Farm Service Agency

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Fact Sheet

USDA United States Department of Agriculture

Conservation Reserve Program Sign-Up 20

Environmental Benefits Index

Overview

The Environmental Benefits Index (EBI) is used to evaluate and rank land offered for enrollment in the Conservation Reserve Program (CRP) during a general signup. Scores are based on the expected environmental benefits to soil resources, water quality, wildlife habitat, and other resource concerns during the time the land is to be enrolled in the program. Each offer submitted is assigned a point score based on its relative environmental benefits. Each offer is compared nationally with all other offers at the end of the sign-up. Offers are determined acceptable or rejected based on the ranking results.

EBI Components

The EBI for Sign-Up 20 is composed of six environmental factors, plus a cost factor. The six environmental factors are:

N1 - Wildlife Factor (0 to 100 points)

Evaluates the expected wildlife benefits of the offer and is composed of six subfactors. The formula is: N1 = (N1a ÷ 50)x(N1a + N1b + N1c + N1d + N1e + N1f).

N1a **Wildlife Habitat Cover Benefits (0 to 50 points)** - This subfactor evaluates the cover offered. Certain cover practice planting mixtures have been assigned points based on the value to wildlife within the State. The better cover types for wildlife are awarded the higher scores. The local USDA

(continued on page 3)

Table 1 - N1a
Cover Practices

Practice /1	Points
CP1, Permanent Introduced Grasses and Legumes	
Planting of one or two species of an introduced grass species.	10
Mixture (minimum of three species) of at least one introduced grass and one forb or legume species beneficial to wildlife in the area.	30
Mixture (minimum of four species) of at least two introduced grasses and at least one forb or legume species best suited for wildlife in the area.	40
CP2, Establishment of Permanent Native Grasses	
Solid stand of one, two, or three native species.	20
Mixed stand (minimum of four species) of at least two native grasses and at least one shrub, forb, or legume species beneficial to wildlife in the area.	40
Mixed stand (minimum of five species) of at least three native grasses and at least one shrub, forb, or legume species best suited for wildlife in area.	50
CP3, Tree Planting (general) /2	
Solid stand of pine/softwood (greater than 500 trees per acre).	10
Longleaf pine or Atlantic white cedar planted at more than 500 trees per acre.	10
Pine/softwood planted at less than or equal to 500 trees per acre.	20
Pine/softwood planted at less than 500 trees per acre and 15 to 20 percent openings of native grasses and/or shrub plantings best suited for wildlife in the area. Natural regeneration of native grass vegetation with required maintenance may be permitted within the open areas if it is consistent with NRCS technical standards and has the concurrence of the State fish and game or U.S. Fish and Wildlife Service.	50

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/1 Cover established must accomplish the purpose of the practice.
/2 State conservationist may revise Field Office Technical Guide on planting rate to be consistent with CRP.

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Table 1 - N1a
Cover Practices (cont.)

Practice /1	Points
CP3A, Hardwood Tree Planting /2	
Solid stand of nonmast-producing hardwood species.	20
Solid stand of a single hard mast-producing species.	40
Mixed stand of hardwood species best suited for wildlife species in the area.	50
Longleaf Pine or Atlantic White Cedar planted at less than or equal to 500 trees per acre.	50
CP10, Vegetative Cover - Grass - Already Established	
Solid stand of 1 or 2 species of introduced grass.	10
Solid stand of 2 or 3 species of native grass.	20
Mixed stand (minimum of 3 species) of at least 1 introduced or native grass and at least or 1 shrub, forb, or legume species beneficial to wildlife in the area.	30
Mixed stand (minimum of 4 species) of at least 2 introduced or native grasses and at least 1 shrub, forb, or legume species beneficial to wildlife in the area.	40
Mixed stand (minimum of 5 species) of at least 3 native grasses and at least 1 shrub, forb, legume species best suited for wildlife in the area.	50
CP11, Vegetative Cover - Trees - Already Established	
Solid stand of pine/softwood (greater than 300 trees per acre).	10
Solid stand of nonmast-producing hardwood species.	20
Pine/softwood established with or thinned to less or equal to 300 trees per acre. Thinning to be completed within 3 years.	30
Solid stand of a single hard-mast-producing species.	40
Pine/softwood established with or thinned to less than or equal to 300 trees per acre, 15 to 20 percent openings of native grasses and/or shrub plantings best suited for wildlife in the area. Mixed hardwoods best suited for wildlife in the area, established longleaf pine (less than or equal to 500 trees per acre), or Atlantic White Cedar (less than or equal to 500 trees per acre). Thinning to be completed within 3 years. Reduction in annual payments may apply. Natural regeneration of native grasses vegetation with required maintenance may be permitted if it is consistent with NRCS technical standards and has the concurrence of the State fish and game or U.S. Fish and Wildlife Service	50
CP23, Wetlands Restoration	
Wetland hydrology restored, as determined technically feasible, to at least one cropped wetland or prior-converted wetland on the acreage offered, and recommended vegetative cover established in the field.	30
Wetland hydrology restored, as determined technically feasible, to all cropped wetlands and prior converted wetlands on the acreage offered, and recommended vegetative cover established in the field.	50

/1 Cover established must accomplish the purpose of the practice.
/2 State conservationist may revise Field Office Technical Guide on planting

NOTE:
This table lists the most frequently-used practices. However, other practices are available. For more information, contact your local USDA Service Center.

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Service Center has a list of approved planting mixes and the assigned point scores for each cover mix. If the offer is for enhancing an approved existing cover on acreage under an eligible expiring CRP contract or certain land that was previously enrolled in CRP, at least 51 percent of the acreage offered must be improved. Cost-share assistance of up to 50 percent may be available to improve cover. With acreage not under an expiring CRP contract, at least 90 percent must be devoted to the approved cover to receive the points associated with the approved cover. If the offer is a combination of new acreage and existing CRP acreage, at least 70 percent must be devoted to the approved cover to be awarded higher points. (See Table 1.)

All acreage (100 percent) devoted to trees, existing or new, must be thinned or planted to be awarded the applicable higher point score

NOTE: Cover selection is the most critical factor impacting wildlife benefits. Optimum cover types (50 points score) will significantly increase the point score for this factor.

N1b **Endangered species (0 to 15 points)** - Evaluates the expected benefits to Federal and State Threatened and Endangered (T&E) plant or animal species. The USDA Service Center can provide a list of areas that have T&E species and the cover types that provide them a benefit. Point scores are awarded based on Table 2.

Table 2 - N1b Expected Cover Benefits	Points
No benefit to federal or state T&E (plant or animal) species.	0
Cover to be established provides either of the following: A. Habitat land best suited and beneficial to federal- or state-listed threatened and endangered resident (non-migratory) plant or animal species; or B. Suitable and beneficial cover with 1 mile of nesting or wintering sites of Federal or state-listed threatened and endangered migratory species.	15
For federal- or state-listed T&E aquatic species, multiply factor N2c by 0.4 for points for N1b (points score cannot exceed 15). Round to the nearest whole number.	0 to 15

N1c **Proximity to Water (0, 5 or 10 points)** - Evaluates the proximity of the offer to permanent water. Point scores are awarded based on Table 3. Permanent water sources developed for wildlife that provide year-round water beneficial to wildlife may include spring developments, wildlife watering facilities, shallow water areas for wildlife, and farm ponds. The distribution of water development(s) must meet the requirements of NRCS practice 648 - Wildlife Watering Facility.

Ten points may be awarded for agreeing to develop a *permanent* water source for wildlife on the offered acres, *on a site where lack of water limits wildlife.*

N1d **Adjacent protected areas (0, 5, or 10 points) -** Evaluates the proximity of the acreage offered to protected wildlife habitat. Point scores are awarded based on Table 4. Protected areas must provide wildlife protection for at least the term of the contract.

(continued on page 4)

Table 3 - N1c **Proximity to Water**	**Points**
Streams, permanent wetlands, or other permanent water sources more than 1 mile from the acreage offered for enrollment	0
Streams, permanent wetlands, or other permanent water sources .25 to 1 mile from the acreage offered for enrollment	5
Streams, permanent wetlands, or other permanent water sources less than .25 mile from the acreage offered for enrollment	10

Table 4 - N1d **Adjacent Protected Areas**	**Points**
Federal, state, local, or other protected wildlife habitat more than 1 mile from the acreage offered for enrollment	0
Federal, state, local, or other protected wildlife habitat .25 to 1 mile from the acreage offered for enrollment	5
Federal, State, local, or other protected wildlife habitat less than .25 mile from the acreage offered for enrollment	10

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N1e **Wildlife Enhancement (0 or 5 points)** - Evaluates the potential wildlife enhancement by establishing wildlife food plot or restoring wetlands.

Table 5 - N1e

Wildlife Enhancement	Points
A food plot that meets NRCS Field Office technical guide standards and complies with CP12 standard. The total acres devoted wildlife food plots cannot exceed the lesser of:	
A. The NRCS FOTG size requirement; or	5
B. 5 percent of the total acreage offered.	
Individual wildlife food plots can not exceed 5 acres and must be maintained for the life of the contract.	
Sites in which at least 1 acre of drained or degraded wetland is restored to NRCS Field Office technical guide standard 657.	5
All other land.	0

N1f **Restored Wetland and Upland Cover (0 or 10 points)** - Evaluates the upland acres relative to associated wetlands. Offers with the appropriate restored wetlands and associated uplands providing the optimum nesting habitat for waterfowl are awarded 10 points. Wetlands must be restored to receive these points.

N2 - Water Quality Factor (0 to 100 points)

Evaluates the potential impacts that CRP may have on both surface and ground water quality. CRP will reduce the amount of sediment, nutrients, and pollutants that enter our Nation's waters.

N2 is composed of four subfactors:

N2a **Location points** - Evaluates the impact of continued crop production, by location, on the impairment of ground or surface water quality. States have identified water quality areas for protection. At least 51 percent of the acreage offered must be within an approved designated area to receive 30 points. The local USDA Service Center has detailed maps of the approved designated areas.

N2b **Ground water quality benefits points -** Evaluates by soil the downward movement of pesticides and nutrients into ground water and the population using groundwater for drinking. Point scores are based on the soils offered for enrollment into the program.

N2c **Surface water quality benefits points** - Evaluates the amount of sediment that may be delivered into streams or other water courses and the population that may be impacted. This factor is determined by the potential water erosion, distance to the water, and the county in which the offer is located. The USDA Service Center will provide details on this factor.

N2d **Wetland benefits points** - Evaluates the water quality improvements associated with wetlands. If 10 percent or more of the acreage offered is cropped wetlands, 10 points are awarded.

N3 - Erosion Factor (0 to 100 points)

Evaluates the inherent potential (measured using Erodibility Index(EI)) for the land to erode as the result of either wind or water. Enrollment in CRP will help maintain the long-term productivity of the land for future generations. NRCS will calculate the weighted average EI for each offer and use Table 6 to determine the points to be awarded.

Table 6 - N3
Erosion Factor*

EI	Points	EI	Points	EI	Points
4	5	10	35	16	65
5	10	11	40	17	70
6	15	12	45	18	75
7	20	13	50	19	80
8	25	14	55	20	90
9	30	15	60	21+	100

* EI of less than 4 = 0 points.

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N4 - Enduring Benefits Factor (0 to 50 points)

Evaluates the likelihood of certain practices to remain in place beyond the contract period and for other purposes, including the capture of carbon dioxide. Points are awarded by the sum of N4a and N4b scores. The total score cannot exceed 50 points.

To determine the N4a value, calculate the weighted average score for all practices using Table 7.
N4b points are awarded on the highest applicable score (from Table 8) that is present on the offer.

Table 7 - N4a
Enduring Benefits

Practice	Points
New hardwood tree, (CP3A), longleaf pines, or Atlantic White Cedar plantings (CP3A if planted to longleaf pine or white cedar less than or equal to 500 trees/acre)	50
New pine/softweed tree (CP3)	40
Existing hardwood tree, longleaf pine, and or Atlantic White Cedar (CP11)	25
New cropped wetland restoration (CP23)	25
New/existing native grass seeding of 5 or more species	10
Existing pine/softwood tree	10
All other conservation practices not listed	0

Table 8 - N4b
Enduring Benefits

Practice	Points
Restoration of rare and declining habitat (CP25)	25
Shrub plantings on an aggregate of at least 5 percent of the total offered acreage	25
Offered acreage is on a site that is listed on the National Register of Historic Places	10
Post-CRP contract obligations that maintain the functions and benefits of CRP practices	10
Cultural resources present on the offered acreage	5
All other conservation practices not listed	0

N5 - Air Quality Benefits From Reduced Wind Erosion (0 to 35 points)

Evaluates the air quality improvements from reducing airborne dust and particulate from cropland by wind erosion. This factor is comprised of 3 subfactors. The formula is:
N5 = (N5a + N5b + N5c).

N5a **Wind Erosion Impacts (0 to 25 points)** - NRCS will determine the potential for the site to have wind erosion damage. Points will be awarded based on potential wind erosion and the amount of population that may be impacted by wind erosion.

N5b **Wind Erosion Soils List (0 or 5 points) -** A list of soils has been developed that are susceptible to wind and contribute significantly to nonattainment of air quality standards. These soils have a dominant component of volcanic or organic materials that are highly erodible and can be transported great distances on the wind. If at least 51 percent of the soils on the offer are comprised of these soils, the offer is awarded 5 points.

N5c **Air Quality Zones (0 or 5 points)** - If at least 51 percent of the acreage offered is located in an area designated as contributing to nonattainment of air quality standards or impacting air quality zones, such as National Parks, and the calculated weighted wind Environmental Index is equal to or greater than 4, 5 points are awarded.

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N6 - State or National Conservation Priority Areas (CPA) (0 or 25 points)

This factor evaluates the location of the offer relative to these national or approved State CPA designations. If at least 51 percent of the acreage offered is located within a CPA and the offer is consistent with goals of the CPA, and certain other criteria are met, 25 points are awarded.

EXAMPLE: If a CPA is approved for water quality, acreage offered that is located in the water quality CPA will receive 25 points for factor N6 - *if* 40 or more points are awarded to factor N2, Water Quality Benefits.

COST

The cost factor is comprised of three sub-components.

1. **N7a** **Provides points based on the per-acre rental rate offered. Lower per-acre rates receive higher scores. The weighting of his subfactor is determined after signup concludes.**

2. **N7b** Provides 10 additional EBI points if no government cost-share is requested.

3. **N7c** Provides 1 additional EBI point for every whole dollar below the Maximum Acceptable Payment Rate, not to exceed 15 points. (EXAMPLE: The offer's Maximum Acceptable Payment Rate is $80/acre. A producer that offers $76 /acre would receive 4 additional EBI points under this subfactor.)

Improving an EBI Score

While some EBI factors evaluate environmental benefits over which a producer has no control, such as location of the offer in relation to an identified conservation priority area, some decisions will have a significant effect on an offer's ranking.

1. The single most important producer decision involves the cover practice applied to the acreage offered. *Deciding to plant or establish the highest scoring cover mixture is the best way to improve the chances of an offer being acceptable.*

2. Where possible, subdividing fields to include only the most environmentally sensitive acreage can often substantially increase the average erosion rate of the offer and greatly improve the chances of being acceptable.

3. Reducing the annual per-acre rental rate offered makes an offer more competitive.

4. In addition, agreeing to restore cropped wetlands (Subfactors N1a and N2d), plant and manage hardwood or softwood trees according to specifications that increase wildlife habitat values, or restoring certain rare and declining habitats increase the EBI score in subfactors N1a and N4.

Depending on the offer's location, the following may also increase the EBI score:

- Selecting cover practices considered to benefit Federal- or State-listed threatened and endangered species present in the area can increase the score of subfactor N1b.

- Agreeing to develop permanent water sources for wildlife, such as restoring permanent wetlands or creating permanent shallow water areas, can increase the score of subfactor N1c.

- Offering the appropriate wetland-associated upland acres that provides the optimum nesting habitat for wildlife increases the score in subfactor N1f.

IMPORTANT

The decision on the EBI cutoff level necessary for enrollment in the program will be determined after signup concludes. Exceeding the previous signup's EBI cutoff level does not ensure acceptance into the program.