

Seasonal Wetland Scorecard

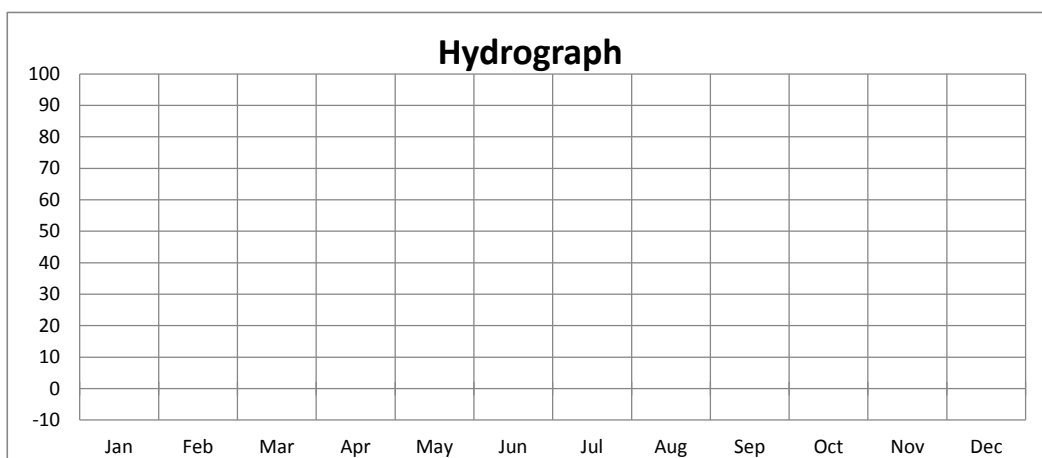
Property Name/Location: _____

Wetland/Unit Name: _____

Person Reviewing: _____

Date of Review: _____

Objective: (e.g. Seasonal wetland management that provides quality moist soil foods and water conditions for waterfowl and other migratory birds)



SPRING FLOODING & DRAWDOWN (April 15-June 30)

Scoring Criteria

Within Control of
landowner?
(No, Yes, Maybe)

Potential Remediation

1. Flooding Frequency

Able to flood each year during the time period	1
Able to flood at least 2 out of 3 years	0.6
Able to flood at least 1 out every 3 years, but less than 2 out of 3 years	0.3
Able to flood less than 1 out of every 3 years	0.1
Not able to flood during this season	0

SCORE

N Y M

- Improve water source reliability
- Improve water source infrastructure

SCORE AFTER

2. Flood or Drawdown Extent (portion of wetland area that can be flooded &/or dried)

>75% can be flooded and/or drawn-down	1
50-75% can be flooded and/or drawn-down	0.75
25%-50% can be flooded and/or drawn-down	0.5
<25% can be flooded and/or drawn-down	0.25

SCORE

N Y M

- Re-contour or level field
- Fill-in borrow areas
- Improve inflow/drainage infrastructure
- Increase water source quantity
- Decrease wetland size

SCORE AFTER

3. Drawdown Rate

Drawdown lasts over 2 weeks long	1
Drawdown over 1 to 2 weeks	0.75
Drawdown 3 to 7 days, -OR- Drawdown <3 days, groundwater maintains moisture	0.5
Drawdown less 3 days and quickly dries, -OR- No drawdown occurs (permanently wet or dry)	0

SCORE

N Y M

- Manage outflows
- Manage inflows
- Improve infrastructure
- Improve water retention (clay)

SCORE AFTER

VEGETATION

Scoring Criteria

Within Control of
landowner?

Potential Remediation

(No, Yes, Maybe)

4. Persistent, Woody, or Invasive Vegetation

Hydrologic conditions and/or management of wetlands minimize persistent wetland vegetation such as cattails and bulrushes, woody vegetation such as cottonwoods, or invasive weeds by late-summer (prior to flood-up):

0-50% Cover by non-desirable plants as described above, prior to flood-up	1
50-75% Cover non-desirable plants	0.3
>75% Cover non-desirable plants	0

- Earlier drawdowns
- Faster drawdowns
- Improve summer drainage
- Implement Disturbance (e.g. Mow, disk, or herbicide)

SCORE

N Y M

SCORE AFTER

5. Food Value (Based on the portion of wetland basin covered by various Species & Conditions of plants)

According to the table below and plant list on page 4, score the wetland's duck food value based on (1) the plant species present, (2) % cover of plants by food category, and (3) quality of seed production that is able to mature by late-summer. Use "Overall Value" from the plant list to determine food value category of plants. If plant cover for any category is <25%, you may adjust point values down (i.e. 15% cover by an 8-10 Category plant may be scored 0.3 points).

	Condition of Plants & Seed Heads	Food Value Category (refer to list)				
		8-10	6-7	3-5	1-2	Bare ground
Points for each 25% cover within the wetland basin (up to a max. score of 1.0)	Average to Good	.5 <small>for every 25%</small>	.3 <small>for every 25%</small>	.2 <small>for every 25%</small>	.1 <small>for every 25%</small>	0
	Poor	.4	.2	.1	0	0
SCORE FOR CATEGORY						
POTENTIAL SCORE						

SCORE

N Y M

SCORE AFTER

Examples:

- a. A wetland with 25% of mixed smartweed and barnyard grass (category 9/10) and 50% of creeping spikerush (category 4), all in 'average' condition, would total 0.9 for all categories.
- b. A wetland with 75% cover with smartweed and 25% cover in spikerush (all good condition) would score 1.0 (the maximum).
- c. A wetland with 100% cover with spikerush (category 4) in poor condition (e.g. most plants died from water stress prior to seed-set) would have a total score of 0.4.

Reference Table - Factors that Influence Wetland Vegetation. Check the conditions that apply to current management:

	Conditions Unfavorable for Target Vegetation	Conditions Favoring good Moist Soil Vegetation	Conditions Favoring Cattails & Perennials
Hydroperiod	<input type="radio"/> Short	<input type="radio"/> Medium	<input type="radio"/> Long
Drawdown Date	<input type="radio"/> Before April 15	<input type="radio"/> April 15-June 15	<input type="radio"/> After June 15
Drawdown Duration	<input type="radio"/> Quick (<1 week or 5 days)	<input type="radio"/> Slow to medium	<input type="radio"/> Very Slow (>1 month)
Hydrologic Connectivity/ Groundwater Depth	<input type="radio"/> Deep groundwater	<input type="radio"/> Deep to Medium depth to groundwater	<input type="radio"/> High/Shallow groundwater
Time since disturbance	<input type="radio"/> Short < 1yr	<input type="radio"/> Short to medium (1-4 years)	<input type="radio"/> Long (>4 years)
Salinity	<input type="radio"/> High	<input type="radio"/> Medium to Low	<input type="radio"/> Medium to Low
Soil	<input type="radio"/> High clay content, pure sand or gravel	<input type="radio"/> Loamy sand to clay loam	<input type="radio"/> High clay content, pure sand or gravel

FALL/WINTER FLOODING (Sept 1-Feb 30)

Scoring Criteria

Within Control of
landowner?
(No, Yes, Maybe)

Potential Remediation

6. Flooding Frequency

Able to flood each year	1
Able to flood at least 2 out of 3 years	0.6
Able to flood at least 1 out every 3 years, but less than 2 out of 3 years	0.3
Able to flood less than 1 out of every 3 years	0.1
Not able to flood during this season	0

SCORE N Y M

- Improve water source reliability
- Improve water source infrastructure

SCORE AFTER

7. Flooding Extent (portion of wetland area that is typically flooded when water is available)

Able to flood >90% of expected basin	1
Able to flood 75-90% of basin	0.75
Able to flood 50-85% of basin	0.5
Able to flood <50% of basin	0.25

SCORE N Y M

- Re-contour or level field
- Fill-in borrow areas
- Larger inflow infrastructure
- Increase water source quantity
- Decrease wetland size

SCORE AFTER

8. Flooding Duration

At least some open water all Fall & Winter	1
Fall water until freeze	0.9
>1 month during time period	0.75
2-4 weeks during time period	0.5
Up to 2 weeks during time period	0.25
Does not flood	0

SCORE N Y M

- Increase water source quantity
- Improve water source infrastructure
- Improve water retention (clay)
- Increase flow-through
- Use of aerator to prevent freezing

SCORE AFTER

9. Flooding Depth: Majority (>75%) of flooded area is:

<10" deep	1
<18" deep, with ability to flood slowly	0.9
<18" deep, no ability to flood slowly	0.7
>18" deep, with ability to flood slowly	0.5
>18" deep, no ability to flood slowly	0.3

SCORE N Y M

- Re-contour or level field
- Control inflow rate
- Control outflow rate

SCORE AFTER

SOIL SALINITY

10. Salinity

Salinity <u>not</u> an apparent problem	1
There appears to be salinity build-up	0.5
Salinity build-up present and severely affecting plant growth or species composition	0.1

SCORE N Y M

- Earlier Drawdown (cool)
- Shorter Drawdown
- Improve Summer Drainage
- Fill & Flush (pull all boards)

SCORE AFTER

OVERALL WETLAND SCORE

TOTAL SCORE, ALL BOXES

TOTAL POTENTIAL SCORE AFTER REVIEW

Action Items & Notes:

Waterfowl Food Values

Range of 1-10, with 10 being the highest. Rated for Invertebrates and Seed Value.

Plant Name	Invert. Value	Overall Value	
BARNYARD GRASS (<i>Echinochloa crusgalli</i>)	5	10	} Food Value Category 8-10 = 0.5 pts (for 25% cover, good cond.)
CORN (<i>Zea mays</i>)	2	10	
CHUFA, YELLOW NUTSEDGE (<i>Cyperus esculentes</i>)	5	9	
MILO (<i>Sorghum bicolor</i>)	2	8	
BEGGARTICKS (<i>Bidens frondosa</i>)	8	8	
SMARTWEED (<i>Polygonum</i> or <i>Persicaria</i> spp.)	10	8	
BEGGARTICKS (<i>Bidens</i> spp.)	8	8	
FLATSEDGE (<i>Cyperus</i> spp.)	5	8	
WHEAT (<i>Triticum aestivum</i>)	4	8	
PONDWEED (<i>Potamogeton</i> spp.)	1	8	
ARROW-HEAD (<i>Sagittaria</i> spp.)	3	7	} Food Value Category 6-7 = 0.3 pts (for 25% cover, good cond.)
BEARDED SPRANGLE-TOP (<i>Leptochloa fascicularis</i>)	6	7	
GREEN FOXTAIL (<i>Setaria viridis</i>)	5	7	
YELLOW BRISTLE GRASS (<i>Setaria pumila</i>)	5	7	
BLUE MUD-PLANTAIN (<i>Heteranthera limosa</i>)	5	6	
DOCK (<i>Rumex</i> spp.)	2	6	
DUCKWEED (<i>Lemna</i> spp.)	4	6	
THREE-SQUARE (<i>Schoenoplectus pungens</i>)	4	6	
AMARANTHUS, PIGWEED (<i>Amaranthus</i> spp.)	2	6	
FALL PANIC GRASS (<i>Panicum dichotomiflorum</i>)	5	5	
LAMB'S QUARTERS (<i>Chenopodium album</i>)	5	5	
COMMON SUNFLOWER (<i>Helianthus annuus</i>)	1	5	
ALFALFA (<i>Medicago sativa</i>)	1	5	
ANNUAL RAGWEED (<i>Ambrosia artemisiifolia</i>)	3	4	
FOX-TAIL BARLEY (<i>Hordeum jubatum</i>)	4	4	
RABBITSFOOT GRASS (<i>Polypogon monspeliensis</i>)	3	4	
FOXTAIL/SWAMP TIMOTHY (<i>Crypsis alopecuroides</i>)	3	4	
SPIKERUSH (<i>Eleocharis palustris</i>)	3	4	
SEDGE (<i>Carex</i> spp.)	5	4	
RUSH (<i>Juncus</i> spp.)	3	4	
KNOTWEED (<i>Polygonum arenastrum</i>)	1	4	} Food Value Category 1-2 = 0.1 pts (for 25% cover, good cond.)
WHITE SWEETCLOVER (<i>Melilotus alba</i>)	1	4	
LOVEGRASS (<i>Eragrostis</i> spp.)	6	3	
PRAIRIE CORDGRASS, RIPGUT (<i>Spartina pectinata</i>)	5	3	
SWITCHGRASS (<i>Panicum virgatum</i>)	4	3	
COCKLE-BUR (<i>Xanthium strumarium</i>)	8	3	
NODDING WILD RYE (<i>Elymus canadensis</i>)	1	3	
WHITE-TOP, PEPPERWEED (<i>Lepidium</i> spp.)	1	3	
COTTONWOOD or WILLOW (<i>Populus/Salix</i>)	6	2	
CATTAIL (<i>Typha</i> spp.)	5	2	
KENTUCKY BLUEGRASS (<i>Poa pratensis</i>)	4	2	} Food Value Category 1-2 = 0.1 pts (for 25% cover, good cond.)
HARSTEM BULRUSH (<i>Schoenoplectus acutus</i>)	3	2	
SALTGRASS (<i>Distichlis spicata</i>)	3	2	
TALL WHEATGRASS (<i>Agropyron elongatum</i>)	1	2	
WESTERN WHEATGRASS (<i>Agropyron smithii</i>)	1	2	
REED CANARY GRASS (<i>Phalaris arundinacea</i>)	4	1	
SAND DROPSEED (<i>Sporobolus cryptandrus</i>)	1	1	
WILD ASTER (<i>Aster</i> spp.)	1	1	
AMERICAN VETCH (<i>Vicia americana</i>)	1	1	
KOCHIA (<i>Kochia scoparia</i>)	1	1	
LEAD PLANT (<i>Amorpha canescens</i>)	1	1	
MILKWEED (<i>Asclepias</i> spp.)	1	1	
SMOOTH BROME (<i>Bromus inermis</i>)	3	1	
CHEAT GRASS, DOWNY BROME (<i>Bromus tectorum</i>)	2	1	
CANADA THISTLE (<i>Cirsium arvense</i>)	1	1	
DOGBANE (<i>Apocynum</i> spp.)	1	1	
FIELD BINDWEED (<i>Convolvulus arvense</i>)	1	1	

Values based on "best professional judgement" provided for Nebraska wetland species by Ted LaGrange (Neb. Game and Parks Commission), Dr. Loren Smith (Texas Tech Univ.) and Dr. Leigh Fredrickson (Univ. of Missouri). Colorado food values reviewed by RMBO and FWS. Contact Colin Lee at 970-330-0380 x214 or Colin.Lee@co.usda.gov with questions.