

# MARYLAND WHIP WILDLIFE HABITAT EVALUATION WORKSHEETS

## INTRODUCTION

This evaluation procedure is based primarily on habitat diversity to give a general rating applicable to many different wildlife species. It is intended to assist the decision maker to understand the effects of various agricultural practices on wildlife and to provide documentation of the effects on wildlife resources. This habitat evaluation is simplified to limit data input and the time required to complete it. It cannot be used to make detailed management recommendations required for intensive management or individual wildlife species.

This appraisal is used to determine a quality rating or Habitat Suitability Index (HSI) for an individual field, land unit, or ecological community. The quality rating is one component of the WHIP ranking process that is used to evaluate applications for funding.

## INSTRUCTIONS

### **1. Select the appropriate worksheet for the land use type or area on which one or more wildlife habitat practices will be applied.**

- Use one worksheet per land use management system, which may include one or more fields.
- Crop fields with the same crop rotation and management practices can be grouped together for habitat evaluation.
- Fields that are managed primarily as permanent hayland should be evaluated on a separate worksheet from fields managed primarily for pasture.
- Evaluate riparian areas, streambanks and shorelines, and shallow water/wetland areas separately from other land uses.

### **2. Evaluate the benchmark condition (existing conditions without the proposed practices) and the planned condition (with the proposed practices).**

- Record the point score that most closely fits each item.
- Add up the points for the benchmark condition and the planned condition.
- Divide by the maximum possible score to get the benchmark and planned index values for the system.

### **3. If you are evaluating more than one system, record the results from each worksheet on the summary worksheet.**

- Use the summary worksheet to calculate the net effect of the wildlife management plan (overall planned index minus the overall benchmark index).
- You do not need to use the summary worksheet if you have only used one of the habitat worksheets. One habitat worksheet, used alone, will provide the answer you need.

**WILDLIFE HABITAT EVALUATION WORKSHEET  
CROPLAND**

Client \_\_\_\_\_ Tract No. \_\_\_\_\_  
 Date \_\_\_\_\_ Field No. \_\_\_\_\_  
 Evaluated by \_\_\_\_\_ Acres \_\_\_\_\_

<u>CROPLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>BENCHMARK</u>	<u>PLANNED</u>
Crop residue management			
Over-winter residue >50%	10		
Over-winter residue 10-50%	5		
Over-winter residue <10%; fall cover crop or small grain	3		
Over-winter residue <10%; no fall crop	1	_____	_____
Crop rotation			
Row crop or small grain, with hay	10		
Row crop-small grain	7		
Continuous row crops (no small grain or hay)	3	_____	_____
Crop management			
>10% unharvested crop or food plots	10		
1-10% unharvested crop	7		
Total crop harvested, with weeds present	4		
Total crop harvested; no weeds present	1	_____	_____
Size of field			
< 5 acres	10		
5 – 10 acres	5		
> 10 acres	1	_____	_____
Percent of field perimeter with a field border (min. 35' wide) of shrubs and/or grasses not mowed btw. 4/15 & 8/15			
75-100%	20		
50-74%	15		
25-49%	10		
<25%, <u>or</u> no border	1	_____	_____
Proximity of the field to nearest wildlife cover habitat (area that provides suitable habitat for nesting and/or protective cover)			
<100 feet	10		
100 – 300 feet	7		
301 – 500 feet	3		
>500 feet	1	_____	_____
(A) Total Cropland Habitat Points (70 maximum)		_____	_____
(B) Cropland Habitat Index (Total Points/70)		_____	_____

This habitat index includes land used for annual row crops (for example, corn, soybeans, small grains, vegetables), orchards, and hay as part of a rotation. Important factors are cover and food provided to wildlife over winter. Diversity, summer food sources, and nesting cover also affect wildlife.

Residue management reflects the importance of grain and crop residue that remains on the soil surface over winter. The rotation evaluated does not have to match the order listed, but should contain all elements listed. Crop management primarily indicates amount of food sources, both in summer and winter. Unharvested grain at field edges, in wet spots, or in odd areas provides winter food and cover. Most weeds are important wildlife food.

**WILDLIFE HABITAT EVALUATION WORKSHEET  
GRASSLAND, PASTURELAND, OR HAYLAND**

Client \_\_\_\_\_

Tract No. \_\_\_\_\_

Date \_\_\_\_\_

Field No. \_\_\_\_\_

Evaluated by \_\_\_\_\_

Acres \_\_\_\_\_

<u>GRASSLAND, PASTURELAND, or HAYLAND HABITAT INDEX</u>	<u>POINTS</u>	<u>BENCHMARK</u>	<u>PLANNED</u>
<b>Plant composition</b>			
Mixture of native grasses and forbs	10		
Mixture of non-native grasses and forbs	8		
Single species native grass w/ no forbs	6		
Single species non-native grass w/ no forbs, or legumes alone	4		
Tall fescue mixed with other species (<50% tall fescue)	2		
Predominantly tall fescue (≥50% tall fescue)	1	_____	_____
<b>Mowing or haying management</b>			
Not mowed/cut April 15 to August 15, and at least 8" winter height	10		
Not mowed/cut April 15 to August 15, and <8" winter height	7		
Mowed/cut occasionally between April 15 & August 15, and at least 8" winter height	5		
Mowed/cut occasionally between April 15 & August 15, and <8" winter height	3		
Mowed/cut frequently April 15 to August 15, and <8" winter height	1	_____	_____
<b>Use by domestic animals or humans</b>			
No or minimal disturbance; >95% cover	10		
Light grazing pressure, with min. grazing height 6"; 85 - 95% cover	8		
Moderate grazing pressure; 75 - 84% cover	6		
Heavy grazing pressure; <75% cover	2		
Frequent human disturbance (e.g., lawn, ballfield)	1	_____	_____
<b>Percent of field perimeter with a field border (min. 35' wide) not mowed or grazed between 4/15 &amp; 8/15</b>			
75-100%	20		
50-74	15		
25-49%	10		
<25%, <u>or</u> no border	1	_____	_____
<b>Proximity of the field to nearest wildlife cover habitat (area that provides suitable habitat for nesting and/or protective cover)</b>			
<100 feet	10		
100 – 300 feet	7		
301 – 500 feet	3		
>500 feet	1	_____	_____
(A) Total Grassland/Hayland Habitat Points (60 maximum)		_____	_____
(B) Grassland/Hayland Habitat Index (Total Points/60)		_____	_____

This habitat index includes hayland, pastureland, idle areas and other lands that are maintained in grass/forb cover. An important characteristic of this habitat is the cover provided during the nesting season. Other values include winter cover and food supplies.

Management that avoids disturbance during the nesting season, yet allows time for sufficient regrowth to provide winter cover, is preferred. Sites with several plant species provide better food and cover, but it is not necessary for species to be completely intermixed.

**WILDLIFE HABITAT EVALUATION WORKSHEET  
RIPARIAN CORRIDOR**

Client \_\_\_\_\_ Tract No. \_\_\_\_\_  
 Date \_\_\_\_\_ Field No. \_\_\_\_\_  
 Evaluated by \_\_\_\_\_ Acres \_\_\_\_\_

<u>RIPARIAN CORRIDOR HABITAT INDEX</u>	<u>POINTS</u>	<u>BENCHMARK</u>	<u>PLANNED</u>
Condition of stream channel and banks			
Minimally disturbed: generally stable channel & banks; mostly natural conditions and natural vegetation.	10		
Moderately disturbed: some streambank erosion, and/or replacement of natural vegetation with non-native species.	5		
Significantly disturbed: severe bank erosion/gullies, streambanks poorly vegetated, streambanks armored, and/or stream recently channelized.	1	_____	_____
Water quality			
Good: minimal pollution by sediment, nutrients, contaminants, etc.	10		
Fair: moderate sediment loading & turbidity during storm events; some algae during low flows.	5		
Poor: pollution by sediment, nutrients, contaminants are evident (e.g., heavy sedimentation, excessive algae, chemical spills).	1	_____	_____
Plant composition in the riparian buffer (min. 35 feet wide)			
Predominantly trees and/or shrubs.	10		
Predominantly perennial herbaceous plants.	5		
Predominantly row crops, other annual plants, or bare ground.	1	_____	_____
Management of the riparian buffer			
Generally undisturbed by humans or domestic animals.	10		
Not mowed/disturbed April 15 to August 15.	7		
Mowed/disturbed occasionally between April 15 and August 15.	4		
Mowed/disturbed frequently between April 15 and August 15, <u>or</u> no permanently vegetated buffer.	1	_____	_____
Buffer width			
300 feet wide, or more.	10		
100-299 feet wide.	7		
35-99 feet wide.	4		
<35 feet wide, <u>or</u> no permanently vegetated buffer.	1	_____	_____
(A) Total Riparian Corridor Habitat Points (50 maximum)		_____	_____
(B) Riparian Corridor Habitat Index (Total points/50)		_____	_____

**WILDLIFE HABITAT EVALUATION WORKSHEET  
STREAMBANKS AND SHORELINES**

Client \_\_\_\_\_ Tract No. \_\_\_\_\_  
 Date \_\_\_\_\_ Field No. \_\_\_\_\_  
 Evaluated by \_\_\_\_\_ Acres \_\_\_\_\_

<u>STREAMBANK/ShORELINE HABITAT INDEX</u>	<u>POINTS</u>	<u>BENCHMARK</u>	<u>PLANNED</u>
Condition of streambank or shoreline			
Minimally disturbed: generally stable banks or shorelines; mostly natural conditions.	10		
Moderately disturbed: some natural bank or shoreline erosion, and/or disturbance by people or domestic animals.	5		
Significantly disturbed: severe bank or shoreline erosion/gullies, banks/shorelines poorly vegetated, armored (riprap, concrete), and/or stream recently channelized.	1	_____	_____
Water quality			
Good: minimal pollution by sediment, nutrients, contaminants, etc.	10		
Fair: moderate sediment loading & turbidity during storm events; some algae during low flows.	5		
Poor: pollution by sediment, nutrients, contaminants are evident (e.g., heavy sedimentation, excessive algae, chemical spills).	1	_____	_____
Plant composition on the streambank or shoreline			
Predominantly native species (trees, shrubs, grasses, and/or forbs).	10		
Mix of native and introduced species.	7		
Predominantly introduced species.	4		
Predominantly invasive plants, <u>or</u> not vegetated.	1	_____	_____
Presence of a permanently vegetated buffer adjacent to the streambank or shoreline			
Buffer is 300 feet wide, or more.	10		
100-299 feet wide.	7		
35-99 feet wide.	4		
<35 feet wide, <u>or</u> no permanently vegetated buffer.	1	_____	_____
Proximity of the site to nearest wildlife cover habitat (area that provides suitable habitat for nesting and/or protective cover)			
<100 feet	10		
100 – 300 feet	7		
301 – 500 feet	3		
>500 feet	1	_____	_____
(A) Total Streambank/Shoreline Habitat Points (50 maximum)		_____	_____
(B) Streambank/Shoreline Habitat Index (Total points/50)		_____	_____

**WILDLIFE HABITAT EVALUATION WORKSHEET  
SHALLOW WATER/WETLAND AREA**

Client \_\_\_\_\_

Tract No. \_\_\_\_\_

Date \_\_\_\_\_

Field No. \_\_\_\_\_

Evaluated by \_\_\_\_\_

Acres \_\_\_\_\_

**SHALLOW WATER/WETLAND HABITAT INDEX**

**POINTS      BENCHMARK      PLANNED**

Presence of surface water 1-18 inches deep			
Surface water usually present from early October until April 1, or longer	10		
Surface water usually present for 2-5 months, consecutively	5		
Surface water usually present for less than 2 consecutive months, <u>or</u> no surface water	1	_____	_____
Habitat diversity in the water area			
Irregular bottom (hummocks) and large woody debris (tree trunks, limbs, etc.)	10		
Irregular bottom (hummocks) <u>or</u> large woody debris (tree trunks, limbs, etc.)	5		
Generally smooth bottom	1	_____	_____
Size of the water area, at seasonal high water			
Greater than 5 acres	10		
3-5 acres	7		
1-2.9 acres	5		
Less than 1 acre, <u>or</u> no surface water	1	_____	_____
Composition and management of vegetation in the water area			
Naturally-occurring wetland plants; occasional mowing to control woody vegetation, or little to no management	10		
Naturally-occurring wetland plants; moist soil management (disking every 2-3 years to encourage the re-establishment of seed-producing annuals)	7		
Annual planting of grain crops (e.g., corn, soybeans, sorghum, millets, etc.); crop is not harvested	5		
Annual planting of grain crops; entire crop harvested (active cropland)	3		
Predominantly unvegetated, <u>or</u> non-wetland plants with minimal seed production	1	_____	_____
Presence of a permanently vegetated buffer (min. 35' wide) around the water's edge			
75-100% of water's edge is buffered	5		
50-74 % buffered	4		
25-49% buffered	2		
<25% buffered, <u>or</u> no permanently vegetated buffer	1	_____	_____
Management of a permanently vegetated buffer			
Generally undisturbed by humans or domestic animals	5		
Not mowed/disturbed April 15 to August 15	4		
Mowed/disturbed occasionally between April 15 & August 15	2		
Mowed/disturbed frequently April 15 to August 15, <u>or</u> no buffer	1	_____	_____
Proximity of the site to nearest wildlife cover habitat (area that provides suitable habitat for nesting and/or protective cover)			
<100 feet	10		
100 – 300 feet	7		
301 – 500 feet	3		
>500 feet	1	_____	_____
(A) Total Shallow Water Habitat Points (60 maximum)		_____	_____
(B) Shallow Water Habitat Index (Total Points/60)		_____	_____

