

Natural Resources Conservation Service - Indiana – March 2016 (ver. 1.1)

State Acres for Wildlife Enhancement (SAFE) Wetland Restoration Program Job Sheet



PURPOSE

The purpose of this practice is to restore the functions and values of wetland ecosystems that have been devoted to agricultural use for breeding and/or migratory habitat for **sedge wrens and other songbirds, marsh birds, and reptiles and amphibians, and to provide migratory habitat for shorebirds.** Wetlands in Indiana include open water, marsh, wet meadow, shrub and forested habitats. An important component of wetlands is the upland areas surrounding the wetland which provide a “buffer”.

WHERE PRACTICE APPLIES

On fields that meet eligibility requirements for the State Acres for Wildlife Enhancement (SAFE) Initiative of the Conservation Reserve Program (CRP) as determined by the Farm Service Agency (FSA).

CRP POLICY

- Fields must be located within the 22 counties designated in Indiana as the Sedge Wren/Grasshopper Sparrow Priority Area (refer to Indiana guidance eligibility maps in 2-CRP).
- **FLOODPLAIN SITES ONLY:** The field must be located within the 100-year floodplain of a permanent river or stream.

- **FLOODPLAIN SITES ONLY:** The portion of the site to be restored (excluding buffer area) must have 51% hydric (wetland) soils.
- **NON- FLOODPLAIN SITES ONLY:** Offered acreage must be located outside of the 100-year floodplain.
- **NON- FLOODPLAIN SITES ONLY:** Offered acreage must not be eligible for enrollment in FWP CP27/CP28.

Applicable to both floodplain and non-floodplain:

- As determined by NRCS, an upland buffer with a maximum ratio of four (4) buffer acres to each restored wetland acre (i.e. 4:1 ratio) may be enrolled if otherwise eligible, needed and feasible for the practice. **The buffer should be planned to maximize the availability of nesting cover.**
- The contract duration for CP38B is 10-15 years.

RESTORATION OF HYDROLOGY

- The hydrology of the site must be restored to the level determined by the NRCS in consultation with the producer for the benefit of the [target species](#).
- The site must be technically suitable for wetland restoration. The level of hydrology restoration allowed will be based on the best available evidence of what the original hydrology of the site was prior to alteration.
- Wetland Restorations will be established according to the Indiana NRCS Field Office Technical Guide (FOTG) [Wetland Restoration \(657\) Standard](#).
- The hydrology of the site should be completed prior to establishing the vegetation in the buffer.
- The minimum allowable level of restoration is that which will restore enough hydrology to sustain characteristic hydrophytic (wetland) plants within the CP38B (non-buffer area). The desired level of hydrology restoration should be based on the best available evidence of what the original hydrology of the site was like prior to alteration.

- Neither Wetland Enhancements nor Wetland Creations are eligible under CRP CP38B.
- If surface or sub-surface drainage exists, these must be “plugged” according to the Wetland Restoration (657) Standard.

RESTORATION OF HYDROLOGY (continued)

- Digging, dredging, macrotopography, dikes, etc. are not authorized unless it is documented that the wetland was altered by grading, filling, etc. and these activities are needed to restore the original hydrology.

UPLAND BUFFERS

The upland buffer will be seeded to a mixture of introduced cool season grasses and legumes, or a mixture of native grasses and forbs. Plant the buffer according to the attached [Specifications Sheet](#). Any changes to these specifications must be approved by NRCS.

Introduced grass/ legume mixtures, species will be selected from the Indiana FOTG [Upland Wildlife Habitat Management \(645\) Standard](#) criteria for cool season grasses.

Native grass/forb mixtures will consist of one of the following two grass mixes (based on the soil moisture), plus a legume/forb mix listed below. Seeding rates are calculated using the Indiana FOTG [Upland Wildlife Habitat Management \(645\) Standard](#).

Grass mix (choose one):

1. On soils with a moisture tolerance of Moderately Well Drained (MWD) to Excessively Drained (ED), use a mixture of Little Bluestem and Sideoats Grama, plus either Canada Wildrye, Virginia Wildrye, or Riverbank Wildrye.
NOTE: Prairie Dropseed or Tall Dropseed may be added to the mixture.
2. On soils with a moisture tolerance of Poorly Drained (PD) to Somewhat Poorly Drained (SPD), use a mixture of Big Bluestem, Indiangrass, and Switchgrass, plus either Riverbank Wildrye or Virginia Wildrye.

Legume/forb mix:

1. One (1) legume, plus
2. One-half (0.5) pound/acre of a mixture containing at least 5 forbs

NOTE: Choose species from the Indiana FOTG [Upland Wildlife Habitat Management \(645\)](#)

Standard. No one forb or legume can make up more than 20% of the mixture.

Up to 10% of the associated buffer may be planted to native trees, or allowed to revert through natural succession.

PLANTING THE BUFFER

To encourage the forb component of the seeding mixture it is strongly encouraged to sow the mixture during the dormant season.

All construction and seeding must be completed within 12 months of the effective date of the contract to remain in compliance. If circumstances beyond the landowner’s control prohibit completion within the first 12 months, the local FSA County Committee may approve an extension to the next construction and planting season.

SEEDING DATES

Selected species will be planted within the dates in the specification sheet that will be provided for the site.

Site Preparation: It is very important to plant the vegetation into a weed-free seedbed. Weed control efforts should begin prior to planting, and may require multiple applications in both the fall and spring prior to planting. Use herbicides or tillage to eliminate competing vegetation. If necessary for erosion control, seed a temporary cover. Eliminate the temporary vegetation at planting time with tillage or herbicides. Contact your local Purdue University Extension Agent for specific herbicides to use. **Apply all herbicides according to the label.**

Lime and Fertilizer: Lime and fertilizer should not be applied to native grasses at establishment unless a current soil test shows phosphorus (P) and potassium (K) are in the deficient range or the pH is 6.1 or less. Do not apply any nitrogen (N) during establishment to minimize weed competition.

Seed preparation: Inoculate legume seed before seeding with the proper Rhizobia bacteria specific for the species. Re-inoculate seed if it was pre-inoculated more than 60 days prior to seeding. Be careful not to blend seed of varying size, shape and weight as this can make calibration of equipment and seeding uniformity difficult.

No-Till seeding: Use a no-till drill to reduce the risk of erosion and possible loss of seedlings. Ensure the drill is designed to handle the seed being planted (especially important for native grasses). Your local Soil and Water Conservation Districts may be able to assist in locating equipment. Set the drill to provide an ideal planting

depth of no more than ¼ inch unless otherwise directed. Seeding native grasses deeper than ¼ inch will lead to potential failure. Soils that are too wet or too dry can also cause improper seed placement.

Conventional Seeding: Use a drill with seven (7) inches or less row spacing or a culti-packer seeder, designed for the seed to be planted. The seedbed should be worked to a minimum depth of three (3) inches and firmed before seeding. Grass seed should be drilled uniformly and seeded no more than 1/2 inch deep.

Broadcast Seeding: Seed may be broadcast if completed in a uniform manner. Pre-mixing the seed with 200 lbs. per acre of pelletized lime and utilizing an airflow applicator is also effective. Seedbeds should be worked to a minimum depth of three (3) inches and firmed before seeding. The seedbed should be culti-packed before and after seeding. It is acceptable to see up to ⅓ of the seed on the soil surface. Wind speed should be 15 m.p.h. or less when broadcasting.

Weed Control During Establishment Period: Mow, burn, or apply herbicides as needed to control unwanted vegetation until a Final Status Review is issued, or for a maximum of 3 years after planting. Mow when competing weeds are taller than the planted vegetation, and at a mowing height above planted vegetation.

Tree/Shrub planting: Bare rooted stock (seedlings) shall not be planted when the soil is frozen or dry and will be planted with the root collars approximately at or slightly below the ground line. Bare rooted stock shall be planted in the spring after the ground thaws, but no later than June 1. It is important that tree species are randomly planted throughout the site and not planted with like species unless otherwise indicated in the planting plan.

PLANTING THE WETLAND

In most cases, vegetation in the wetland area will be allowed to re-vegetate naturally. When regeneration of a diverse and native plant community is unlikely to occur within three (3) years, a planting plan will be developed.

OPERATION AND MAINTENANCE

Noxious weeds and other undesirable plants, insects, and pests shall be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land.

After the Final Status Review or three (3) years (whichever comes first), maintain the planting according to your CRP conservation plan. Maintenance activities are allowed only on a spot basis and only if necessary to maintain stand health, maintain stand diversity, or control pests that will damage the CRP cover or adjacent lands. Burning must be in accordance with a prescribed burn

plan. **MOWING and other maintenance activities are not authorized between April 1 to August 1** to protect ground-nesting wildlife (i.e. - the Primary Nesting and Brood-Rearing season). If maintenance activities are needed (allowed on a spot basis only) during these times, the FSA County Committee must approve the maintenance activity prior to the activity occurring. Native grasses will not be mowed lower than 12 inches. **Mowing for generic weed control or for cosmetic purposes is prohibited.**

Exclude all acres from haying and grazing year round, unless authorized. Fences may need to be constructed and maintained to exclude livestock throughout the entire year. The contract area cannot be used for field roads or other uses that will damage or destroy the cover.

Weed Control in Tree/Shrub Plantings: Weed control is also important to ensure survival and maximum growth of the trees after they are planted. Nine (9) ft² around each tree should remain weed-free to maximize tree growth. Mowing is not recommended for weed control for trees. CRP cost share is authorized for one weed control application within 24 months after planting.

Check survivability of planted tree/shrub species after three (3) years to insure that the desired stocking rate for the site is present, usually 70% survival of the planted rate. Additional planting will be completed if it is determined that additional natural regeneration will not be sufficient to colonize the site within an acceptable time frame (usually 5 years) so that 300 acceptable woody plants per acre are established.

MID-CONTRACT MANAGEMENT

Mid-Contract Management (MCM) is required on this practice. If the CRP acres are less than 5 acres, the entire acreage can be managed in a single year; otherwise, the maximum amount that can be disturbed during any one year is ½ of the contract acreage. For maximum habitat value, disturb no more than 1/3 of the contract acreage in any given year.

MCM activities will be avoided on environmentally sensitive areas including:

- a) Concentrated flow areas,
- b) Critical areas,
- c) Within the first 20 feet of a practice that borders a water resource to avoid water quality resource concerns, and
- d) Other areas where gully erosion is likely.

Environmentally sensitive areas will be marked on the plan map to ensure Mid-Contract Management activities are avoided on these areas.

Areas devoted to grass have the following options:

- Prescribed Burning
- Strip Disking

- Strip Spraying
- Inter-seeding forbs/legumes/pollinator habitat

Areas devoted to trees have the following options:

- Inner Seedling Planting (re-enrollments)
- Inter-seeding forbs/legumes/pollinator habitat
- Follow-up Weed Control
- Pruning
- Thinning (re-enrollments)

MCM activities operations will not be performed from April 1 through August 1 for contracts starting in 2008, to

protect the primary nesting period for grassland bird species. It is also recommended, but is not required, to delay MCM activities until after August 15 to reduce the chance of harming fledgling birds and other young wildlife.

MCM activities operations will be performed along field contours, or across the slope, when practical.

Strips will parallel brushy or woody escape cover when feasible.

SAFE CP38B: Wetland Restoration SPECIFICATIONS SHEET

Landowner:				County:	
Farm:	Field(s):	Wetland Acres:	Buffer Acres:	Grasses: Firebreak: Trees: Shrubs:	Date:
Tract:					

RECOMMENDED SPECIES and SEEDING RATE

(PLS #/ac = Pure Live Seed Pounds per Acre)

	BUFFER GRASSES <small>(see map for location)</small>	RATE PLS#/ac	TOTAL = <small>(Rate X Acres)</small>		LEGUMES/FORBS <small>(see map for location)</small>	RATE PLS#/ac	TOTAL = <small>(Rate X Acres)</small>
<input type="checkbox"/>			0.00 Lb.	<input type="checkbox"/>			0.00 Lb.
			0.00 Lb.				0.00 Lb.
			0.00 Lb.				0.00 Lb.
			0.00 Lb.				0.00 Lb.
			0.00 Lb.				0.00 Lb.

	SHRUBS <small>(see map for location)</small>	RATE No./acre	TOTAL = <small>(Rate X Acres)</small>		TREES <small>(see map for location)</small>	RATE No./acre	TOTAL = <small>(Rate X Acres)</small>
<input type="checkbox"/>			0 No.	<input type="checkbox"/>			0 No.
			0 No.				0 No.
			0 No.				0 No.
			0 No.				0 No.
			0 No.				0 No.
			0 No.				0 No.

	SPECIES/ACTIVITY	Rate Lb./acre	Total = <small>(Rate X Acres)</small>
<input type="checkbox"/> Firebreaks:			0.00 Lbs.
			0.00 Lbs.
	<input type="checkbox"/> Establish a Bare-Ground Firebreak by disking the Fall & Spring prior to Prescribed Burning Disked areas will be re-seeded after each Prescribed Burn		

Wetland Vegetation:	<input type="checkbox"/> The Wetland Area will be allowed to re-vegetate naturally <input type="checkbox"/> The Wetland Area will need to be established according to the attached plan.
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NOTES:

Recommended Wildflowers include:

Dike and Spillway Seeding (acres)					
(PLS #/AC = Pure Live Seed Pounds per Acre)					
DIKE GRASS MIX <small>(see map for location)</small>	RATE <small>PLS#/ac</small>	TOTAL = <small>(RATE X Acres)</small>	SPILLWAY GRASS MIX <small>(see map for location)</small>	RATE <small>PLS#/ac</small>	TOTAL = <small>(RATE X Acres)</small>
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		0.0 Lb.
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		0.0 Lb.
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		0.0 Lb.
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		0.0 Lb.

Recommended additional wildflowers include:

Site Preparation - BEFORE Planting in Year:	
<input type="checkbox"/> Herbicide (per label):	Dates:
<input type="checkbox"/> Herbicide (per label):	Dates:
<input type="checkbox"/> Herbicide (per label):	Dates:
<input type="checkbox"/> Tillage:	
<input type="checkbox"/> Prescribed Burning:	
<input type="checkbox"/> Temporary Seeding:	
<input type="checkbox"/> Other:	
NOTES:	

Planting Year:	
<input type="checkbox"/> Planting Method for Grasses:	Date: See Seeding Dates on Page 2
<input type="checkbox"/> Planting Method for Trees and Shrubs:	Date: See Planting Dates on Page 2
<input type="checkbox"/> Planting Method for Firebreak:	Date: See Seeding Dates on Page 2
If unforeseen circumstances prohibit planting by this date, please contact the local NRCS office as soon as possible.	
NOTES:	

Post-Planting Maintenance	
<input type="checkbox"/> Mowing: <u>BEFORE</u> final Status Review, or up to 3 years, mow to a <u>minimum</u> height of six (6) to eight (8) inches high when the weeds are 12 inches taller than the planted grasses	
* <u>AFTER</u> final Status Review, or up to 3 years, mow to a <u>minimum</u> height of six (6) to eight (8) inches	
<input type="checkbox"/> Herbicide* (per label):	<input type="checkbox"/> Prescribed Burning*: According to an approved plan
<input type="checkbox"/> Other:	
*NOTE: After the final Status Review has been issued, or three (3) years (whichever comes first), weed control and other maintenance activities will be conducted outside the nesting season of April 1 - August 1 , and on a "spot" basis only, unless prior approval is granted by the FSA County Committee.	

MID-CONTRACT MANAGEMENT - STARTING IN YEAR:

see the attached Mid Contract Management Job Sheet for details

For CRP Mid-contract Management job sheets see:
<http://www.in.nrcs.usda.gov/programs/CRP/crphomepage.html>

Hydrology Restoration in Year:

ORIGINAL HYDROLOGY &/or WETLAND FUNCTIONS WERE ALTERED BY:	AND WILL BE RESTORED BY: (see the attached map and engineering design for details)
<input type="checkbox"/> Subsurface drain tile	<input type="checkbox"/> Plugging feet of subsurface drain tile * <input type="checkbox"/> Installing feet of dike to retain surface water
<input type="checkbox"/> Surface drains	<input type="checkbox"/> Installing ditch plugs * <input type="checkbox"/> Installing feet of dike to retain surface water
<input type="checkbox"/> Grading / leveling / fill	* <input type="checkbox"/> Removing cubic yards of fill
<input type="checkbox"/> Traditional agricultural activities (Farmed Wetlands)	<input type="checkbox"/> No longer farming <input type="checkbox"/> Seeding the area to native vegetation (see page 4)
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

***NOTE:** Documentation must be included that shows the wetland was altered by grading, filling, etc., and that digging, dredging, macrotopography, dikes, etc. are needed to restore the original hydrology.

Additional Information

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