

WILDLIFE HABITAT EVALUATION PROCEDURE FOR RESOURCE MANAGEMENT SYSTEMS

BACKGROUND:

Natural Resources Conservation Service (NRCS) policy for assistance on private lands has since its inception required that conservation practice installation be accomplished with consideration for wildlife and wildlife habitat.

Application of many conservation practices is generally considered to be beneficial for wildlife. Practices such as Field Border (386), Filter Strip (393), Grassed Waterway (412), Prescribed Grazing (528A), and Residue Management, Seasonal (344) will generally increase food, water, or cover, improve diversity for several wildlife species, or provide off-site benefits to aquatic wildlife species.

Application of several conservation practices can also reduce needed food and cover when applied without wildlife consideration. Examples of such practices may include Brush Management (314), Surface Drainage, Field Ditch (607), Forest Stand Improvement (666), and Pasture and Hayland Planting (512). The effect of conservation practice installation on wildlife largely depends on practice selection, design, and plant species used.

It is not the responsibility of the Natural Resources Conservation Service (NRCS) to determine the extent to which a landowner should consider wildlife needs. Neither does the NRCS determine which particular wildlife species should be managed. These decisions are made by the landowner based on economics, legal constraints, on-site conditions, and landowner objectives.

NRCS personnel have a responsibility and obligation to determine and explain to the decision-maker what effects a planned system of conservation practices will have on wildlife resources of the planned conservation treatment unit. NRCS personnel also have a responsibility to inventory all resources defined as SWAPA (soil, water, air, plant, and animal resources) and determine to what extent the decision maker would consider wildlife species in the planning process.

Decision-makers must be provided with this information in order to make intelligent and informed decisions about their property and in meeting their objectives. The NRCS must have this information to assess the impact of practice installation and determine if agency policy requiring consideration of wildlife is being properly followed. In the past, conservation practices were often designed and installed with little thought or study given to their effect on wildlife, unless the decision-maker indicated a specific wildlife interest.

Adoption of the total resource management policy (SWAPA + Human consideration) in conservation planning provides that emphasis be directed toward all these resources. It requires that quality criteria be established for each of the five natural resources. Resource management systems consisting of various conservation practices are measured against these quality criteria to determine if acceptable levels of conservation are being met.

National quality criteria for the animal (wildlife) resource have been set at 50 percent of potential to meet the resource management system requirement, regardless of land use. National quality criteria for the animal (wildlife) resource have been set at 75 percent of potential to meet the resource management system requirement, when the designated land use is wildlife land. In order to measure the degree to which the resource management system meets the quality criteria, a method of evaluation is required. A subjective evaluation based on the planner's knowledge is the easy form; however, this method is dependent on the interest, ability, and knowledge of the planner. The success or failure in applying this methodology is dependent on the wildlife training provided to planners and the technical support provided by biologists. The quality and amount of wildlife management training and technical assistance provided to field office personnel since inception of the 1985 Food Security Act, as amended, has been minimal due to other workload requirements. However, conservation planning certification by NRCS field personnel will require a basic understanding and the ability to employ a basic wildlife habitat evaluation procedure.

The attached Habitat Evaluation Procedure is designed for use when planning a resource management system where wildlife is NOT the primary objective and intensive management for a particular wildlife species is NOT desired. This evaluation procedure is based primarily on diversity to give a general rating applicable to many different wildlife species based on inferred benefits as a result of the application of agricultural conservation practices.

This procedure may continue to be used when wildlife land is the primary land use (wildlife planning is a primary landowner objective), but intensive wildlife planning will often require a more detailed habitat assessment addressing a particular species and specific habitat needs.

This Habitat Evaluation Procedure is NOT to replace program specific evaluations used in ranking, where such program specific evaluations have been developed (e.g., Wildlife Habitat Incentives Program).

INTRODUCTION:

The following evaluation is designed for use by employees who provide assistance in farm planning and have limited training and knowledge in wildlife management principles. It is based on a numerical scale from 0 to 1. It is intended to assist decision-makers in understanding the effects of various agricultural practices on wildlife and to provide documentation of the effects of Resource Management System implementation on wildlife resources. This evaluation is primarily "conservation practice oriented," and may not properly indicate the true quality of the habitat for a targeted wildlife species without considering additional criteria such as specific habitat needs for that species, life cycles, population dynamics, etc.

This habitat evaluation is simplified to limit data input and the time required to complete it. It is not designed to make detailed management recommendations required for intensive wildlife management. If the primary objective for a conservation treatment unit is wildlife, or it is to be intensively managed for wildlife, a species-based wildlife habitat appraisal procedure should be used, and an NRCS or Tennessee Wildlife Resources Agency (TWRA) biologist should be contacted for technical support in the planning effort.

PROCEDURE:

- (1) Determine the planned conservation treatment unit (CTU). For this evaluation, the planned conservation treatment unit may be an individual field, group of fields, tract, or whole farm. The conservation treatment unit is determined jointly by the decision-maker and the planner.
- (2) Identify habitat types within the planned conservation treatment unit according to the following categories: (a) cropland; (b) woodland; (c) pastureland/hayland; (d) idle grassy; and (e) wetland. Note and consider the land cover types making up the borders of the conservation treatment unit. Wildlife habitat benefits extend beyond property lines. If a particular type of land use does not seem to fit any of those listed, contact the State Biologist.
- (3) If the conservation treatment unit has only one field in a habitat type, or all fields within a habitat type are similar, only one field needs to be evaluated. If the conservation treatment unit has fields that vary in habitat quality within a habitat type, fields may be grouped with multiple inventories and a weighted average score computed. If there are significant differences in the same field, it may be divided and more than one evaluation done. For example, if the conservation treatment unit is forested with a clearly defined area as strictly a hardwood forest and another clearly defined area as a pine plantation, the two areas should be evaluated separately. If more than one of these variations occurs within the conservation treatment unit, use the weighted average score for the land use.
- (4) Complete the Worksheet Inventory form(s), as appropriate, for the conservation treatment unit (see attachments) and compute the score for each habitat type. This evaluation will provide information on the quality of the habitat for the EXISTING CONDITION. Noting those features that receive a low score will help the planner select alternative practices or treatments that could improve the habitat.
- (5) Repeat the evaluation for each of the Resource Management System PLANNED ALTERNATIVES being considered to determine anticipated effects on the wildlife (animal) resource.
- (6) Complete the summary sheet to determine: (a) the composite or weighted score for all land uses within the conservation treatment unit; and (b) if the selected alternative meets the quality criteria for a Resource Management System and is acceptable to the decision-maker.

QUALITY CRITERIA:

In order to meet the FOTG Quality Criteria for the wildlife (animal) resource, the composite Habitat Type Index for the conservation treatment unit must have an index greater than 0.5, where wildlife land is not the primary land use. Where wildlife land is the primary land use, the habitat index must be greater than 0.75 to meet the Quality Criteria. In general, a habitat index below 0.3 indicates poor habitat, between 0.3 and 0.5 indicates fair habitat, between 0.5 and 0.75 is good habitat, and above 0.75 would be considered excellent habitat.

**HABITAT INDEX WORKSHEET
 CROPLAND¹**

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

<u>CROPLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>EXISTING</u>	<u>PLANNED-ALT1</u>	<u>ALT2</u>
1. Average Field Size ² - Separated by hedgerows or field borders 20 feet wide.				
< 10 acres	10	_____	_____	_____
10 – 25 acres	7	_____	_____	_____
26 – 50 acres	3	_____	_____	_____
> 50 acres	1	_____	_____	_____
2. Field Border Habitat ³ - Percent of perimeter distance in grasses and/or woody cover at least 20 feet wide.				
> 75%	10	_____	_____	_____
50 – 74%	7	_____	_____	_____
25 – 49%	4	_____	_____	_____
10 – 24%	2	_____	_____	_____
< 10%	0	_____	_____	_____
3. Crop Residue Management				
Continuous No-till	10	_____	_____	_____
No-till Farming 3 out of 5 years	7	_____	_____	_____
Conventional Tillage, Residue Left	4	_____	_____	_____
Conventional Tillage, Residue Removed	1	_____	_____	_____
4. Unharvested Crops ⁴				
> 5% Unharvested or Food Plots Present	10	_____	_____	_____
-5% Unharvested	7	_____	_____	_____
Total Crop Harvest, Weeds Abundant in Winter	3	_____	_____	_____
Total Crop Harvest, Clean Field in Winter	1	_____	_____	_____
5. Crop Species (Majority of Crop Sequence)				
Corn, Soybeans, Sorghum with Winter Cover	10	_____	_____	_____
Any Other Crop with Winter Cover	7	_____	_____	_____
Corn, Soybeans, Sorghum without Winter Cover	3	_____	_____	_____
Any Other Crop w/o Winter Cover	0	_____	_____	_____
(A) TOTAL CROPLAND HABITAT POINTS (50 MAX.)		_____	_____	_____
(B) CROPLAND HABITAT INDEX (A/50)		_____	_____	_____

¹ Includes row crop, small grain, orchards, vegetables, or grass as part of rotation.
² Field size impacts distance to cover. Similar fields separated only by field roads or clean fencerows should be combined for evaluation.
³ Field border can reflect cover quality. Field borders adjacent to CTU are considered.
⁴ Unharvested crops, food plots, weeds on edges, odd areas, or winter weeds from no residual herbicides provide food and cover.

HABITAT INDEX WORKSHEET
WOODLAND^{1, 2}

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

<u>WOODLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>EXISTING</u>	<u>PLANNED-ALT1</u>	<u>ALT2</u>
1. Grazing				
Ungrazed in Last 3 or More Years	5	_____	_____	_____
Grazed Within Last 3 Years	3	_____	_____	_____
Currently Ungrazed				
Currently Grazed	0	_____	_____	_____
2. Plant Community Diversity³				
>7 Tree Species Present and Several Age Classes	10	_____	_____	_____
4 -7 Tree Species Common Several Age Classes	7	_____	_____	_____
2 -4 Tree Species Common or Only 1 Age Class	3	_____	_____	_____
1 Tree Species and Only 1 Age Class	1	_____	_____	_____
3. Mast Producing Tree Species Present				
Several hard/soft mast species dominant	10	_____	_____	_____
Only light seeded species dominant (pines, poplar, ash, maple, etc.)	7	_____	_____	_____
Only one mast producing species present	3	_____	_____	_____
Only pines present	1	_____	_____	_____
4. Forest Size and Configuration				
Contiguous >50 acres; corridor connected	10	_____	_____	_____
Contiguous 25-50 acres; corridor connected	7	_____	_____	_____
Woodland <25 acres; corridor connected	3	_____	_____	_____
Woodland <25 acres; isolated or fragmented	1	_____	_____	_____
5. Forest Openings				
Between 5% and 10% of stand in openings	10	_____	_____	_____
Between 11% and 19% of stand in openings	7	_____	_____	_____
<5% or 20-40% of stand in openings	3	_____	_____	_____
No openings; >40% openings; or stand <50 acres	0	_____	_____	_____
6. Understory Cover (Trees, Shrubs, Herbs <3 feet tall)⁴				
> 75%	10	_____	_____	_____
25 – 75%	7	_____	_____	_____
10 - 24%	3	_____	_____	_____
<10%; primarily bare ground or leaf litter	1	_____	_____	_____

<u>WOODLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>EXISTING</u>	<u>PLANNED-ALT 1</u>	<u>ALT 2</u>
7. Availability of Permanent Water				
Water within ½ mile of any point within stand	5	_____	_____	_____
Water between ½ and 1 mile from part of stand	3	_____	_____	_____
Water >1 mile away from part of stand	0	_____	_____	_____
(A) TOTAL WOODLAND HABITAT POINTS (60 MAX.)		_____	_____	_____
(B) WOODLAND HABITAT INDEX (A/60)		_____	_____	_____

¹ Different woodland types may need to be evaluated separately (e.g., pine forest, hardwood forest, cedar glade).
² Woodlots less than one acre should not be evaluated as woodland. Consider these areas as buffers to other habitat types. Primary value for these areas would be cover associated with other habitat types.
³ Diversity of tree species supports more wildlife species.
⁴ Understory shrubs, forbs, and grasses provide food and cover. Livestock grazing or increased canopy closure associated with higher basal areas and stem densities can reduce or eliminate this vegetation.

**HABITAT INDEX WORKSHEET
 PASTURELAND/HAYLAND¹**

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

PASTURE/HAY LAND HABITAT INDEX POINTS EXISTING PLANNED-ALT1 ALT2

1. Average Field Size²

< 10 acres	10	_____	_____	_____
10-25 acres	7	_____	_____	_____
26-50 acres	3	_____	_____	_____
> 50 acres	1	_____	_____	_____

2. Species Composition (Diversity)

Several species of native grasses and forbs	10	_____	_____	_____
2-3 native grasses, few forbs	7	_____	_____	_____
3 or more cool season grasses and legumes	5	_____	_____	_____
2 grass species, few legumes or forbs	3	_____	_____	_____
Monotypic stand of grass (one species) makes up more than 75% of stand	1	_____	_____	_____

3. Forage Management

>50% not mowed/grazed/ burned 4/15-8/15	10	_____	_____	_____
Proper use (prescribed grazing) and <3 hay cuts	7	_____	_____	_____
Proper use (year-long grazing) or 3 hay cuts	3	_____	_____	_____
Overgrazed or >3 hay cuts	1	_____	_____	_____

4. Field Border Habitat³, Percent of Perimeter Distance in Native Grasses and/or Woody Cover at Least 20 Feet Wide and Ungrazed

> 75%	20	_____	_____	_____
50 – 74%	15	_____	_____	_____
25 – 49%	10	_____	_____	_____
10 – 24%	5	_____	_____	_____
<10%	1	_____	_____	_____

(A) TOTAL HABITAT POINTS (50 MAX.) _____
 (B) PASTURE/HAYLAND HABITAT INDEX (A/50) _____

¹ Do not use this worksheet for fields to be flooded under wetland scenario, ungrazed or unmanaged idle areas, or forest clearcuts. This worksheet should be used for herbaceous areas that are mowed, grazed, or managed for nonwoody vegetation primarily for livestock production, hay production, or non-wildlife purposes.

² Field size indicates distance to cover. Adjacent fields with similar cover separated only by non-cover features such as field road or clean fence row should be combined for evaluation purposes in the EXISTING condition.

³ Field borders can provide critical food, nesting, escape, and winter cover. Field borders adjacent to the CTU boundary are considered.

HABITAT INDEX WORKSHEET
IDLE GRASSY^{1,2}

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

<u>IDLE GRASSY HABITAT INDEX</u>	<u>POINTS</u>	<u>EXISTING</u>	<u>PLANNED-ALT1</u>	<u>ALT2</u>
1. Species Composition³				
>90% dominant native grasses,	10	_____	_____	_____
75 – 89% dominant native grasses, forbs, and shrubs	7	_____	_____	_____
50-74% dominant native grasses, forbs, and shrubs	3	_____	_____	_____
< 50% dominant native grasses, forbs, and shrubs (tame grass/maturing hardwoods prevalent)	0	_____	_____	_____
2. Vegetation Density⁴				
> 40% bare ground/light litter	0	_____	_____	_____
30-39% bare ground/light litter	5	_____	_____	_____
10-29% bare ground/light litter	10	_____	_____	_____
1-9% bare ground/light litter	5	_____	_____	_____
<1% bare ground/light litter	0	_____	_____	_____
3. Average Field Size				
10-40 acres	10	_____	_____	_____
41-80 acres	7	_____	_____	_____
< 10 acres	3	_____	_____	_____
> 80 acres	1	_____	_____	_____
4. Abundance Within CTU				
Comprises >25% of CTU	10	_____	_____	_____
Comprises 11-25% of CTU	7	_____	_____	_____
Comprises 1-10% of CTU	3	_____	_____	_____
Comprises <1% of CTU	0	_____	_____	_____
(A) TOTAL IDLE GRASSY HABITAT POINTS (40 MAX.)	_____	_____	_____	_____
(B) IDLE GRASSY HABITAT INDEX (A/40)	_____	_____	_____	_____

¹ Includes abandoned cropland, unmanaged idle grasslands, woodland clearcuts (less than ten years old) or other early successional areas not managed for livestock. Areas where natural regeneration of hardwoods has reached approximately age ten should be evaluated with the woodland worksheet.
² Generally, NRCS would classify these areas by the designated land use of wildlife land.
³ Native grasses may include broomsedge bluestem, purpletop tridens, Indiangrass, big bluestem, Eastern gamagrass, little bluestem, or other native grasses. Tame grasses include fescue, bermudagrass, orchardgrass, and sericea lespedeza.
⁴ Disturbance from such practices as light disking or prescribed burning that will “set back” vegetation and encourage lighter plant densities can provide better habitat by suppressing grass and encouraging forbs. Mowing alone to “set back” vegetation may increase grass densities and litter accumulation.

**HABITAT INDEX WORKSHEET
 WETLAND¹**

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

<u>WETLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>EXISTING</u>	<u>PLANNED-ALT1</u>	<u>ALT2</u>
1. Average Wetland Size²				
>25 acres in East/Middle TN, >100 acres in West TN	10	_____	_____	_____
10-24 acres in East/Middle TN, 50-99 acres in West TN	7	_____	_____	_____
1-9 acres in East/Middle TN, 10-49 acres in West TN	3	_____	_____	_____
<1 acre in East/Middle TN, <10 acres in West TN	0	_____	_____	_____
2. Plant Community Diversity³ - Percent cover in native seed-producing plants beneficial to wildlife and/or bottomland hardwoods.				
75-100%	10	_____	_____	_____
50-74%	7	_____	_____	_____
25-49%	5	_____	_____	_____
10-24%	3	_____	_____	_____
< 10%	1	_____	_____	_____
3. Management of Surface Water⁴				
Some permanent water, dewatering after 5/1	10	_____	_____	_____
No permanent water, dewatering after 4/1	7	_____	_____	_____
No permanent water, dewatering after 3/1	3	_____	_____	_____
No long duration water present during year	0	_____	_____	_____
4. Upland Buffers (Average Width)²				
At least 50% of perimeter, >100 ft. native buffer	10	_____	_____	_____
At least 50% of perimeter, 50-99 ft. native buffer	7	_____	_____	_____
At least 50% of perimeter, 20-49 ft. native buffer	5	_____	_____	_____
< 50% of perimeter or <20 ft. of buffer	1	_____	_____	_____
(A) TOTAL WETLAND HABITAT POINTS (40 MAX.)		_____	_____	_____
(B) WETLAND HABITAT INDEX (A/40)		_____	_____	_____

¹ Evaluate all hydric soil areas. PC evaluations are optional, as most PC areas are still degraded wetlands retaining some function. PC areas may be evaluated as cropland based on objectives and planning considerations.

² Only wetlands and farmed wetlands are considered in this factor.

³ Plant community diversity is considered for all hydric soil areas in CTU, including prior converted croplands. This factor pertains to permanent perennial vegetation. Wildlife beneficial food plants DO NOT include cattails, cocklebur, or sumpweed.

⁴ Surface water considerations include artificially holding water with dikes, as well as areas in primary floodplains that may flood seasonally for long duration. Short duration flooding with no permanent water (e.g., PFO1A areas) would receive no points.

TENNESSEE WILDLIFE HABITAT EVALUATION SUMMARY

Participant _____ Tract No. _____ Date _____ Field No. _____
 Observer _____ Acres _____

EXISTING CONDITION

<u>Habitat Type</u>	<u>Habitat Index</u>		<u>Acres</u>		<u>Weighted Index</u>		<u>CTU Index</u>
Cropland	_____	x	_____	=	_____		
Woodland	_____	x	_____	=	_____		
Pastureland/Hayland	_____	x	_____	=	_____		
Idle Grassy	_____	x	_____	=	_____		
Wetland	_____	x	_____	=	_____		
SUM TOTALS			_____		_____		
TOTAL WEIGHTED INDEX/TOTAL ACRES							_____

PLANNED CONDITION – ALTERNATIVE 1

<u>Habitat Type</u>	<u>Habitat Index</u>		<u>Acres</u>		<u>Weighted Index</u>		<u>CTU Index</u>
Cropland	_____	x	_____	=	_____		
Woodland	_____	x	_____	=	_____		
Pastureland/Hayland	_____	x	_____	=	_____		
Idle Grassy	_____	x	_____	=	_____		
Wetland	_____	x	_____	=	_____		
SUM TOTALS			_____		_____		
TOTAL WEIGHTED INDEX/TOTAL ACRES							_____

PLANNED CONDITION – ALTERNATIVE 2

<u>Habitat Type</u>	<u>Habitat Index</u>		<u>Acres</u>		<u>Weighted Index</u>		<u>CTU Index</u>
Cropland	_____	x	_____	=	_____		
Woodland	_____	x	_____	=	_____		
Pastureland/Hayland	_____	x	_____	=	_____		
Idle Grassy	_____	x	_____	=	_____		
Wetland	_____	x	_____	=	_____		
SUM TOTALS			_____		_____		
TOTAL WEIGHTED INDEX/TOTAL ACRES							_____

ADDENDUM A
CONSERVATION SECURITY PROGRAM (CSP)
WILDLIFE HABITAT EVALUATION PROCEDURE
FOR
RESOURCE MANAGEMENT SYSTEMS

Addendum A of this Habitat Evaluation Procedure is designed specifically as an assessment tool for the Conservation Security Program (CSP) for use when planning or evaluating a resource management system where wildlife **IS** a primary objective. This assessment does not target an individual species, but is based on assessing habitat conditions for guilds of species generally associated with early successional habitat and/or “edge” species. For evaluation purposes (i.e., ease of application, required level of training, consistency, etc.), this assessment is based on the types and amounts of conservation practices applied, level of wildlife benefits derived from these practices, and management levels considered beneficial.

CSP requirements specify that the following parameters be considered for program participants as part of assessing the wildlife (animal) resource in determining the program Tier Level.

1. Individual fields or groupings of fields (Conservation Treatment Unit or CTU) of the same land cover type and management must be assessed independently. For example, a continuous cotton field would be assessed independently from a soybean field. A group of continuous soybean fields managed as no-till fields would be assessed independently from a group of continuous conventional tilled soybean fields.
2. Habitat evaluations for CSP will be limited to the two eligible land cover types: (a) Cropland; and (b) Pastureland/Hayland.
3. Only offered acres will be assessed. Neighboring lands outside of ownership or control of the applicant shall not be considered in this assessment.
4. Incidental lands of a different land cover type (e.g., woodland, wetland) that may be included in the evaluation must be owned or controlled by the applicant and be adjacent to the offered crop, pasture, or hay land.
5. Each field or CTU must score a minimum of 0.5 to determine if the wildlife (animal) resource criterion is met. Any field or CTU that meets the minimum threshold for wildlife may enable the farm to meet Tier II requirements, subject to all fields having adequately treated soil and water resources. If ALL fields of the farming operation meet these requirements and ALL other resources (soil, water, plants, air) are also adequately treated, the applicant may meet the requirements of Tier III.
6. Fields that meet the definition for a CTU must be combined and evaluated as a CTU for wildlife purposes. The isolating of a “field” or the redefinition of fields in order to favor a better score in the ranking for program purposes should not be performed.

6. Non-Cropland Vegetative Areas

Amount and habitat value of non-cropland vegetative areas adjacent to or within the field or CTU and under applicant's control. Non-cropland areas (inclusions or perimeter habitat of offer) include small woodlots, woodlands, brushy draws, idle grassy areas, odd areas, wetlands, hedgerows, native grass field borders, native grass filter strips, and forested riparian buffers. Perimeter habitat must be at least 35 feet wide for riparian zones and filter strips and 20 feet wide for hedgerows or field borders. Inclusion areas must be at least 0.50 acre in size (smaller inclusions are considered wildlife sinks). Only those non-cropland vegetative areas ungrazed, unharvested, managed with minimum pesticide application setbacks, and undisturbed during the primary nesting season of April 15 to August 15 (unless in CRP, WRP, WHIP, or TWRA wildlife contract) are considered for this parameter. NOTE: CRP AND WRP ACRES ARE NOT ELIGIBLE FOR CSP, BUT THEIR HABITAT VALUES ARE CONSIDERED IN THIS VARIABLE.

>50% of perimeter of field or CTU, or >10% of field or CTU with inclusions.	15	_____	_____	_____
25-50% of perimeter of field or CTU, or 6-10% of field or CTU with inclusions	10	_____	_____	_____
10-24% of perimeter of field or CTU, or 3-5% of field or CTU with inclusions	5	_____	_____	_____
<10% of perimeter of field or CTU, and <3% of field or CTU with inclusions	0	_____	_____	_____

7. Interspersion index of the **offered acres within the contiguous land unit**, based on Non-Cropland Vegetative Area boundaries defined in item 6. Drawing the straightest line through each of the non-vegetative areas owned or controlled by the applicant from furthest two points within the offered acres, the number of non-vegetated areas crossed are counted.

> 7 non-crop habitat areas crossed	5	_____	_____	_____
5-7 non-crop habitat areas crossed	3	_____	_____	_____
3-5 non-crop habitat areas crossed	1	_____	_____	_____
< 3 non-crop habitat areas crossed	0	_____	_____	_____

CONDITIONAL FACTOR
 FINAL SCORE IS ADJUSTED TO INCLUDE THIS FACTOR, IF APPLICABLE.

8. Protection of streams, wetlands, or water bodies within or adjacent to offered field or CTU.

100% of aquatic resources with ≥ 2x minimum buffer width	10	_____	_____	_____
100% of aquatic resources with < 2x to minimum buffer width	7	_____	_____	_____
51 - < 100% of aquatic resources adequately buffered	4	_____	_____	_____
≤ 50% of aquatic resources adequately buffered	0	_____	_____	_____

A. TOTAL CROPLAND HABITAT POINTS (70 POINTS W/O CONDITIONAL FACTOR; 80 POINTS WITH CONDITIONAL FACTOR)	_____	_____	_____
B. CROPLAND HABITAT INDEX (70 W/O CONDITIONAL FACTOR; 80 WITH CONDITIONAL FACTOR)	_____	_____	_____

- ¹ Includes row crops, small grain, orchards, vegetables, or grass as part of a crop rotation.
- ² CTU is defined as a group of like fields (no significant separation, or similar amounts of field borders around the crop fields) of the same land cover type and management. Land cover types for cropland are as follows: (a) high residue grain; (b) low residue grain; (c) non-grain; and (d) orchards and vineyards.
- ³ Significant breaks between field edge and field borders can disqualify counting field border habitat. Wider than two-lane roads are considered significant breaks.

>50% of perimeter of field or CTU, or >10% of field or CTU with inclusions.	15	_____	_____	_____
25-50% of perimeter of field or CTU, or 6-10% of field or CTU with inclusions	10	_____	_____	_____
10-24% of perimeter of field or CTU, or 3-5% of field or CTU with inclusions	5	_____	_____	_____
<10% of perimeter of field or CTU, and < 3% of field or CTU with inclusions	0	_____	_____	_____

6. Interspersion index of the **offered acres within the contiguous land unit**, based on Non-Grassland Vegetative Area boundaries defined in item 5. Drawing the straightest line through each of the Non-Grassland Vegetative Areas owned or controlled by the applicant from furthest two points within the offered acres, the number of Non-Grassland Vegetated Areas crossed are counted.

> 7 non-grassland habitat areas crossed	5	_____	_____	_____
5-7 non-grassland habitat areas crossed	3	_____	_____	_____
3-5 non-grassland habitat areas crossed	1	_____	_____	_____
< 3 non-grassland habitat areas crossed	0	_____	_____	_____

CONDITIONAL FACTOR

FINAL SCORE IS ADJUSTED TO INCLUDE THIS FACTOR, IF APPLICABLE.

7. Protection of streams, wetlands, or water bodies within or adjacent to offered field or CTU.

100% of aquatic resources with $\geq 2x$ minimum controlled access buffer width	10	_____	_____	_____
100% of aquatic resources with $< 2x$ to minimum controlled access buffer width	7	_____	_____	_____
51 - < 100% of aquatic resources with controlled access buffer	4	_____	_____	_____
$\leq 50\%$ of aquatic resources with controlled access buffer	0	_____	_____	_____

(A) TOTAL PASTURELAND/HAYLAND
 HABITAT POINTS
 (60 POINTS W/O CONDITIONAL;
 70 POINTS WITH CONDITIONAL)

_____	_____	_____
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(B) PASTURELAND/HAYLAND
 HABITAT INDEX
 (60 W/O CONDITIONAL FACTOR;
 70 WITH CONDITIONAL FACTOR)

_____	_____	_____
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¹ CTU is defined as a group of contiguous fields (no significant separation or similar amounts of field borders around the pasture fields) of the same land cover type and management. Land cover types for pastureland or hayland are as follows: (a) Improved/Introduced grasses; (b) Native grasses.
² Significant breaks between field edge and field borders can disqualify counting field border habitat. Wider than two-lane roads are considered significant breaks.
³ Individual species must make up at least 20 percent of the stand to be counted.
⁴ Proper use is considered met when minimum grazing and haying heights are maintained. Minimum grazing or cutting height for introduced grasses/legumes is 3 inches. Minimum grazing or cutting height for native grasses/forbs/legumes is 6 inches.
⁵ For this parameter, non-grassland vegetative area is defined as a plant community different from the cover type being evaluated for the field or CTU.