

## Silver Rice Rat Critical Habitat Assessment Guide

July 29, 2013

The U.S. Fish and Wildlife Service's (Service) FEMA Biological Opinion (BO) dated April 30, 2010, and modified on December 14, 2010, identified 644 at-risk parcels (representing 1,316 acres) that: (1) are located within designated critical habitat for the endangered silver rice rat (rice rat) (*Oryzomys palustris natator* [= *O. argentatus*]) and (2) may contain the critical habitat's constituent elements. The BO also identified an additional 466 acres of at-risk lands outside Monroe County's parcel layer not subject to the Rate of Growth Ordinance program.

Critical habitat for the rice rat includes areas containing mangrove swamps, salt marsh flats, and buttonwood transition vegetation. The major constituent elements of this critical habitat that require special management considerations or protection are:

- (1) mangrove swamps containing red mangrove, black mangrove, white mangrove, and buttonwood;
- (2) salt marshes, swales, and adjacent transitional wetlands containing saltwort, perennial glasswort, saltgrass, sea ox-eye, Key grass and
- (3) coastal dropseed and freshwater marshes containing cattails, sawgrass, and cordgrass.

The at-risk properties were determined by overlaying the County's property parcel layer onto the County's 2009 land cover boundary maps (Monroe County 2009). The County's land cover boundary maps included 13 land cover types. Developed land, undeveloped land, impervious surface, and exotic are considered non-native land cover types. Hammock, pineland, scrub mangrove, freshwater wetland, salt marsh, buttonwood, mangrove, and beach berm are considered native land cover types. The water classification is also considered a native cover type. The minimum mapping unit for land cover polygons was 0.35 acre for hammock and 0.5 acre for all other cover types.

The County's boundary map land cover types containing critical habitat constituent elements for the rice rat include six habitat classifications. These land cover types include scrub mangrove, freshwater wetland, salt marsh, and buttonwood. We also noted that potential habitat is present only in unincorporated Monroe County (Lower Keys only).

*Critical Habitat Profile:* The Service's designated critical habitat for the rice rat includes all lands and waters above mean low tide on the following Keys: Little Pine, Big Torch, Middle Torch, Johnston, Raccoon, and the Water Keys. In addition, it includes Summerland Key north of U.S. 1, and the Saddlebunch Keys south of U.S. 1; but not lands in Township 67S, Range 27E, Section 8, nor the northern 1/5 of Section 17 (50 CFR 17.95) (Service 1993). The critical habitat boundary encompasses an area of about 9,362 acres, all of which fall within unincorporated Monroe County. Within the designated boundary, only 8,532 acres have the constituent elements required to be critical habitat for the rice rat.

Critical habitat only affects Federal agency actions and does not apply to private or local or State government activities that are not subject to Federal authorization or funding. Federal agencies that may be affected by the designation of rice rat critical habitat include, but are not limited to the Service (National Key Deer Refuge [NKDR]), Corps, FEMA, U.S. Navy, and the Federal

Highway Administration. Seven of the nine Keys in critical habitat are within the NKDR boundaries. Although the NKDR is managed for Key deer, the habitat requirements and biological needs of the two species do not conflict (Service 2006).

*Threats:* The primary threat to rice rat critical habitat is degradation and loss of wetland habitat (Barbour and Humphrey 1982). Construction activities typically result in the direct loss of habitat as well as secondary effects that extend into surrounding habitats. Related secondary effects include habitat fragmentation.

*Assessment Guide:* In order to provide assistance in assessing threats to rice rat critical habitat, the Service has developed the following guidance and recommendations that, if implemented, will minimize adverse effects to rice rat critical habitat. If the use of this guide results in a determination of “no effect” for a particular project, the Service supports this determination. If the use of this guide results in a determination of “not likely to adversely affect (NLAA)” for a particular project and the applicant is provided with a copy of the cat brochure, then the Service concurs with this determination and no additional correspondence is necessary. If the use of this guide results in a “may affect” determination, then additional coordination with the Service is necessary prior to permit issuance. For projects that result in a “*may affect*” determination, if, after reviewing the specific project and assessing its potential effects to federally listed species, the Service determines that the project will result in take, the Service will notify FEMA and the acreage of impacts will be subtracted from the take limits provided in the BO. This guide is subject to revision as necessary.

- A. Parcel is not located within designated rice rat critical habitat and/or on the Real Estate (RE) parcel list.....**no effect**  
 Parcel is located within designated rice rat critical habitat or is on the RE parcel list ..... **go to B**
- B. The applicant proposes no removal or modification of the rice rat’s native habitat (scrub mangrove, freshwater wetland, salt marsh, or buttonwood).....**NLAA**  
 The applicant proposes removal or modification of this species’ native habitat (hammock, pinelands, scrub mangrove, freshwater wetland, salt marsh, buttonwood, mangrove, and beach berm). A vegetation survey is required to document the native plant species and size present on the property and a general description of the surrounding properties within 500 feet is also required. Once these have been completed.....**go to C**
- C. The property contains and/or is adjacent to contiguous tracts of the rice rat’s native habitat greater than 1 acre in size.....**may affect**  
 The property is not as above.....**go to D**
- D. The applicant has proposed either on-site or off-site habitat compensation\* commensurate with the amount of native habitat lost. Permit with habitat compensation\* and provide cat brochure.....**NLAA**

The applicant **is not** proposing habitat compensation\* or habitat compensation\* does not meet minimum compensation requirements..... *may affect*

### **\*Habitat Compensation**

The minimum recommended habitat compensation is replacement of lost vegetation through protection or restoration of habitat, and/or monetary contributions to accomplish the aforementioned activities, according to the participating community's land development regulations. The Service has reviewed the following participating communities' Codes of Ordinances governing habitat compensation and found them to meet minimum recommended habitat compensation: Monroe County, Part II, Chapter 18, Sections 118-2 and 118-8; City of Marathon, Article 2, Chapter 106; Village of Islamorada, Part II, Chapter 30, Article VII, Division 4, Section 30-1616; and Key West, Part II, Subpart B, Chapter 110, Article V, Section 110-223 and Section 110-225, and Article VI, Division 2, Section 110-287 and Division 3, Section 324 and 327. The cities of Key Colony Beach and Layton were determined to not have ordinances that meet the minimum recommended habitat compensation. If the participating community proposes to modify the habitat compensation requirements of their ordinance, additional review by the Service will be necessary.

If habitat compensation is being provided in excess of the minimum recommended, the Service may consider the additional compensation as a credit to the not-to-exceed habitat acreage losses referenced in the BO. To be considered for credit, the compensation must be like for like habitat compensation and credit will be granted at half value. For example, if 4 acres of additional compensation are provided, the credit granted would be 2 acres. This partial credit is considered appropriate as existing vegetation currently provides benefit and the credit vegetation may not provide the same habitat benefit until later in time.

### **Monitoring and Reporting Effects**

For the Service to monitor cumulative effects and to track incidental take exempted for the silver rice rat critical habitat, it is important for FEMA and the NFIP participants to monitor the number of permits and provide information to the Service regarding the number of permits issued. In order to meet the reporting requirements in the BO, we request that FEMA and/or the NFIP participants send to the Service an annual database summary consisting of: project date, permit number, project acreage, native impact acreage, amount of acres and/or number of trees/plants replaced as habitat compensation, and project location in latitude and longitude in decimal degrees.

**Literature Cited**

- Barbour, D.B. and S.R. Humphrey. 1982 . Status and habitat of the Key Largo woodrat and cotton mouse (*Neotoma floridana smalli* and *Peromyscus gossypinus allapaticola*). *Journal of Mammalogy* 63(1):144-148.
- U.S. Fish and Wildlife Service. 1993. Final Rule on the designation of critical habitat for the silver rice rat. *Federal Register* 58(167):46030-46034.
- U.S. Fish and Wildlife Service. 2006. Biological Opinion. FEMA's continued administration of the NFIP in Monroe County, Florida. Atlanta, Georgia.