MISSISSIPPI FSA EMERGENCY CONSERVATION PROGRAM & FOREST RESTORATION PROGRAM EFFECTS ON THREATENED, ENDANGERED, AND CANDIDATE SPECIES:

Updated September 10, 2020

Through collaboration with the Mississippi Field Office, this programmatic consultation has been developed for Federally-listed and candidate species that could be encountered during Farm Service Agency (FSA) planning and other non-project activities. This document identifies the potential effects of Emergency Conservation Program (ECP), Emergency Forestry Restoration Program (EFRP), and Farm Storage Facility Loan (FSFL) Added Capacity (CatEx S7a) Program activities utilized in Mississippi by the FSA in habitats identified as potentially occupied by Federally-listed or candidate species.

Effects Determination

FSA, through collaboration with the Service, has determined that the conservation projects listed below in the consultation matrix will have no effect on nine federally listed or candidate species and their critical habitats because these projects are not used in areas where the following species or critical habitat occur: interior least tern, red knot, piping plover, Eastern black rail, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, and West Indian manatee. Therefore, these species are not included in the matrix.

Installation and/or management of conservation projects "may affect, but are not likely to adversely affect" the wood stork, a threatened species that can be found in Mississippi during the non-breeding season. Based on the fact that non-breeding adults would be expected to avoid the project area during construction, it is unlikely that this species would be adversely impacted by the conservation actions.

In addition, the Louisiana black bear was removed from the Lists of Threatened and Endangered Wildlife under the Endangered Species Act on March 10, 2016 due to recovery. Although no longer federally protected, the black bear remains protected under Mississippi statutes. Therefore, we have added the black bear and recommended minimization measures to the matrix.

As part of the determination process, FSA staff will have a Service-provided list of threatened and endangered species by county, an ESRI compatible GIS file that contains listed species by 12-digit Hydrologic Unit Code (HUC), and habitat descriptions for each species. A determination of "no effect" may be made for a project when it is implemented in a county or 12-digit HUC lacking listed species or at a site that is not within or adjacent to any listed species habitat or upstream of aquatic listed species. When a project would be implemented within or adjacent to any listed species habitat or upstream of aquatic listed species, FSA staff should use information in the following matrix to assist with their determination.

All listed conservation projects conforming to the ECP relating to storm debris clean-up (EC1), grading, shaping, leveling, or similar measure (EC2), fence repair and/or replacement ((EC3) (CatEx L2a/S9a)), restoring conservation structure and other installations (EC4), and EFRP (EF1-EF9) standards are covered by this programmatic consultation. FSA should consult with Service on a case-by-case basis when projects will not conform to the prescribed standards.

Matrix Description

This matrix presents all conservation projects considered during the programmatic consultation and the potential effects (if any) to federally listed species and any minimization criteria needed for each project to avoid potential adverse effects to listed species. The matrix lumps species together based on habitat similarities or when a minimization criterion is the same for numerous species. See Table 1.

If a conservation project has a "---" in the sub-column under a species column list, then FSA and the Service have determined this project will have no effect on this species or that the project will be completely beneficial to the species. If a sub-column has a criteria symbol, then FSA will need to adopt one or more (as needed) of the protective measures described under the criteria symbol below or contact the FSA area and/or state biologist point of contact (POC) if the project will adversely impact suitable habitat. The FSA POC will coordinate with Service before a final effect's determination is made. Note that coordinating with the Service does not necessarily mean the project cannot be installed; in fact, additional review and documentation with the Service may be sufficient.

Table 1. Species identified by columns in the matrix are as follows.

Column Name	Species	Criteria Symbol
Aquatic Species	Alabama moccasinshell, Alabama red-bellied turtle, Bayou darter, Black clubshell, Cumberlandian combshell, Fat pocketbook, Gulf sturgeon, Heavy pigtoe, Inflated heelsplitter, Louisiana quillwort, Orange-nacre mucket, Ovate clubshell, Oyster mussel, Pallid sturgeon, Pearl darter, Rabbitsfoot, Ringed map turtle, Sheepsnose, Slabside pearlymussel, Snail darter, Snuffbox, Southern clubshell, Southern combshell, and Yellow-blotched map turtle	AQ1,AQ2, AQ3
Birds	Mississippi sandhill crane	MSC
	Red-cockaded woodpecker	RCW
Insects	Mitchell's satyr butterfly	MSB
Longleaf Pine Herpetofauna	Black pinesnake	BPS
	Dusky gopher frog	DGF
	Gopher tortoise	GT1,GT2
Mammals	Gray, Indiana, and Northern long-eared bats	Bat1,Bat2,Bat3
	Louisiana black bear	LBB
Plants	Pondberry	PondB
	Price's potato bean	PPB
	White fringeless orchard	WFO
	Whorled sunflower	WSF

Avoidance/Minimization Criteria

AQ1 – Contact FSA POC if installation and/or management of conservation project will occur within 50 feet of a stream within a 12-digit HUC containing aquatic listed species, and one or more, as needed, of the following protective measures cannot be implemented. Protective measures when working near suitable habitat for listed aquatic species includes: no mechanized clearing within 50 feet of streams; installing BMP's such as vegetated buffers to prevent erosion and sedimentation into streams; fencing livestock out of streams; and minimizing stream crossings associated with forest trails and landings.

AQ2 – Contact FSA POC if instream work (e.g. snagging, channel realignment, bank armoring, dams, bridge pilings, culverts) is proposed within a 12-digit HUC with listed aquatic

species. Protective measures include using appropriate BMP's to prevent erosion and sedimentation into streams; designing stream crossings to ensure that the natural flow and hydrology of the stream is maintained year-round; and preventing barriers to fish and other aquatic organism passage associated with instream work.

AQ3 – Contact FSA POC if pesticides will be used within 100 feet of a stream (or 200 feet for aerial pesticide applications) within a 12-digit HUC containing aquatic listed species, and one or more, if needed, of the following protective measures cannot be implemented. Protective measures include using spot treatment techniques (e.g. hack and squirt, basal bark, cut stump and direct foliar spray), using selective herbicides that maintain native grasses, avoiding pesticide drift into non targeted area by not spraying when wind speeds are over 10 mph, and avoiding runoff into non-target streams by applying during dry weather when rainfall is not expected within 24 hours. WINPEST evaluations will be conducted to identify measures to prevent polluting surface and ground waters or affecting non-target species.

Bat1 – No tree removal (i.e., trees over 3 inch diameter at breast height) during the summer roosting season (i.e. April 15-August 31) for projects within 150 feet of a known NLEB summer roost site. No tree removal during the summer roosting season for all projects within the IBAT summer roosting range of MS. See the GIS HUC file for 12-digit HUCs with known NLEB roosts or the IBAT summer roosting range. Contact FSA POC if trees must be removed during the summer roosting season.

Bat2 – Include bat mitigation efforts (bat gates) for the closing of natural caves and/or abandoned mines that have evidence of bat use. Avoid disturbance (e.g. use of machinery, building of roads, and application of pesticides) of foraging areas near known bat caves by adhering to an activity buffer distance of 200 foot radius from the cave entrance. Maintain snags within ½ mile radius of cave entrances. See the GIS HUC file for 12-digit HUCs with known IBAT/NLEB caves. Avoid impacts to bats hibernating or roosting in old buildings.

Bat3 – Conduct prescribed burns and application of pesticides outside of the summer roosting season (i.e., April 15-August 31) for projects within 2.5 miles of a known IBAT summer roost site or within 150 feet of a known NLEB summer roost site. See the GIS HUC file for 12-digit HUCs with known roosts. Spot treatment is preferred over aerial application.

BPS – Contact FSA POC if longleaf pine forests will be permanently converted or degraded by any means (e.g. clearing, flooding, stump removal) within a 12-digit HUC known or potentially occupied by black pinesnakes. Forest stand improvements and other practices designed to improve longleaf forest conditions are acceptable (e.g. burning, thinning, herbicides).

DGF – Contact FSA POC if installation and/or management of conservation project will adversely impact ephemeral ponds and adjacent upland longleaf pine habitat within a 12-digit HUC containing dusky gopher frog critical habitat and one or more, as needed, of the following

protective measures cannot be implemented. Protective measures include no clearing, draining, ditching, creation of firebreaks, non-selective herbicide use, and/or land mechanical treatment within 50 feet of ephemeral ponds. Adjacent longleaf pine habitat should not be permanently converted or degraded by any means (e.g. clearing, flooding, stump removal); however, forest stand improvements and other practices designed to improve longleaf forest conditions are acceptable (e.g. burning, thinning, herbicides).

GT1 – Heavy equipment (including mowers) will stay at least 4 meters (13 feet) from known gopher tortoise burrows. Contact POC if assistance is needed to conduct gopher tortoise surveys. This applies to all practices where heavy equipment is used. Heavy equipment is defined as agricultural tractors, crawler loaders, crawler dozer, backhoe/loader, front end loader, scraper pan, motor grader, skid steer, forklift (P.I.T.), hydraulic excavator, and specialty tracked equipment. Felling of trees and brush, cutting by hand, hack and squirt, backpack application, or use of herbicide pellets is allowed within this buffer.

GT2 – Fencing should be installed so as to allow for the safe passage of gopher tortoises. When fencing for small ruminants (e.g., goats), avoid fencing in tortoise burrows.

LBB – Actual, candidate, or potential den trees (any tree with DBH ≥ 36 inches), regardless of the species or proximity to water, should not be removed or damaged during practice installation or maintenance. Heavy equipment should maintain a minimum 50 foot buffer from the trunk or a 10 foot buffer around the tree starting from the farthest extent of its canopy, whichever is greater.

MSB – Contact FSA POC if installation and/or management of conservation project will occur within 50 feet of herbaceous-shrub wetlands (typically influenced by beaver activities) within a 12-digit HUC containing potential Mitchell's satyr butterfly habitat, and one or more, as needed, of the following protective measures cannot be implemented. Protective measures include no clearing, filling, permanent inundation, or insecticide use within herbaceous shrub wetlands and adopting BMP's such as vegetated buffers to prevent sedimentation into wetlands.

MSC – Contact FSA POC if installation and/or management of conservation project will affect MS Sandhill Crane behavior (e.g. nesting, roosting, foraging) and/or adversely alter fire-maintained pine savannah habitat within a 12-digit HUC containing potential MSC habitat (generally south of Latimer, Vancleave, and Helena, MS). Forest stand improvements and other practices designed to improve pine savannah conditions are acceptable (e.g. burning, thinning, herbicides).

PondB – Contact FSA POC if installation and/or management of conservation project will permanently convert (e.g. clearing, filling, permanent inundation) bottomland hardwood forest habitat within a 12-digit HUC containing potential pondberry habitat. Forest stand improvements and other practices designed to improve bottomland hardwood forest conditions are acceptable

(i.e. WRP hardwood thinning of <20 year old planted stands) within potential suitable pondberry habitat where populations are not currently present.

PPB – Contact FSA POC if installation and/or management of conservation project will adversely affect (i.e. clear, thin, land mechanical treatment, herbicide use) suitable Price's potato bean habitat (i.e. forest openings in mixed hardwood stands on slopes or bluffs of alkaline soils that grade into creek or stream bottoms) within a 12-digit HUC containing potential PPB habitat. Kudzu control using herbicides or mechanical treatment is acceptable (beneficial effect) within potential suitable PPB habitat where populations are not currently present.

RCW – Contact FSA POC if installation and/or management of conservation project will convert, remove, damage, or degrade foraging habitat (i.e. southern yellow pine tree species greater than or equal to 10 inch DBH in a pine-dominated stand) or potential cavity trees (i.e. pine trees 60 years old or older) within 0.5 mile of an active cluster. See GIS HUC file for 12-digit HUCs with known or potential RCW clusters.

WFO – Contact FSA POC if installation and/or management of conservation project will permanently remove suitable white fringeless orchid habitat (i.e., spring heads, pools, and runs; and wet, boggy areas at the heads of streams and on sloping areas moist by groundwater seeping to the surface) in a 12-digit HUC containing WFO.

WSF – Contact FSA POC if installation and/or management of conservation project will permanently remove suitable whorled sunflower habitat (i.e. moist soils in open, grassy areas, such as wet prairies, road and utility rights-of-way, and along margins of agricultural fields, with little to no overstory canopy, often associated with floodplains of small streams) in a 12-digit HUC containing WSF.

Table 2. FSA Conservation Project Effects on Federally Threatened & Endangered Species

Code	Conservation Project	Aquatic Species (21)	Birds (2)	Insects (1)	Longleaf Herps (3)	Mammals (4)	Plants (4)
EC1	Removing debris from farmland	AQ1	---	---	GT1	Bat2	WSF
EC2	Minor grading, shaping, leveling, or similar measure (CatEx S8biii)	AQ1, AQ2, AQ3	---	MSB	GT1, GT2, BPS, DGF	---	LAQ, PPB, PONDB, WFO
EC3	Restoring permanent fences, relating to storm debris clean-up and fence repair (CatEx L2a) and/or replacement (CatEx S9a)	---	---	---	GT1, GT2	---	WSF
EC4	Restoring conservation structure and other installations (CatEx S8a)	AQ1, AQ2		MSB	GT1, GT2		LAQ, PPB, PondB, WFO
EF1	Bottomland hardwood forest restoration	AQ1, AQ2, AQ3	---	---		Bat1, Bat3, LBB	LAQ, PPB, PondB, WFO
EF2	Bottomland softwood forest restoration	AQ1 AQ2, AQ3	---	MSB		Bat1	PPB, PondB, WFO
EF3	Bottomland mixed forest restoration	AQ1, AQ2, AQ3	---	MSB		LBB	PPB, PondB, WFO
EF4	Bottomland longleaf pine restoration	AQ1	MSC, RCW	---	GT1, BPS, DGF	---	LAQ
EF5	Upland hardwood forest restoration	AQ1	---	---	GT1, BPS, DGF	---	LAQ, PPB, WFO
EF6	Upland softwood forest restoration	AQ1	MSC, RCW	MSB	GT1, BPS, DGF	---	LAQ, PPB, WFO

EF7	Upland mixed forest restoration	AQ1 AQ2	---	---	GT1, BPS, DGF	BAT1	LAQ, PPB, WFO
EF8	Upland longleaf pine restoration	AQ1	MSC, RCW	---	GT1, BPS, DGF	---	LAQ
EF9	Other emergency forest restoration	AQ1, AQ2, AQ3	MSC, RCW	MSB	GT1, GT2, BPS, DGF	BAT1, BAT2, BAT3, LBB	LAQ, PPB, PondB, WFO, WSF
FSFLAC	Construction of a grain storage bin within an existing bank of grain storage bins	AQ1	---	---	GT1	---	---