised map also shows the "Core Foraging Area" surrounding the currently occupied rookeries (covers almost the whole EIS study area.) The revisions to the narrative increase the emphasis on assessing the hydroperiod of the wetland and notes that any wetland type, not just freshwater herbaceous, that provides foraging is important to the Wood stork.

10. The "Shorebirds" criteria focused on the Piping plover. Subsequent to the EIS, the FWS has designated critical habitat for this species and this information has been provided in lieu of the original map that showed all of the beaches.

11. The "Florida panther" map and criteria have been revised to reflect recent consultations. A standard local operating procedure has been issued that identifies a nine county area as the "consultation action area" within which panther habitat may be found. Biological Opinions since issuance of the EIS continue to assess project effects on contiguous areas of forested area, consistent with the analysis found in the EIS.

The U.S. Fish and wildlife Service continues to work on this issue so another revision can be expected soon.

12. The "Water Quality" map and criteria have been completely revised. The originally proposed criteria asked the applicant whether it was practicable to add surface water management features that under the State rules would be expected to provide 95% treatment. This has been replaced by a methodology where the actual nutrient loads in the stormwater runoff would be calculated for the pre- and post- project condition.

13. Several mapped issues have been deleted since they are considered to be less valuable for formal screening.

a. "Strategic Habitat Conservation Area (SHCA) Lands." This still has an immense potential since, being designed to enable prioritization of lands for acquisition, it could also enable the Corps to recognize certain locations as more valuable when evaluating the site plans or proposed compensatory mitigation. However, these products are not being widely used by other programs and therefore our use may result in inconsistency of results.

b. "Wading Bird Rookeries." These mapped locations are based on site-specific observations and so could give a false sense of security using for new sites. Will continue to rely on site-specific observations as part of the normal course of business.

c. "High Proportion Wetland." Due to the importance of uplands, the high proportion of wetland by itself does not indicate a more valued habitat over another site.

d. "Coastal." These locations are obvious from the permit application so a map was only adding work. These vegetation communities already receive high attention.

14. The "Flowway" and "Habitat Fragmentation" sections have been revised for readability and the assumptions used in the map added.

15. "Management of Preserves" and "Public Acquisition Program" have been combined into a "Regionally Significant Natural Resources." This is intended to clarify that the Corps review

is concerned with assessing the effect of the project on natural resources. The designation/labeling of the land as publicly owned or proposed does not by itself give weight either for or against in the decision whether to issue a permit. The title of the section is taken from the map prepared by the Southwest Florida Regional Planning Council.

Monitoring Report

1. This report provides information related to recent permitting within the EIS study area.

2. Data for permits issued from January 1, 2000 to April 16, 2002 within the EIS study area were extracted from the Corps permit tracking database (RAMS.) The data entries were checked and in some cases the permit files themselves were pulled. Permits for the following types of projects were not included since these were not included in the original tally of permits performed for the EIS: shoreline protection, subaqueous crossings, boatramps, bridge/related work (generally was dredging), dredging, piers, minor structures, control and outfall structures, navigation aids, and wetland reclamation projects.

a. 3,113 acres of fill authorized by Individual Permits from January 1, 1998 to April 16, 2002.

b. Acres of mitigation required for these Individual Permits, broken down by mitigation types below. These are unique numbers, for example, an acre is either counted as "restored" or "preserved", but not both.

(1) 8,797 acres created, restored, enhanced.

(2) 837 credits purchased from mitigation banks.

(3) 565 acres enhancement/restoration within CREW, Six Mile Cypress Slough, etc.

(4) For some permits, the acres of enhancement/restoration was not entered into the database but the monies paid were entered. These totaled $716,144

(5) 777 acres of wetlands preserved.

(6) 6,467 acres of upland preserved

c. 80 acres of fill authorized by Nationwide Permits verified from January 1, 1998 to April 16, 2002.

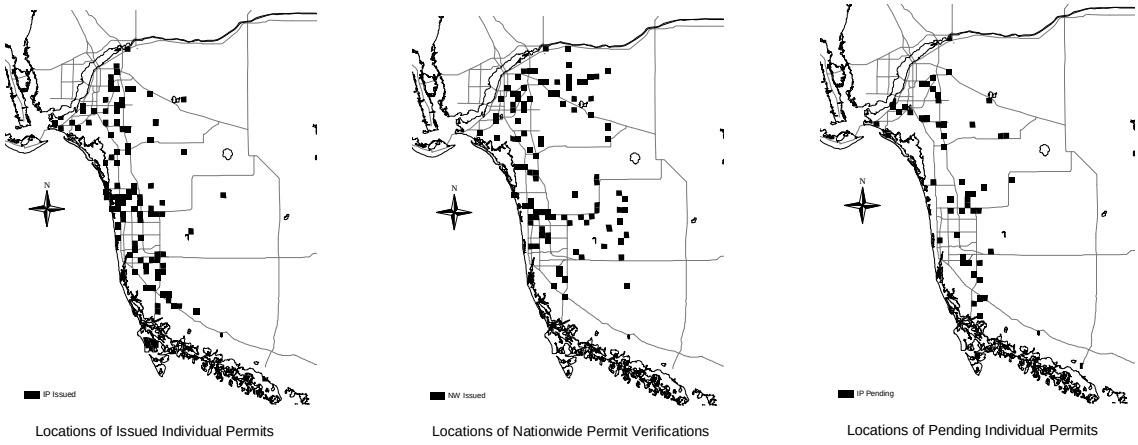
(1) Mitigation performed by permittee: 143 acres

(2) Mitigation by purchasing credits at Bank: 16 credits

(3) Mitigation by other: 35 acres

d. 2,667 acres of fill in pending applications for Individual Permits on April 15, 2002.

e. Figure 1 shows the Public Land Survey Sections (one square mile) where one or more permits were issued, verified, or pending.



Locations of Issued Individual Permits | Locations of Nationwide Permit Verifications | Locations of Pending Individual Permits

Figure 1. Locations of permits.

3. For this reporting period, the annual average fill authorized is 732.5 acres per year. The EIS provides five predictions of the total quantity of fill, ranging from 5.5% to 7.0% of the total area of wetlands. The predicted annual average thereby ranges from 728 to 1,059 acres per year. Therefore, the pace of permitting during the 4-1/4 year reporting period is near the lower range. However, permit authorizations do not occur in an even rate. Figure 2 shows the average acres/year but calculated for each individual one-year period. Each of the spikes are caused by a few large permits, for example, in April caused by the authorization for the new terminal at the airport. The longer the period over which the acres/year calculation is based, the more that such spikes are eliminated. Also note that this does not include any mitigation acres.

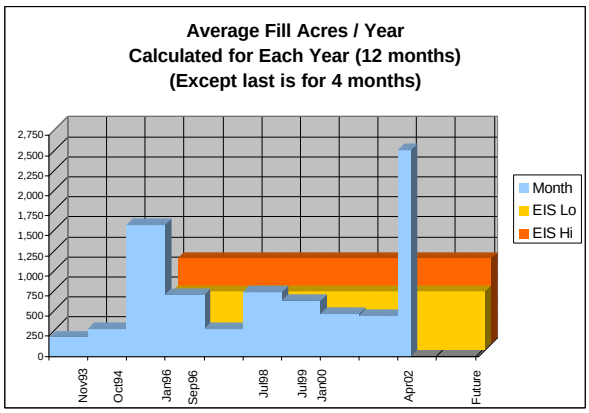


Figure 2. Permit trend.

4. Figure 3 provides the result of the analysis of acres of fill per permit. Only a small percentage of the permits result in a large proportion of the total fill authorized by permits. The shape of the curve is close to the shape for data from the entire State of Florida.

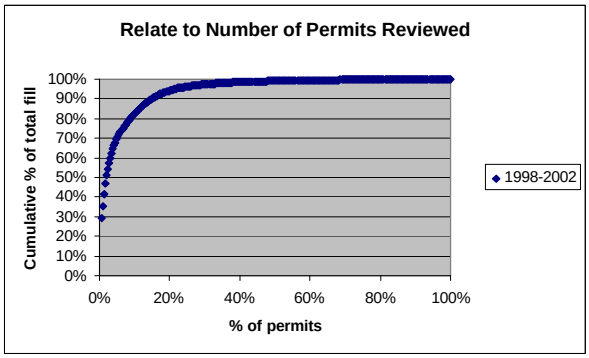
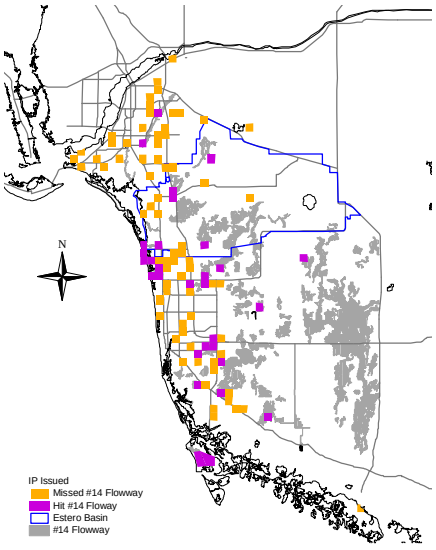


Figure 3. Acres fill per permit.

4. The locations of the permits were then correlated to the 16 maps found in Appendix H of the EIS. A "hit" was defined when a permit was located in a Public Land Survey Section (a square mile) where any portion of that Section was mapped "flowway." Therefore, the number of "hits" is conservative since a permit could be located in a portion of the Section that was not mapped. Also, site specific information obtained during the permit review may have identified the issue as not relevant. In addition, a project that "hit" a flowway may have also incorporated measures to address this concern, for example, the site plan may have been adjusted so no fill was placed in the flowway or culverts may have been installed to minimize the impact. An elaborate permit-by-permit analysis of the permits

was not performed but decision documents for future permits will include an assessment of the "hit" identified during the screening of the incoming application. But the analysis does allow a comparison of the number of permit "hits" to the number of hits that would occur from a random "dart-throw" into the landscape. Figure 4 illustrates the overlap of permits for the "flowways" map and the accompanying table provides the comparison to the "dart-throw."

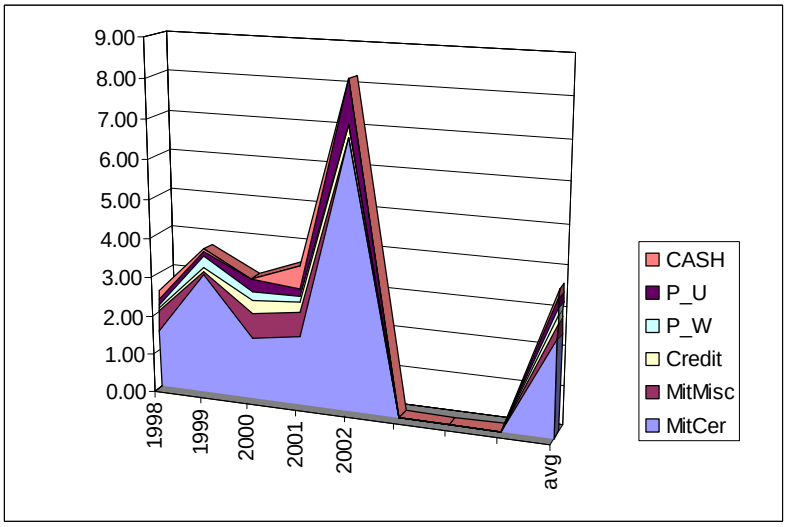


Locations of Pending Individual Permits

CARACARA	MARSH	PANTHER	SHOREBIRD	RCW	SCRUBJAY	COASTAL	ROOKERY	HIGH WET PROPORTION	HABITAT FRAGMENTATION	EAGLE	FLOWWAY
Percent of actual permits that overlap a mapped area ("hits")											
6%	39%	36%	12%	14%	33%	35%	0%	46%	59%	13%	32%
Percent of land (outside preserves) that is mapped ("dart-throw hits")											
29%	44%	72%	3%	24%	33%	10%	4%	47%	55%	4%	26%

Figure 4. Comparison of permits locations to Natural Resource maps.

5. Figure 5 provides the results of an analysis of the mitigation ratios for each of the four years of the reporting period. Each of the types of mitigation (wetland restoration, mitigation bank credits, etc.) is kept separate. In theory, each unit of, say, mitigation bank credits, could be converted to an equivalent acres of on-site wetland restoration, if a permit-by-permit analysis was performed for this monitoring report. Many permit decisions are using a numeric functional assessment to assist in the determination of appropriate mitigation but due to variety of site-specific situations, a uniform accounting method is not available to enter into the database that would supplement the plain "acres" and "credits" units.

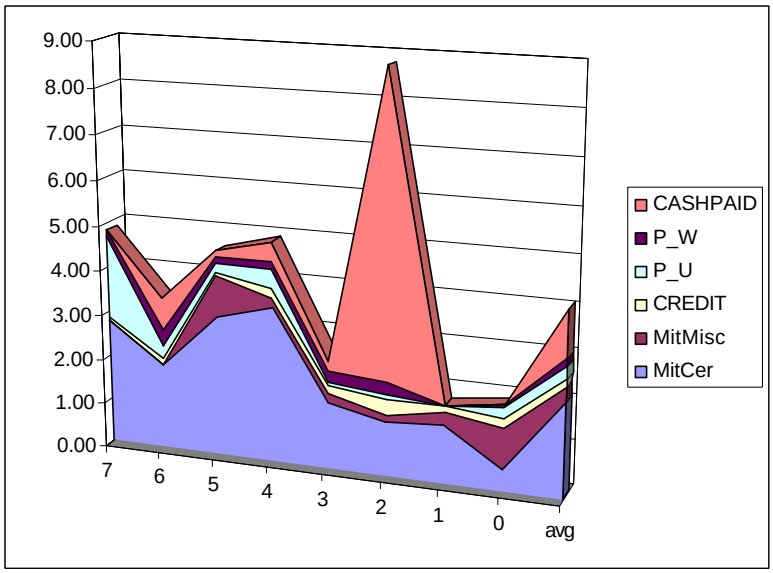


Y-axis = $/acre of fill or acres/acres of fill or credits/acres of fill
X-axis = year in which permit issued

CASHPAID = $
P_W = Acres of peserved wetlands
P_U = Acres of preserved uplands
CREDIT = Units purchased from mitigation bank
MitMisc = Acres of land acquired/restored by some arrangement
MitCer = Acres created, enhanced, or restored

Figure 5. Mitigation ratio trend.

6. Figure 6 provides the results of an analysis of the mitigation ratios for groups of permits that have the same number of "hits" on the overlay maps. There appears to be a possible correlation of higher the number of hits the higher the mitigation, though there are a large number of other variables that will also affect mitigation ratio.



Y-axis = $/acre of fill or acres/acres of fill or credits/acres of fill
X-axis = number of "hits" on the Appendix H natural resource overlay

CASHPAID = $
P_W = Acres of peserved wetlands
P_U = Acres of preserved uplands
CREDIT = Units purchased from mitigation bank
MitMisc = Acres of land acquired/restored by some arrangement
MitCer = Acres created, enhanced, or restored

Figure 6. Mitigation ratio vs. "hits"

7. The Corps is studying the results of this monitoring report to develop measures that could be used to assess the permitting program.