



United States Department of Agriculture

CRP Practice CP9

Shallow Water Areas for Wildlife

Natural Resources Conservation Service - Indiana - July 2020 (ver. 1.0)

Shallow Water Areas for Wildlife Program Specification Sheet



PURPOSE

The purpose of Shallow Water Areas for Wildlife is to provide habitat for water-dependent species such as migratory shorebirds, waterfowl, reptiles, amphibians and aquatic mammals. Shallow water areas are developed, or restored, to an average depth of 6 to 18 inches. The shallow water area is intended to provide water for most of the year. This is not a pond development or wetland restoration practice.

WHERE PRACTICE APPLIES

On fields that meet eligibility requirements for the Conservation Reserve program (CRP) as determined by the Farm Service Agency (FSA).

CRP POLICY

For Shallow Water Areas for Wildlife:

- A minimum of six (6) inches, and a maximum of 18 inches average depth of water, will be maintained for a majority of the year.
- An upland buffer at least 20 feet wide, and up to 120 feet wide, is required to protect water quality and provide wildlife habitat.
- The total acreage of all CP9 practices, including buffer areas can not exceed 10 acres per tract. Upland buffers must be planted to either:
 - a) **Native warm season grasses, forbs and legumes** (Big &/or Little Bluestem, Indiangrass, Switchgrass, Canada &/or Virginia Wildrye, etc.)
 - b) **Cool season grasses and legumes** considered wildlife-friendly (Timothy, Orchard grass, Redtop, plus Alfalfa and clovers), or
 - c) **Native trees and shrubs**
- Shallow water areas for wildlife will be established according to the Shallow Water Management for Wildlife (646) Standard in the Natural Resources Conservation Service (NRCS) electronic Field Office Technical Guide (eFOTG).

CONSTRUCTION

When structural measures are required, the Wetland Restoration (657) Standard will be utilized on sites with hydric soils. On sites with non-hydric soils, the Wetland Creation (658) Standard will be followed.

Permits: Federal, State, or Local regulations may apply to private landowners conducting construction in wetland areas. All necessary permits shall be acquired by the landowner before construction begins.

Excavation or Impoundments: Water pool areas may be formed from excavations, impounding existing drainage ways, or a combination of both. **The pool area will average six (6) to 18 inches of water for the majority of the year.**

SELECTION OF RATES AND SPECIES

WETLAND VEGETATION

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.

BUFFER VEGETATION

The IN Natural Resources Conservation Service (NRCS) Seeding Tool will be used when developing seeding mixes and to determine tree and shrub species for this practice. Native grass plantings will be planned in the IN Wildlife Seeding Calculator, and cool season mixes will be planned in the IN General Seeding Calculator. Any prepackaged mixes must be approved before seeding. Site-specific requirements are listed on the attached Specifications Sheet.

SITE PREPARATION

Site preparation is the most critical step in the establishment of habitat. Even the most well-planned seed mix will fail if the site preparation is not thorough. A well-prepared planting bed will increase the likelihood of establishment and reduce maintenance and management in the future. Weed control efforts should begin as early as 12 months prior to planting and may require multiple applications over the course of one to two years. Pay attention to sites where noxious and potentially invasive species are likely to occur, or areas of sod, such as old fescue pastures. Many of these species are perennials that spread through seed and roots, and many have rhizomatous root systems that will persist and negatively impact the planting.

Site preparation can use a combination of methods, including herbicide treatment, prescribed burning, mowing, and tillage. Each of these methods must be used with the appropriate timing and combination to maximize effectiveness. Disking should be used with caution, as soil disturbance can release additional weed seeds and increase the potential for erosion, creating larger problems. Mowing alone is not likely to be sufficient and should be combined with chemical, prescribed fire or additional mechanical treatments. Non-chemical methods and organic methods are possible but are labor intensive and will likely take longer to get the site ready for planting, and are best suited for smaller sites. See Indiana Job Sheet 315 Herbaceous Weed Control- Site Preparation, for more information.

If prescribed burning is used for site preparation, it must meet the IN NRCS FOTG Standard (338) *Prescribed Burning*.

COMPANION/NURSE CROPS

A companion/nurse crop will be used when erosion control and weed suppression are needed. Companion/nurse crops include Winter Wheat (after the Hessian Fly-free dates in Table 2), Oats, Barley, Cereal Rye or Annual Ryegrass; native Wildryes (i.e. – *Elymus sp.* such as Canada, Riverbank, and Virginia Wildrye) and other species are also effective.

Companion crops will be clipped after jointing, but before seed head pollination unless otherwise directed (control of Wildrye species is not necessary so that they persist as part of the seedings). A second and subsequent clipping is necessary if re-growth provides competition. Clipping height should be above developing seedlings. Where excessive growth has accumulated, the vegetation will be chopped rather than swathed.

LIME AND FERTILIZER

Fertilizer is discouraged from use in plantings of native species. Fertilizer can encourage weed growth in these plantings, increasing the risk of poor establishment.

In plantings with introduced species, lime and fertilizer should be based on a current soil test (less than four years old). In areas with existing vegetation that shows signs of nutrient deficiencies, or if the soil test shows phosphorus (P) and potassium (K) are in the low to very low range, apply enough fertilizer (organic or inorganic) to raise N, P and K to

a level needed for a one (1) ton per acre yield goal. Use Purdue University recommendations from the *Crop Fertilizer Recommendation Calculator* or the Indiana NRCS Seeding Tool – *Indiana Fertilizer Calculator*.

If the pH is 6.0 or less, apply enough lime per acre to bring pH to meet the tolerance range of the planned plant species. Soil amendments will be incorporated during seedbed preparation or applied before planting if a no-till drill is used. Apply lime according to *Tri-State Fertilizer Recommendations - PU AY-9-32*, Extension Bulletin E-2567, or the Indiana NRCS Seeding Tool – *Indiana Fertilizer Calculator*.

PLANTING

All 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 planting season.

Seeding Dates

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

Seed preparation

Inoculate legume seed with the proper rhizobia bacteria for the species no more than 60 days prior to seeding or as specified on the seed / inoculant tag. Inoculant left in the sun, even for a short period of time can significantly reduce the viability and effectiveness. Pre-inoculated seed will have a coating that changes the pure live seed per pound and thus the bulk seeding rate per acre.

Be aware that blending seed of varying size, shape and weight can make calibration of equipment and seeding uniformity difficult.

Some seeding mixtures contain seed that is extremely small and thus have very low seeding rates. This may make it difficult to set seeding equipment to uniformly seed these low rates. To add enough volume to the mix for proper metering, a **carrier** or coated seed may be desirable. The carrier should be no larger than the largest seed species and have similar shape, density and texture to the majority of seeds in the mix. The carrier can be an inert material (i.e. cracked corn) that does not have abrasive properties that may cause damage to the equipment or the seed. Inexpensive seed (unimproved varieties) that will have no significant negative impact on the purpose of the seeding may also be used.

Planting Methods

No-Till seeding: Use a no-till drill with seven (7) inch or less row spacing. Ensure the drill is designed to handle the type of seed being planted (especially important for native grasses). Set the no-till drill to provide good seed-to-soil contact and a planting depth preferred for the desired species (see table below). Soils that are too wet or too dry can also cause improper seed placement.

Conventional Seeding: Prepare a fine firm seedbed to a depth of three (3) to four (4) inches. Use a drill with seven (7) inch or less row spacing, or a culti-packer seeder designed for the seed to be planted. Seed should be drilled uniformly at a proper seeding depth for the desired species.

Broadcast Seeding: Seed may be broadcast if completed in a uniform manner. Pre-mix the seed with 200 pounds per acre of pelletized lime if using an airflow applicator. 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 one-third ($\frac{1}{3}$) of the seed on the soil surface. Wind speed should be 15 miles per hour or less when broadcasting.

Inter-seeding:

- Legumes/Forbs (frost seeding):** No-till drill or broadcast as above into existing vegetation or residues. Broadcasting relies on freeze/thaw cycles, rain and/or snow to incorporate the seed. This method does not include a seedbed preparation. This is most commonly used during the dormant seeding period.
- Cover Crops:** No-till drill or broadcast as above into existing vegetation or residues. Broadcasting relies on freeze/thaw cycles, rain and/or snow to incorporate the seed. Inter-seeding does not include a seedbed preparation.

This method can be used to establish cover crop species or combination mixes into relatively light (e.g. soybean) and weed free crop residues, or to establish vegetation into standing crops.

3. **Grasses:** No-till drill into existing covers only if prior-treated with herbicides or tillage, or if existing cover is diminishing (i.e. – older alfalfa plantings).

Tree Planting

Bare rooted stock (seedlings) should be planted in the spring after the ground thaws, but no later than June 1; or planted in the fall using dormant seedlings (usually after November 1). Container stock may be planted between September 15 - June 1 as local soil moisture and weather conditions permit.

All planting stock 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.

Planting stock will be protected from desiccation prior to and during planting. Planting stock should be planted immediately upon delivery to the site. If planting is delayed stock will be stored in accordance with NRCS Practice FOTG (612) Tree/Shrub Establishment

Weed Control during Establishment

Weed Control in introduced and native grass plantings: Control competing vegetation as needed until established or a Final Status Review is issued. *Mowing multiple times during this establishment period is critical to the success of the native grass planting.* Mow when competing weeds are taller than the planted vegetation, and at a height above the planted vegetation. Use selective herbicides and/or spot spraying to protect the desired species, or for problem perennial weeds. Refer to the Purdue/Ohio State *Weed Control Guide for Ohio and Indiana* for herbicide timing and treatment.

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.

HAYING AND GRAZING

Exclude all acres from haying and grazing year-round, unless authorized by the Farm Service Agency beforehand and all CRP policies and standards are met. Fences may need to be constructed and maintained to exclude livestock throughout the entire year. See the attached *CRP Implementation Requirements - Grazing & Haying* plan addendum for more details.

OPERATION AND MAINTENANCE

Operation and maintenance is required and begins with the purchase of the seed. Purchase seed from reputable dealers that is tested and verified to not contain noxious or other species that may become a problem such as Palmer Amaranth. Do not plant seed from unknown sourcing or with weeds, as it could result in long-term management problems. Throughout the life of the contract, noxious weeds and other undesirable plants, insects, and pests will be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land.

After the Final Status Review, maintain the planting according to your CRP conservation plan - See the attached *CRP Operation and Maintenance* for more details. 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.**

The contract area cannot be used for field roads or other uses that will damage or destroy the cover.

Operation and Maintenance in Tree/Shrub Plantings. Check survivability of planted tree/shrub species after three (3) years to ensure 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.

MANAGEMENT ACTIVITIES

Management Activities are required on buffer areas planted to grasses/forbs, but not on areas planted to trees/shrubs and areas managed as wetlands. 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.

Areas devoted to grass have the following options:

- Prescribed Burning
- Strip Disking
- Strip Spraying
- Inter-seeding forbs/legumes/pollinator habitat

Avoid Environmentally sensitive areas as marked on the plan map 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.

Grassland areas must be established for a minimum of three (3) years before initiating Management Activities

Management Activities will not be performed from April 1 through August 1 to protect the primary nesting period for grassland bird species. It is also recommended, but is not required, to delay Management Activities until after August 15 to reduce the chance of harming fledgling birds and other young wildlife.

Management Activities will be performed along field contours, or across the slope, when practical.

Strips will parallel brushy or woody escape cover when feasible.

CP9 SHALLOW WATER AREAS FOR WILDLIFE SPECIFICATIONS SHEET

Landowner:				County:					
Farm:		Tract:		Field(s):		Acres: (see attached map)		Date:	

VEGETATION PLANTING

LAYOUT	Location	Location	GRASS/FORB PLANTINGS AND FIREBREAKS SEE ATTACHED SPECIFICATION SHEETS
Grass/Forb area (ac.)			
Tree/Shrub area (ac.)			
Fire Break area (ac.)			

TREE AND SHRUB PLANTING

SHRUB/TREE MIX	Rate No./Ac.	Total = (Rate X Ac.)	Rate No./Ac.	Total = (Rate X Ac.)	Rate No./Ac.	Total = (Rate X Ac.)	Rate No./Ac.	Total = (Rate X Ac.)
1:		0.0 No.		0.0 No.		0.0 No.		0.0 No.
2:		0.0 No.		0.0 No.		0.0 No.		0.0 No.
3:		0.0 No.		0.0 No.		0.0 No.		0.0 No.
4:		0.0 No.		0.0 No.		0.0 No.		0.0 No.
5:		0.0 No.		0.0 No.		0.0 No.		0.0 No.

NOTES:

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

SITE PREPARATION – BEFORE PLANTING IN YEAR:

<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:	

PLANTING YEAR:

If unforeseen circumstances prohibit planting by this date, please contact the local NRCS office as soon as possible.

NOTES:

Maintenance for Noxious Weeds and Woody Growth Control:
 Herbicide: Other:

Note: After the final status review has been completed, maintenance activities are allowed only on a spot basis and only with prior approval of the Farm Service Agency (FSA) County Committee. Maintenance activities must be conducted between **August 1 - April 1** unless prior approval for work outside these dates has been given by FSA County Committee. **Mowing is not allowed as maintenance or as a mid-contract management activity unless used as preparation for prescribed burning, strip spraying, or strip disking.**

Dike and Spillway Seeding (acres)					
All rates are in Pure Live Seed (PLS)					
DIKE GRASS MIX <small>(see map for location)</small>	Rate <small>Lb./acre</small>	TOTAL = <small>(RATE X Acres)</small>	SPILLWAY GRASS MIX <small>(see map for location)</small>	Rate <small>Lb./acre</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:

MID-CONTRACT MANAGEMENT - STARTING IN YEAR:
<input type="checkbox"/> see the attached Mid Contract Management Job Sheet for details

For CRP Mid-contract Management job sheets see:
<https://www.nrcs.usda.gov/wps/portal/nrcs/in/programs/conservation+reserve+program/>

Construction in Year:
<input type="checkbox"/> Plug _____ feet of subsurface drain tile
<input type="checkbox"/> Plug _____ feet of surface drains <input type="checkbox"/> Install a dike to retain surface water
<input type="checkbox"/> Install a dike to retain surface water = _____ cubic yards of fill
<input type="checkbox"/> Excavation = <input type="checkbox"/> remove _____ cubic yards of fill
<input type="checkbox"/> Other:

Additional Information <small>(Attach maps and designs as necessary)</small>