

8 Appendix C. Example EIA Field Forms

Upland Field Form used at Camas
NWR

~~no association~~

Assessment Code: 10.GMK L2. 102

General Description Form [arrows below indicate info you should have with you, if available]

A. GENERAL INFORMATION page 12		B. LOCATION page 13			
Site Name: <u>890</u>	Directions [if new site]: or ☐ Use EO Directions: <u>Camas NWR</u> <u>Sagebrush steppe</u> <u>SW CORNER</u>	State / County: <u>ID, Jefferson</u>			
or ☐ Use EO Site Name: L2 Assessment Code (e.g. NY.DFL.L2.001) <u>10.GMK</u> L2. <u>102</u>					
State EO Code [office] (e.g. EO ID)		USGS quad name(s) [Office]:			
Date <u>2011.08.18</u> YEAR MO DAY	GPS Unit: <u>ZIMB Trimble</u>				
Photographer: <u>RO-GIS</u> <u>8 pics</u>	UTM Zone: <u>12</u>	Datum: <u>83</u>	NAD ☒ WGS	Accuracy:	
Team Members: Leader: <u>Fulkerson</u> Co-leader: Assistant(s): <u>Barnett</u>	UTM-E: ☒ OR Lat: dec. deg.	Write one centrally located coordinate; store rest in GPS. <u>396027</u>			
Ownership [office]; [picklist]	UTM-N: OR Long: dec deg	<u>4866592</u>			

D. GENERAL DESCRIPTION [be brief, use Sections E and F if details desired] page 15

Include description of what defines the boundaries of the assessment area; that is, what is adjacent to the area being assessed.

Relatively flat, with slight rises. Artr dense, waist to rib high
chui Rabbit brush patch south of point and just outside 0.1 ha plot.
Rabbit br. canopy more open with needle and thread understory.
Grass sparse below sage canopy

Other Types Of Interest at Site: [note types of interest for future visits to this site.] 0.1 ha represents polygon well,
except chui/stco patch on southeast side of polygon.

Did you complete these optional sections on the following page?

E. General Drawing

☐ Y ☐ N

F. Detailed Overview

☐ Y ☐ N

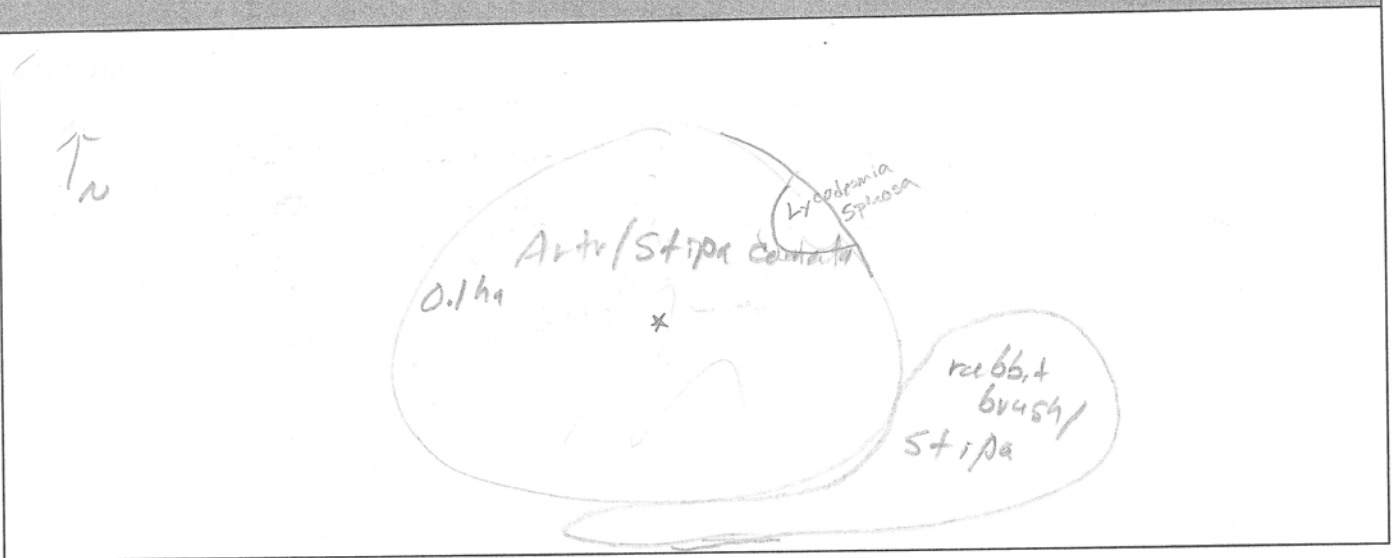
chui = green rabbit brush
stco: Stipa comata (I am old-nomish)

Assessment Code: 10 . Gmk L2. 10 2

OPTIONAL PAGE : PLEASE INDICATE USE WITH "Y" or "N" ON PREVIOUS PAGE

E. GENERAL DRAWING page 15

Provide a drawing of the assessment area, including its boundaries, as either aerial view or transect view.



F. DETAILED DESCRIPTION page 15

LANDSCAPE CONTEXT AND BUFFER DESCRIPTION

What's your impression of the condition/integrity of the buffer? Circle one: Excellent, Good, Fair, Poor Comments:

SIZE DESCRIPTION [Assess Size of Assessment Area, and the full extent of the area occupied by the type].

ON-SITE COMMENTS [overall description of the community/ecosystem]

Landscape Pattern [within AA] Description

Vegetation Description Sage canopy cover 15-20%. Grass understory sparse

Hydrology Description upland site

Soils Description Sandy & med size basalt rocks present

Animal Description Pronghorn tracks, solitary bees, Sphecid wasps

What's your impression of the condition/integrity of the on-site community/ecosystem? Circle one: Excellent, Good, Fair, Poor Comments:

Compare to EO rank?

I. ENVIRONMENTAL PROFILE page 18ff

Elevation (topo map): _____ m / _____ ft Slope: _____ deg / _____ % or ☐ flat to <1% Aspect (compass direction degrees) downslope _____ or _____ if variable Or none (if flat).	Hydrologic Regime (pg 21): [WT=water table; GS=growing season] ☐ Saturated: saturated to surface for extended periods during GS; surface water seldom present, isolated pools may be present. ☐ Seasonally saturated: saturated to surface but absent by end of most GS ☐ Permanently flooded: water covers surface throughout year in all years ☐ Semipermanently flooded: water covers surface and persists throughout GS in most years (excl. droughts); when absent, WT usually at/very near surface ☐ Seasonally flooded: water covers surface and is present early in GS, but absent end of season in most years; when absent, WT often near surface ☐ Temporarily flooded: water covers surface for brief periods in GS, but WT usually well below surface for most of season; upland & wetland plants present ☐ Intermittently flooded: flooded for variable periods w/out detectable seasonal periodicity; months or years may occur between floods ☐ Tidally flooded: flooded by the alternate rise and fall of the surface of oceans and seas, and the bays, rivers, etc. connected to them ☐ Artificially flooded: flooding by pumps, siphons etc. not "altered natural." See manual ☒ Never inundated ☐ Unknown	Hydrological Condition (pg 22) a. Current Water Depth, approx deepest point: _____ (nearest 0.5 m) b. Estimated High Water Depth: From surface water or soil surface (nearest 0.5 m): _____ Evidence of high water depth: _____ Water Source (pg 22): Pick one primary (write "1"), up to two others ("2"), as needed. ☒ Direct precipitation ☐ Surface/overland flow: run-off ☐ Groundwater ☐ Discharge: released into wetland ☐ Saturation: wetland near WT surface ☐ Water body inundation: surface water from marsh/swamp due to adjacent river/lake ☐ Overbank flow: flooding river/stream ☐ Inbank flow: contained within river channel ☐ Anthropogenic ☐ Direct input: irrigation, pumped ☐ Overland flow - urban, ☐ Overland flow - rural ☐ Other (describe):
Landform Comment [optional]: Flat, Basalt rocks intermittent Organic Soil (pg 19) ☐ muck, sapric (von Post 7-10) ☐ peat, hemic (von Post 4-6) ☐ peat, fibric (von Post 1-3) Von Post scale of peat decomposition: _____ Mineral Soil (pg 20) Texture (A -or top - horizon): ☐ SANDY ☒ SANDY LOAM ☐ sand ☐ loamy sand ☒ sandy loam ☐ LOAMY ☐ loam ☐ silt loam ☐ silt ☐ CLAYEY ☐ sandy clay loam ☐ clay loam ☐ silty clay loam ☐ sandy clay ☐ silty clay ☐ clay	Soil Drainage (pg 21): ☒ Rapidly Drained: no gleying in entire profile; typically coarse textured or on steep slope ☐ Well Drained: usually free of mottling in upper 3'; B red, brown, or yellowish ☐ Moderately Well Drained: commonly mottled in lower B and C or below 2' ☐ Somewhat Poorly Drained: soil moisture in excess of field capacity remains in horizon for moderately long periods during year; commonly mottled in B and C ☐ Poorly Drained: soil moisture in excess of field capacity in all horizons for large part of year; soils usually very strongly gleyed ☐ Very Poorly Drained: free water remains at/within 12" of surface most of year; strongly gleyed	HGM Class (pg 25): Pick one primary (write "1"); if needed, pick a secondary (write "2") ☐ Riverine ☐ Depressional ☐ Slope ☐ Mineral Soil Flats ☐ Organic Soil Flats ☐ Estuarine Fringe ☐ Lacustrine Fringe HGM Class Comments:
Unvegetated Surface (pg 19) (does not need to add to 100%; mentally remove plant layers; ignore below water): ☒ % Surface Water ☒ % Litter, duff, small wood < 10 cm dbh ☒ % Wood >10 cm dbh ☒ % Rock ☒ % Bare surface ☐ % Other (describe): Environmental Comments (any other characteristics worth noting, e.g., stoniness, hardpans, drainage, water flow):		

12. GML2.102

Inter-Mountain Basins Big Sagebrush Steppe Rank Factor: CONDITION					
Key Ecological Attribute: <i>Vegetation</i>					
Cover Native Plant Species	Native species dominate this system; non-natives increase with human impacts.	Cover of native plants = relative 95-100%.	Cover of native plants relative 80-95%.	Cover of native plants relative 50 to <85%.	Cover of native plants < relative 50%.
Native Bunchgrass	Native bunchgrass dominate; high cover is related to community resistance to invasion	Perennial bunchgrasses > 80% relative cover or less if near site potential.	Perennial bunchgrasses 50-80% relative cover or reduced from site potential.	Perennial bunchgrasses 30-50% relative cover or reduced from site potential.	Perennial bunchgrass <30% relative cover and much reduced from site potential.
Cover of Invasive Species	Invasive species can inflict a wide range of ecological impacts. Early detection is critical. <i>Bromus tectorum</i> abundance is critical.	None present.	Invasive species present, but sporadic (<3% cover).	Invasive species prevalent (3-10% absolute cover).	Invasive species abundant (>10% absolute cover).
Cover of Native Increasers	Some stressors such as grazing can shift or homogenize native composition toward species tolerant of stressors.	Absent or incidental	<10% cover	10-20% cover	>20% cover
Species Composition	The overall composition of native species can shift when exposed to stressors.	Species diversity/abundance at or near reference standard conditions. Native species sensitive to anthropogenic degradation are present, functional groups indicative of anthropogenic disturbance (ruderal or "weedy" species) are absent to minor, and full range of diagnostic indicator species are present.	Species diversity/abundance close to reference standard condition. Some native species reflective of past anthropogenic degradation present. Some indicator/diagnostic species may be absent.	Species diversity/abundance is different from reference standard condition in, but still largely composed of native species characteristic of the type. This may include ruderal ("weedy") species. Many indicator/diagnostic species may be absent.	Vegetation severely altered from reference standard. Expected strata are absent or dominated by ruderal ("weedy") species, or comprised of planted stands of non-characteristic species, or unnaturally dominated by a single species. Most or all indicator/diagnostic species are absent.
Key Ecological Attribute: <i>Vegetation Structure</i>					
Biological Soil Crust	Crust cover and diversity is greatest where not impacted by trampling; other soil surface disturbance and fragmentation (Tyler 2006; Rosentreter and Eldridge 2002; Belnap et al. 2001)	Largely intact biological soil crust that nearly matches the site capability where natural site characteristics are not limiting, i.e. steep unstable, south aspect, dense native grass	Biological soil crust is evident throughout the site but its continuity is broken	Biological soil crust is present in protected areas and with a minor component elsewhere	Biological soil crust, if present, is found only in protected areas
Fire-sensitive Shrubs	Natural fire regime promotes patchy low cover big sagebrush or bitterbrush cover	Fire-sensitive shrubs mature and recovered from past fires; shrubs generally 3-10% cover	Fire-sensitive shrubs not recovered from past fires; represented mostly as seedlings less than height of bunchgrasses. shrubs generally <20% cover	Shrub >20% cover beginning to affect bunchgrass layer	Shrubs well >20% cover reducing bunchgrass layer or sagebrush or bitterbrush only scattered individuals or seedlings
Key Ecological Attribute: <i>Physicochemical</i>					
Soil Surface Condition	Soil disturbance can result in erosion thereby negatively affecting many ecological processes; the amount of bare ground varies naturally with site type.	Bare soil areas are limited to naturally caused disturbances such as burrowing or game trails	Some bare soil due to human causes but the extent and impact is minimal. The depth of disturbance is limited to only a few inches	Bare soil areas due to human causes are common. There may be disturbance/compaction to several inches. ORVs or other machinery may have left some shallow ruts.	Bare soil areas substantially & contribute to long-lasting impacts. Deep ruts from ORVs or machinery may be present, or livestock and/or trails are widespread.

Ecological Integrity Assessment: Level 2-Form for Vegetation Profile and Vegetation METRICS

C. ECOLOGICAL COMMUNITY CLASSIFICATION AND CONDITION page 14

Field assigned: 1a. NVC Level or Other (NVC or State Association, Alliance, NatureServe System, Formation, or other) ART POSE

1b. NVC or other Name:

Art. ric. tri. / Hosp. Comata Shrublandor ☐ Same as 2 below.

Classification Change: Y or N. If Y, fill out "Reason..."

Reason for Change in Type (e.g. conversion, degradation, succession, misclassified):

Classification Comments: (Other comments, even if State Type not changed):

2. State Heritage Name - From previous visit [office]:

State EORANK / Date:- From previous visit [office]

Change in EO Rank? Y, N, U, If Y, briefly explain:

State EO Size (acres):- From previous visit [office]

Change in EO Size? Y, N, U. If Y, briefly explain:

Size of Assessment Area [complete in office, if needed]: As Percent of EO _____ % (nearest 10%) Acre age _____
Is spatial area of AA clearly indicated on attached map (e.g. EO polygon) or through GPS points: Y or N (if N, team must provide)

G. VEGETATION COMPOSITION PROFILE page 16

ALWAYS COMPLETE THESE COLUMNS
Cover scale: 0, 1-4%, then $\pm 5\%$ (5-14 etc)

Did you skip listing dominant species b/c L3 veg plot completed?

Y / N

Growth form / strata

Cover (%)

Ht
(m)Dominant Species: List species and their absolute cover if $\geq 5\%$ cover, to $\pm 5\%$ (e.g. 10% = 5-14 etc). Optional: list additional characteristic or exotic spp $< 5\%$ (T = $< 1\%$, or 1-4%).Tm. Mature (tall) Tree $> 5m$ e.g. *Acer rubrum* - 10%

Ts. Sapling (medium) Tree 2-5m

Te. Seedling (small) Tree $< 2m$ S1. Tall Shrub $> 2m$ S2. Short / Dwarf-shrub $< 2m$

25%

115cm

Artemisia tridentata tridentata - 20%
Chrysothamnus viscidiflorus - 3%
Ericameria nauseosus - 1%

H1. Herb (Field, Emergent)

10%

20cm

Lyrodemia spinosa - 2%
Sphalarcea munroana - TR
Hesperostipa comata - 5%
Liriodium perfoliatum - 6%
Opuntia polyacantha - 1%
Calochortus fremontii - TR
Bromus tectorum - 2%

A1. Floating-leaved Aquatic

X

A2. Submerged Aquatic

X

N. Non-vascular - Moss

• Lichen

• Algae

1%

X

X

Lichen spp

V. Vine / Liana



**Wetland Field Form used
at Camas NWR**

Assessment Code: LD.GMK L2. 018

General Description Form [arrows below indicate info you should have with you, if available]

A. GENERAL INFORMATION page 12		B. LOCATION page 13			
Site Name: <u>Meadow 418</u>		Directions [if new site]: or ☐ Use EO Directions: <u>W side road between Center Pond & Toomey 2</u>			
or ☐ Use EO Site Name: L2 Assessment Code (e.g. NY.DFL.L2.001) <u>LD.GMK</u> L2. <u>018</u>					
State EO Code [office] (e.g. EO ID)		State / County:			
Date <u>2010819</u> YEAR MO DAY		USGS quad name(s) [Office]:			
Photographer: <u>TM</u>		GPS Unit: <u>Handheld (7000)</u>			
Team Members: Leader: Co-leader: Assistant(s):		UTM Zone:	Datum:	NAD <u>WGS</u>	Accuracy:
Ownership [office]: [picklist]		UTM-E: OR Lat: dec. deg.	Write one centrally located coordinate; store rest in GPS. <u>41.18 in GPS</u>		
		UTM-N: OR Long: dec deg			

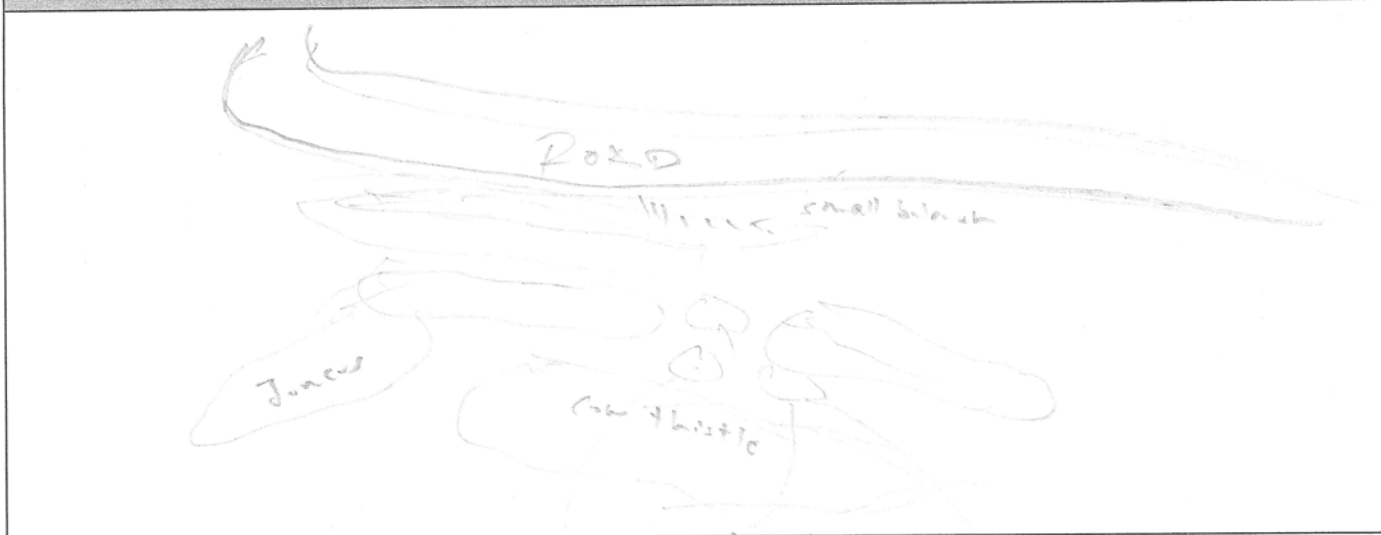
D. GENERAL DESCRIPTION [be brief, use Sections E and F if details desired] page 15	
Include description of what defines the boundaries of the assessment area; that is, what is adjacent to the area being assessed.	
<u>Close to road and adjacent to a large bulrush marsh. Patches of Juncus interspersed with Cow thistle and wild licorice</u>	
Other Types Of Interest at Site: [note types of interest for future visits to this site.] <u>Generally representative of the area between the road and the bulrush</u>	
Did you complete these optional sections on the following page?	
E. General Drawing ☐ Y ☐ N	F. Detailed Overview ☐ Y ☐ N

Triglochin Maritima
- Arrow grass

OPTIONAL PAGE : PLEASE INDICATE USE WITH "Y" or "N" ON PREVIOUS PAGE

E. GENERAL DRAWING page 15

Provide a drawing of the assessment area, including its boundaries, as either aerial view or transect view.



F. DETAILED DESCRIPTION page 15

LANDSCAPE CONTEXT AND BUFFER DESCRIPTION

What's your impression of the condition/integrity of the buffer? Circle one: Excellent, Good, Fair, Poor Comments:

SIZE DESCRIPTION [Assess Size of Assessment Area, and the full extent of the area occupied by the type].

ON-SITE COMMENTS [overall description of the community/ecosystem]

Landscape Pattern [within AA] Description

see other page

Vegetation Description

Min of juncus, alkali santon (drop seed)
Potentially

Hydrology Description

Soils Description

Animal Description

What's your impression of the condition/integrity of the on-site community/ecosystem? Circle one: Excellent, Good, Fair, Poor Comments:

Compare to EO rank?

Lots of native species, but significant amount of
son thistle

I. ENVIRONMENTAL PROFILE page 18ff

Elevation (topo map): <u> </u> m / <u> </u> ft	Hydrologic Regime (pg 21): <i>Need to look at map</i> [WT=water table; GS=growing season]	Hydrological Condition (pg 22) a. Current Water Depth , approx deepest point: <u> </u> (nearest 0.5 m)
Slope: <u> </u> deg / <u> </u> % or ☐ flat to <1%	<u> </u> Saturated : saturated to surface for extended periods during GS; surface water seldom present, isolated pools may be present.	b. Estimated High Water Depth: From surface water or soil surface (nearest 0.5 m): <u> </u>
Aspect (compass direction degrees) downslope <u> </u> or <u> </u> , <u> </u> if variable Or <u> </u> none (if flat).	<u> </u> Seasonally saturated : saturated to surface but absent by end of most GS	Evidence of high water depth: <u> </u>
Landform Comment [optional]: 	<u> </u> Permanently flooded : water covers surface throughout year in all years	Water Source (pg 22): Pick one primary (write "1"), up to two others ("2"), as needed.
<u> </u> Organic Soil (pg 19) <u> </u> muck, sapric (von Post 7-10) <u> </u> peat, hemic (von Post 4-6) <u> </u> peat, fibric (von Post 1-3) Von Post scale of peat decomposition: <u> </u>	<u> </u> Semipermanently flooded : water covers surface and persists throughout GS in most years (excl. droughts); when absent, WT usually at/very near surface	<u> </u> Direct precipitation
	<u> </u> Seasonally flooded : water covers surface and is present early in GS, but absent end of season in most years; when absent, WT often near surface	<u> </u> Surface/overland flow : run-off
	<u> </u> Temporarily flooded : water covers surface for brief periods in GS, but WT usually well below surface for most of season; upland & wetland plants present	<u> </u> Groundwater
	<u> </u> Intermittently flooded : flooded for variable periods w/out detectable seasonal periodicity; months or years may occur between floods	<u> </u> Discharge : released into wetland
	<u> </u> Tidally flooded : flooded by the alternate rise and fall of the surface of oceans and seas, and the bays, rivers, etc. connected to them	<u> </u> Saturation : wetland near WT surface
	<u> </u> Artificially flooded : flooding by pumps, siphons etc. not "altered natural." See manual	<u>1</u> Water body inundation : surface water from marsh/swamp due to adjacent river/lake
	<u> </u> Never inundated	<u> </u> Overbank flow : flooding river/stream
	<u> </u> Unknown	<u> </u> Inbank flow : contained within river channel
		<u> </u> Anthropogenic
		<u>2</u> Direct input : irrigation, pumped
		<u> </u> Overland flow - urban
		<u> </u> Overland flow - rural
		<u> </u> Other (describe):
Unvegetated Surface (pg 19) (does not need to add to 100%; mentally remove plant layers; ignore below water): <u> </u> % Surface Water <u>90</u> % Litter, duff, small wood < 10 cm dbh <u> </u> % Wood > 10 cm dbh <u> </u> % Rock <u>10</u> % Bare surface <u> </u> % Other (describe):	Soil Drainage (pg 21):	HGM Class (pg 25): Pick one primary (write "1"); if needed, pick a secondary (write "2")
	<u> </u> Rapidly Drained : no gleying in entire profile; typically coarse textured or on steep slope	<u> </u> Riverine
	<u> </u> Well Drained : usually free of mottling in upper 3'; B red, brown, or yellowish	<u> </u> Depressional
	<u> </u> Moderately Well Drained : commonly mottled in lower B and C or below 2'	<u> </u> Slope
	<u> </u> Somewhat Poorly Drained : soil moisture in excess of field capacity remains in horizon for moderately long periods during year; commonly mottled in B and C	<u> </u> Mineral Soil Flats
	<u> </u> Poorly Drained : soil moisture in excess of field capacity in all horizons for large part of year; soils usually very strongly gleyed	<u> </u> Organic Soil Flats
	<u> </u> Very Poorly Drained : free water remains at/within 12" of surface most of year; strongly gleyed	<u> </u> Estuarine Fringe
		<u> </u> Lacustrine Fringe
		HGM Class Comments:

Ecological Integrity Assessment: Level 2-Form for Vegetation Profile and Vegetation METRICS

C. ECOLOGICAL COMMUNITY CLASSIFICATION AND CONDITION page 14

Field assigned: 1a. NVC Level or Other (NVC or State Association, Alliance, NatureServe System, Formation, or other) association

1b. NVC or other Name:

Junon-carpaea alkali wet meadowor ☐ Same as 2 below.

Classification Change: Y or N. If Y, fill out "Reason..."

Reason for Change in Type (e.g. conversion, degradation, succession, misclassified):

Classification Comments: (Other comments, even if State Type not changed):

2. State Heritage Name - From previous visit [office]:

State EORANK / Date:- From previous visit [office]

Change in EO Rank? Y, N, U, If Y, briefly explain:

State EO Size (acres):- From previous visit [office]

Change in EO Size ? Y, N, U. If Y, briefly explain:

Size of Assessment Area [complete in office, if needed]: As Percent of EO _____ % (nearest 10%) Acre age _____
Is spatial area of AA clearly indicated on attached map (e.g. EO polygon) or through GPS points: Y or N (if N, team must provide)

G. VEGETATION COMPOSITION PROFILE page 16

ALWAYS COMPLETE THESE COLUMNS
Cover scale: 0, 1-4%, then $\pm 5\%$ (5-14 etc)

Did you skip listing dominant species b/c L3 veg plot completed?

Y / N

Growth form / strata

Cover (%)

Ht
(m)Dominant Species: List species and their absolute cover if $\geq 5\%$ cover, to $\pm 5\%$ (e.g. 10% = 5-14 etc). Optional: list additional characteristic or exotic spp $< 5\%$ (T = $< 1\%$, or 1-4%).Tm. Mature (tall) Tree $> 5m$ e.g. *Acer rubrum* - 10%

Ts. Sapling (medium) Tree 2-5m

Te. Seedling (small) Tree $< 2m$ S1. Tall Shrub $> 2m$ S2. Short / Dwarf-shrub $< 2m$ seedling

T

1m

SALIX exigua

H1. Herb (Field, Emergent)

95

1m

Sonchus oleraceus 5 mkn ground "suada" 1 $\leftarrow$

Glycophiza leptostachya 20 Scirpus americanus 1

Juncus balticus 90 Carex plantaginifolia 1

Sporobolus airoides 10 Distichlis spicata 1

Cirsium arvense 35 Muhlenbergia filiformis

Triglochin maritima 1 Phalaris arundinacea 3 $\leftarrow$

A1. Floating-leaved Aquatic

X

10

Senecio 1

A2. Submerged Aquatic

X

1

Scirpus acuta 3

N. Non-vascular - Moss

X

1

- Lichen

X

1

- Algae

X

1

V. Vine / Liana



H. VEGETATION PROFILE page 17

Structural Stage: Estimate the % aerial cover of all trees in each structural stage to nearest 10%. Evaluate only the top canopy layer (i.e. view canopy from above, but canopy might be sapling layer). Total should add to 100%. [dbh ranges – eastern N.A. temperate]

% woody stages absent or seedlings (i.e. stems < 2m)

% Sapling: stems < 10 cm (< 4") dbh

% Pole: stems 10-30 cm (4 – 12") dbh

% Large: stems 30–50 cm (12-20") dbh

% Very Large: stems >50 cm (20") dbh

Structural Stage Comments: (e.g. is tree or tall shrub structure more or less even across the AA)

Standing Snags Comments: Describe presence & abundance of snags > 30 cm (12") dbh (e.g. do snags appear to be recently dead, etc.).

Dead Fallen Logs (CWD):

Comment on the presence and characteristics of CWD greater than 10 cm dbh.

GUIDANCE: CIRCLE THE BEST FIT LETTER FOR EACH METRIC. IF HARD TO DECIDE, MAKE COMMENT, BUT STILL SELECT ONE CHOICE.
COMMENTS/EVIDENCE: NOTES, AS NEEDED, IN SCORING METRIC. METRICS 2a, 2b, 3b, 3c have variants; specify type used in circle.

2. VEGETATION (PAGE 27 of the field manual)

2a. VEGETATION STRUCTURE		CHOOSE AND SCORE ONLY ONE METRIC TYPE	
METRIC TYPE =	METRIC TYPE 1. SWAMP & FLOODPLAIN FOREST, MANGROVE	METRIC TYPE 2. BOG & FEN	METRIC TYPE 3. SHRUB SWAMP, WET MEADOW MARSH, SALT MARSH, SHRUB/HERB RIPARIAN, AQUATIC OTHER
3			
A	- Canopy a mosaic of patches of different tree sizes, with variation in gap sizes, AND # of live stems of medium size (30-50 cm / 12-20") and large size (> 50 cm / >20" dbh) well within expected range.	- Peatland supports vegetation typical of minimally or minor disturbed conditions - Woody vegetation typical and mortality due to natural factors (some very wet peatlands may have little to no woody vegetation).	- Vegetation structure is at or near minimally disturbed conditions. - No structural indicators of degradation evident.
B	- Canopy largely heterogeneous tree sizes; some variation in gap sizes, AND # of live stems of medium and large size within or very near expected range.		
C	- Canopy somewhat homogeneous in size, AND # of live stems of medium and large size below but moderately near expected range.	- Peatland vegetation moderately degraded by anthropogenic factors. - Some expected structural classes or woody vegetation not present. - Recovery possible if degrading influences removed.	- Vegetation structure is moderately altered from minimally disturbed conditions. - Several structural indicators of degradation evident.
D	- Canopy very homogeneous in size, AND # of live stems of medium and large size well below expected range.	- Peatland vegetation much degraded by anthropogenic factors. - Woody regeneration minimal, veg. structure poor, unnaturally sparse, or depauperate. - Recovery questionable without restoration or will take decades.	- Vegetation structure is greatly altered from minimally disturbed conditions. - Many structural indicators of degradation evident
	Comment/Evidence: peat is ~ 12-15 cm - on its way to becoming a fen heavy dm in 10AM. In another 10,00 yrs.		

*Dominant layer is any layer with >25% cover

2d. RELATIVE COVER OF NATIVE PLANT SPECIES [see vegetation data]		2e. COVER OF EXOTIC <u>INVASIVE</u> PLANT SPECIES [see vegetation data]		2f. VEGETATION REGENERATION Swamp & Floodplain Forest, Mangrove only, otherwise N/A [see vegetation & stem data]	
Relative Cover of native plants > 99%	A	Exotic invasive plant species absent (<1% absolute cover).	A	Native saplings and/or seedlings common to the type present in expected amounts; obvious regeneration.	A
Relative Cover of native plants 97 to 99%.	B	Exotic invasive plant species present, but sporadic (1-2% cover).	B	Native saplings and/or seedlings common to the type present but less than expected.	B
Relative Cover of native plants 90 to 96%.	C	Exotic invasive plant species prevalent (3–10% cover).	C	Native saplings and/or seedling common to the type present but low amounts; little regeneration.	C
Relative Cover of native plants 50 to 89%.	D	Exotic invasive plant species abundant (>10% cover).	D	No reproduction of native woody species common to the type.	D
Relative Cover of native plant spp. < 50%	E	Comments/Evidence: Southside "Canada" Thistle thick -		Comments/Evidence:	N/A
Comments/Evidence:					

3/2

2g. VEGETATION COMPOSITION	
Vegetation composition minimally to not disturbed. i) Native species indicative of anthropogenic disturbance (increasers, weedy or ruderal species) absent to minor; AND ii) Typical range of diagnostic species present, including those native species sensitive to anthropogenic degradation.	A
Vegetation composition with minor disturbed conditions. i) Some native species indicative of anthropogenic disturbance (increasers, weedy or ruderal species) are present but minor in abundance, AND ii) Some diagnostic species absent or substantially reduced in abundance.	B
Vegetation composition with moderately disturbed conditions. i) Species are still largely native and characteristic of the type, but they also include increasers, weedy or ruderal species, AND ii) Many diagnostic species absent or substantially reduced in abundance.	C
Vegetation composition with severely disturbed conditions. i) Species from entire strata may be absent or species are dominated by ruderal ("weedy") species, or comprised of planted stands of non-characteristic species, or unnaturally dominated by single species, OR ii) Most or all diagnostic species absent, a few may remain in very low abundance.	D
Comments/Evidence: [Also see vegetation data] <i>Very diverse - more spp here than all observed.</i>	