

Working Lands for Wildlife *for the* Southwestern Willow Flycatcher Required Conservation Measures

The following conservation measures only apply to Working Lands for Wildlife (WLFW) projects for the southwestern willow flycatcher (SWFL). For those projects, the following conservation measures will be required and considered as additional criteria to the conservation practice standard.

WLFW Conservation Measures (CM's)

I. Any conservation practice that will occur within the 100-year floodplain is required to follow the conservation measures found in Appendix II of the biological opinion¹¹ (*page 2 of this document*).

II. In addition, there may be conservation measures specific to a conservation practice. The table below indicates which practices have additional conservation measures.

NRCS Practice Name and Code	Practice Specific Conservation Measures <small>*all must still follow the 100-yr floodplain Conservation Measures</small>
Core Management Practices	
Early Successional Habitat Development/Mgmt. (647)	none
Restoration & Mgmt. of Rare/Declining Habitats (643)	none
Stream Habitat Improvement and Management (395)	none
Upland Wildlife Habitat Management (645)	none
Wetland Wildlife Habitat Management (644)	none
Supporting /Facilitating Practices	
Access Control (472)	none
Animal Trails and Walkways (575)	none
Brush Management (314)	YES - 7 additional CM's
Channel Bed Stabilization (584)	none
Conservation Cover (327)	none
Fence (382)	YES - 1 additional CM
Field Border (386)	none
Forage & Biomass Plantings (512)	none
Forage Harvest Management (511)	none
Forest Harvest Trails & Landings (655)	none
Forest Stand Improvement (666)	YES - 9 additional CM's
Grade Stabilization Structure (410)	none
Heavy Use Area Protection (561)	none
Herbaceous Weed Control (315)	YES - 2 additional CM's
Integrated Pest Management (595)	none
Irrigation Water Management (449)	none
Obstruction Removal (500)	none
Open Channel (582)	YES - 6 additional CM's
Pipeline (516)	YES - 1 additional CM
Prescribed Grazing (528)	YES - 8 additional CM's
Riparian Forest Buffer (391)	none
Riparian Herbaceous Buffer (390)	none
Streambank and Shoreline Protection (580)	YES - 3 additional CM's
Stream Crossing (578)	none
Structure for Water Control (587)	none
Tree / Shrub Establishment (612)	none
Tree / Shrub Site Preparation (490)	none
Water Well (642)	YES - 3 additional CM's
Watering Facility (614)	none
Wetland Enhancement (659)	none
Wetland Restoration (657)	none
Woody Residue Treatment (384)	YES - 1 additional CM



Conservation Measures for all Conservation Practices in the 100 Year Floodplain

(excerpt from the original document, Appendix II)

100-year floodplain. The following 16 conservation measures only apply to conservation practices planned to be implemented within the 100-year floodplain. To determine the location of the 100-year floodplain, review the HUD/FEMA flood insurance maps and/or other available data (F:\geodata\hydrography), or contact the appropriate field or hydraulic engineer to assist.

1. Flag or otherwise protect individuals of a listed plant species in construction areas.
 - At the time of the development of the Biological Opinion (July 2012), New Mexico did not have listed plant species with the potential to occur within the SWFL habitat range. Check the US FWS Ecological Services website for any new plant listings: <http://www.fws.gov/southwest/es/NewMexico/>
2. If removing vegetation or habitat structural materials, a **pre-construction survey** will be completed to ensure that materials to be removed are not used as primary cover for a listed species. Cover or nest materials will remain with a 250' undisturbed buffer. Contact your State Biologist for assistance.
3. Conduct a pre-installation, pedestrian survey (i.e. a walk-through) for wildlife that may be trapped within a temporarily fenced construction area. Trapped wildlife will be allowed to escape prior to construction.
4. Install outside covered species' critical periods (Table 1), Referenced in practice standard as Field Office Technical Guide, Section II, Technical note except where otherwise stated (e.g. Prescribed Grazing).

<i>Species</i>	<i>Critical Time Period</i>
Chiricahua Leopard Frog	May 1 - Oct. 31 (above 5,900' elev.) July 15 - Feb 14 (below 5,900' elev.)
Southwestern Willow Flycatcher	April 15 - Sept 15
Yellow billed cuckoo	<i>under review</i>
Colorado pikeminnow	June 1 - Sept. 1
Headwater chub	<i>under review</i>
Pecos bluntnose shiner	May 1 - Oct. 1
Pecos gambusia	year round
Rio Grande cutthroat trout	May 15 - July 15
Rio Grande silvery minnow	May 1 - Sept. 1
Woundfin	March 1 - June 1
Zuni bluehead sucker	March 1 - Sept. 1
New Mexico Meadow jumping mouse	<i>under review</i>

5. Install practices when any ephemeral streambed within the action area is dry; or at times when hydrologic, migration or reproduction conditions ensure that covered species are not present.
6. Minimize upland soil compaction during practice construction by selecting the location and timing of the practice to minimize compaction (i.e. avoid periods when soil is wet, especially high clay soils).
7. Use existing stream crossings for equipment access during practice installation.
8. Use existing roads, limit cross-country travel or initiation of new roads.
9. Locate practice a minimum of 250 feet from any known listed species active nest or burrow as applicable, whether or not bulldozers, trenching machines, or similar equipment is used.
10. Alignments for any planned construction will be routed to avoid specific areas known to be occupied by the covered species and known habitat features of the covered species such as nests.
11. Minimize soil and vegetation disturbance during practice installation; avoid total removal of vegetation to allow regrowth by only removing targeted species and leaving the native herbaceous layer as undisturbed as possible.
12. Plant or seed native species adapted to local conditions on disturbed ground to reduce opportunities of invasive weed establishment.
13. Where clearing of vegetation is determined to be necessary during planned construction or maintenance, the corridor cleared, otherwise prepared, or maintained will not exceed 25 Feet in width.
14. Minimize or eliminate stream bank disturbance during practice construction.
15. Clean equipment used in practice implementation (vehicles, farm equipment, and tools) before entering and leaving project site to prevent the spread of non-native plant/animals or disease.
16. Immediately clean grease, oil, or other contaminant spills and remove from the site.

Conservation Measures for Each Conservation Practice Standard

(excerpt from the original document, Appendix IV)

Brush Management (314)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] ***This practice will not be used in cases where habitat currently meets all minimum occupation requirements of SWFL (per the SWFL WHEG) and greater than 50% of nesting canopy cover consists of tamarisk.***
- 2] Conservation plans using Brush Management will be designed to develop SWFL habitat of improved quality or that provides equivalent habitat and decreases the potential of wild fire due to tamarisk.
- 3] Tamarisk in a nesting patch shall not be treated if a biologist (as designated by the State Biologist) determines that implementation of Brush Management will decrease SWFL viability in the patch for the following nesting season.
- 4] Treated sites may be deferred from grazing for a period of time determined to be necessary to restore SWFL habitat based on pre and post site treatment conditions.
- 5] This practice is not to be used for land use change.
- 6] Slash treatment will occur outside of the 100-year floodplain when it is not in seed. If it has set seed, contact the State Biologist for further guidance.
- 7] If soil is disturbed, use site specific reclamation using SWFL WHEG, Stream Visual Assessment Protocol-2 and/or riparian Ecological Site Description with consideration of SWFL habitat needs.

Fence (382)

Conservation Measures

If using this practice within the 100 year floodplain, then additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Where clearing of vegetation is determined to be necessary during planned construction or maintenance, the corridor cleared, otherwise prepared, or maintained will not exceed 5 Feet in width in SWFL occupied habitat. Outside of SWFL occupied habitat, the path or corridor where the practice is implement may be up to 25 feet wide.

Forest Stand Improvement (666)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] ***This practice will not be used in cases where habitat currently meets all minimum occupation requirements of SWFL (per the SWFL WHEG) and greater than 50% of nesting canopy cover consists of tamarisk.***
- 2] Tamarisk in a nesting patch shall not be treated if a biologist designated by state biologist determines that implementation of Brush Management will decrease SWFL viability in the patch for the following nesting season.
- 3] Treated sites may be deferred from grazing for a period of time determined to be necessary to restore SWFL habitat based on pre and post site treatment conditions.
- 4] This practice is not to be used for land use change.
- 5] Plan for this practice shall be designed to develop SWFL habitat of improved quality or that provides equivalent habitat and decreases potential of wild fire due to tamarisk.
- 6] Defer use of this practice from April 15 to Sept 15.
- 7] Slash treatment will occur outside of the 100-year floodplain when it is not in seed. If it has set seed, contact the State Biologist for further guidance.
- 8] If soil is disturbed, use site specific reclamation using SWFL WHEG, Stream Visual Assessment Protocol-2 and/or riparian Ecological Site Description with consideration of SWFL habitat needs.

Herbaceous Weed Control (315)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Use Win-PST to determine pesticide mitigation requirements.
- 2] Herbicide applications will follow the applicable conservation measures recommended in the FWS document

Open Channel (582)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Screen inlets and outlets to prevent non-native fish and amphibians from spreading into other habitats.
- 2] Design stream crossings to prevent water flow blockage during low flow periods or debris blockage during high flow periods.
- 3] Time practice implementation to reduce spread of non-native plants by implementing the practice during the dormant season (e.g. avoid ground disturbance in riparian areas in the summer to reduce salt cedar spread).
- 4] Where clearing of vegetation is determined to be necessary during planned construction or maintenance, the corridor cleared, otherwise prepared, or maintained will not exceed 5 Feet in width in SWFL occupied habitat. Outside of SWFL occupied habitat, the path or corridor where the practice is implement may be up to 25 feet wide.
- 5] Leave adequate vegetation buffer and/or install best management practices along down slope edge of project area to prevent disturbed ground sediment runoff from entering aquatic habitats. These can include straw baffles, silt fence, hay bales, etc.
- 6] Re-establish native riparian vegetation on disturbed sites to maintain or improve bank stability.

Pipeline (516)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Provide wildlife safe ingress/egress in trenches (ladder or dirt plugs to allow escape) during construction. Refer to NM Biology Technical Note No. 55.

Prescribed Grazing (528)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Implementation of grazing management plans, to the extent practicable, will meet habitat conditions for riparian habitat as recommended by the SWFL WHEG.
- 2] Frequency – Grazing will occur at a rate conducive to creating or maintaining desired habitat structure for nesting SWFL.
- 3] Duration – Grazing periods will be designed to establish or maintain desired habitat conditions as recommended by the SWFL WHEG
- 4] Timing – Grazing will be scheduled to avoid potential disturbance to SWFL and occupied SWFL habitat during breeding season – from April 15 to Sept 15, except when following prescribed grazing protocol during growing season as stated
- 5] Intensity – the amount of forage removed (or left) during any particular grazing cycle will be in keeping with the life cycle requirements of the SWFL.
- 6] The timing, duration, intensity and distribution of grazing will be managed to benefit listed species by maintaining or improving the plant communities in each pasture. The timing, intensity, duration, and frequency of livestock grazing will be controlled to maintain or improve the plant communities to achieve 60% or higher similarity index for the desired plant community based on the ecological sites being managed. The desired kinds and amounts of vegetation will be based on the ecological sites being managed and the current plant communities that will be managed. Monitoring will be done to determine if plant community goals are being achieved. Monitoring may include species composition, production, vegetation and ground cover, seedling establishment, utilization, tree density or other attributes based on the vegetation goals established in the prescribed grazing plan. The Prescribed Grazing plan will also ensure adequate post-grazing vegetative heights and bank vegetation cover to minimize erosion and sediment losses from runoff, and to control stream bank erosion that would cause degradation of the riparian area. Stocking rates will be light to minimize nest disturbance. Fall and winter grazing after the willow flycatcher has left will be done no more than 2 out of 3 years. Grazing during the spring and summer will occur no more than once in 3 years. Provide off-site water supply for livestock and wildlife to

maintain or improve streamside vegetation

- 7] Motorized vehicles will not be used to herd livestock within listed species habitat.
- 8] Provide off-site water supply for livestock and wildlife to maintain or improve streamside vegetation.

Stream bank and Shoreline Protection (580)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Time practice implementation to reduce spread of non-native plants by implementing the practice during the dormant season (e.g. avoid ground disturbance in riparian areas in the summer to reduce salt cedar spread).
- 2] Where clearing of vegetation is determined to be necessary during planned construction or maintenance, the corridor cleared, otherwise prepared, or maintained will not exceed 5 Feet in width in SWFL occupied habitat. Outside of SWFL occupied habitat, the path or corridor where the practice is implement may be up to 25 feet wide.
- 3] Leave adequate vegetation buffer and/or install best management practices along down slope edge of project area to prevent disturbed ground sediment runoff from entering aquatic habitats. These can include straw baffles, silt fence, hay bales, etc.

Water Well (642)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] This practice will not be used in cases where habitat currently meets all minimum occupation requirements of SWFL and greater than 50% of nesting canopy cover consists of tamarisk.
- 2] Screen inlets and outlets to prevent non-native fish and amphibians from spreading into other habitats.
- 3] Plan for this practice shall be designed to develop SWFL habitat of improved quality or that provides equivalent habitat and decreases potential of wild fire due to tamarisk.

Woody Residue Treatment (384)

Conservation Measures

If using this practice within the 100 year floodplain, then 16 additional conservation measures apply. Refer to the Conservation Measures for All Conservation Practices within the 100 year Floodplain (page 2).

- 1] Slash treatment will occur outside of the 100-year floodplain when it is not in seed. If it has set seed, contact the State Biologist for further guidance.

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