

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

[Docket No. FWS-R4-ES-2010-0024; MO 92210-0-0009]

RIN 1018-AW89

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Mississippi Gopher Frog**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Revised proposed rule; availability of draft economic analysis; and reopening of comment period.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, propose to designate critical habitat for the Mississippi gopher frog (*Rana sevosa*) [= *Rana capito sevosa*] under the Endangered Species Act of 1973, as amended (Act). We also announce revisions to the proposed critical habitat units, as described in the proposed rule published in the **Federal Register** on June 3, 2010 (75 FR 31387), and announce the availability of the draft economic analysis (DEA) for the revised proposed critical habitat designation. This proposed rule replaces the previous June 3, 2010, proposed rule in its entirety. In total, approximately 2,839 hectares (ha) (7,015 acres (ac)) are being proposed for designation as critical habitat in 12 units, 3 of which are divided into 2 subunits each. The proposed critical habitat is located within St. Tammany Parish, Louisiana, and Forrest, Harrison, Jackson, and Perry Counties, Mississippi. The comment period will allow all interested parties an opportunity to comment simultaneously on the revised proposed rule, the associated DEA, and the amended required determinations section.

**DATES:** We will accept comments received or postmarked on or before November 28, 2011. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by November 14, 2011.

**ADDRESSES:** You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Keyword box, enter Docket No. FWS-R4-ES-2010-0024, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit

a comment by clicking on "Send a Comment or Submission."

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R4-ES-2010-0024; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042-PDM; Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see Public Comments section below for more information).

**FOR FURTHER INFORMATION CONTACT:**

Stephen Ricks, Field Supervisor, U.S. Fish and Wildlife Service, Mississippi Fish and Wildlife Office, 6578 Dogwood View Parkway, Jackson, MS 39213; telephone: 601-321-1122; facsimile: 601-965-4340. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

**SUPPLEMENTARY INFORMATION:**

**Public Comments**

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed designation of critical habitat for the Mississippi gopher frog, the DEA of the proposed designation of critical habitat for the Mississippi gopher frog, and the amended required determinations provided in this document. We will consider information and recommendations from all interested parties. We are particularly interested in comments concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of Mississippi gopher frog habitat,

(b) What areas, that were occupied at the time of listing (or are currently occupied) and that contain features essential to the conservation of the

species, should be included in the designation and why,

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change, and

(d) What areas not occupied at the time of listing are essential for the conservation of the species and why.

(3) Land-use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the Mississippi gopher frog and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area (especially Unit 1 in St. Tammany Parish, Louisiana) that may be included in the final designation; in particular, any impacts on small entities or families, and the benefits of including or excluding areas that exhibit these impacts.

(6) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act.

(7) Whether we could improve or modify our approach to designation of critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(8) The appropriateness of the taxonomic name change of the Mississippi gopher frog from *Rana capito sevosa* to *Rana sevosa*.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We will not accept comments sent by e-mail or fax or to an address not listed in **ADDRESSES**. We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation used in preparing the proposed rule and DEA, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business

hours, at the U.S. Fish and Wildlife Service's Mississippi Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**). You may obtain copies of the proposed rule and the DEA on the Internet at <http://www.regulations.gov> at Docket Number FWS-R4-ES-2010-0024 or by mail from the Mississippi Field Office (see **FOR FURTHER INFORMATION CONTACT**).

### Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this proposed rule. For more information on the Mississippi gopher frog, refer to the final rule listing the species as endangered, which was published in the **Federal Register** on December 4, 2001 (66 FR 62993). See also the discussion of habitat in the Physical and Biological Features section below.

### Taxonomy and Nomenclature

Subsequent to the listing of the Mississippi gopher frog, taxonomic research was completed which indicated that the listed entity (originally listed as a DPS of *Rana capito sevosa*) is different from other gopher frogs and warrants acceptance as its own species, *Rana sevosa* (Young and Crother 2001, pp. 382–388). The herpetological scientific community has accepted this taxonomic change, and, as a result, we announce our intention to revise our List of Endangered and Threatened Wildlife to reflect this change in nomenclature. The common name for *Rana sevosa* used in the most recent taxonomic treatment for reptiles and amphibians is dusky gopher frog (Crother *et al.* 2003, p. 197). However, we will continue to use the common name, Mississippi gopher frog, to describe the listed entity in order to avoid confusion with some populations of the eastern *Rana capito*, for which the common name of dusky gopher frog is still popularly used.

We also propose to remove the State of Florida from the “Historic range” column of the table entry in 50 CFR 17.11(h) since the areas currently listed (Alabama, Florida, Louisiana, and Mississippi) delineated the entire range, including unlisted portions, of the subspecies, *Rana capito sevosa*. Therefore, we propose to revise the “Historic range” column of the table entry in 50 CFR 17.11(h) to reflect the historical range of the listed entity, *Rana sevosa*. As a result of the name change, the species occupying the eastern portion of the range that includes the State of Florida is the unlisted *Rana capito*.

### Geographic Range, Habitat, and Threats

The Mississippi gopher frog has a very limited historical range in Alabama, Mississippi, and Louisiana. At the time of listing in 2001, this species occurred at only one site, Glen's Pond, in the DeSoto National Forest in Harrison County, Mississippi (66 FR 62993). Mississippi gopher frog habitat includes both upland sandy habitats—historically forest dominated by longleaf pine (*Pinus palustris*)—and isolated temporary wetland breeding sites embedded within the forested landscape. Adult and subadult frogs spend the majority of their lives underground in active and abandoned gopher tortoise (*Gopherus polyphemus*) burrows, abandoned mammal burrows, and holes in and under old stumps (Richter *et al.* 2001, p. 318). Frequent fires are necessary to maintain the open canopy and ground cover vegetation of their aquatic and terrestrial habitat. The Mississippi gopher frog was listed as an endangered species due to its low population size and because of ongoing threats to the species and its habitat (66 FR 62993). Primary threats to the species include urbanization and associated development and road building; fire suppression; two potentially fatal amphibian diseases known to be present in the population; and the demographic effects of small population size (66 FR 62993; Sisson 2003, pp. 5, 9; Overstreet and Lotz 2004, pp. 1–13).

### Current Status

Since the time of listing on December 4, 2001, we have used information from surveys and reports prepared by the Alabama Department of Conservation and Natural Resources; Louisiana Department of Wildlife and Fisheries/Natural Heritage Program; Mississippi Museum of Natural Science/Mississippi Department of Wildlife, Fisheries, and Parks; Mississippi gopher frog researchers; and Service data and records to search for additional locations occupied, or with the potential to be occupied, by the Mississippi gopher frog. After reviewing the available information from the areas in the three States that were historically occupied by the Mississippi gopher frog, we determined that most of the potential restorable habitat for the species occurs in Mississippi. Wetlands throughout the coastal counties of Mississippi have been identified by using U.S. Geological Survey topographic maps, National Wetland Inventory maps, Natural Resource Conservation Service county soil survey maps, and satellite imagery. Although

historically the Mississippi gopher frog was commonly found in the coastal counties of Mississippi (Allen 1932, p. 9; Neill 1957, p. 49), very few of the remaining ponds provide potential appropriate breeding habitat (Sisson 2003, p. 6). Nevertheless, two new naturally occurring populations of the Mississippi gopher frog were found in Jackson County, Mississippi (Sisson 2004, p. 8). Field surveys conducted in Alabama and Louisiana have been unsuccessful in documenting the continued existence of Mississippi gopher frogs in these States (Pechmann *et al.* 2006, pp. 1–23; Bailey 2009, pp. 1–2).

Due to the paucity of available suitable habitat for the Mississippi gopher frog, we have worked with our State, Federal, and nongovernmental partners to identify and restore upland and wetland habitats to create appropriate translocation sites for the species. We have focused our efforts on areas in the State of Mississippi. We identified 15 ponds and associated forested uplands that we considered to have restoration potential. These sites occur on the DeSoto National Forest (Harrison, Forrest, and Perry Counties), the Ward Bayou Wildlife Management Area (Jackson County), and two privately owned sites (Jackson County). We have used Glen's Pond and its surrounding uplands on the DeSoto National Forest, Harrison County, Mississippi, as a guide in our management efforts. Ongoing habitat management is being conducted at these areas to restore them as potential relocation sites for the Mississippi gopher frog. Habitat management at one of the privately owned sites (Unit 4, below) reached the point where we believed a translocation effort could be initiated. In 2004, we began releasing tadpoles and metamorphic frogs at a pond restored for use as a breeding site (Sisson *et al.* 2008, p. 16). In December 2007, Mississippi gopher frogs were heard calling at the site, and one egg mass was discovered (Baxley and Qualls 2007, pp. 14–15). Another gopher frog egg mass was found in the pond in 2010 (Lee 2010). As a result, we consider this site to be currently occupied by the species, bringing the total number of currently occupied sites to four.

### Previous Federal Actions

The Mississippi gopher frog was listed as an endangered species under the Act on December 4, 2001 (66 FR 62993). It was at that time identified as *Rana capito sevosa*, a distinct population segment of the gopher frog *Rana capito* (see Taxonomy and Nomenclature discussion above). At the

time of listing the Service found that designation of critical habitat was prudent. However, the development of a designation was deferred due to budgetary and workload constraints.

On November 27, 2007, the Center for Biological Diversity and Friends of Mississippi Public Lands (plaintiffs) filed a lawsuit against the Service and the Secretary of the Interior for our failure to timely designate critical habitat for the Mississippi gopher frog (*Friends of Mississippi Public Lands and Center for Biological Diversity v. Kempthorne* (07–CV–02073)). In a court-approved settlement, the Service agreed to submit to the **Federal Register** a new prudency determination, and if the designation was found to be prudent, a proposed designation of critical habitat, by May 30, 2010, and a final designation by May 30, 2011. A proposed rule to designate critical habitat for the Mississippi gopher frog was published on June 3, 2010 (75 FR 31387).

During the comment period for the June 3, 2010, proposed rule, the peer reviewers and other commenters indicated they believed that the amount of critical habitat proposed was insufficient for the conservation of the Mississippi gopher frog and that additional habitat should be considered throughout the historical range of the species. Specifically, information was provided that pointed to limitations in the data we used to determine the size of individual critical habitat units and the presence of potential habitat in Louisiana which would aid in the conservation of Mississippi gopher frogs. Based on this new information, we asked the plaintiffs to agree to an extension for the final critical habitat determination. In a modification to the original settlement signed on May 4, 2011, the court agreed to the Service's timeline to send a revised proposed critical habitat rule to the **Federal Register** by September 15, 2011, and a final critical habitat rule to the **Federal Register** by May 30, 2012. Therefore, this proposed rule revises the June 3, 2010, proposed rule by expanding the areas to be designated as critical habitat.

## Critical Habitat

### Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner seeks or requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographic area occupied by the species at the time it was listed are included in a critical habitat designation if they contain the physical and biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical

habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are the elements of physical or biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographic area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographic area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we determine which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the

species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated critical habitat area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

#### Prudency Determination

Section 4 of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations at 50 CFR 424.12(a)(1) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the

degree of threat to the species; or (2) the designation of critical habitat would not be beneficial to the species.

There is no documentation that the Mississippi gopher frog is threatened by collection. Although human visitation to Mississippi gopher frog habitat carries with it the possibility of introducing infectious disease and potentially increasing other threats where the frogs occur, the locations of important recovery areas are already accessible to the public through Web sites, reports, online databases, and other easily accessible venues. Therefore, identifying and mapping critical habitat is unlikely to increase threats to the species or its habitat.

In the absence of finding that the designation of critical habitat would increase threats to the species, if there are any benefits to a critical habitat designation, then a finding that designation is prudent is warranted. The potential benefits of critical habitat to the Mississippi gopher frog include: (1) Triggering consultation, under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur, because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that the designation of critical habitat is prudent for the Mississippi gopher frog.

#### Proposed Critical Habitat Designation for Mississippi Gopher Frog

##### *Physical and Biological Features*

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographic area occupied by the species at the time of listing to designate as critical habitat, we consider the physical and biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific physical and biological features required for the Mississippi gopher frog from studies of this species' habitat, ecology, and life history as described below. Additional information can be found in the final listing rule published in the **Federal Register** on December 4, 2001 (66 FR 62993). To identify the physical and biological features essential to the conservation of the Mississippi gopher frog, we have relied on current conditions at locations where the species survives, the limited information available on this species and its close relatives, as well as factors associated with the decline of other amphibians that occupy similar habitats in the lower Southeastern Coastal Plain (Service 2001, pp. 62993–63002).

We have determined that the Mississippi gopher frog requires the following physical and biological features:

##### *Space for Individual and Population Growth and for Normal Behavior*

Mississippi gopher frogs are terrestrial amphibians endemic to the longleaf pine ecosystem. They spend most of their lives underground in forested habitat consisting of fire-maintained, open-canopied woodlands historically dominated by longleaf pine (naturally occurring slash pine (*P. ellioti*) in wetter areas). Optimal habitat is created when management includes frequent fires which support a diverse ground cover of herbaceous plants, both in the uplands and in the breeding ponds (Hedman *et al.* 2000, p. 233; Kirkman *et al.* 2000, p. 373). Historically, fire-tolerant longleaf pine dominated the uplands; however, much of the original habitat has been converted to pine (often loblolly (*P. taeda*) or slash pine) plantations and has become a closed-canopy forest unsuitable as habitat for gopher frogs (Roznik and Johnson 2009a, p. 265).

During the breeding season, Mississippi gopher frogs leave their subterranean retreats in the uplands and migrate to their breeding sites during rains associated with passing cold fronts. Breeding sites are ephemeral (seasonally flooded) isolated ponds (not connected to other water bodies) located

in the uplands. Both forested uplands and isolated wetlands (see further discussion of isolated wetlands in "Sites for Breeding, Reproduction, and Rearing of Offspring" section) are needed to provide space for individual and population growth and normal behavior.

After breeding, adult Mississippi gopher frogs leave pond sites during major rainfall events. Metamorphic frogs follow, once their development is complete. Limited data are available on the distance between the wetland breeding and upland terrestrial habitats of post-larval and adult Mississippi gopher frogs. Richter *et al.* (2001, pp. 316–321) used radio transmitters to track a total of 13 adult frogs at Glen's Pond, the primary Mississippi gopher frog breeding site, located in Harrison County, Mississippi. The farthest movement recorded was 299 meters (m) (981 feet (ft)) by a frog tracked for 63 days from the time of its exit from the breeding site (Richter *et al.* 2001, p. 318). Tupy and Pechmann (2011, p. 1) conducted a more recent radio telemetry study of 17 Mississippi gopher frogs captured at Glen's Pond. The maximum distance traveled by one of these frogs to its underground refuge was 240 m (787 ft).

As a group, gopher frogs (*Rana capito* and *Rana sevosia*) are capable of moving surprising distances. In a study in the sandhills of North Carolina, the post-breeding movements of 17 gopher frogs were tracked (Humphries and Sisson 2011, p. 1). The maximum distance a frog was found from its breeding site was 3.5 kilometers (km) (2.2 miles (mi)). In Florida, gopher frogs have been found up to 2 km (1.2 mi) from their breeding sites (Carr 1940, p. 64; Franz *et al.* 1988, p. 82). The frequency of these long-distance movements is not known (see discussion in Roznik *et al.* 2009, p. 192). A number of other gopher frog studies have either tracked frogs or observed them in upland habitat at varying distances from their breeding ponds. These movements range from between the minimum of 240 m observed by Tupy and Pechmann (2011, p. 1) and the maximum of 3.5 km (2.2 mi) observed by Humphries and Sisson (2011, p. 1). These include studies or observations by Carr (1940), Franz *et al.* (1988), Phillips (1995), Rostal (1999), Neufeldt and Birkhead (2001), Blihovde (2006), Roznik (2007), and Roznik and Johnson (2009a and 2009b).

It is difficult to interpret habitat use for the Mississippi gopher frog from these available data. Movements are generally between breeding sites and belowground refugia. Distances moved are likely to be tied to the abundance and distribution of appropriate refugia,

but these data are limited. We have assumed that the Mississippi gopher frog can move farther distances, and may use a larger area, than the existing data for the species indicate. Therefore, we have taken the mean of all the gopher frog movement data available to us (600 m (1,969 ft)) and are using this value when constructing the area around a breeding pond used by a Mississippi gopher frog population.

Due to the low number of occupied sites for the species, we are conducting habitat management at potential relocation sites with the hope of establishing new populations (see discussion above at *Geographic Range, Habitat, and Threats* and *Status* sections). When possible, we are managing wetlands within 1,000 m (3,281 ft) of each other, in these areas, as a block in order to create multiple breeding sites and metapopulation structure (defined as neighboring local populations close enough to one another that dispersing individuals could be exchanged (gene flow) at least once per generation) in support of recovery (Marsh and Trenham 2001, p. 40; Richter *et al.* 2003, p. 177).

Due to fragmentation and destruction of habitat, the current range of naturally occurring Mississippi gopher frogs has been reduced to three sites. In addition, optimal terrestrial habitat for gopher frogs is considered to be within burrows of the gopher tortoise, a rare and declining species that is listed as threatened under the Act within the range of the Mississippi gopher frog. Therefore, this specialized microhabitat has been reduced as well as the surrounding forested habitat. Fragmentation and loss of the frog's habitat has subjected the species' small, isolated populations to genetic isolation and reduction of space for reproduction, development of young, and population maintenance; thus, the likelihood of population extinction has increased (U.S. Fish and Wildlife Service 2001, pp. 62993–63002). Genetic variation and diversity within a species are essential for recovery, adaptation to environmental changes, and long-term viability (capability to live, reproduce, and develop) (Harris 1984, pp. 93–107). Long-term viability is founded on the existence of numerous interbreeding local populations throughout the range (Harris 1984, pp. 93–107).

Connectivity of Mississippi gopher frog breeding and nonbreeding habitat within the geographic area occupied by the species must be maintained to support the species' survival (Semlitsch 2002, p. 624; Harper *et al.* 2008, p. 1205). Additionally, connectivity of these sites with other areas outside the

geographic area occupied currently by the Mississippi gopher frog is essential for the conservation of the species (Semlitsch 2002, p. 624; Harper *et al.* 2008, p. 1205). It allows for gene flow among local populations within a metapopulation, which enhances the likelihood of metapopulation persistence and allows for recolonization of sites that are lost due to drought, disease, or other factors (Hanski and Gilpin 1991, pp. 4–6).

Based on the biological information and needs discussed above, we identify ephemeral isolated ponds and associated forested uplands, and connectivity of these areas, to be physical and biological features necessary to accommodate breeding, growth, and other normal behaviors of the Mississippi gopher frog and to promote genetic flow within the species.

#### Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Mississippi gopher frog tadpoles eat periphyton (microscopic algae, bacteria, and protozoans) from surfaces of emergent vegetation or along the pond bottom, as is typical of pond-type tadpoles (Duellman and Trueb 1986, p. 159). Juvenile and adult gopher frogs are carnivorous. Insects found in their stomachs have included carabid (*Pasimachus* sp.) and scarabaeid (genera *Canthon* sp. and *Ligryus* sp.) beetles (Netting and Goin 1942, p. 259) and *Ceuthophilus* crickets (Milstrey 1984, p. 10). Mississippi gopher frogs are gape-limited (limited by the size of the jaw opening) predators with a diet probably similar to that reported for other gopher frogs, including frogs, toads, beetles, hemipterans, grasshoppers, spiders, roaches, and earthworms (Dickerson 1969, p. 196; Carr 1940, p. 64). Within the pine uplands, a diverse and abundant herbaceous layer consisting of native species, maintained by frequent fires, is important to maintain the prey base for juvenile and adult Mississippi gopher frogs. Wetland water quality and an open canopy (Skelly *et al.* 2002, p. 983) are important to the maintenance of the periphyton that serves as a food source for Mississippi gopher frog tadpoles.

Therefore, based on the biological information and needs discussed above, we identify ephemeral, isolated ponds with emergent vegetation, and open-canopied pine uplands with a diverse herbaceous layer, as physical and biological features necessary to provide for adequate food sources for the Mississippi gopher frog.

## Cover or Shelter

Amphibians need to maintain moist skin for respiration (breathing) and osmoregulation (controlling the amounts of water and salts in their bodies) (Duellman and Trueb 1986, pp. 197–222). Since Mississippi gopher frogs disperse from their aquatic breeding sites to the uplands where they live as adults, desiccation (drying out) can be a limiting factor in their movements. Thus, it is important that areas connecting their wetland and terrestrial habitats are protected in order to provide cover and appropriate moisture regimes during their migration. Richter *et al.* (2001, pp. 317–318) found that during migration, Mississippi gopher frogs used clumps of grass or leaf litter for refuge. Protection of this connecting habitat may be particularly important for juveniles as they move out of the breeding pond for the first time. Studies of migratory success in post-metamorphic amphibians have demonstrated the importance of high levels of survival of these individuals to population maintenance and persistence (Rothermel 2004, pp. 1544–1545).

Both adult and juvenile Mississippi gopher frogs spend most of their lives underground in forested uplands (Richter *et al.* 2001, p. 318). Underground retreats include gopher tortoise burrows, small mammal burrows, stump holes, and root mounds of fallen trees (Richter *et al.* 2001, p. 318). Availability of appropriate underground sites is especially important for juveniles in their first year. Survival of juvenile gopher frogs in northcentral Florida was found to be dependent on their use of underground refugia (Roznik and Johnson 2009b, p. 431). Mortality for a frog occupying an underground refuge was estimated to be only 4 percent of the likelihood of mortality for a frog not occupying an underground refuge (Roznik and Johnson 2009b, p. 434).

Therefore, based on the biological information and needs discussed above, we identify appropriate connectivity habitat between wetland and upland sites (to support survival during migration), and a variety of underground retreats such as gopher tortoise burrows, small mammal burrows, stump holes, and root mounds of fallen trees within non-wetland habitats (to provide cover and shelter), to be essential physical and biological features for the Mississippi gopher frog.

## Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Mississippi gopher frog breeding sites are isolated ponds that dry completely

on a cyclic basis. Faulkner (U.S. Fish and Wildlife Service 2001, p. 62994) conducted hydrologic research at the Glen's Pond site on DeSoto National Forest, Harrison County, Mississippi. He described the pond as a depressional feature on a topographic high. The dominant source of water to the pond is rainfall within a small, localized watershed that extends 61 to 122 m (200 to 400 ft) from the pond's center. Substantial winter rains are needed to ensure that the pond fills sufficiently to allow hatching, development, and metamorphosis (change to adults) of larvae. The timing and frequency of rainfall are critical to the successful reproduction and recruitment of Mississippi gopher frogs. Adult frogs move to wetland breeding sites during heavy rain events, usually from January to late March (Richter and Seigel 2002, p. 964).

Studies at Glen's Pond indicate that this breeding pond is approximately 1.5 ha (3.8ac) when filled and attains a maximum depth of 1.1 m (3.6 ft) (Thurgate and Pechmann 2007, p. 1846). The pond is hard-bottomed, has an open canopy, and contains emergent and submergent vegetation. It is especially important that a breeding pond have an open canopy; though the mechanism is unclear, it is believed an open canopy is critical to tadpole development. Experiments conducted by Thurgate and Pechmann (2007, pp. 1845–1852) demonstrated the lethal and sublethal effects of canopy closure on Mississippi gopher frog tadpoles. The general habitat attributes of the other three Mississippi gopher frog breeding ponds are similar to those of Glen's Pond. Female Mississippi gopher frogs attach their eggs to rigid vertical stems of emergent vegetation (Young 1997, p. 48). Breeding ponds typically dry in early to mid-summer, but on occasion have remained wet until early fall (Richter and Seigel 1998, p. 24). Breeding ponds of closely related gopher frogs in Alabama and Florida have similar structure and function to those of the Mississippi gopher frog (Bailey 1990, p. 29; Palis 1998, p. 217; Greenberg 2001, p. 74).

An unpolluted wetland with water free of predaceous fish, sediment, pesticides, and chemicals associated with road runoff is important for egg development, tadpole growth and development, and successful mating and egg laying by adult frogs.

Therefore, based on the biological information and needs discussed above, we identify isolated ponds with hard bottoms, open canopies, emergent vegetation, and water free of predaceous fish, sediment, pesticides, and

chemicals associated with road runoff to be physical and biological features essential for breeding and development of the Mississippi gopher frog.

## Primary Constituent Elements for the Mississippi Gopher Frog

Under the Act and its implementing regulations, we are required to identify the physical and biological features essential to the conservation of the Mississippi gopher frog in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be the elements of physical and biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to the Mississippi gopher frog are:

(1) Primary Constituent Element 1—*Ephemeral wetland habitat*. Breeding ponds, geographically isolated from other waterbodies and embedded in forests historically dominated by longleaf pine communities, that are small (generally <0.4 to 4.0 ha (<1 to 10 ac), ephemeral, and acidic. Specific conditions necessary in breeding ponds to allow for successful reproduction of Mississippi gopher frogs are:

(a) An open canopy with emergent herbaceous vegetation for egg attachment;

(b) An absence of large, predatory fish which prey on frog larvae;

(c) Water quality such that frogs, their eggs, or larvae are not exposed to pesticides or chemicals and sediment associated with road runoff; and

(d) Surface water that lasts for a minimum of 195 days during the breeding season to allow a sufficient period for larvae to hatch, mature, and metamorphose.

(2) Primary Constituent Element 2—*Upland forested nonbreeding habitat*. Forests historically dominated by longleaf pine, adjacent and accessible to and from breeding ponds, that is maintained by fires frequent enough to support an open canopy and abundant herbaceous ground cover and gopher tortoise burrows, small mammal burrows, stump holes, or other underground habitat that the Mississippi gopher frog depends upon for food, shelter, and protection from the elements and predation.

(3) Primary Constituent Element 3—*Upland connectivity habitat*. Accessible upland habitat between breeding and nonbreeding habitats to allow for Mississippi gopher frog movements between and among such sites. It is characterized by an open canopy and abundant native herbaceous species and subsurface structure which provides shelter for Mississippi gopher frogs during seasonal movements, such as that created by deep litter cover, clumps of grass, or burrows.

With this proposed designation of critical habitat, we intend to identify the physical and biological features essential to the conservation of the species, through the identification of the appropriate quantity and spatial arrangement of the primary constituent elements sufficient to support the life-history processes of the species. All proposed critical habitat units are within the species' historical geographic range and contain sufficient primary constituent elements to support at least one life-history function of the Mississippi gopher frog. Four units/subunits (Unit 2, Subunit A; Unit 4, Subunit A; Unit 5, Subunit A; and Unit 7) are currently occupied by the species; of these four units/subunits, only Unit 2, Subunit A was occupied at the time of listing. All of the other units/subunits proposed as critical habitat are currently unoccupied, but contain sufficient primary constituent elements to support all the life-history functions essential for the conservation of the species with the exception of Unit 1. Unit 1 only contains one primary constituent element (ephemeral wetland habitat). This unit is needed as a future site for frog reestablishment and is essential for the conservation of the species. Within Unit 1, the other primary constituent elements could be restored with a reasonable level of effort.

#### *Special Management Considerations or Protection*

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

All areas proposed for designation as critical habitat will require some level of management to address the current and future threats to the Mississippi gopher frog and to maintain or restore the primary constituent elements. The features essential to the conservation of this species may require special management considerations or protection to reduce various threats, in

or adjacent to proposed critical habitat, that may affect one or more of the primary constituent elements. Special management of ephemeral wetland breeding sites (Primary Constituent Element 1) will be needed to ensure that these areas provide water quantity, quality, and appropriate hydroperiod; cover; and absence from levels of predation and disease that can affect population persistence. In nonbreeding upland forested areas (Primary Constituent Elements 2 and 3), special management will be needed to ensure an open canopy and abundant herbaceous ground cover; underground habitat for adult and subadult frogs to occupy; and sufficient cover as frogs migrate to and from breeding sites.

A detailed discussion of activities influencing the Mississippi gopher frog and its habitat can be found in the final listing rule (66 FR 62993; December 4, 2001). The features essential to the conservation of this species may require special management considerations or protection to reduce threats posed by: Land use conversions, primarily urban development and conversion to agriculture and pine plantations; stump removal and other soil-disturbing activities that destroy the belowground structure within forest soils; fire suppression and low fire frequencies; wetland destruction and degradation; random effects of drought or floods; off-road vehicle use; use of gas, water, electrical power, and sewer easements; and activities that disturb underground refugia used by Mississippi gopher frogs for foraging, protection from predators, and shelter from the elements. Other activities that may affect primary constituent elements in the proposed critical habitat units include those listed in the Effects of Critical Habitat Designation section below.

Special management considerations or protection are required within critical habitat areas to address the threats identified above. Management activities that could ameliorate these threats include (but are not limited to): Maintaining critical habitat areas as forested pine habitat (preferably longleaf pine); conducting forestry management using prescribed burning, avoiding the use of beds when planting trees, and reducing planting densities to create or maintain an open canopied forest with abundant herbaceous ground cover; maintaining forest underground structure such as gopher tortoise burrows, small mammal burrows, and stump holes; and protecting ephemeral wetland breeding sites from chemical and physical changes to the site that could occur by presence or construction of ditches or roads.

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are proposing to designate critical habitat in areas within the geographic area occupied by the species at the time of listing in 2001. We also are proposing to designate specific areas outside the geographic area occupied by the species at the time of listing, including those that are currently occupied, and others which are currently unoccupied. Most of the unoccupied areas considered for inclusion are part of ongoing recovery initiatives for this species. All areas proposed for critical habitat designation outside the area occupied by the species at the time of listing are considered to be essential for the conservation of the species.

Mississippi gopher frogs require small, isolated, acidic, depressional standing bodies of freshwater for breeding, upland pine forested habitat that has an open canopy maintained by fire for nonbreeding habitat, and upland connectivity habitat areas that allow for movement between nonbreeding and breeding sites. The range of the Mississippi gopher frog has been severely curtailed, occupied habitats are limited and isolated, and population sizes are extremely small and at risk of extirpation and extinction from stochastic events that occur as periodic natural events or existing or potential human-induced events (U.S. Fish and Wildlife Service 2001, pp. 62993–63002). To reduce the risk of extinction through these processes, it is important to establish multiple protected subpopulations across the landscape (Soulé and Simberloff 1986, pp. 25–35; Wiens 1996, pp. 73–74). We considered the following criteria in the selection of areas that contain the essential features for the Mississippi gopher frog when designating units: (1) The historical distribution of the species; (2) presence of open-canopied, isolated wetlands; (3) presence of open-canopied, upland pine forest in sufficient quantity around each wetland location to allow for sufficient survival and recruitment to maintain a breeding population over the long term;



(4) open-canopied, forested connectivity habitat between wetland and upland sites; and (5) multiple isolated wetlands in upland habitat that would allow for the development of metapopulations.

We began our determination of which areas to designate as critical habitat for the Mississippi gopher frog with an assessment of the critical life-history components of the Mississippi gopher frog, as they relate to habitat. We then evaluated the Mississippi gopher frog in the context of its historical (Alabama, Louisiana, and Mississippi) and current (Mississippi) distribution to establish what portion of its range still contains the physical and biological features that are essential to the conservation of the species. We reviewed the available information pertaining to historical and current distributions, life histories, and habitat requirements of this species. Our sources included surveys, unpublished reports, and peer-reviewed scientific literature prepared by the Alabama Department of Conservation and Natural Resources, Mississippi Department of Wildlife, Fisheries, and Parks, and Mississippi gopher frog researchers; Service data and publications such as the final listing rule for the Mississippi gopher frog; and Geographic Information System (GIS) data (such as species occurrence data, habitat data, land use, topography, digital aerial photography, and ownership maps).

In Alabama, we were unable to identify habitat that met the requirements for sustaining the essential life-history functions of the species. No historical breeding sites for the species are known in Alabama. The only record is from 1922 in Mobile County near Mobile Bay. Bailey (1994, p. 5) visited this general area and noted that, although residential development and fire suppression had drastically altered the upland habitat, large longleaf pines still present in lawns and vacant lots indicated that the area was formerly suitable habitat for gopher frogs. Ponds that have potential as breeding sites for the Mississippi gopher frog have been identified in Choctaw, Mobile, and Washington Counties, Alabama, using aerial imagery (Bailey 2009, p. 1). However, no Mississippi gopher frogs have been found at these sites, and at this time, we do not consider them to be essential to the conservation of the species.

In Louisiana, we assessed the condition of the last known breeding pond for the species there (Thomas and Ballew 1997, p. 4–5). We found that the pond, and a series of others, contained the habitat requirements for Primary Constituent Element 1.

Within the historical distribution of the frog in Mississippi, wetlands throughout the coastal counties were identified using U.S. Geological Survey topographic maps, National Wetland Inventory maps, Natural Resource Conservation Service county soil survey maps, and satellite imagery. Habitat with the best potential of establishing the physical and biological features essential to the conservation of the Mississippi gopher frog were concentrated on the DeSoto National Forest in Forrest, Harrison, and Perry Counties in southern Mississippi. Some additional sites were found in Jackson County on Federal land being managed by the State as a Wildlife Management Area and on private land being managed as a wetland mitigation bank. Habitat restoration efforts have been successful in establishing at least one of the primary constituent elements on each of these sites, and management is continuing, with the goal of establishing all of the primary constituent elements at all of the sites.

Only one subunit (Unit 2, subunit A) is known to have been occupied at the time of listing in December 2001. We believe this occupied area, which we are proposing as critical habitat, contains sufficient primary constituent elements to support life-history functions essential to the conservation of the species. Sites not known to be occupied at the time of listing in December 2001 are also proposed as critical habitat. These sites are all within the historical range of the Mississippi gopher frog. The inclusion of these areas will provide habitat for population translocation and will decrease the risk of extinction of the species. Three units/subunits (Unit 4, subunit A, Unit 5, subunit A, and Unit 7) are currently occupied by the Mississippi gopher frog, but were discovered subsequent to the listing of the species. Eleven units/subunits, not known to be occupied at the time of listing, are currently unoccupied. One of the units (Unit 1) represents a historical record for the Mississippi gopher frog. The historical occupancy status of the other 10 units/subunits is unknown. All 14 units/subunits not known to be occupied at the time of listing, which were unoccupied or not known to be occupied at that time, are being proposed as critical habitat because they are considered essential for the conservation of the species. The Mississippi gopher frog is at high risk of extirpation from stochastic events, such as disease or drought, and from demographic factors such as inbreeding depression. The establishment of

additional populations beyond the single site known to be occupied at listing is critical to protect the species from extinction and provide for the species' eventual recovery.

We have determined that, with proper protection and management, the areas we are proposing for critical habitat are needed for the conservation of the species based on our current understanding of the species' requirements. However, as discussed in the Critical Habitat section above, we recognize that designation of critical habitat may not include all habitat areas that we may eventually determine are necessary for the recovery of the species and that for this reason, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not promote the recovery of the species.

We delineated the critical habitat unit boundaries using the following steps:

(1) We used digital aerial photography using ArcMap 9.3.1 to map the specific location of the breeding site occupied by the Mississippi gopher frog at the time of listing, and those locations of breeding sites outside the geographic area occupied by the species at the time it was listed, both occupied and not occupied, that were determined to be essential for the conservation of the species.

(2) We delineated proposed critical habitat units by buffering the above locations by a radius of 650 m (2,133 ft). We believe the area created would protect the majority of a Mississippi gopher frog population's breeding and upland habitat and incorporate all primary constituent elements within the critical habitat unit. We chose the value of 650 m (2,133 ft) by using the mean farthest distance movement (600 m (1,969 ft)) from data collected during multiple studies of the gopher frog group (see discussion under Space for Individual and Population Growth and for Normal Behavior) and adding 50 m (164 ft) to this distance to minimize the edge effects of the surrounding land use (see discussion in Semlitsch and Bodie 2003, pp. 1222–1223).

(3) We used aerial imagery and ArcMap to connect critical habitat areas within 1,000 m (3,281 ft) of each other to create routes for gene flow between breeding sites and metapopulation structure (see discussion under Space for Individual and Population Growth and for Normal Behavior).

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas, such as lands covered by buildings, pavement, and other structures, because such lands lack



physical and biological features necessary for the Mississippi gopher frog. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect

the physical and biological features in the adjacent critical habitat.

In summary, we are proposing areas for critical habitat designation that we have determined were occupied at the time of listing and contain sufficient elements of physical and biological features to support life-history processes essential to the conservation of the species, and areas outside the geographic area occupied at the time of listing that we have determined are essential for the conservation the Mississippi gopher frog. Twelve units, three of which are divided into two subunits each, were proposed for designation based on sufficient elements of physical and biological features present to support the Mississippi gopher frog life-history processes. Some units/subunits contained all of the

identified elements of physical and biological features and supported multiple life-history processes. Other units contained only some elements of the physical and biological features necessary to support the Mississippi gopher frog's particular use of that habitat.

#### Proposed Critical Habitat Designation

We are proposing 15 units/subunits as critical habitat for the Mississippi gopher frog. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Mississippi gopher frog. Table 1 below shows the specific occupancy status of each unit/subunit at the time of listing and currently.

TABLE 1—OCCUPANCY OF MISSISSIPPI GOPHER FROG PROPOSED CRITICAL HABITAT UNITS

Unit	Parish/county	Currently occupied and known to be occupied at the time of listing	Currently occupied but not known to be occupied at the time of listing	Currently unoccupied and not known to be occupied at the time of listing
<b>LOUISIANA</b>				
1 .....	St. Tammany .....	.....	.....	X
<b>MISSISSIPPI</b>				
2, Subunit A .....	Harrison .....	X	.....	.....
2, Subunit B .....	Harrison .....	.....	.....	X
3 .....	Jackson .....	.....	.....	X
4, Subunit A .....	Jackson .....	.....	X	.....
4, Subunit B .....	Jackson .....	.....	.....	X
5, Subunit A .....	Jackson .....	.....	X	.....
5, Subunit B .....	Jackson .....	.....	.....	X
6 .....	Jackson .....	.....	.....	X
7 .....	Jackson .....	.....	X	.....
8 .....	Forrest .....	.....	.....	X
9 .....	Forrest .....	.....	.....	X
10 .....	Perry .....	.....	.....	X
11 .....	Perry .....	.....	.....	X
12 .....	Perry .....	.....	.....	X

Table 2 provides the approximate area and ownership of each proposed critical

habitat unit. Hectare and acre values were individually computer-generated

using GIS software, rounded to nearest whole number, and then summed.

TABLE 2—PROPOSED CRITICAL HABITAT UNITS WITH AREA ESTIMATES (HECTARES (HA) AND ACRES (AC)) AND LAND OWNERSHIP FOR THE MISSISSIPPI GOPHER FROG. AREA SIZES MAY NOT SUM DUE TO ROUNDING

Unit	Parish/county	Ownership			Total area
		Federal	State	Private	
LOUISIANA					
1 .....	St. Tammany .....	.....	.....	667 ha (1,649 ac) .....	667 ha (1,649 ac).
MISSISSIPPI					
2, Subunit A .....	Harrison .....	109 ha (269 ac) .....	.....	24 ha (59 ac) .....	133 ha (329 ac).
2, Subunit B .....	Harrison .....	436 ha (1,077 ac) .....	.....	3 ha (7 ac) .....	439 ha (1,085 ac).
3 .....	Harrison .....	133 ha (329 ac) .....	.....	.....	133 ha (329 ac).
4, Subunit A .....	Jackson .....	.....	.....	133 ha (329 ac) .....	133 ha (329 ac).
4, Subunit B .....	Jackson .....	52 ha (129 ac) .....	.....	113 ha (279 ac) .....	165 ha (408 ac).
5, Subunit A .....	Jackson .....	.....	.....	133 ha (329 ac) .....	133 ha (329 ac).

TABLE 2—PROPOSED CRITICAL HABITAT UNITS WITH AREA ESTIMATES (HECTARES (HA) AND ACRES (AC)) AND LAND OWNERSHIP FOR THE MISSISSIPPI GOPHER FROG. AREA SIZES MAY NOT SUM DUE TO ROUNDING—Continued

Unit	Parish/county	Ownership			Total area
		Federal	State	Private	
5, Subunit B .....	Jackson .....	.....	.....	56 ha (138 ac) .....	56 ha (138 ac).
6 .....	Jackson .....	133 ha (329 ac) .....	.....	.....	133 ha (329 ac).
7 .....	Jackson .....	.....	116 ha (287 ac) .....	17 ha (42 ac) .....	133 ha (329 ac).
8 .....	Forrest .....	133 ha (329 ac) .....	.....	.....	133 ha (329 ac).
9 .....	Forrest .....	131 ha (324 ac) .....	.....	2 ha (5 ac) .....	133 ha (329 ac).
10 .....	Perry .....	135 ha (334 ac) .....	.....	47 ha (116 ac) .....	182 ha (450 ac).
11 .....	Perry .....	129 ha (319 ac) .....	.....	4 ha (10 ac) .....	133 ha (329 ac).
12 .....	Perry .....	125 ha (309 ac) .....	.....	8 ha (20 ac) .....	133 ha (329 ac).
Total .....	All Parishes and Counties.	1,516 ha (3,746 ac) ...	116 ha (287 ac) .....	1,207 ha (2,983 ac) ...	2,839 ha (7,015 ac).

We present brief descriptions of all units and reasons why they meet the definition of critical habitat for the Mississippi gopher frog, below.

*Unit 1: St. Tammany Parish, Louisiana*

Unit 1 encompasses 667 ha (1,649 ac) on private lands in St. Tammany Parish, Louisiana. This unit is located north and south of State Hwy. 36, approximately 3.1 km (1.9 mi) west of State Hwy. 41 and the town of Hickory, Louisiana. Unit 1 is not within the geographic area occupied by the species at the time of listing. It is currently unoccupied; however, one of the ponds in the unit is where gopher frogs were last observed in Louisiana in 1965. We believe this unit is essential for the conservation of the species because it provides additional habitat for population expansion outside of the core population areas in Mississippi. Unit 1 consists of five ponds (ephemeral wetland habitat) and their associated uplands. If Mississippi gopher frogs are translocated to the site, the five areas are in close enough proximity to each other that gopher frogs could move between them. The uplands associated with the ponds do not currently contain the essential biological and physical features of critical habitat; however, we believe them to be restorable with reasonable effort. We believe this unit provides potential for establishing new breeding ponds and metapopulation structure which will support recovery of the species. Maintaining these ponds as suitable breeding habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the risk of extinction of the species resulting from stochastic events and to provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Unit 1 is currently managed as industrial forest land. Threats to

elements of the essential physical and biological features of habitat for the Mississippi gopher frog within this unit include the potential of: hydrologic changes resulting from ditches, or adjacent highways and roads that could alter the ecology of the ponds; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban and residential development (see also discussion in Special Management Considerations or Protection section).

*Unit 2: Harrison County, Mississippi*

Unit 2 comprises two subunits encompassing 572 ha (1,413 ac) on Federal and private lands in Harrison County, Mississippi. This unit, between U.S. Hwy. 49 and Old Hwy. 67, is approximately 224 m (735 ft) northeast of the Biloxi River. It is located approximately 2.8 km (1.8 mi) east of U.S. Hwy. 49 and approximately 2.3 km (1.4 mi) west of Old Hwy. 67. Within this unit, approximately 545 ha (1,347 ac) are in the DeSoto National Forest and 27 ha (67 ac) are in private ownership.

*Subunit A*

Unit 2, Subunit A encompasses 133 ha (329 ac) around the only breeding pond (Glen's Pond) known for the Mississippi gopher frog when it was listed in 2001; as a result, it is within the geographic area of the species occupied at the time of listing. In addition, this subunit contains all elements of the essential physical and biological features of the species. The majority of this subunit (109 ha (269 ac)) is on the DeSoto National Forest, with the remainder of the subunit (24 ha (59 ac)) in private ownership. This subunit is proposed as critical habitat because it was occupied at the time of listing, is currently occupied, and contains sufficient primary constituent elements

(ephemeral wetland habitat, upland forested nonbreeding habitat, and upland connectivity habitat) to support life-history functions essential to the conservation of the species.

Glen's Pond and the habitat surrounding it, consisting of forested uplands used as nonbreeding habitat and upland connectivity habitat between breeding and nonbreeding habitat, support the majority of the Mississippi gopher frogs that currently exist in the wild. Within Unit 2, Subunit A, the Mississippi gopher frog and its habitat may require special management considerations or protection to address potential adverse effects caused by: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

*Subunit B*

Unit 2, Subunit B encompasses 439 ha (1,084 ac) adjacent to Subunit A and the area surrounding Glen's Pond. The majority of this subunit (436 ha (1,077 ac)) is on the DeSoto National Forest, with the remainder of the subunit (3 ha (7 ac)) in private ownership. This subunit is not within the geographic area of the species occupied at the time of listing and is currently unoccupied. However, we believe this subunit is essential for the conservation of the Mississippi gopher frog because it consists of areas, within the dispersal range of the Mississippi gopher frog (from Subunit A), which we believe provides potential for establishing new

breeding ponds and metapopulation structure that will protect the Mississippi gopher frog from extinction. This unoccupied area consists of three ponds and their associated uplands on the DeSoto National Forest. These ponds have been named Reserve Pond, Pony Ranch Pond, and New Pond during ongoing recovery initiatives. The U.S. Forest Service (USFS) is actively managing this area to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species is at high risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat into which Mississippi gopher frogs could be translocated is essential to decrease the risk of extinction of the species resulting from stochastic events and provide for the species' eventual recovery. This subunit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 2, Subunit B, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 3: Harrison County, Mississippi*

Unit 3 encompasses 133 ha (329 ac) on Federal land in Harrison County, Mississippi. This unit is located on the DeSoto National Forest approximately 7.9 km (4.9 mi) east of the community of Success at Old Hwy. 67 and 4 km (2.5 mi) south of Bethel Road.

Unit 3 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area surrounds a pond on the DeSoto National Forest given the name of Carr Bridge Road Pond during ongoing recovery initiatives when it was selected as a Mississippi gopher frog translocation site. The USFS is actively managing this area to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation

from stochastic events, such as disease or drought. Maintaining this area as suitable habitat into which Mississippi gopher frogs could be translocated is essential to decrease the potential risk of extinction of the species resulting from stochastic events and to provide for the species' eventual recovery. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains a potential breeding pond surrounded by uplands which provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Within Unit 3, threats to the elements of essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 4: Jackson County, Mississippi*

Unit 4 encompasses 298 ha (736 ac) on Federal and private land in Jackson County, Mississippi. This unit borders the north side of Interstate 10 approximately 1.1 km (0.7 mi) west of State Hwy. 57. Within this unit, approximately 52 ha (129 ac) are in the Mississippi Sandhill Crane National Wildlife Refuge and 246 ha (608 ac) are in private ownership.

##### *Subunit A*

Unit 4, Subunit A encompasses 133 ha (329 ac) on private land. It is currently occupied as a result of translocation efforts conducted in 2004, 2005, 2007, 2008, 2009, and 2010; however, it was not occupied at the time of listing. We believe this subunit is essential for the conservation of the Mississippi gopher frog because of the presence of a proven breeding pond (egg masses have been deposited here in 2007 and 2010 by gopher frogs translocated to the site) and its associated uplands (upland forested nonbreeding habitat and upland connectivity habitat). We also believe that metapopulation structure, which will further protect the Mississippi gopher frog from extinction, is possible when the whole area of Unit 4 is considered. The private owners of this property are actively managing this area to benefit the recovery of the

Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at high risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat into which Mississippi gopher frogs can continue to be translocated is essential to decrease the risk of extinction of the species resulting from stochastic events and provide for the species' eventual recovery. This subunit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 4, Subunit A, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

##### *Subunit B*

Unit 4, Subunit B encompasses 165 ha (408 ac) on Federal and private land adjacent to Subunit A. The majority of this subunit (113 ha (279 ac)) is on private land, with the remainder of the unit (52 ha (129 ac)) on the Mississippi Sandhill Crane National Wildlife Refuge. This subunit is not within the geographic area of the species occupied at the time of listing and is currently unoccupied. However, we believe this subunit is essential for the conservation of the Mississippi gopher frog because it consists of an area, within the dispersal range of the Mississippi gopher frog (from Subunit A), which we believe provides potential for establishing new breeding ponds and metapopulation structure that will protect the Mississippi gopher frog from extinction. This unoccupied area consists of two ponds and their associated uplands. This area is actively managed to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat is essential to decrease the potential risk of extinction of the species and provide for

the species' eventual recovery. This subunit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 4, Subunit B, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 5: Jackson County, Mississippi*

Unit 5 encompasses 189 ha (467ac) on private land in Jackson County, Mississippi. This unit is located approximately 10.6 km (6.6 mi) north of Interstate 10. It is 124 m (407 ft) north of Jim Ramsey Road and 5.7 km (3.6 mi) west of the community of Vancleave located near State Hwy. 57.

#### *Subunit A*

Unit 5, Subunit A encompasses 133 ha (329 ac) on private land. It is currently occupied, but was not known to be occupied at the time of listing. This subunit contains a breeding site where Mississippi gopher frogs were discovered in 2004, subsequent to the listing of the Mississippi gopher frog.

We believe this subunit is essential for the conservation of the Mississippi gopher frog because of the presence of a proven breeding pond, designated Mike's Pond (ephemeral wetland habitat), and its associated uplands (upland forested nonbreeding habitat and upland connectivity habitat). We also believe that metapopulation structure, which will further protect the Mississippi gopher frog from extinction, is possible when the whole area of Unit 5 is considered. The private owners of this property are actively managing this area to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at high risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat is essential to decrease the risk of extinction of the species resulting from stochastic events and provide for the species' eventual recovery. This subunit is proposed as

critical habitat because it is essential for the conservation of the species.

Within Unit 5, Subunit A, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Subunit B*

Unit 5, Subunit B encompasses 56 ha (138 ac) on private land adjacent to Subunit A. This subunit is not within the geographic area of the species occupied at the time of listing and is currently unoccupied. However, we believe this subunit is essential for the conservation of the Mississippi gopher frog because it consists of an area, within the dispersal range of the Mississippi gopher frog (from Subunit A), which we believe provides potential for establishing a new breeding pond and metapopulation structure that will protect the Mississippi gopher frog from extinction. This unoccupied area consists of a single pond and its associated uplands. This area is actively managed to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This subunit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 5, Subunit B, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas,

water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 6: Jackson County, Mississippi*

Unit 6 encompasses 133 ha (329 ac) on Federal land in Jackson County, Mississippi. This unit is located on the Ward Bayou Wildlife Management Area (WMA) approximately 4.8 km (3 mi) northeast of State Hwy. 57 and the community of Vancleave. This land is owned by the Army Corps of Engineers (Corps) and managed by the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP).

Unit 6 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area consists of a pond and its associated uplands on the WMA and has been given the name of Mayhaw Pond during ongoing recovery initiatives. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains elements of features essential to the conservation of the species, a potential breeding pond and the surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Unit 6 is being actively managed by the Corps and MDWFP to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area of suitable habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 6, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

*Unit 7: Jackson County, Mississippi*

Unit 7 encompasses 133 ha (329 ac) on State and private land in Jackson County, Mississippi. This unit is located approximately 4.2 km (2.6 mi) east of the intersection of State Hwy. 63 and State Hwy. 613; it is 3.8 km (2.4 mi) west of the Escatawpa River, and 3.2 km (2 mi) northeast of Helena, Mississippi. The portion of this unit in State ownership (116 ha (287 ac)) is 16th section land held in trust by the State of Mississippi as a local funding source for education in Jackson County. The local Jackson County School board has jurisdiction and control of the land. The balance of this unit is on private land (17 ha (42 ac)).

Unit 7 is currently occupied, but was not known to be occupied at the time of listing. The area, discovered in 2004 subsequent to the listing of the Mississippi gopher frog, contains a breeding pond designated McCoy's Pond and associated uplands. We believe this area is essential for the conservation of the species because it represents habitat naturally occupied by the Mississippi gopher frog and will support recovery of the species. Currently, the State-owned portion of the area is managed by the Mississippi Forestry Commission for timber production for the Jackson County School Board. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, it may be at high risk of extirpation from stochastic events, such as disease or drought. Maintaining this area of currently occupied habitat for Mississippi gopher frogs is essential to decrease the risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 7, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

*Unit 8: Forrest County, Mississippi*

Unit 8 encompasses 133 ha (329 ac) on Federal land in Forrest County,

Mississippi. This unit is located on the DeSoto National Forest approximately 1.9 km (1.2 mi) east of U.S. Hwy. 49, approximately 1.7 km (1.1 mi) south of Black Creek, and approximately 3.1 km (1.9 mi) southeast of the community of Brooklyn, Mississippi.

Unit 8 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area consists of a pond and associated uplands that have been selected as a future Mississippi gopher frog translocation site during ongoing recovery initiatives. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains elements of features essential to the conservation of the species, a potential breeding pond and surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Unit 8 is being actively managed by the USFS to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 8, threats to the elements of essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

*Unit 9: Forrest County, Mississippi*

Unit 9 encompasses 133 ha (329 ac) on Federal land and private land in Forrest County, Mississippi. The majority of this unit (131 ha (324)) is located on the DeSoto National Forest and the balance (2 ha (5 ac)) is located on private land. This unit is located approximately 3.9 km (2.4 mi) east of U.S. Hwy. 49, approximately 4.3 km (2.7

mi) south of Black Creek, and approximately 6.1 km (3.8 mi) southeast of the community of Brooklyn, Mississippi, at the Perry County line.

Unit 9 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area consists of a pond and associated uplands that have been selected as a future Mississippi gopher frog translocation site during ongoing recovery initiatives. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains elements of features essential to the conservation of the species, a potential breeding pond and the surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Most of Unit 9 is being actively managed by the USFS to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 9, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

*Unit 10: Perry County, Mississippi*

Unit 10 encompasses 182 ha (450 ac) on Federal land and private land in Perry County, Mississippi. The majority of this unit (135 ha (334 ac)) is located on the DeSoto National Forest and the remaining balance (47 ha (116 ac)) is located on private land. This unit is located at the intersection of Benndale Road and Mars Hill Road, approximately 2.6 km (1.6 mi) northwest of the intersection of the Perry County, Stone County, and George

County lines and approximately 7.2 km (4.5 mi) north of State Hwy. 26.

Unit 10 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area consists of two ponds and their associated uplands that have been selected as future Mississippi gopher frog translocation sites during ongoing recovery initiatives. It provides the potential for establishing new breeding ponds and metapopulation structure that will protect the Mississippi gopher frog from extinction. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains elements of features essential to the conservation of the species, two potential breeding ponds and their surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Most of Unit 10 is being actively managed by the USFS to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at high risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 10, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 11: Perry County, Mississippi*

Unit 11 encompasses 133 ha (329 ac) on Federal land and private land in Perry County, Mississippi. The majority of this unit (129 ha (319 ac)) is located on the DeSoto National Forest and the remaining balance (4 ha (10 ac)) is located on private land. This unit borders the north side of Bennedale Road northeast of the intersection of the Perry County, Stone County, and George

County lines, approximately 6.4 km (4 mi) north of State Hwy. 26.

Unit 11 is not within the geographic range of the species occupied at the time of listing and is currently unoccupied. This area consists of a pond and associated uplands that have been selected as a future Mississippi gopher frog translocation site during ongoing recovery initiatives. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains features essential to the conservation of the species, a potential breeding pond and the surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Most of Unit 11 is being actively managed by the USFS to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events, such as disease or drought. Maintaining this area as suitable habitat, into which Mississippi gopher frogs could be translocated, is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 11, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### *Unit 12: Perry County, Mississippi*

Unit 12 encompasses 133 ha (329 ac) on Federal land and private land in Perry County, Mississippi. The majority of this unit (125 ha (309 ac)) is located on the DeSoto National Forest and the remaining balance (8 ha (20 ac)) is located on private land. This unit is located approximately 1.2 km (0.75 mi) east of Mars Hill Road, approximately 3.9 km (2.4 mi) north of the intersection of the Perry County, Stone County, and George County lines, and approximately 10.2 km (6.4 mi) north of State Hwy. 26.

Unit 12 is not within the geographic range of the species occupied at the time

of listing and is currently unoccupied. This area consists of a pond and its associated uplands that have been selected as a future Mississippi gopher frog translocation site during ongoing recovery initiatives. We believe this area is essential for the conservation of the Mississippi gopher frog because it contains elements of features essential to the conservation of the species, a potential breeding pond and the surrounding uplands, that provide habitat for future translocation of the species in support of Mississippi gopher frog recovery.

Most of Unit 12 is being actively managed by the USFS to benefit the recovery of the Mississippi gopher frog. Due to the low number of remaining populations and severely restricted range of the Mississippi gopher frog, the species may be at risk of extirpation from stochastic events such as disease or drought. Maintaining this area as suitable habitat into which Mississippi gopher frogs could be translocated is essential to decrease the potential risk of extinction of the species and provide for the species' eventual recovery. This unit is proposed as critical habitat because it is essential for the conservation of the species.

Within Unit 12, threats to elements of the essential physical and biological features of habitat for the Mississippi gopher frog are: fire suppression and low fire frequencies; detrimental alterations in forestry practices that could destroy belowground soil structures such as stump removal; hydrologic changes resulting from ditches, and/or adjacent highways and roads that could alter the ecology of the breeding pond and surrounding terrestrial habitat; wetland degradation; random effects of drought or floods; off-road vehicle use; gas, water, electrical power, and sewer easements; and agricultural and urban development.

#### **Effects of Critical Habitat Designation**

##### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the

destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service*, 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable

and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency’s discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

#### *Application of the “Adverse Modification” Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for the Mississippi gopher frog. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such

habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Mississippi gopher frog. These activities include, but are not limited to:

(1) Actions that would alter the hydrology or water quality of Mississippi gopher frog wetland habitats. Such activities could include, but are not limited to, discharge of fill material; release of chemicals and/or biological pollutants; clearcutting, draining, ditching, grading, or bedding; diversion or alteration of surface or ground water flow into or out of a wetland (*i.e.*, due to roads, fire breaks, impoundments, discharge pipes, etc.); discharge or dumping of toxic chemicals, silt, or other pollutants (*i.e.*, sewage, oil, pesticides, and gasoline); and use of vehicles within wetlands. These activities could destroy Mississippi gopher frog breeding sites, reduce the hydrological regime necessary for successful larval metamorphosis, and/or eliminate or reduce the habitat necessary for the growth and reproduction, and affect the prey base, of the Mississippi gopher frog.

(2) Forestry management actions in pine habitat that would significantly alter the suitability of Mississippi gopher frog terrestrial habitat. Such activities could include, but are not limited to, conversion of timber land to another use; timber management including clearcutting, site preparation involving ground disturbance, prescribed burning, and unlawful pesticide application. These activities could destroy or alter the uplands necessary for the growth and development of juvenile and adult Mississippi gopher frogs.

(3) Actions that would significantly fragment and isolate Mississippi gopher frog wetland and upland habitats from each other. Such activities could include, but are not limited to, constructing new structures or new roads and converting forested habitat to other uses. These activities could limit or prevent the dispersal of Mississippi gopher frogs from breeding sites to upland habitat or vice versa due to obstructions to movement caused by structures, certain types of curbs, increased traffic density, or inhospitable habitat.

#### **Exemptions**

##### *Application of Section 4(a)(3) of the Act*

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a)



required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- (2) A statement of goals and priorities;
- (3) A detailed description of management actions to be implemented to provide for these ecological needs; and
- (4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: “The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

There are no Department of Defense lands with a completed INRMP within the proposed critical habitat designation. Therefore, we are not proposing exemption of any lands owned or managed by the Department of Defense from this designation of critical habitat for the Mississippi gopher frog.

## Exclusions

### *Application of Section 4(b)(2) of the Act*

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying

any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

We have not proposed to exclude any areas from critical habitat. However, the final decision on whether to exclude any areas will be based on the best scientific data available at the time of the final designation, including information obtained during the comment period and information about the impacts of designation.

### Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we have prepared a draft economic analysis (DEA) concerning this proposed critical habitat designation, which is available for review and comment (see **ADDRESSES**). This DEA was specifically drafted for this revised proposed designation of critical habitat for the Mississippi gopher frog. It represents a revision of the previous DEA announced in the **Federal Register** on June 1, 2010 (75 FR 77817).

### Draft Economic Analysis

The purpose of the DEA is to identify and analyze the potential economic impacts associated with this proposed critical habitat designation for the Mississippi gopher frog. The DEA

separates conservation measures into two distinct categories according to “without critical habitat” and “with critical habitat” scenarios. The “without critical habitat” scenario represents the baseline for the analysis, considering protections otherwise afforded to the Mississippi gopher frog (*e.g.*, under the Federal listing and other Federal, State, and local regulations). The “with critical habitat” scenario describes the incremental impacts specifically due to designation of critical habitat for the species. In other words, these incremental conservation measures and associated economic impacts would not occur but for the designation. Conservation measures implemented under the baseline (without critical habitat) scenario are described qualitatively within the DEA, but economic impacts associated with these measures are not quantified. Economic impacts are only quantified for conservation measures implemented specifically due to the designation of critical habitat (*i.e.*, incremental impacts). For a further description of the methodology of the analysis, see Chapter 2, “Framework for the Analysis,” of the DEA.

The DEA describes incremental economic impacts associated with Unit 1 in St. Tammany Parish, Louisiana, using three different scenarios. This approach was taken because most of the estimated incremental impacts are related to the lost development value in Unit 1, considerable uncertainty existed regarding the likelihood of a Federal nexus for development activities there, and potential existed for the Service to recommend conservation measures if consultation were to occur. Scenario 1 assumes the proposed development within Unit 1 would avoid impacts to jurisdictional wetlands and, as a result, there would be no Federal nexus (no Federal permit required) triggering section 7 consultation regarding gopher frog critical habitat. Scenario 2 assumes the proposed development within Unit 1 would impact jurisdictional wetlands and a U.S. Army Corps of Engineers (Corps) Clean Water Act Section 404 permit (permit) would be required, thus triggering section 7 consultation regarding gopher frog critical habitat. This scenario assumed that the Service would work with the landowner to establish conservation areas for the gopher frog that would result in management of 60 percent of the area for gopher frog conservation and recovery. Scenario 3 is similar to Scenario 2 in that it assumes the proposed development within Unit 1 would impact jurisdictional wetlands

and a Corps permit would be required, thus triggering section 7 consultation regarding gopher frog critical habitat. However, in this scenario, the assumption was made that due to the importance of Unit 1 to the conservation and recovery of the species, the Service would recommend no development within the unit during consultation. The DEA cost estimates for each scenario were broken down into the following categories: (1) Costs associated with economic activities, including development and forestry; (2) costs associated with military activities; and (3) costs associated with active species management.

Applying a seven percent discount rate, the DEA estimates that over the next 20 years the total incremental impacts of conservation activities for the Mississippi gopher frog using Scenario 1 would be \$102,000 (\$9,610 in annualized impacts); using Scenario 2, it would be \$21.8 million (\$2.06 million in annualized impacts); and using Scenario 3, it would be \$36.3 million (\$3.43 million in annualized impacts). The broad range in cost estimates stems primarily from uncertainty regarding the likelihood of a Federal nexus for development activities in Unit 1, and the conservation measures that the Service may recommend if consultation does occur. All economic impacts stem from the administrative cost of addressing adverse modification of critical habitat during section 7 consultations. Incremental impacts stemming from additional gopher frog conservation measures requested by the Service during section 7 consultation are not expected in occupied areas because project modifications that may be needed to minimize impacts to the species would coincidentally minimize impacts to critical habitat. In unoccupied areas, project modifications resulting from consultation would be considered incremental impacts of the critical habitat designation.

The DEA also discusses the potential economic benefits associated with the designation of critical habitat. However, because the Service believes that the direct benefits of the designation are best expressed in biological terms, this analysis does not quantify or monetize benefits; only a qualitative discussion of economic benefits is provided.

As stated earlier, we are soliciting data and comments from the public on the DEA, as well as all aspects of the proposed rule and our amended required determinations. We may revise the rule or supporting documents to incorporate or address information we receive during the public comment period. In particular, we may exclude an

area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

#### Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. The Mississippi Army National Guard conducts training in an area of the DeSoto National Forest where Units 10, 11, and 12 are located. This training is authorized by a Special Use Permit with the USFS and the lands covered by the permit are open to the public for all lawful purposes. The USFS manages this property as part of a Habitat Management Area for red-cockaded woodpeckers and, as a result, there are certain limitations to training activities in this area. In preparing this proposal, we have determined that lands within the proposed designation of critical habitat for the Mississippi gopher frog are not owned or managed by the Department of Defense.

Additionally, we anticipate no impact to national security because training limitations are already in place for the endangered red-cockaded woodpecker. Consequently, the Secretary does not propose to exert his discretion to exclude any areas from the final designation based on impacts to national security. However, we did receive a request to exclude this area during the comment period for the previously published proposed rule. Therefore, if anyone has information on why this property, or any property owned or managed by Department of Defense, should be excluded under Section 4(b)(2) of the Act we encourage the submission of comments as described above under the Public Comments section of this proposed rule.

#### Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also

consider any social impacts that might occur because of the designation.

In preparing this proposed rule, we have determined that there are currently no HCPs or other management plans for the Mississippi gopher frog, and the proposed designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this proposed critical habitat designation. Accordingly, the Secretary does not propose to exert his discretion to exclude any areas from the final designation based on other relevant impacts.

#### Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information received during this comment period on this proposed rule, as well as those comments received during the comment period for the previous proposed rule, during preparation of a final determination. Accordingly, the final decision may differ from this proposal.

#### Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

#### Required Determinations—Amended

In our June 3, 2010, proposed rule (75 FR 31387), we indicated that we would defer our determination of compliance with several statutes until our draft economic analysis was available. In this revision of the proposed designation of critical habitat for Mississippi gopher frog, we have made use of the

information in our draft economic analysis in making our determination that this proposed rule is in compliance with the statutes and Executive Orders detailed below.

*Regulatory Planning and Review—Executive Order 12866*

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule under Executive Order 12866 (Regulatory Planning and Review). OMB bases its determination upon the following four criteria:

(1) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(2) Whether the rule will create inconsistencies with other Federal agencies' actions.

(3) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(4) Whether the rule raises novel legal or policy issues.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. Based on our DEA of the proposed designation, we provide our analysis for determining whether the proposed rule would result in a significant economic impact on a substantial number of small entities. Based on comments we receive during the open comment period, we may revise this determination as part of a final rulemaking.

According to the Small Business Administration, small entities include small organizations such as

independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if this proposed designation of critical habitat for the Mississippi gopher frog would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities, such as timber operations, and residential and commercial development, along with the accompanying infrastructure associated with such projects, including road, storm water drainage, and bridge and culvert construction and maintenance. In order to determine whether it is appropriate for our agency to certify that this rule would not have a significant economic impact on a substantial number of small entities, we considered each industry or category individually. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Critical habitat designation will not affect activities that do not have any Federal involvement; designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies.

If we finalize this proposed critical habitat designation, Federal agencies must consult with us under section 7 of the Act if their activities may affect designated critical habitat. In areas where the Mississippi gopher frog is present, Federal agencies are already required to consult with us under section 7 of the Act, due to the endangered status of the species. Consultations to avoid the destruction or adverse modification of critical

habitat would be incorporated into the same consultation process.

In the DEA, we evaluated the potential economic effects on small entities resulting from implementation of conservation actions related to the proposed designation of critical habitat for the Mississippi gopher frog. The Service and the action agency are the only entities with direct compliance costs associated with this proposed critical habitat designation, although small entities may participate in section 7 consultation as a third party. It is, therefore, possible that the small entities may spend additional time considering critical habitat during section 7 consultation for the gopher frog. The DEA indicates that the incremental impacts potentially incurred by small entities are limited to development activities on Tradition Properties in Subunits 2a and 2b (where 10 acres of proposed critical habitat overlap a planning area for a large-scale development), and potential future development within 1,649-acre Unit 1 owned by four small businesses and an individual. The five small businesses, considered small Land Subdividers, represent approximately 3.9 percent of the total (129 small businesses in this sector) small Land Subdividers within the counties containing proposed critical habitat for the Mississippi gopher frog. Incremental costs of gopher frog critical habitat to Tradition Properties are anticipated to result in an annualized impact of \$127 (which would represent less than 0.01 percent of Tradition Properties' average annual revenues). Annualized impacts to the four small businesses in Unit 1 were evaluated according to the three Scenarios described above in the *Draft Economic Analysis* section. Under Scenario 1, there would be no impact to small businesses. Under Scenario 2, an impact of \$2.05 million was calculated, approximately 28.6 percent of annual revenues; under Scenario 3, an impact of \$3.43 million was calculated, approximately 47.8 percent of annual revenues.

Our analysis constitutes an evaluation of not only potentially directly affected parties, but those also potentially indirectly affected. Under the RFA and following recent case law, we are only required to evaluate the direct effects of a regulation to determine compliance. Since the regulatory effect of critical habitat is through section 7 of the Act which applies only to Federal agencies, we have determined that only Federal agencies are directly affected by this rulemaking. Other entities, such as small businesses, are only indirectly affected. However, to better understand

the potential effects of a designation of critical habitat, we frequently evaluate the potential impact to those entities that may be indirectly affected, as was the case for this rulemaking. In doing so, we focus on the specific areas being designated as critical habitat and compare the number of small business entities potentially affected in that area with other small business entities in the regional area, versus comparing the entities in the area of designation with entities nationally—which is more commonly done. This results in an estimation of a higher proportion of small businesses potentially affected. In this rulemaking, we calculate that the proportion of small businesses potentially affected is 3.9 percent of those regionally. If we were to calculate that value based on the proportion nationally, then our estimate would be significantly lower than 1 percent.

Following our evaluation of potential effects to small business entities from this rulemaking, we do not believe that the 5 small businesses or 3.9 percent of the small businesses in the affected sector represents a substantial number. However, we recognize that the potential effects to these small businesses under Scenarios 2 and 3 may be significant. We will further evaluate the potential effects to these small businesses as we develop our final rulemaking.

In summary, we have considered whether this proposed designation would result in a significant economic impact on a substantial number of small entities. Information for this analysis was gathered from the Small Business Administration, stakeholders, and the Service. For the reasons discussed above, and based on currently available information, we certify that if promulgated, the proposed designation would not directly have a significant effect on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required. However, as we develop the final rule we will further evaluate the potential indirect effects on this designation on small business entities.

#### *Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Based on an analysis of areas included in this proposal, we do not expect the designation of this proposed critical habitat to significantly affect energy supplies, distribution, or use. Therefore,

this action is not a significant energy action, and no Statement of Energy Effects is required.

#### *Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments,” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid for Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted

by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because the Mississippi gopher frog occurs primarily on Federal and privately owned lands. None of these government entities fit the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required.

#### *Takings—Executive Order 12630*

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Mississippi gopher frog in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the Mississippi gopher frog does not pose significant takings implications for lands within or affected by the designation. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward.

#### *Federalism—Executive Order 13132*

In accordance with E. O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Louisiana and Mississippi. The designation of critical habitat in areas currently occupied by the Mississippi gopher frog imposes no additional restriction to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to

these governments because the areas that contain the physical and biological features essential to the conservation of the species are more clearly defined, and the elements of the features necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

#### *Civil Justice Reform—Executive Order 12988*

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the elements of physical and biological features essential to the conservation of the Mississippi gopher frog within the designated areas to assist the public in understanding the habitat needs of the species.

#### *Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

#### *National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

#### *Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

#### *Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, (Government-to-Government Relations with Native American Tribal Governments; (59 FR 22951)), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly

with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We have determined that there are no tribal lands that were occupied by the Mississippi gopher frog at the time of listing that contain the features essential for the conservation of the species, and no tribal lands unoccupied by the Mississippi gopher frog that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for the Mississippi gopher frog on tribal lands.

#### **References Cited**

A complete list of all references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Mississippi Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

#### **Author**

The primary author of this package is Linda LaClaire of the Mississippi Fish and Wildlife Office.

#### **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

#### **Proposed Regulation Promulgation**

Accordingly, we propose to further amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as proposed to be amended at 75 FR 31387, June 3, 2010, as follows:

#### **PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.95(d), revise the entry for “Mississippi gopher frog” (*Rana sevosa*) in the same alphabetical order as the species appears in § 17.11(h), to read as follows:

#### **§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(d) *Amphibians.*

\* \* \* \* \*

Mississippi gopher frog (*Rana sevosa*)

(1) Critical habitat units are depicted for St. Tammany Parish, Louisiana, and Forrest, Harrison, Jackson, and Perry Counties in Mississippi, on the maps below.

(2) Within these areas, the primary constituent elements of the physical and biological features essential to the conservation of the Mississippi gopher frog consist of three components:

(i) Primary Constituent Element 1—*Ephemeral wetland habitat*. Breeding ponds, geographically isolated from other waterbodies and embedded in forests historically dominated by longleaf pine communities, that are small (generally <0.4 to 4.0 hectares (<1 to 10 acres), ephemeral, and acidic. Specific conditions necessary in breeding ponds to allow for successful reproduction of Mississippi gopher frogs are:

(A) An open canopy with emergent herbaceous vegetation for egg attachment;

(B) An absence of large, predatory fish that prey on frog larvae;

(C) Water quality such that frogs, their eggs, or larvae are not exposed to

pesticides or chemicals and sediment associated with road runoff; and

(D) Surface water that lasts for a minimum of 195 days during the breeding season to allow a sufficient period for larvae to hatch, mature, and metamorphose.

(ii) Primary Constituent Element 2—*Upland forested nonbreeding habitat*. Forests historically dominated by longleaf pine, adjacent and accessible to and from breeding ponds, that is maintained by fires frequent enough to support an open canopy and abundant herbaceous ground cover and gopher tortoise burrows, small mammal burrows, stump holes, or other underground habitat that the Mississippi gopher frog depends upon for food, shelter, and protection from the elements and predation; and

(iii) Primary Constituent Element 3—*Upland connectivity habitat*. Accessible upland habitat between breeding and

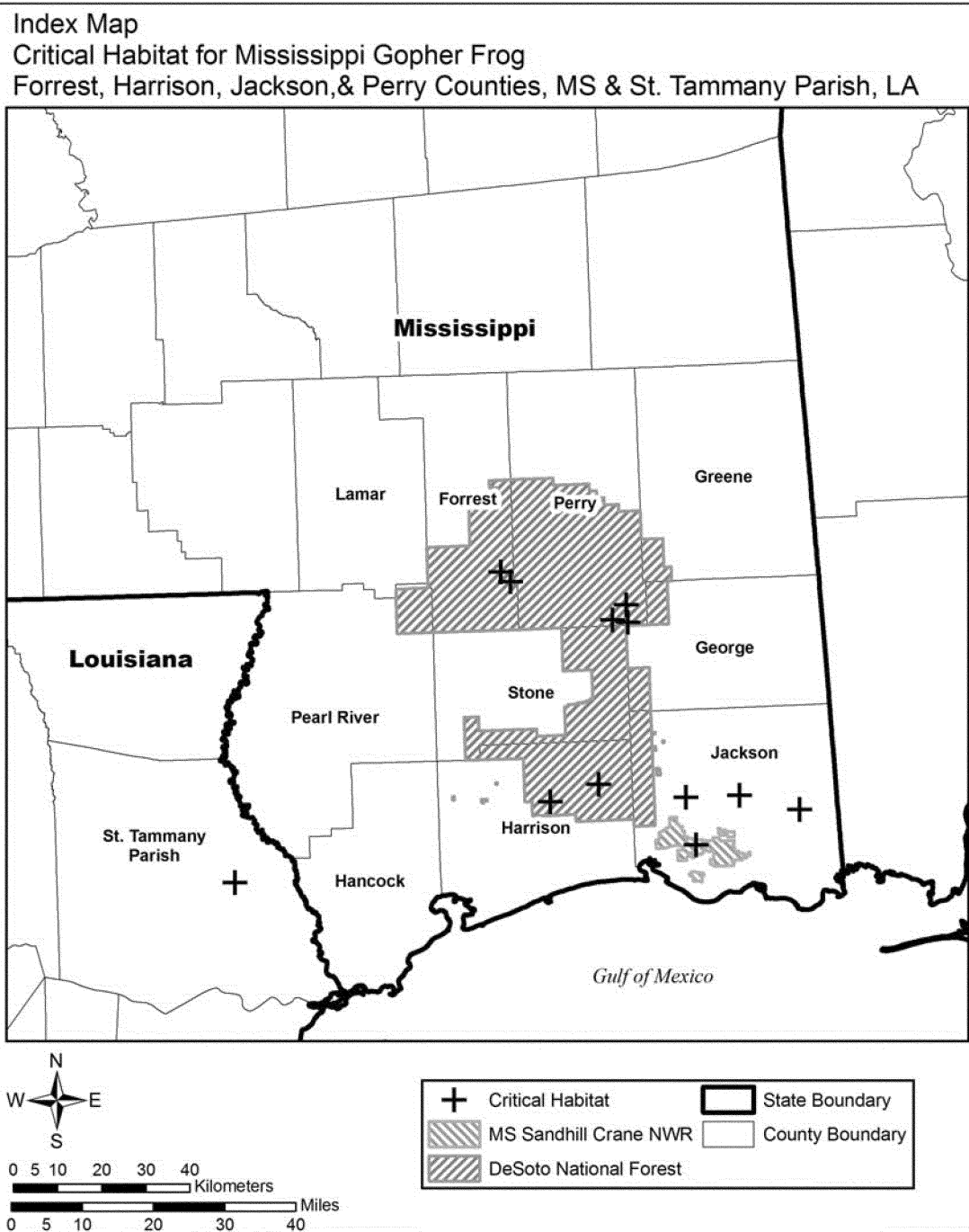
nonbreeding habitats to allow for Mississippi gopher frog movements between and among such sites. It is characterized by an open canopy and abundant native herbaceous species and subsurface structure which provides shelter for Mississippi gopher frogs during seasonal movements, such as that created by deep litter cover, clumps of grass, or burrows.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat unit maps*. Maps were developed from USGS 7.5' quadrangles, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) *Note*: Index Map (Map 1) follows:

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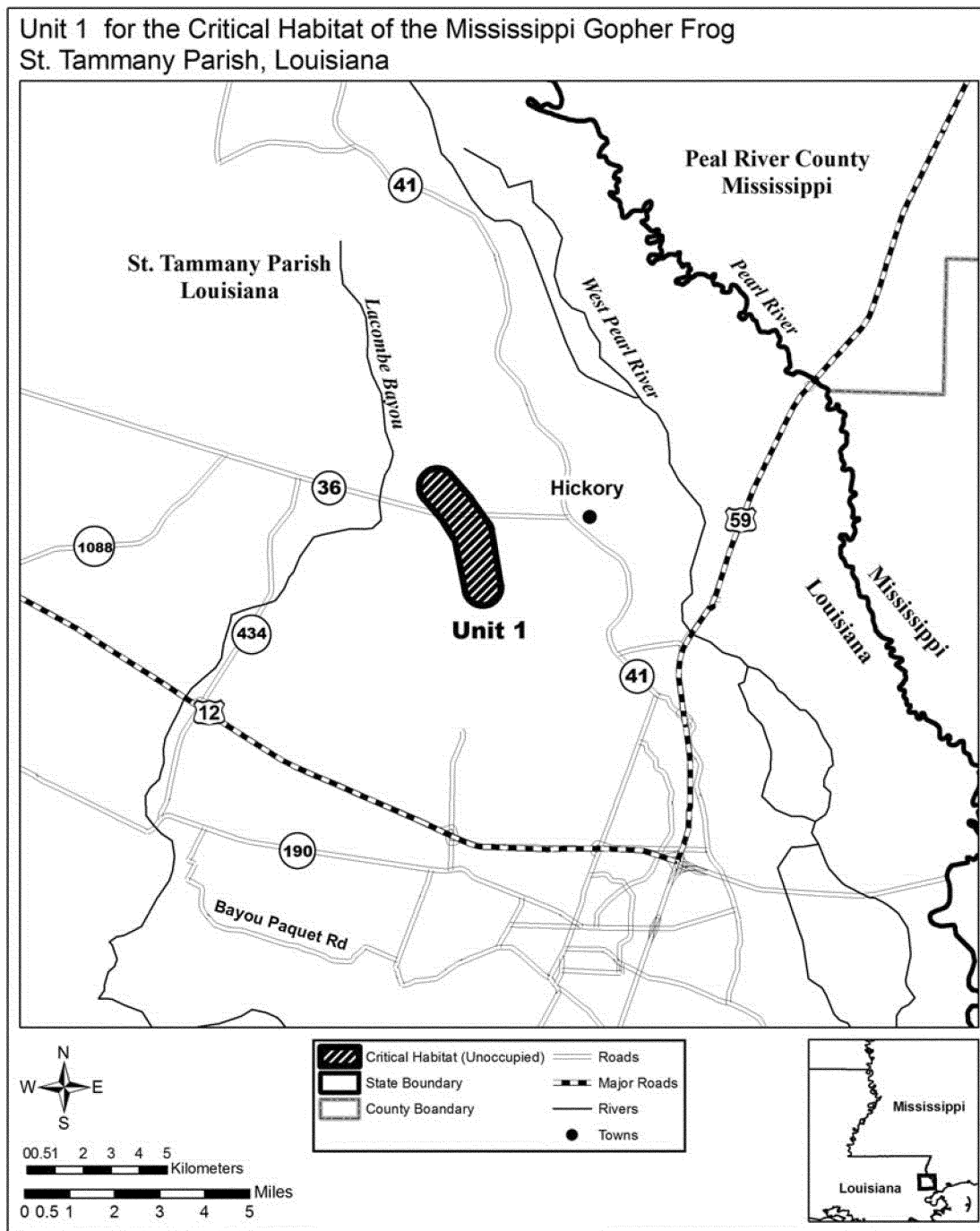
This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.



(6) Unit 1: St. Tammany Parish, Louisiana

(i) [Reserved for textual description of Unit 1: St. Tammany Parish, Louisiana]

(ii) *Note:* Map of Unit 1: St. Tammany Parish, Louisiana, follows:



This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

(7) Unit 2: Harrison County, Mississippi.

(i) [Reserved for textual description of Unit 2, Subunit A: Harrison County, Mississippi]

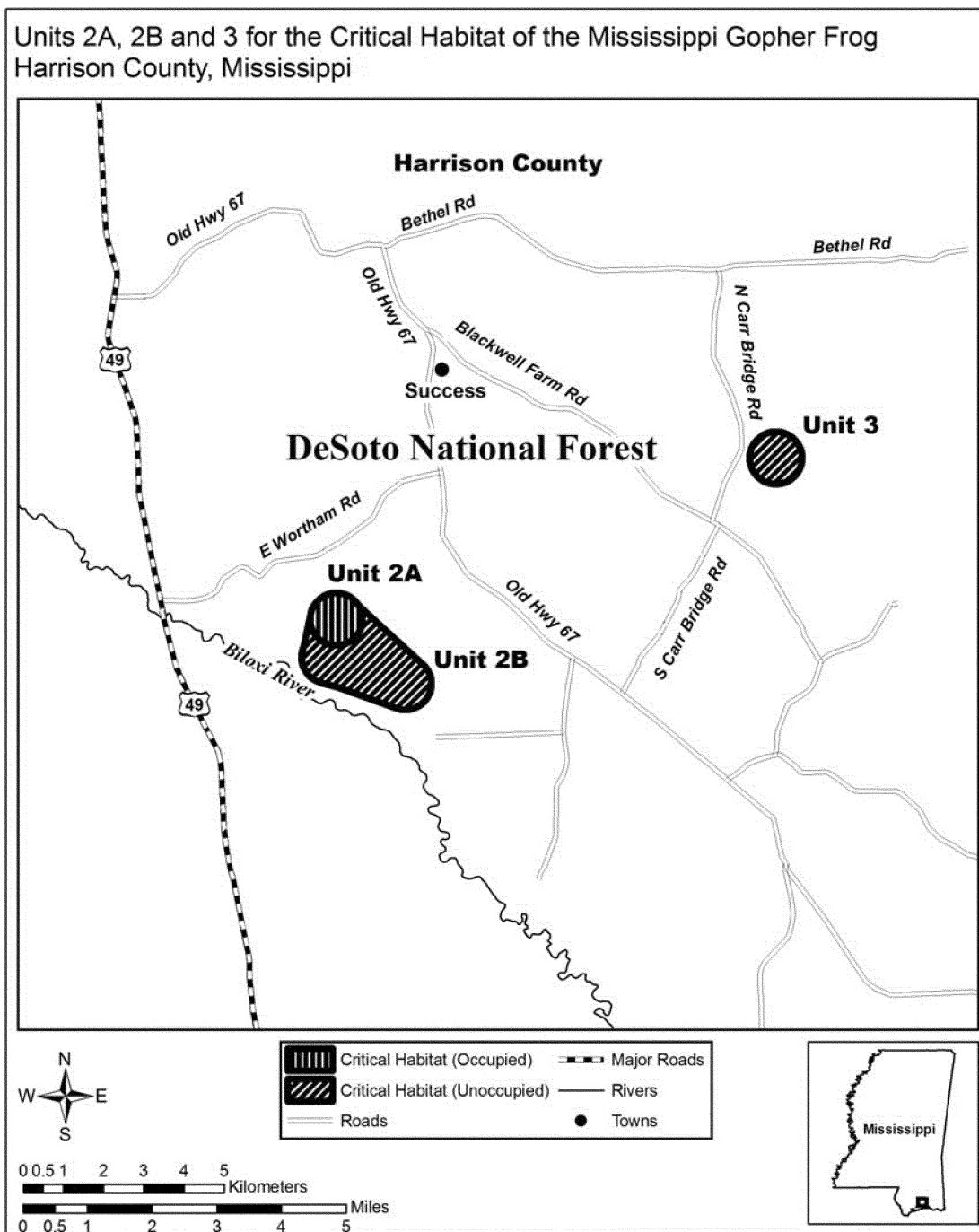
(ii) [Reserved for textual description of Unit 2, Subunit B: Harrison County, Mississippi]

(iii) *Note:* Map depicting Unit 2 is provided at paragraph (8)(ii) of this entry.

(8) Unit 3: Harrison County, Mississippi.

(i) [Reserved for textual description of Unit 3: Harrison County, Mississippi]

(ii) *Note:* Map of Units 2 and 3 follows:



This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

(9) Unit 4: Jackson County, Mississippi.

(i) [Reserved for textual description of Unit 4, Subunit A: Jackson County, Mississippi]

(ii) [Reserved for textual description of Unit 4, Subunit B: Jackson County, Mississippi]

(iii) *Note:* Map depicting Unit 4 is provided at paragraph (11)(ii) of this entry.

(10) Unit 5: Jackson County, Mississippi.

(i) [Reserved for textual description of Unit 5, Subunit A: Jackson County, Mississippi]

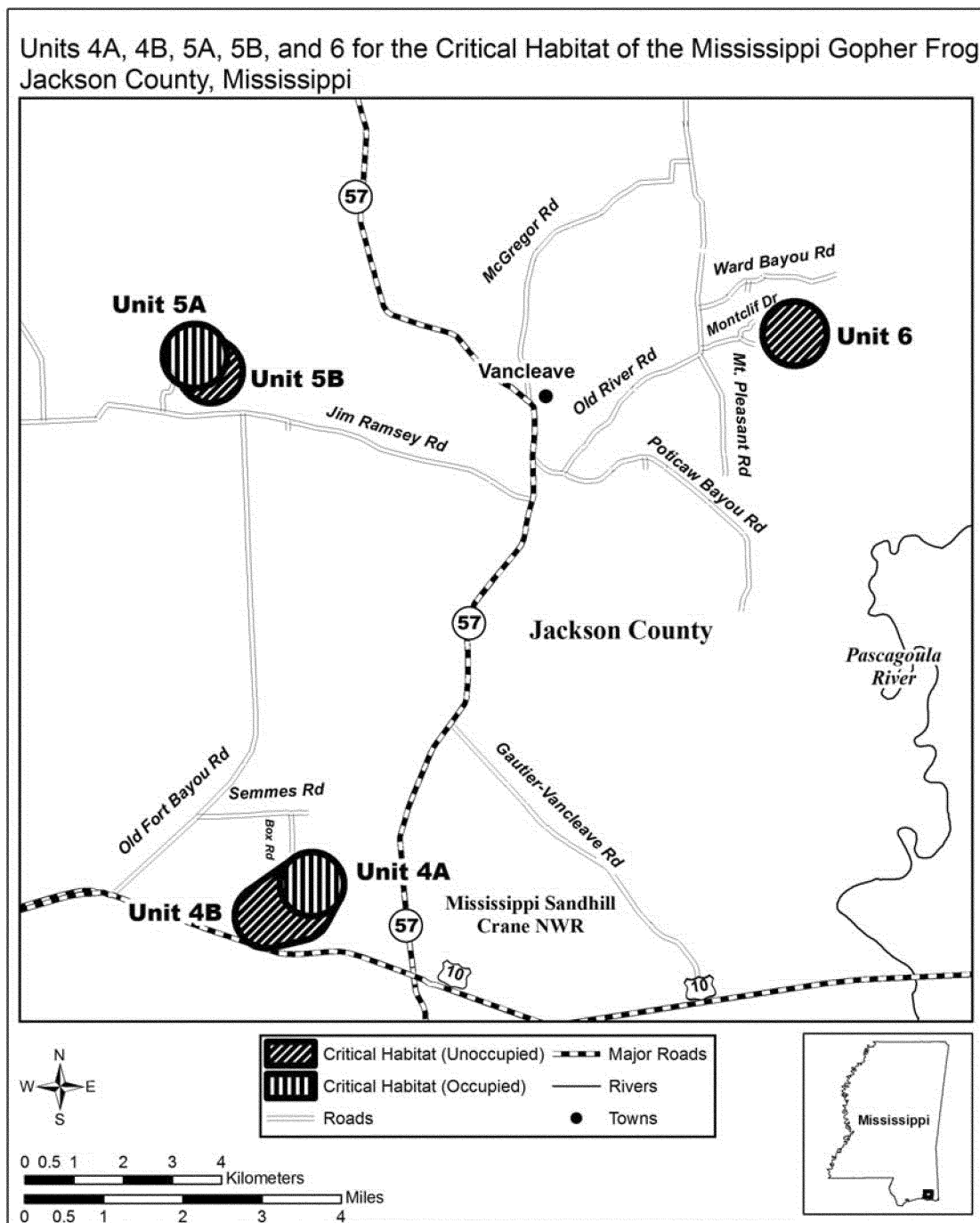
(ii) [Reserved for textual description of Unit 5, Subunit B: Jackson County, Mississippi]

(iii) *Note:* Map depicting Unit 5 is provided at paragraph (11)(ii) of this entry.

(11) Unit 6: Jackson County, Mississippi.

(i) [Reserved for textual description of Unit 6: Jackson County, Mississippi]

(ii) *Note:* Map of Unit 4: Jackson County, Mississippi; Unit 5: Jackson County, Mississippi; and Unit 6: Jackson County, Mississippi follows:

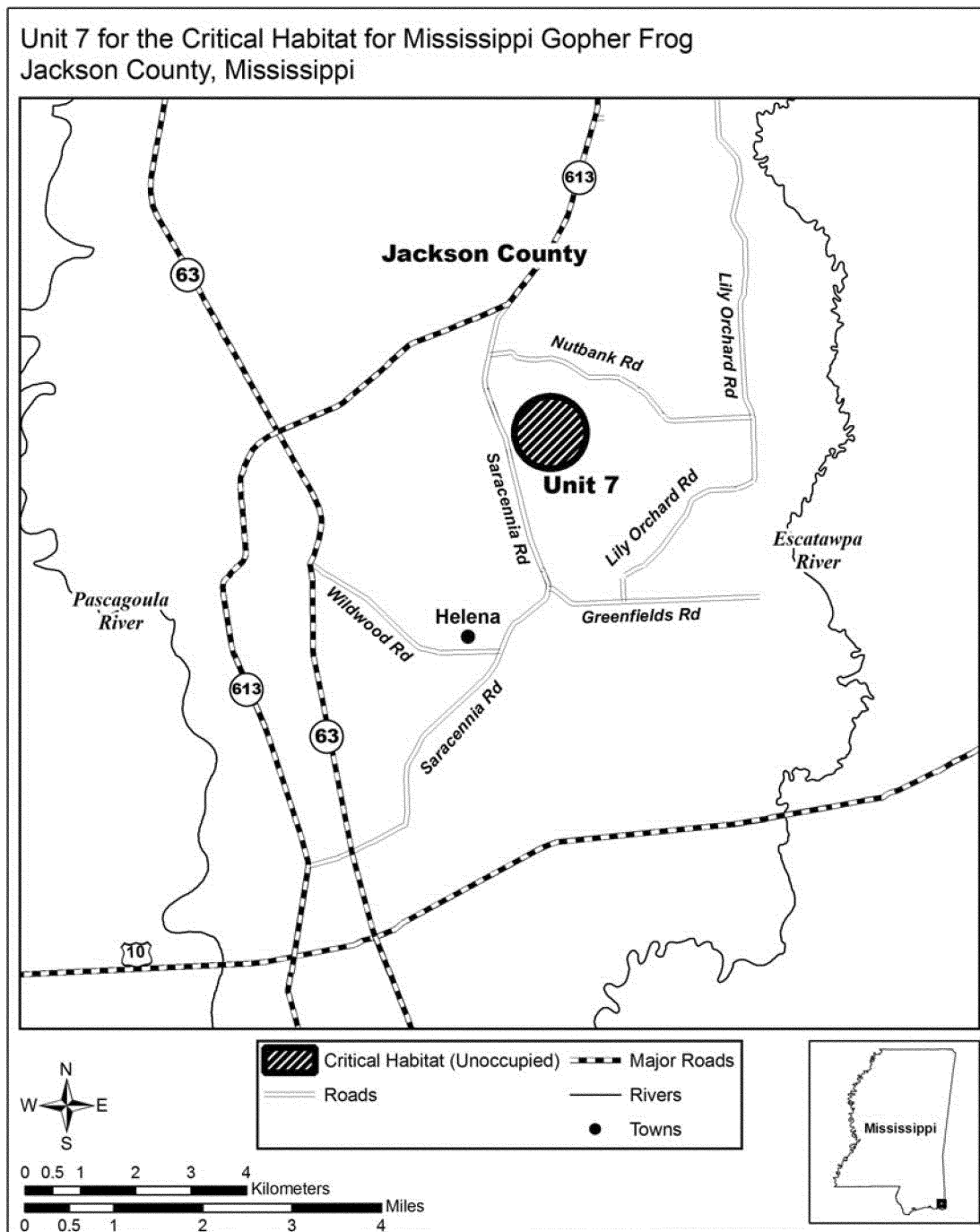


This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

(12) Unit 7: Jackson County, Mississippi.

(i) [Reserved for textual description of Unit 7: Jackson County, Mississippi]

(ii) *Note:* Map of Unit 7: Jackson County, Mississippi follows:



This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

(13) Unit 8: Forrest County, Mississippi.

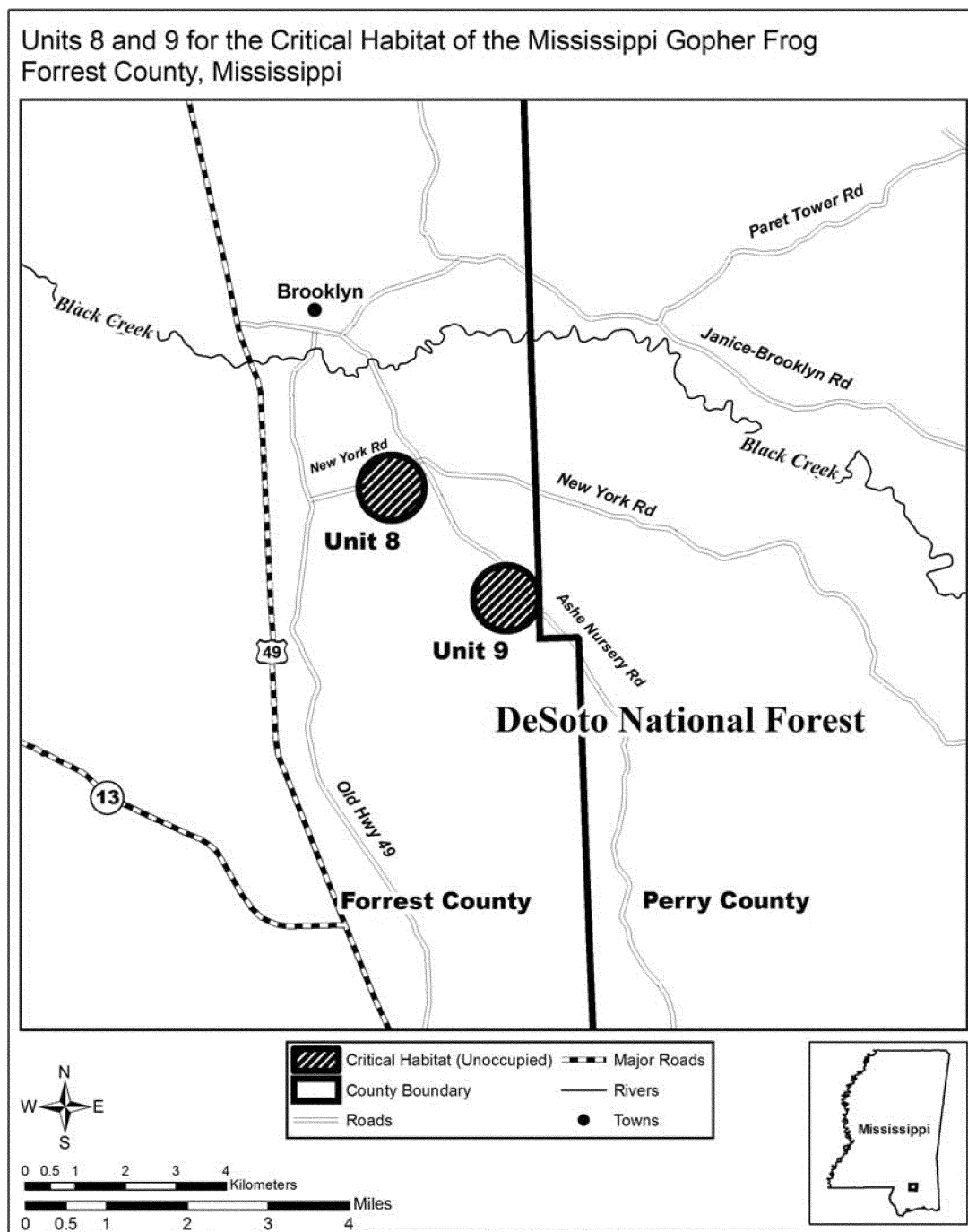
(i) [Reserved for textual description of Unit 8: Forrest County, Mississippi]

(ii) *Note:* Map depicting Unit 8 is provided at paragraph (14)(ii) of this entry.

(14) Unit 9: Forrest County, Mississippi.

(i) [Reserved for textual description of Unit 9: Forrest County, Mississippi]

(ii) *Note:* Map of Unit 8: Forrest County, Mississippi and Unit 9: Forrest County, Mississippi follows:



This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

(15) Unit 10: Perry County, Mississippi.

(i) [Reserved for textual description of Unit 10: Perry County, Mississippi]

(ii) *Note:* Map depicting Unit 10 is provided at paragraph (17)(ii) of this entry.

(16) Unit 11: Perry County, Mississippi.

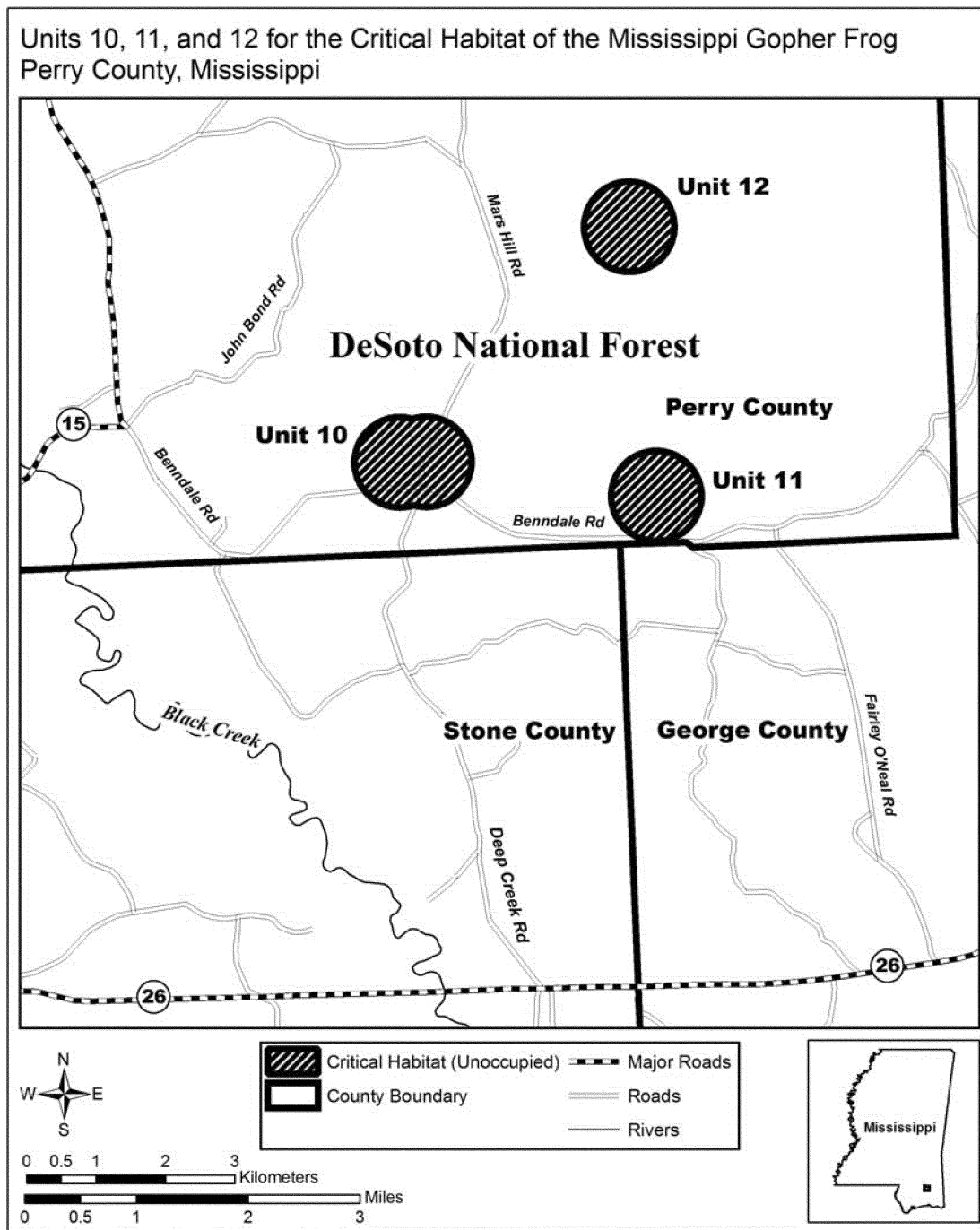
(i) [Reserved for textual description of Unit 11: Perry County, Mississippi]

(ii) *Note:* Map depicting Unit 11 is provided at paragraph (17)(ii) of this entry.

(17) Unit 12: Perry County, Mississippi.

(i) [Reserved for textual description of Unit 12: Perry County, Mississippi]

(ii) *Note:* Map of Unit 10, Perry County, Mississippi; Unit 11, Perry County, Mississippi; and Unit 12, Perry County, Mississippi follows:



This map is provided for illustrative purposes of critical habitat only. For precise legal definition of critical habitat, please refer to the narrative unit descriptions.

\* \* \* \* \*

Dated: September 12, 2011.

**Rachel Jacobson,**  
*Acting Assistant Secretary for Fish and  
Wildlife and Parks.*

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