



United States Department of the Interior

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March 16, 2009

MEMORANDUM

To: Staff

From: Field Supervisor, Jacksonville Field Office
Field Supervisor, South Florida Ecological Services Office

Subject: Amended Guidance for Assessing Mitigation Needs for the Florida Scrub-jay

The attached guidance supersedes similar guidance provided on July 2, 1999, and July 10, 2003, and is to be used when assessing minimization/mitigation needs for the Florida scrub-jay relative to applications for Incidental Take Permits for Florida scrub-jays. The Service will pursue similar minimization goals for scrub-jay conservation in section 7 actions, subject to acceptability by the action agency. This guidance is intended to provide interim direction until the scrub-jay recovery plan is revised.

Certain sections of the attached guidance may be modified without Field Supervisor review provided concurrence from staff of both offices. Proposed changes to the amount or extent of mitigation (section D) will require review and approval of the Field Supervisors. Future revisions will be reflected in a change in the effective date of the attachment to this memorandum.

In the event Field Supervisors agree to a revision(s) of recommended mitigation, we will update this cover memorandum and the effective date of the attachment.

Florida Scrub-jay Mitigation Guidance **Effective March 16, 2009**

The primary underlying principle embraced by this guidance is that future mitigation efforts by the Service will enhance existing scrub-jay populations occurring on publicly and privately protected lands. To evaluate conservation opportunities for scrub-jays under this guidance, the Service assessed all available data sources to determine current and expected habitat availability, and current and expected scrub-jay distribution. Results of a spatially-explicit model in combination with published metapopulation data, GIS coverages of public lands and scrub habitat, published and unpublished biological data, and knowledge of local scrub-jay populations were used to identify and delineate areas within which future mitigation needs would result in the highest conservation benefit to scrub-jays. This assessment is based on the work of Stith et al. (1996) and Stith (1999).

These analyses resulted in the delineation of mitigation service areas (MSAs) throughout the range of the species (Figure 1). MSAs encompass areas that: (1) contain one or more public or protected private lands that, when combined, have one or more populations of scrub-jays that are anticipated to persist long-term, (2) have at least one population with a minimum of 10 pairs of scrub-jays, and (3) minimize the potential for demographic fragmentation. To maximize the effectiveness of this guidance, impacts to scrub-jays within MSAs should be mitigated within the same MSA. Impacts to scrub-jays occurring outside of a defined MSA should be mitigated to the closest MSA.

A. General Mitigation Strategies (in order of preference)

1. Expand existing preserves and protect and manage occupied and unoccupied habitat that is contiguous with managed public or private lands where the extant population of scrub-jays is viable.
2. Protect and manage occupied and unoccupied habitat within 2 miles of protected and managed occupied habitat where the extant population of scrub-jays is viable, provided proposed mitigation lands are sufficient to support at least one family of scrub-jays. Ensure that dispersal barriers (such as open water exceeding 200 yards, densely urbanized areas, heavily canopied pine forests or plantations, open pasture, or croplands) do not predominate the landscape between mitigation sites and occupied scrub-jay habitat. Composition of the habitat proposed for mitigation should maximize continuity of habitat and minimize the edge effect of the suitable or restorable habitat. In this respect, a circular parcel of land with contiguous suitable or restorable habitat would be more beneficial

(biologically), whereas a linear strip of land with interspersed patches of suitable and unsuitable habitat would be of low benefit.

3. Protect and manage occupied and unoccupied habitat that is within 5 miles of protected and managed occupied scrub-jay habitat where the extant population of scrub-jays is viable, provided proposed mitigation lands are sufficient to support at least one family of scrub-jays. Ensure that, in addition to the dispersal barriers identified above, other barriers (such as heavily canopied suburbs, unbroken citrus groves, treeless or nearly treeless suburbs, or pine flatwoods) do not predominate the landscape between mitigation sites and occupied habitat. The relative biological benefit of mitigation lands with respect to its composition should be assessed as described above.

B. Determine Population Viability

Ensure that a minimum of 10 families of demographically connected scrub-jays are present or will be present following mitigation **OR** sufficient unoccupied but restorable scrub-jay habitat (unoccupied habitat) is, or will be (after restoration, as set forth in the proposed action and concurred to by the Service) available to support at least 10 scrub-jay families. Viable groups of scrub-jays require about 200 acres of scrub habitat which may be contiguous or composed of patches of scrub habitat at least 25 acres in size (Fitzpatrick et al., 1991). The spatial orientation of habitat patches must not lead to demographic isolation, as described in A.2 and A.3 above, and must provide for the successful dispersal of scrub-jays between habitat patches.

C. Determine Demographic Priority

Demographic considerations in selecting mitigation locations within the MSA are described in order of preference below:

1. Mitigate on the site if conditions in B. (above) exist or can be achieved through management.
2. Mitigate off the site but within affected viable population, as defined in B.
3. Mitigate off the site to the nearest viable population, as defined in B.

D. Determine Habitat Mitigation Need (in order of preference)

1. Contribute to an established Habitat Conservation Plan and associated fund within the appropriate county or service area.

2. If D.1 is not available, purchase credits at a Service-approved conservation bank sufficient to achieve mitigation needs identified in D.3.b.
3. If neither D.1 nor D.2 are available, applicants may select any one of the following:
 - a. Deposit funding into the Florida Scrub-jay Conservation Fund sufficient to achieve mitigation needs identified in D.3.b.
 - b. Purchase (or otherwise acquire fee title) two acres of occupied scrub-jay habitat for each acre of affected occupied scrub-jay habitat^{1,2}.
 - c. Purchase (or otherwise acquire fee title) two acres of unoccupied, but restorable³ habitat for each acre of affected occupied habitat provided the unoccupied, restorable habitat is immediately contiguous to occupied scrub-jay habitat under public ownership that is managed for conservation purposes^{1,2}.
 - d. Secure perpetual conservation easement and land management agreement on sufficient lands to achieve mitigation needs identified in D.3.b. and/or D.3.c. above^{1,2}. Holder of any agreement must be approved by the Service.
 - e. Purchase (or otherwise acquire fee title) or secure perpetual conservation easement and land management agreement on three acres of unoccupied, but restorable habitat for each acre of affected habitat, provided the unoccupied, but restorable habitat lies within two miles of occupied scrub-jay habitat under public ownership that is managed for conservation purposes^{1,2,4}.
 - f. Purchase/acquire fee title (at a ratio of five acres of habitat for each acre of affected occupied habitat) lands adjoining publicly-owned occupied or unoccupied but restorable scrub-jay habitat to provide buffer from adjacent urban activities and to buffer adjacent urban areas from land management activities (e.g., prescribed fire).

E. Applicant Protocols

1. A through D above will be discussed and reviewed with applicants as soon as sufficient information is provided to determine the extent of project impacts.

2. The Service will provide the applicant a list of mitigatory options following initial discussion of a project. Written updates will be provided if the project changes scope.
3. If D.3.a is selected, notify applicant that mitigation cost will be based on the cost to conduct work at the most appropriate MSA as determined above. Mitigation costs include land, administration, and management costs. Field offices will maintain written cost estimates on file for applicant review as requested. Mitigation cost will be obtained primarily through assessments of comparative sales of land within the scrub-jay group (as defined in B above) to which mitigation will be directed. Where such data are lacking, broader assessments of comparative sales data may be needed. These values will be updated as necessary considering changes in land values and inflation. Mitigation cost will be based on estimates available at the time of final application for an incidental take permit, unless the applicant can demonstrate comparative land sales data resulting in a lower mitigation cost.

Literature Cited

Fitzpatrick, J.W., G.E. Woolfenden, and M.T. Kopeny. 1991. Ecology and development-related habitat requirements of the Florida scrub jay (*Aphelocoma coerulescens coerulescens*). Nongame Wildlife Program Technical Report No. 8. Florida Game and Fresh Water Fish Commission; Tallahassee, Florida.

Stith, B.M. 1999. Metapopulation viability analysis of the Florida scrub-jay (*Aphelocoma coerulescens*): a statewide assessment. Final Report to the U.S. Fish and Wildlife Service; Jacksonville, Florida.

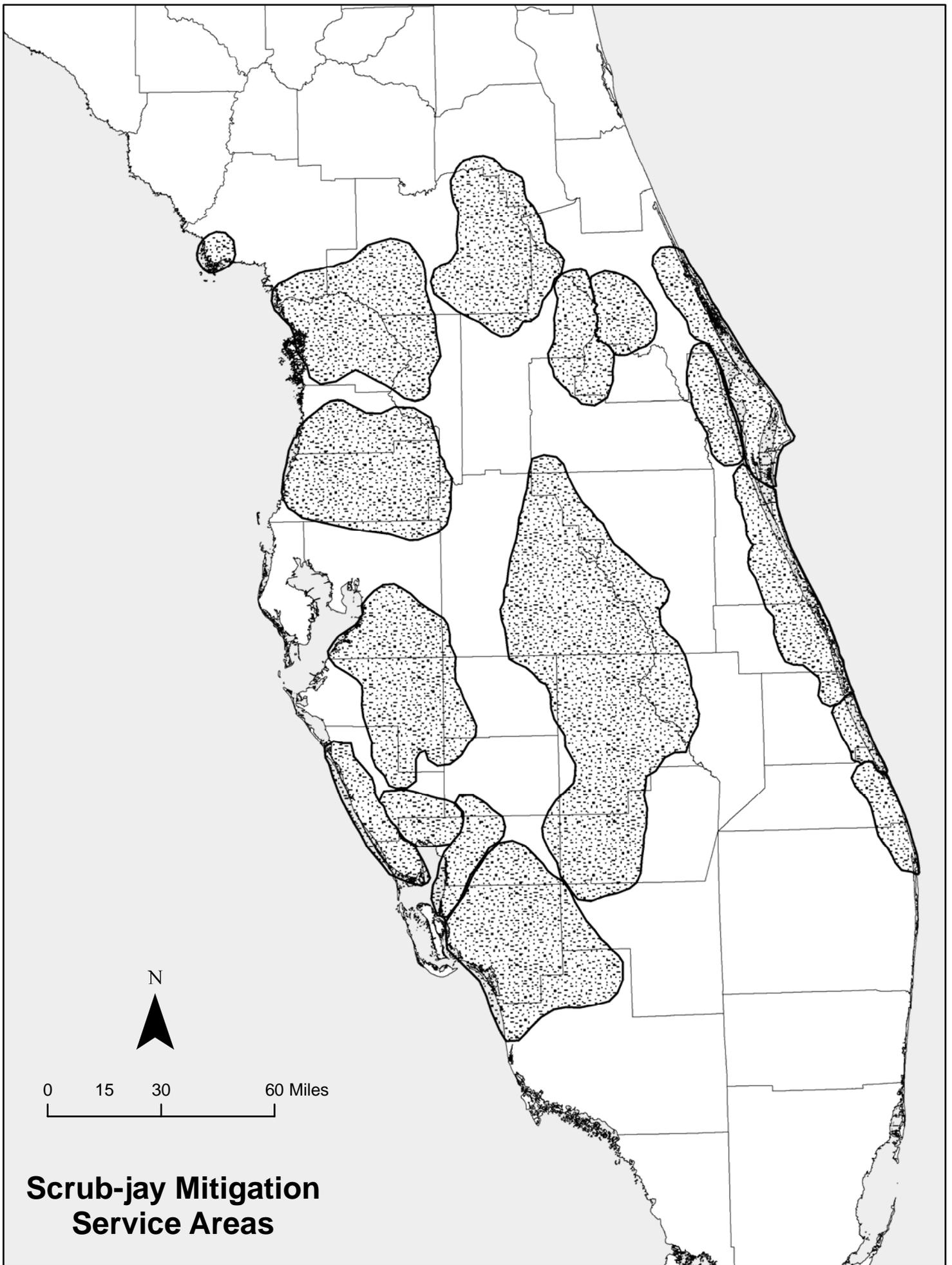
Stith, B.M., J.W. Fitzpatrick, G.E. Woolfenden, and B. Pranty. 1996. Classification and conservation of metapopulations: a case study of the Florida scrub jay. Pages 187-215 in D.R. McCullough, editor. Metapopulations and wildlife conservation. Island Press; Washington, D.C.

¹ Areas within or abutting scrub-jay conservation areas are considered essential to long-term survival of the Florida scrub-jay. These areas are more beneficial (biologically speaking and in terms of the ease of management) than other areas. Impacts to these areas should be mitigated at a higher level by purchase or otherwise acquiring fee title to four acres of occupied habitat for each acre of occupied habitat affected.

² All acquisition and easements must be accompanied by a cash endowment sufficient to provide perpetual management of preserved lands and any other funds identified by a prospective title or easement recipient that may be necessary for that entity to accept title or easement (e.g., contaminants surveys, fencing, trash removal, etc.).

³ Restorable habitat refers to areas with appropriate soil and vegetation types that require implementation of land management actions to provide the vegetative structure and diversity typical of suitable scrub-jay habitat.

⁴ The Service requires a higher ratio in the case of restored habitat not contiguous to public lands managed for and occupied by scrub-jays to address the uncertainties inherent in habitat restoration and recolonization by scrub-jays, and the temporal loss of habitat.



**Scrub-jay Mitigation
Service Areas**