WILDLIFE HABITAT APPRAISAL GUIDE FOR WILDLIFE PLANNING CRITERIA

BACKGROUND:

The Natural Resources Conservation Service (NRCS) requires that conservation planners consider wildlife species and their habitats when planning and installing conservation practices. While many conservation alternatives generally are considered beneficial for wildlife, conservation effects on wildlife largely depend on practice selection, design, and plant species.

The NRCS participant shall determine to what extent wildlife needs will be considered and which, if any, wildlife species to manage. NRCS shall inventory all natural resources defined as SWAPA +H, E (soil, water, air, plant, animal, human, and energy resources). NRCS personnel shall determine, to the extent possible, and explain to the decision-maker conservation practice effects on wildlife resources. NRCS must evaluate planning alternatives based on decision-maker wildlife objectives in addition to species identified as endangered, threatened, and/or at risk.

Conservation planning certification by NRCS planners requires a basic understanding of wildlife habitat requirements and the ability to employ a basic Wildlife Habitat Appraisal Guide (WHAG). National planning criteria for the wildlife resource have been set at 50 percent of potential to meet the resource management system requirement, regardless of land use. TN NRCS will evaluate planning criteria for the wildlife resource on the TN WHAG.

The TN WHAG is based primarily on diversity to provide a general rating applicable to many wildlife species based on inferred benefits as a result of agricultural conservation practice implementation. NRCS planners shall use the TN WHAG where intensive management for a particular wildlife species is NOT desired. When intensive management for a particular wildlife species is desired, planners shall contact the NRCS area biologist for guidance, comment, and review of species-specific wildlife habitat management plans.

The TN WHAG shall not replace program-specific evaluations or existing species-specific TN WHAGs.

INTRODUCTION:

Planners shall use the following TN WHAG on fields “tagged” with the wildlife modifier. The TN WHAG is a simplified wildlife habitat evaluation tool to limit data collection and completion time to assist conservation planners and NRCS participants in understanding and documenting various conservation practice effects on wildlife.

PROCEDURE:

(1) Determine the planned conservation treatment unit (CTU). The CTU may be an individual field, group of fields, tract(s), or whole farm. The planner and the NRCS participant jointly determine the CTU.

(2) Identify cover types within the CTU from the following categories: cropland, woodland, pastureland/hay land, idle grassy; and wetland. Note and consider cover types beyond CTU borders. Wildlife habitat extends beyond property boundaries. If a particular type of land use does not fit those listed, contact a NRCS biologist.

If the CTU has only one field in a cover type, or all fields within a cover type are similar, complete only the appropriate TN WHAG cover type worksheet. If the CTU has fields that vary within a cover type, complete multiple inventories and compute a weighted score. If significant differences exist in the same field, divide it accordingly and complete additional evaluations as necessary. For example, if a forested CTU has a clearly defined hardwood forest and another clearly defined pine plantation, evaluate the two separately.

(3) Complete the appropriate TN WHAG cover type worksheet for the CTU and compute the existing score for each cover type. The planner should evaluate conservation practice alternatives to address cover type components receiving a score less than 0.5.

(4) Complete the appraisal worksheet for each cover type present evaluating potential conservation practice alternatives to determine anticipated effects on the wildlife resource.

(5) Complete the summary sheet to determine the composite or weighted score for all cover types within the CTU and to determine if the selected alternative meets the planning criteria for the wildlife modifier and is acceptable to the NRCS participant.

PLANNING CRITERIA:

To meet the FOTG planning criteria for the wildlife resource, the composite Total Weighted Index for the CTU must be greater than or equal to 0.5. Generally, a habitat index below 0.3 indicates poor habitat, between 0.3 and 0.5 indicates fair habitat, between 0.5 and 0.75 indicates good habitat, and above 0.75 indicates excellent habitat.

TN WHAG WORKSHEET

CROPLAND[1]

Participant:_____Tract No.:_____Field No.: _____Date:_____
Observer:_____Acres: _____

CROPLAND INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
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 in herbaceous and/or woody cover ≥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 annual food plots	10	_____	_____	_____
0.1-5% Unharvested or annual food plots	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 crop	10	_____	_____	_____
Any other crop with winter cover crop	7			
Corn, soybeans, sorghum without winter cover crop	3			
Any other crop w/o winter cover crop	0			
(A) TOTAL CROPLAND POINTS (50 MAX.)		_____	_____	_____
(B) CROPLAND INDEX (A/50)		_____	_____	_____

[1] Includes row crop, small grain, orchards, vegetables, or perennial vegetation in rotation.
[2] Field size impacts distance to cover. Combine similar fields separated only by field roads or clean fencerows for evaluation.
[3] Field border can reflect cover quality. Consider field borders adjacent to CTU.
[4] Unharvested crops, food plots, weeds on edges, odd areas, or winter weeds from no residual herbicides provide food and cover.

TN WHAG WORKSHEET

WOODLAND[1,2]

Participant:_____Tract No.:_____Field No.:_____Date:_____
Observer:_____Acres:_____

WOODLAND INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
1. Grazing				
Grazed for habitat mgmt or invasive species control	10	_____	_____	_____
Currently ungrazed	7			
Ungrazed in last 3 or more years	5			
Grazed within last 3 years	3			
Currently grazed	0			
2. Plant community diversity [3]				
>7 Tree species present and several age classes	10	_____	_____	_____
4 -7 Tree species common and several age classes	7			
2 -4 Tree species common and/or only 1 age class	3			
1 Tree species and only 1 age class	1			
3. Mast producing tree species presence				
Several hard/soft mast species dominant	10	_____	_____	_____
Light seeded species dominant (pines, poplar, ash, maple, etc.), ≥2 mast producing species	7			
Only one mast producing species	3			
Only pines	1			
4. Forest size and configuration				
Contiguous >50 acres	10	_____	_____	_____
Contiguous 25-50 acres; corridor connected	7			
Woodland <25 acres; corridor connected	3			
Woodland <25 acres; isolated	1			
5. Forest openings				
5%-10% of stand in early successional openings	10	_____	_____	_____
11% - 19% of stand in early successional openings	7			
<5% or 20-40% of stand in early successional openings	3			
No early successional openings or >40% openings;	0			

WOODLAND INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
6. Understory Cover (Trees, Shrubs, Herbs <5 feet tall) [4]				
> 75%	10	_____	_____	_____
25 – 75%	7			
10 - 24%	3			
<10% (primarily bare ground or leaf litter)	1			
(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] Do not evaluate woodlots < acre as woodland. Consider these areas as buffers to other cover 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.

TN WHAG INDEX WORKSHEET

PASTURELAND/HAYLAND[1]

Participant:_____Tract No.:_____Field No.:_____Date: _____
Observer:_____Acres: _____

PASTURE/HAYLAND INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
1. Average field size[2]				
< 10 acres	10	_____	_____	_____
10-25 acres	7			
26-50 acres	3			
> 50 acres	1			
2. Species composition				
Several species of native grasses and forbs	10	_____	_____	_____
2-3 native grasses, few forbs	7			
3 or more grasses and legumes	5			
2 grass species, few legumes or forbs	3			
Monotypic stand of grass (one species) >75% of stand	1			
3. Forage management				
>50% not mowed/grazed/burned 4/15-8/15	10	_____	_____	_____
Proper use (prescribed grazing) and 2 hay cuttings	7			
Improper use (year-long grazing) and/or 3 hay cuttings	3			
Overgrazed or > 3 hay cuttings	1			
4. Field border habitat[3], percent of perimeter distance in herbaceous 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 (40 MAX.)		_____	_____	_____
(B) PASTURE/HAYLAND HABITAT INDEX (A/40)		_____	_____	_____

[1] 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 non-woody vegetation primarily for livestock production, hay production, or non-wildlife purposes.

[2] Field size impacts distance to cover. Combine similar fields separated only by field roads or clean fencerows for evaluation.

[3] Field border can reflect cover quality. Consider field borders adjacent to CTU.

TN WHAG WORKSHEET
IDLE GRASSY[1]

Participant:_____Tract No.:_____Field No.:_____Date: _____
Observer:_____Acres:_____

IDLE GRASSY INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
1. Species Composition[2]				
≥90% native grasses, forbs, and shrubs	10	_____	_____	_____
75 - 89% native grasses, forbs, and shrubs	7			
50 -74% native grasses, forbs, and shrubs	3			
≤ 50% native grasses, forbs, and shrubs	0			
2. Vegetation Density[3]				
> 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 five should be evaluated with the woodland worksheet.

[2] Native grasses may include broomsedge, purpletop, indiangrass, big bluestem, eastern gamagrass, and little bluestem. Tame grasses include fescue, bermudagrass, orchardgrass, johnsongrass, and sericea lespedeza.

[3] Disturbance from such practices as light disking or prescribed burning that will "set back" vegetation and encourage lighter plant densities may provide better habitat by suppressing grass and encouraging forbs. Mowing alone to "set back" vegetation may increase grass densities and litter accumulation thereby decreasing habitat value.

TN WHAG WORKSHEET

WETLAND[1]

Participant:_____Tract No.:_____Field No.:_____Date: _____
Observer:_____Acres:_____

WETLAND INDEX	POINTS	EXISTING	PLANNED ALT1	PLANNED ALT2
1. Average wetland size[2]				
>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 diversity[3] -percent cover in native seed-producing food 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 water[4]				
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. Prior converted (PC) wetland evaluations are optional, as most PC areas are still degraded wetlands retaining limited function. PC areas may be evaluated as cropland based on objectives and planning considerations.

[2] Only wetlands and farmed wetlands (FW) are considered in this factor.

[3] Plant community diversity is considered for all wetland or FW hydric soil areas in CTU. This factor evaluates perennial vegetation for beneficial food and does 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) receive no points.

TN WHAG EVALUATION SUMMARY

Participant:_____Tract No.:_____Field No.:_____Date: _____
Observer:_____Acres:_____

EXISTING CONDITION

Type	Index Rating		Acres		Weighted Index
Cropland	_____	x	_____	=	_____
Woodland	_____	x	_____	=	_____
Pastureland/Hayland	_____	x	_____	=	_____
Idle Grassy	_____	x	_____	=	_____
Wetland	_____	x	_____	=	_____
	SUM TOTALS		_____		_____

TOTAL WEIGHTED INDEX/TOTAL ACRES _____

PLANNED CONDITION – ALTERNATIVE 1

Cover Type	Index Rating		Acres		Weighted Index
Cropland	_____	x	_____	=	_____
Woodland	_____	x	_____	=	_____
Pastureland/Hayland	_____	x	_____	=	_____
Idle Grassy	_____	x	_____	=	_____
Wetland	_____	x	_____	=	_____
	SUM TOTALS		_____		_____

TOTAL WEIGHTED INDEX/TOTAL ACRES _____

PLANNED CONDITION – ALTERNATIVE 2

Type	Index Rating		Acres		Weighted Index
Cropland	_____	x	_____	=	_____
Woodland	_____	x	_____	=	_____
Pastureland/Hayland	_____	x	_____	=	_____
Idle Grassy	_____	x	_____	=	_____
Wetland	_____	x	_____	=	_____
	SUM TOTALS		_____		_____

TOTAL WEIGHTED INDEX/TOTAL ACRES _____