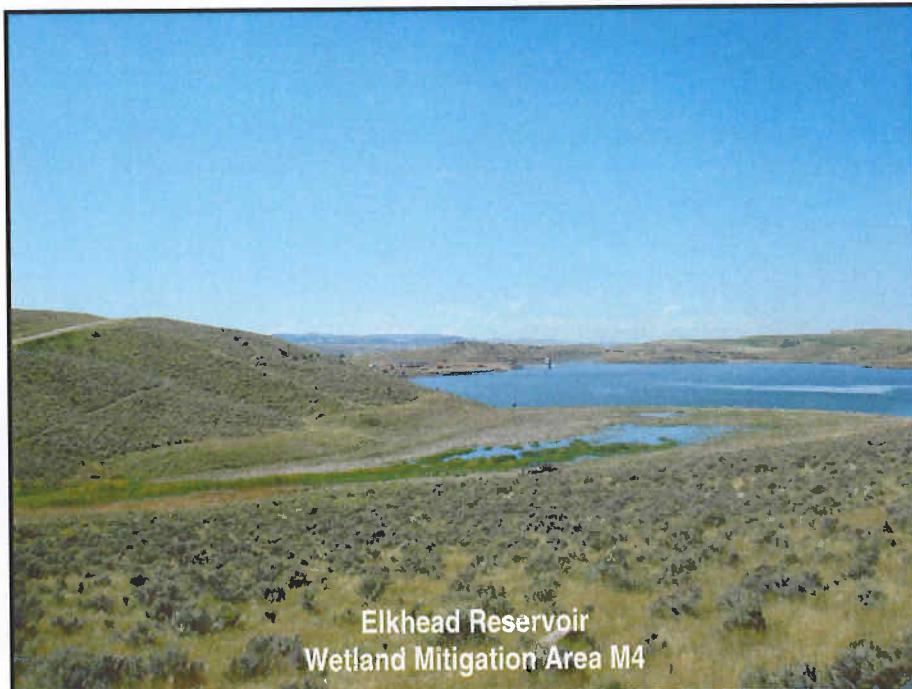


**FINAL**

# YEAR ONE (2008) WETLAND MITIGATION MONITORING REPORT

## ELKHEAD CREEK DAM RESERVOIR EXPANSION, MOFFAT COUNTY, CO

April 2009



### Prepared For:



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## **LIST OF ACRONYMS**

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>	Greater than
<	Less than
±	Plus/Minus
%	Percent
C	Concretions
CDA	Colorado Department of Agriculture
D	Depletions
FAC	Facultative
FACW	Facultative Wet
M	Mitigation Areas
OBL	Obligate
PE	Professional Engineer
Permit	Section 404 Permit
PP	Photograph Point
Project	Elkhead Creek Dam Reservoir Expansion Project
R	Red
SP	Soil Pit
T	Transect
URS	URS Corporation
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
Y	Yellow

### **1.1 GENERAL PROJECT INFORMATION**

**USACE Permit Number: 200375136**

**Permittee:**

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Telephone: 970-945-8522  
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**Dates of Investigation:** September 8 to 15, 2008

### **1.2 PROJECT PURPOSE**

The Project is an expansion of reservoir capacity within Elkhead Creek near Craig, Colorado. The base operational level (maximum normal pool) of Elkhead Reservoir (reservoir) was raised by 20 feet to augment flows of the Yampa River Basin to meet future human need and to aid in the recovery of four listed Colorado River endangered fish species. Among the impacts of the Project would be the fill and/or inundation of approximately 37 acres of jurisdictional wetlands along the perimeter of the reservoir.

### **1.3 PROJECT LOCATION**

The Project is located within Elkhead Creek, a perennial tributary of the Yampa River, in Moffat and Routt Counties, Colorado, approximately 9 miles northeast of Craig within Township 7 North, Range 89 West Section 16. The Project area is shown on Figures 1 and 2 (Appendix A).

### **1.4 MONITORING SUMMARY**

Four wetland mitigation (M) areas were designed to mitigate for Project impacts:

M1 - Reservoir inlet, or delta

M2 - Island created by the water level rise after the expansion

M3 - Brown Gulch inlet

M4 - Mud Gulch inlet

A total of 42.3 acres of emergent wetland was required as mitigation for project impacts. Approximately 13 acres of wetland was to be constructed for M2, M3, and M4. Approximately 29.3 acres at the reservoir inlet was left to revegetate naturally. See Appendix A, Figures 3 through 6.

M2, M3, and M4 were designed with three vegetation zones based on elevation; Zone A, which included deep emergent species, Zone B which was designed for shallow emergent species, and Zone C, which incorporated wetland and riparian shrubs. M2 also included two surface water features.

The Year One (2008) routine wetland monitoring survey included monitoring M2, M3, and M4. Unstable alluvium within M1 prohibited access and prevented formal monitoring. M2, M3, and M4 have achieved approximately 26.1 % wetland vegetative areal cover, with approximately 78.4% comprised of native wetland species. Approximately 1.2 acres of M2, M3, and M4 have 100% cover. Approximately 4.6% of all vegetation is comprised of noxious weeds.

## **2.1 MITIGATION MONITORING REQUIREMENTS**

Special Condition 1 of the Section 404 Permit (Permit) referred to the *Section 404 Application for the Elkhead Reservoir Enlargement Project Craig, Colorado* (Pioneer Environmental Services 2004) (Mitigation Plan) regarding mitigation monitoring requirements. Per Special Condition 1:

“The permittee shall implement the mitigation plan described in the Department of the Army permit application prepared by Pioneer Environmental Services, Incorporated, dated April 14, 2004, inclusive of pages 17 through 27”...”However, the monitoring period for all wetland mitigation sites is extended to five (5) years for all sites and an additional five (5) years for the Delta Area [M1], or until the Corps determines successful mitigation.”

## **2.2 PERFORMANCE STANDARD**

The Permit did not establish specific performance standard criteria. Section 5.3.6 of the Mitigation Plan states:

“To meet the ACOE jurisdictional wetland criteria, an area must have hydrophytic vegetation, hydric soils, and wetland hydrology (Environmental Laboratory 1987). Demonstration of any two criteria is sufficient to determine successful wetland creation. In most cases, hydric soil development takes decades. Consequently, the hydric soil criteria may not be met at creation sites, especially where hydric soils are not available to plate the newly created wetland. Hydrology and vegetation criteria, however, would likely be met in all areas outside the new delta within the first three years following creation. The delta would develop vegetation and soils slowly, but hydrology would be met almost immediately.”

The hydrophytic vegetation performance standard is discussed in the Mitigation Plan, Section 5.3.3:

“The presence of hydrophytic vegetation would be used to determine success at wetland creation sites. According to the 1987 Wetland Delineation Manual specifications, an area has hydrophytic vegetation when more than 50 percent of the dominant species composition from all strata is obligate wetland (OBL), facultative wetland (FACW), and/or facultative (FAC) species (Environmental Laboratory 1987). The species list for revegetation of mitigation sites emphasizes these categories. The revegetation effort for this proposed project would use only native species representative of Northwest Colorado. Native species would comprise at least 90 percent of the total vegetation ground cover at all revegetation sites as determined by using transect sampling methodology.”

Based on Special Condition 1, it is assumed that the mitigation monitoring requirements and performance standard stated in the Mitigation Plan are acceptable to the U.S. Army Corps of Engineers.

**Table 2-1**  
**Status of Mitigation Requirements and Performance Standard**

<b>Criteria</b>	<b>Status<sup>1</sup></b>	<b>Difference</b>
42.3 acres of wetland creation and reestablishment	44.5 acres wetland creation/reestablishment	+ 2.2 acre over required acreage creation/reestablishment
> 50% wetland coverage	<5.0 % wetland areal coverage at M1 27.3% wetland areal coverage at M2 16.6% wetland areal coverage at M3 34.7% wetland areal coverage at M4	> - 45% of M1 - 22.7% of M2 - 33.5% of M3 - 15.4% of M4
90% native species	Unknown % at M1 70.1% at M2 74.8% at M3 90.2% at M4	Not Applicable M1 - 19.9% of M2 - 15.2% of M3 + 0.2% of M4

Note: <sup>1</sup>Based on 44.5 acres of constructed mitigation area.

## 3.1 METHOD

### 3.1.1 Field Surveys

Formal mitigation monitoring was conducted between September 8 and September 15, 2008. Because of unstable substrate within M1, the area could not be monitored using a transect method. M1 was visually assessed and photographs were taken from representative vantage points (Appendix B1).

Using a point-intercept method, vegetative data was collected along randomly established permanent transects within Zones A, B, and C of M2, M3, and M4. A separate data sheet was created for each transect containing columns for the name for any plant species found at a data point, its wetland indicator status, and the ground cover. If no vegetation was present at a data point, the ground cover (e.g., bare ground, open water) was recorded instead of a plant name. The term “litter” was used if the ground was covered with other organic matter such as leaves, mulch, etc. In M2, where areas of open water were included in the design, data points occurring over the elevations of open water were removed from the total point count. In the other mitigation areas, open water was calculated as bare ground.

Evidence of hydrology where observed was recorded for each transect. Photographs were taken from permanent established photograph points (PP) and from the start of each transect. PP and transect photographs are included in Appendices B2 through B4. Individual transect data sheets are included in Appendix C.

Soil pits were dug in Zone B of M2, M3, and M4. The presence of hydric soils within each mitigation area was determined using the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Environmental Laboratory 2008).

### 3.1.2 Analysis

The percent of wetland and native areal cover was calculated based on recorded data. Total vegetative cover was calculated by comparing the number of vegetated points to the total number of data points. The percent of wetland species was calculated based on the number of FAC, FACW, or OBL wetland plants compared to the total number of data points as indicated in the *1988 List of Plants That Occur in Wetlands* (USFWS 1988).

Before determining the percent of native vegetation, a method for determining what constitutes species native to northwest Colorado was applied to the species recorded in the field. Using the *1988 List of Plants That Occur in Wetlands* (USFWS 1988), native species were separated from introduced species. Introduced species were further divided into Colorado-listed Noxious Weed Species (CDA 2008) and any introduced non-noxious species with the observed or understood ability to outcompete native plants and/or degrade habitat for desirable native wetland or riparian species. Introduced species that do not outcompete native species or that act as colonizers in seasonally inundated areas were considered to be native for the purposes of the analysis. Further discussion of the criteria used to separate non-native species is included in Section 5.2.

## 3.2 RESULTS

### 3.2.1 M1 Results

Based on visual assessment, less than 5% of M1 has revegetated. Some wetland vegetation occurs as a fringe near the start of M1 (see Section 4, Photograph 1, and Appendix B1).

**3.2.2 M2 Results**

Total vegetative areal cover averaged approximately 63.6% within M2, M3, and M4, with wetland cover comprising an average of approximately 26.1% of total areal cover. Of total areal cover, an average of approximately 78.4% of wetland plants were native to northwest Colorado. The portion of M2, M3, and M4 that achieved or surpassed the performance standard comprises approximately 1.2 acres. The results from data collected at M2, M3, and M4 are listed in Tables 3-1, 3-2 and 3-3 and briefly discussed below.

**Table 3-1**  
**M2 Transect Sampling Data**

Transect Number	Year 1 - 2008			
	Total Areal Cover (%)	Total Wetland Cover (%)	Native Species Cover (%)	Evidence of Hydrology
T1	66.7	6.7	10	No
T2	60.9	34.8	85.7	Yes
T3	68.6	42.9	79.2	Yes
T4	51.9	18.5	75.0	Yes
T5	53.2	22.1	73.1	Yes
T6	68.2	8.2	43.1	Yes
T7	52.3	3.4	84.8	Yes
T8	67.0	5.7	44.0	Yes
T9	70.8	27.1	73.5	No
T10	83.5	48.5	90.7	No
T11	80.2	50.9	87.1	Yes
T12	76.1	54.0	89.0	Yes
T13	45.4	27.7	86.7	Yes
T14	50.5	23.2	75.0	Yes
T15	78.0	21.9	64.0	Yes
T16	80.0	30.7	66.7	Yes
T17	85.9	38.4	64.7	Yes
Average (%)	67.0	27.3	70.1	Yes

Total vegetative areal cover in M2 totaled approximately 67.0% on average, which included an average of approximately 27.3% wetland species. Species native to Northwest Colorado comprised an average of approximately 70.1% of all vegetation recorded. No portions of M2 achieved 100% wetland cover.

Primary or secondary evidence of hydrology was observed in all but three transects. Primary evidence of hydrology included inundation, saturation, salt deposits, gastropod shells, and cracked soils. Live larval fish occurred in one transect. Secondary indicators included the presence of crayfish burrows.

**3.2.3 M3 Results**

**Table 3-2**  
**M3 Transect Sampling Data**

Transect Number	Year 1 – 2008			
	Total Areal Cover (%)	Total Wetland Cover (%)	Native Species Cover (%)	Evidence of Hydrology
T1	63.0	21.0	62.8	Yes
T2	60.0	10.7	70.0	Yes
T3	46.5	11.6	85.0	Yes
T4	58.5	22.0	87.5	Yes
T5	61.5	10.3	70.8	Yes
T6	54.1	8.1	75.0	Yes
T7	73.7	13.2	71.4	No
T8	75.0	12.5	76.7	Yes
T9	70.0	10.0	89.3	Yes
T10	81.4	32.6	68.6	Yes
T11	70.7	19.5	65.5	Yes
T12	72.2	27.8	75.0	Yes
Average (%)	<b>65.6</b>	<b>16.6</b>	<b>74.8</b>	Yes

Total vegetative areal cover in M3 averaged approximately 65.6%, and included an average of approximately 16.6% wetland species. Species native to northwest Colorado comprised an average of approximately 74.8% of all vegetation recorded. A total of approximately 0.32 acre had 100% wetland cover. Primary evidence of hydrology was observed in all transects except T7 and included inundation, surface saturation, cracked soils, and salt crusts.

**3.2.4 M4 Results**

**Table 3-3**  
**M4 Transect Sampling Data**

Transect Number	Year 1 - 2008			
	Total Areal Cover (%)	Total Wetland Cover (%)	Native Species Cover (%)	Evidence of Hydrology
T1	42.9	14.3	100	Yes
T2	81.3	68.8	92.3	Yes
T3	70.0	60.0	92.9	Yes

Transect Number	Year 1 - 2008			
	Total Areal Cover (%)	Total Wetland Cover (%)	Native Species Cover (%)	Evidence of Hydrology
T4	87.5	70.8	100	Yes
T5	80.8	61.5	85.7	Yes
T6	67.9	46.4	89.5	Yes
T7	75.0	46.9	83.3	Yes
T8	58.8	35.3	87.5	Yes
T9	71.1	42.1	92.6	Yes
T10	70.5	54.5	93.5	Yes
T11	34.9	14.3	72.7	Yes
T12	45.7	20.0	84.4	Yes
T13	56.5	23.2	87.2	Yes
T14	40.8	15.5	89.7	Yes
T15	38.0	10.9	80.0	Yes
T16	41.5	16.0	93.2	Yes
T17	44.1	22.5	97.8	Yes
T18	39.6	21.9	94.7	Yes
T19	45.2	25.8	97.6	Yes
T20	61.3	23.8	88.8	Yes
Average (%)	<b>57.7</b>	<b>34.7</b>	<b>90.2</b>	Yes

Total vegetative areal cover in M4 averaged approximately 57.7%, which included an average of approximately 34.5% wetland species. A total of approximately 0.88 acre of M4 was 100% vegetated with wetland species. Species native to northwest Colorado comprised an average of approximately 90.2% of all vegetation recorded.

Evidence of hydrology was recorded in all transects. Primary wetland hydrologic indicators included inundation, saturation, soil cracking, hydrogen sulfide odor, and salt crusts.

### 3.2.5 Soil Pits

Soil pits were dug in M2, M3, and M4. Overall, soils appear depleted in the upper layer, but not hydric. The results of hydric soil determinations are included in Table 3-4.

**Table 3-4**  
**Soil Pit Investigations Results**

Mitigation Area	Depth (inches)	Matrix Features	Redox Features	Texture
M2-SP1	0-10	10YR 4/2, 100%	None	Silty clay
M2-SP1	10	-	-	Bedrock
M3-SP1	0-7	10YR 5/3, 75%	10YR 4/1, 20%, C, Matrix 7.5YR 4/6, 5%, D, Oxidized roots	Silty clay
M3-SP1	7-14	5Y 5/3, 100%	None	Silty clay
M3-SP2	0-10	2.5Y 4/2, 60%	7.5YR 5/6, 40%, C	Silty clay
M3-SP2	10-15	5Y 5/3, 100%	None	Clay
M4-SP1	0-8	10YR 4/2, 100%	None	Clay
M4-SP1	8+	Gravel, 100%	None	Gravel

### 3.2.6 Noxious Weeds and Introduced Species

Noxious weeds were recorded in approximately 4.6% of all recorded points. Noxious weeds were recorded most frequently within M2 (approximately 10.2%), with cheatgrass (*Bromus tectorum*) dominant. Bull thistle (*Cirsium vulgare*) and Canada thistle (*Cirsium arvense*) were also commonly recorded. Yellow sweetclover (*Melilotus officinalis*) was dominant around the perimeter of M2.

Noxious weeds within M3 totaled approximately 2.7% of areal cover with jointed goat grass (*Aegilops cylindrica*) as the most common species recorded. Barnyardgrass (*Echinochloa crus-galli*) and yellow sweetclover were the most commonly observed introduced non-noxious species, with high densities occurring at the creek inlet and the perimeter of the area, respectively.

M4 had the lowest occurrence of noxious weeds (approximately 1%), with Canada thistle being the most dominant species recorded in transects. Other noxious species observed in M4 included dalmatian toadflax (*Linaria dalmatica*), houndstongue (*Cynoglossum officinale*), tamarisk (*Tamarix ramosissima*), jointed goat grass, and Scotch thistle (*Onopordum acanthium*). Introduced non-noxious species included cattails (*Typha* spp.), Russian thistle (*Salsola kali*), kochia (*Kochia scoparia*), prickly lettuce (*Lactuca serriola*), and barnyardgrass.

### 3.2.7 Other Observations

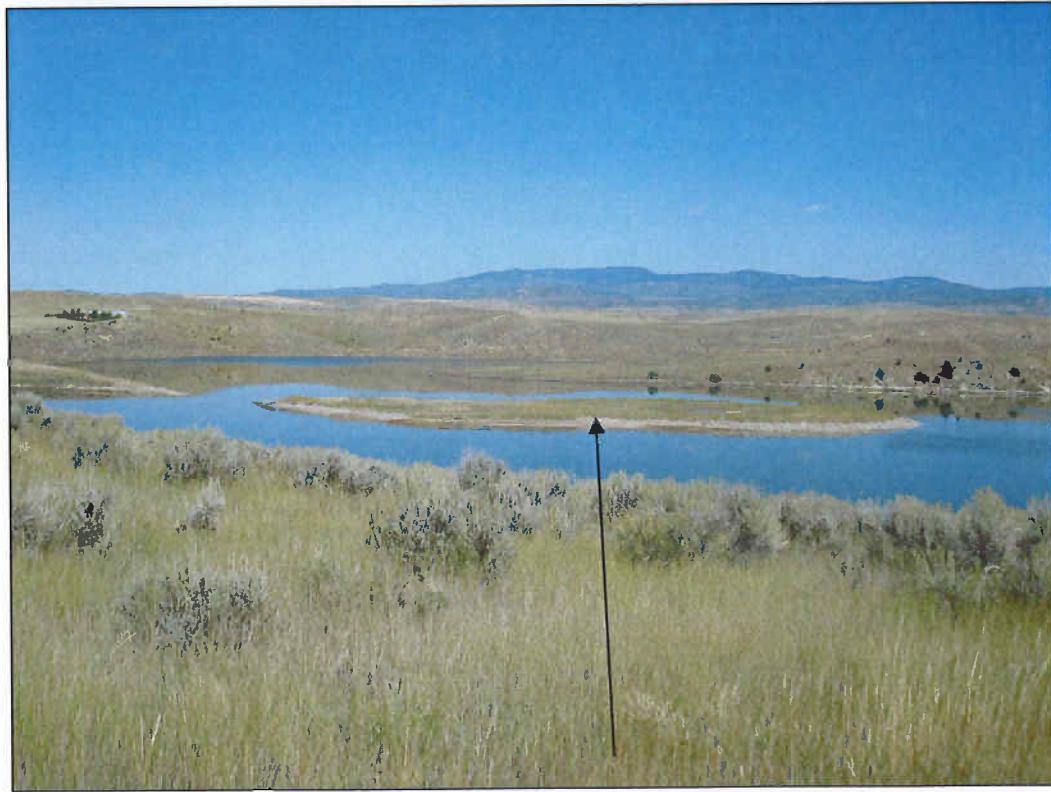
Evidence of wildlife usage of M2, M3, and M4 was observed. Wildlife or their sign included black bear (*Ursus americanus*), raccoon (*Procyon lotor*), Canada goose (*Branta canadensis*), mule deer (*Odocoileus hemionus*), mallard duck (*Anas platyrhynchos*), killdeer (*Charadrius vociferus*), pronghorn (*Antilocapra americana*), and western grebe (*Aechmophorus occidentalis*). Canada geese are responsible for destruction of approximately 0.25 acres of deep emergent wetland within M4.

Although the mitigation areas are posted and routinely monitored by Colorado State Parks personnel, all terrain vehicle tracks along with cattle and dog prints were observed within M3 and M4.

Significant scour was observed on the north side of M2, where it removed a small portion of Transect 15.



Photograph 1. Looking southwest at the north end of M1 (9/18/2008).



Photograph 2. Photograph Point 5. Looking north at M2 (island) (9/17/2008).



Photograph 3. Photograph Point 5 – Looking north at M3 (9/10/2008).



Photograph 4. Photograph Point 5 – Looking southwest at M4. The reservoir appears in the background (9/19/2008).

## **5.1 WETLAND ESTABLISHMENT**

Based on first year (2008) monitoring results, it is concluded that the mitigation areas are over half way to achieving the performance standard. As a whole for the entire project (M2, M3, and M4), total vegetation density is well above 50% with native species accounting for most of the cover. Soils in M2, M3, and M4 are depleted, and some soil layers show evidence of mottling, but none exhibited hydric characteristics.

M4 is currently the most successful in both wetland and native plant establishment percentages. The establishment rate at M4 can be directly correlated to inflow from Mud Gulch Creek, a tributary on the east side of the mitigation area. Creek flow has been observed almost continually in M4 since dam construction activities were completed in 2006.

This occurrence has advantages and disadvantages. While the additional hydrology has contributed to wetland establishment on the east side of the area, the inflow from Mud Gulch Creek coupled with the elevational rise in reservoir levels produces surface water on M4. Consequently, water pools across the west end of Zone C and, partially due to a clay substrate, remains perched, even when reservoir levels drop (see Section 4, Photograph 4). Extended flooding in this section has exacerbated mortality in some of the more mesic wetland species installed there. It is expected that this situation will resolve itself over time as plants mature and evapotranspiration rates increase across the mitigation area. As a variety of species were installed in that section of M4, those that are adapted to seasonally flooded conditions will be most likely to thrive. Therefore, it is not recommended to limit Mud Gulch Creek inflow.

M1 is unstable, and has little vegetative cover. Alluvium continues to be deposited within the inlet (see Appendix B1, Photographs). Some wetland vegetation has established as a fringe in the upper reach of the inlet, and very small patches of Baltic rush (*Juncus balticus*) occur near the mouth of the creek; however, most of the mitigation area remains barren and/or inundated. M1 will be formally surveyed when alluvium has stabilized.

M2 relies primarily on capillary action from elevated reservoir levels and seasonal precipitation for its water supply. The wetland was designed to collect some water in spring within two depressions to protect breeding birds. The island is otherwise dry, due to bedrock close to the surface. This area shows the least establishment this year, with no areas of 100% wetland cover.

In addition capillary action from the reservoir, M3 has an ephemeral inlet that provides additional hydrology to the west side of the mitigation area (the section farthest away from the reservoir). While not technically designed a part of the mitigation area, the inlet has facilitated the spread of enough volunteer wetland species to completely populate that section of M3. Combined with the Zone A areas, there are three areas on M3 where 100% wetland cover has been achieved.

## **5.2 NOXIOUS WEEDS AND NON-NATIVE SPECIES**

Many of the noxious weed species observed occur most frequently in Zone C of all constructed mitigation areas. Bare ground and the Zone C hydrologic regime provide ideal conditions for the establishment of noxious and introduced and some weedy native species. The Colorado River Water Conservation District has implemented a Noxious Weed Control Plan, and control of weeds around the reservoir occurs throughout the growing season.

While noxious species approach 5% of the total population of the M2, M3, and M4, other non-native species have much higher densities. One example is yellow sweetclover. The height and density of this species offers needed shade to the newly planted riparian and wetland shrubs, aiding in their establishment. However, the species forms a monoculture around the perimeters of M2 and M3 and hides bull thistle and other noxious weeds, which were commonly observed growing underneath the plants.

Cattails germinate within all mitigation areas, but do not achieve the robustness or density that occurs within M4. Their occurrence in this mitigation area can be attributed to seed dispersal from populations lining the inlet.

Conversely, many naturalized introduced species do not pose a threat to wetland or riparian establishment; some, such as prostrate knotweed (*Polygonum aviculare*), act as soils stabilizers in seasonally flooded areas, deterring weeds and soils erosion until more permanent wetland species can establish.

## 5.3 HERBIVORY

An issue that has affected survivability of wetland plantings within M4 is the presence of Canada geese. While not directly observed using the area, evidence indicates that the birds have attempted to maintain open water by dislodging newly planted bulrush (*Schoenoplectus* spp.) from an area of roughly 0.25 acre. Species were replanted in that section in September 2008. If the birds do not frequent M4 until plants have established enough root mass to deter pulling, this portion should revegetate as well as the remainder of Zone A.

Herbivory was also observed within M2, where most wetland species had been deflowered due to herbivory. Waterfowl and shorebirds are using the island as a refuge from predators, its primary purpose. A species of plover and killdeer also nest on the island; five deer were observed on the island during monitoring.

## 5.4 2009 RECOMMENDATIONS

Recommendations to facilitate the success of the constructed mitigation areas include:

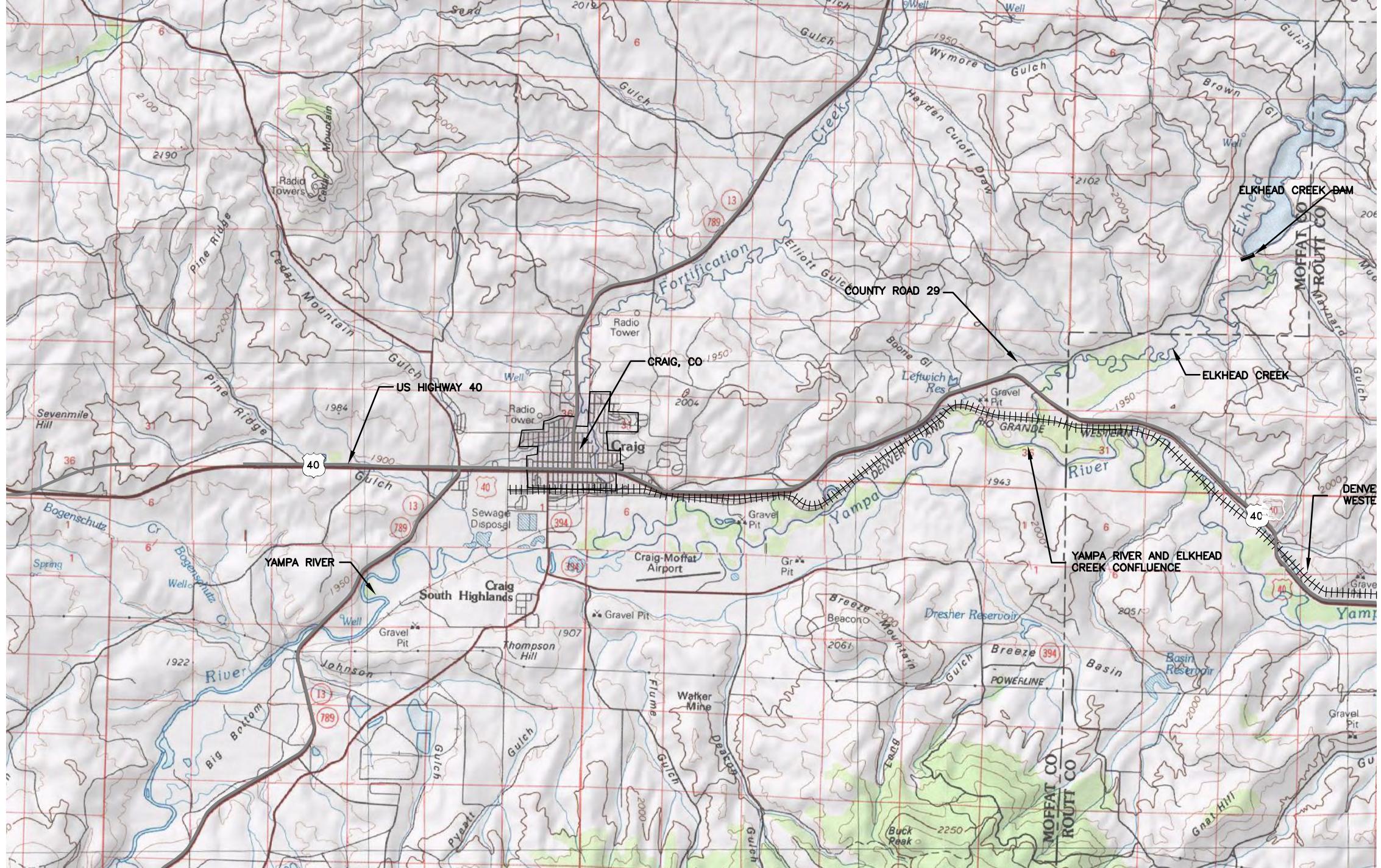
1. Continue monitoring noxious weeds and control as necessary in all mitigation areas. Control of other non-desirable species that produce significant biomass, (e.g., yellow sweetclover, cattails, and cocklebur) should occur more frequently throughout the year to avoid excessive ground disturbance.
2. Herbivory should be monitored for excess destruction to plant biomass.

Professional judgments and evaluations are presented in this report. They are based partly on information gathered from field investigations and from our experience with similar projects. URS represents that our services were performed within the limits prescribed by the client in a manner consistent with the level of care and skill requisite with the current standard of professional consultant practice in Colorado. No other representation to the client, expressed or implied, and no warranty or guarantee is included or intended. We do not guarantee the performance of the project in any respect, only that our engineering or scientific work and judgments rendered meet the standard of care of our profession.

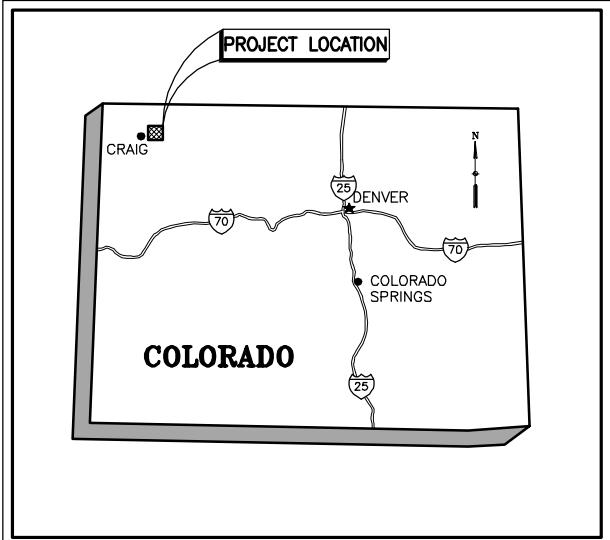
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## **Appendix A**

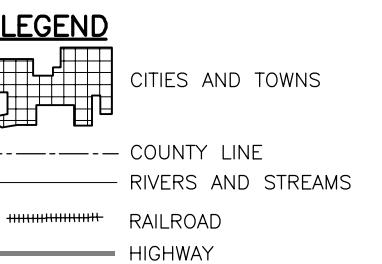
### **Figures**



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W



**STATE MAP**  
NOT TO SCALE



**PLAN**

0 4000 8000 12000  
APPROXIMATE SCALE IN FEET

**REPORT FIGURE – NOT FOR CONSTRUCTION**

FILE # ELKHD-D09 LOC. DENVER DATE 03/2003 PROJ. # 22235635 TASK #

SCALE 1:1

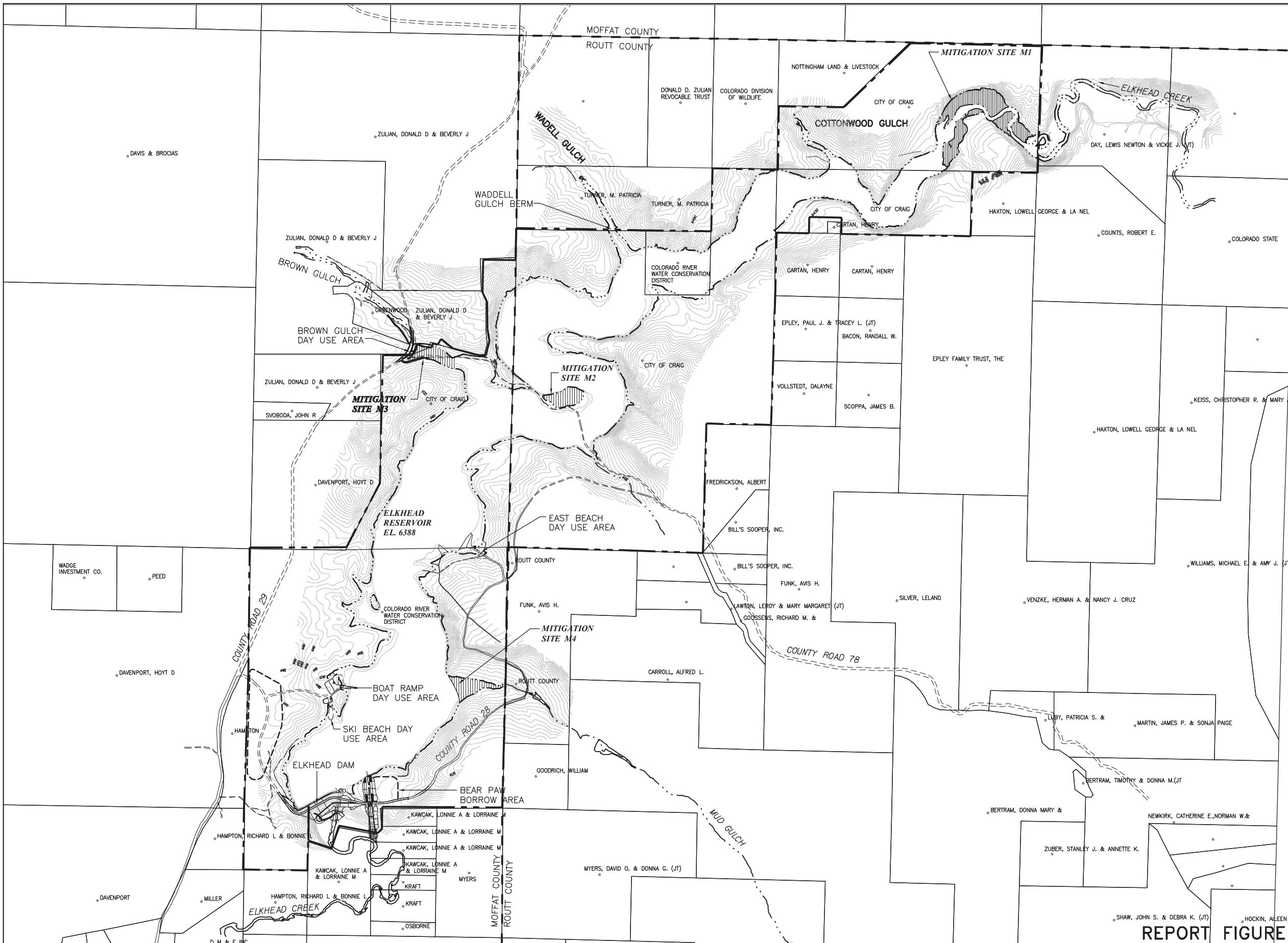
△		
△		
△		
△		
△		
△	WETLAND REPORT	
		MRM 12/2007
	DESCRIPTION OF REVISION	BY DATE

COLORADO RIVER WATER  
CONSERVATION DISTRICT  
201 Centennial Street, Suite 200  
Glenwood Springs, CO 81602  
970-945-8522

**URS**

URS Center  
8181 E. Tufts Avenue  
Denver, CO 80237-2637  
(303) 694-2770

DESIGNED: JAB	ELKHED CREEK DAM	CRAIG, COLORADO	REVISION 0
DRAWN: JAB			
CHECKED: MRM			
PEER REVIEWED: RAM			
PROJECT MANAGER: MRM			
DATE: 12/2007			
	LOCATION MAP		
			PROJECT 22235723
			DRAWING 1
			SHEET 1 OF 6



N  
E  
S  
W  
  
PLAN  
0 1000 2000 3000  
SCALE IN FEET

## REPORT FIGURE – NOT FOR CONSTRUCTION

FILE #	DESIGN G-05	LOC. DENVER	DATE: 03/2003	PROJ. # 22235635	TASK #
SCALE	1:1				
REV					
WETLAND REPORT				MRM	12/2007



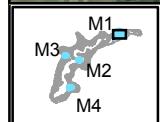
COLORADO RIVER WATER  
CONSERVATION DISTRICT  
201 Centennial Street, Suite 200  
Glenwood Springs, CO 81602  
970-945-8522

**URS**

URS Center  
8181 E. Tufts Avenue  
Denver, CO 80237-2637  
(303) 694-2770

DESIGNED:	TEM	REVISION	1
DRAWN:	WDH	PROJECT	22235723
CHECKED:	MRM	DRAWING	2
PEER REVIEWED:	MRM	SHEET	2
PROJECT MANAGER:	MRM	OF	6
DATE:	12/2007		

GENERAL PLAN OF PROJECT



↑ Photo Point      100% Zone      □ Mitigation Site Perimeter  
● Soil Pit      Zones A & B  
— Transect      Zone C

190    95    0    190    380    570  
Feet

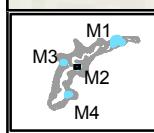
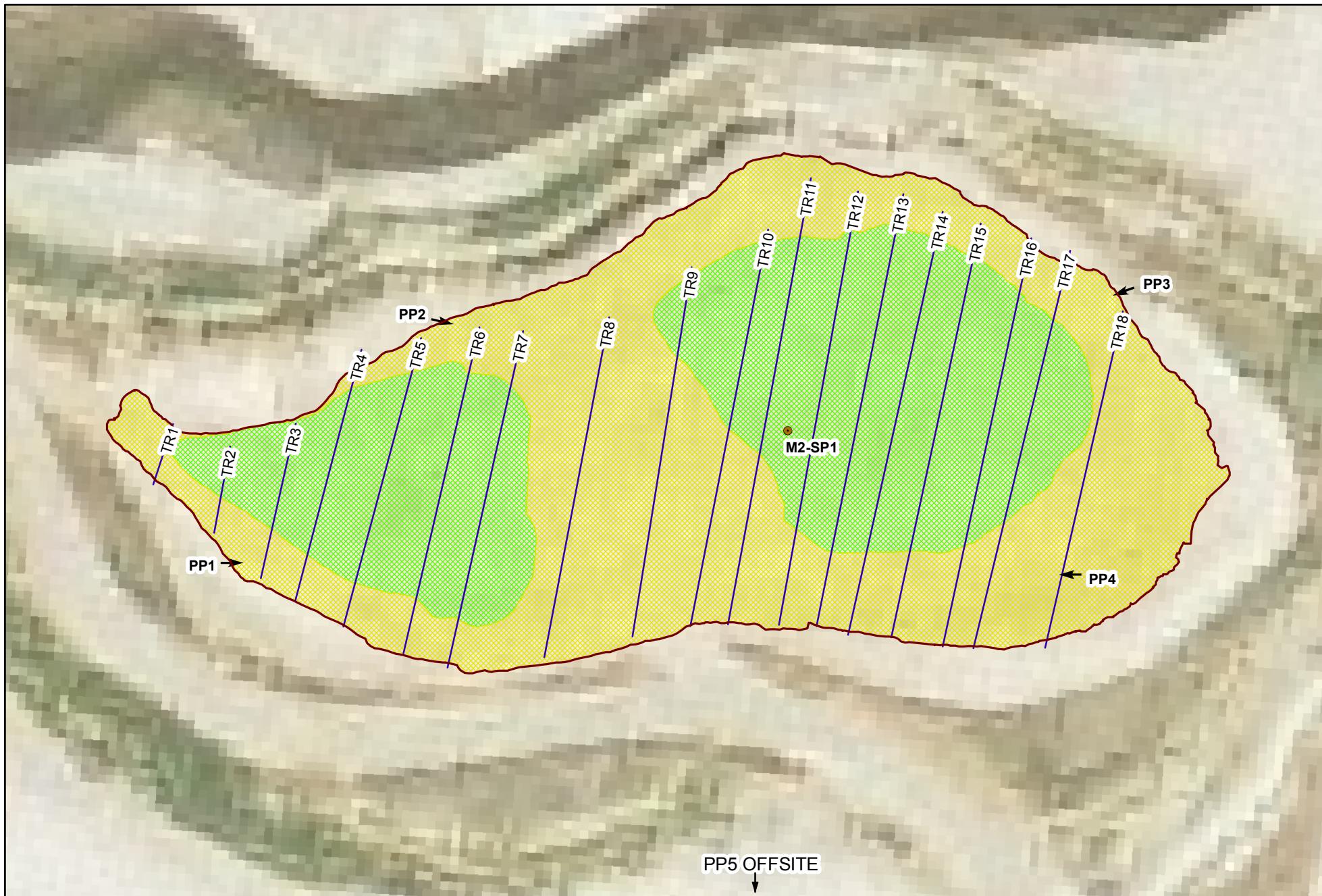


Elkhead Reservoir Wetland Mitigation  
Year 1 (2008) Monitoring

Figure 3  
Mitigation Area M1

04/29/09

URS



↑ Photo Point  
 ● Soil Pit  
 — Transect  
 ■ 100% Zone  
 ■ Zones A & B  
 ■ Zone C  
 □ Mitigation Site Perimeter

80 40 0 80 160 240 Feet

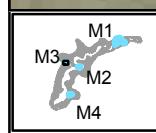
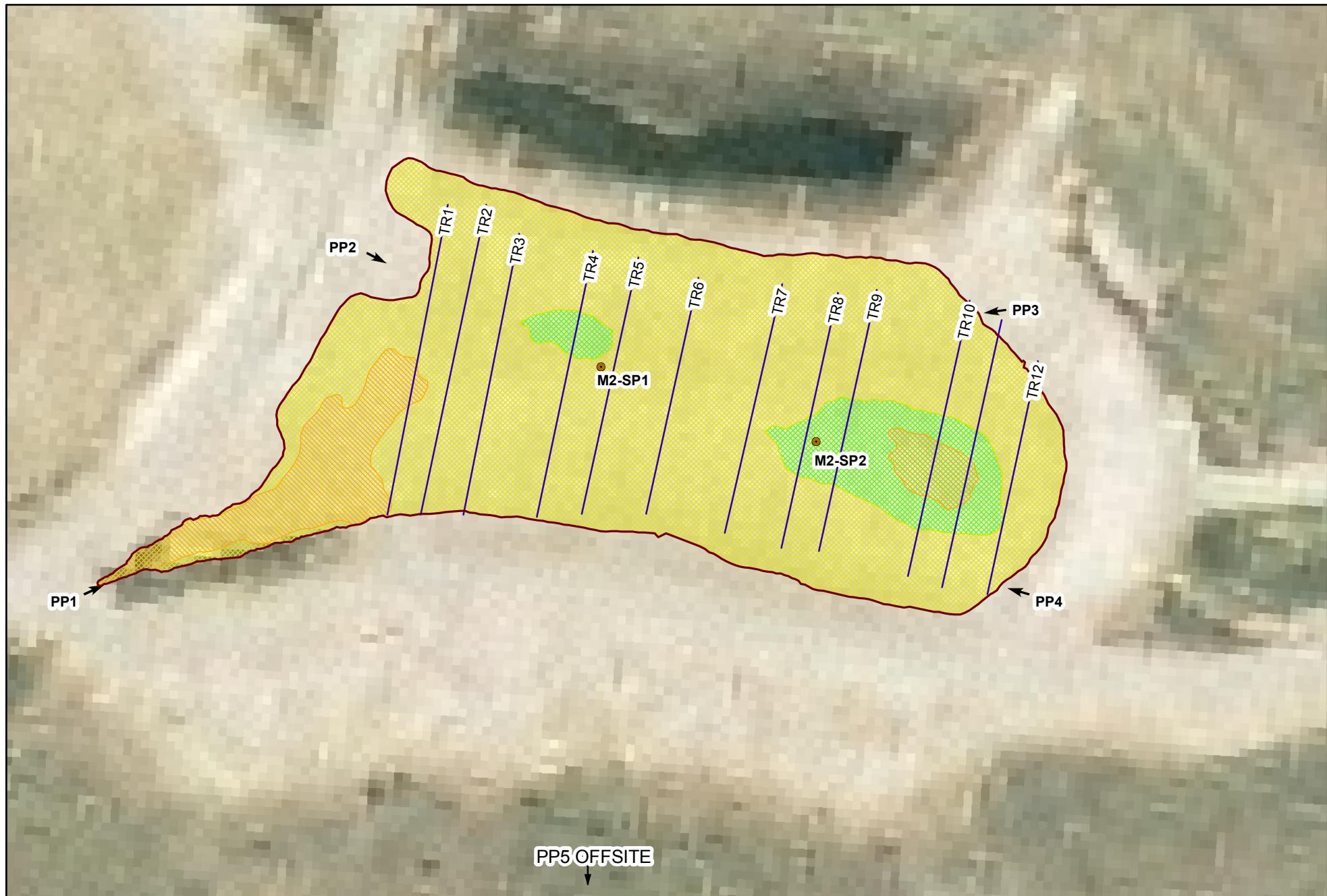


Elkhead Reservoir Wetland Mitigation  
Year 1 (2008) Monitoring

**Figure 4**  
**Mitigation Area M2**

04/29/09

URS



↑ Photo Point      100% Zone      Mitigation Site Perimeter  
 ● Soil Pit      Zones A & B  
 — Transect      Zone C

80    40    0    80    160    240    Feet

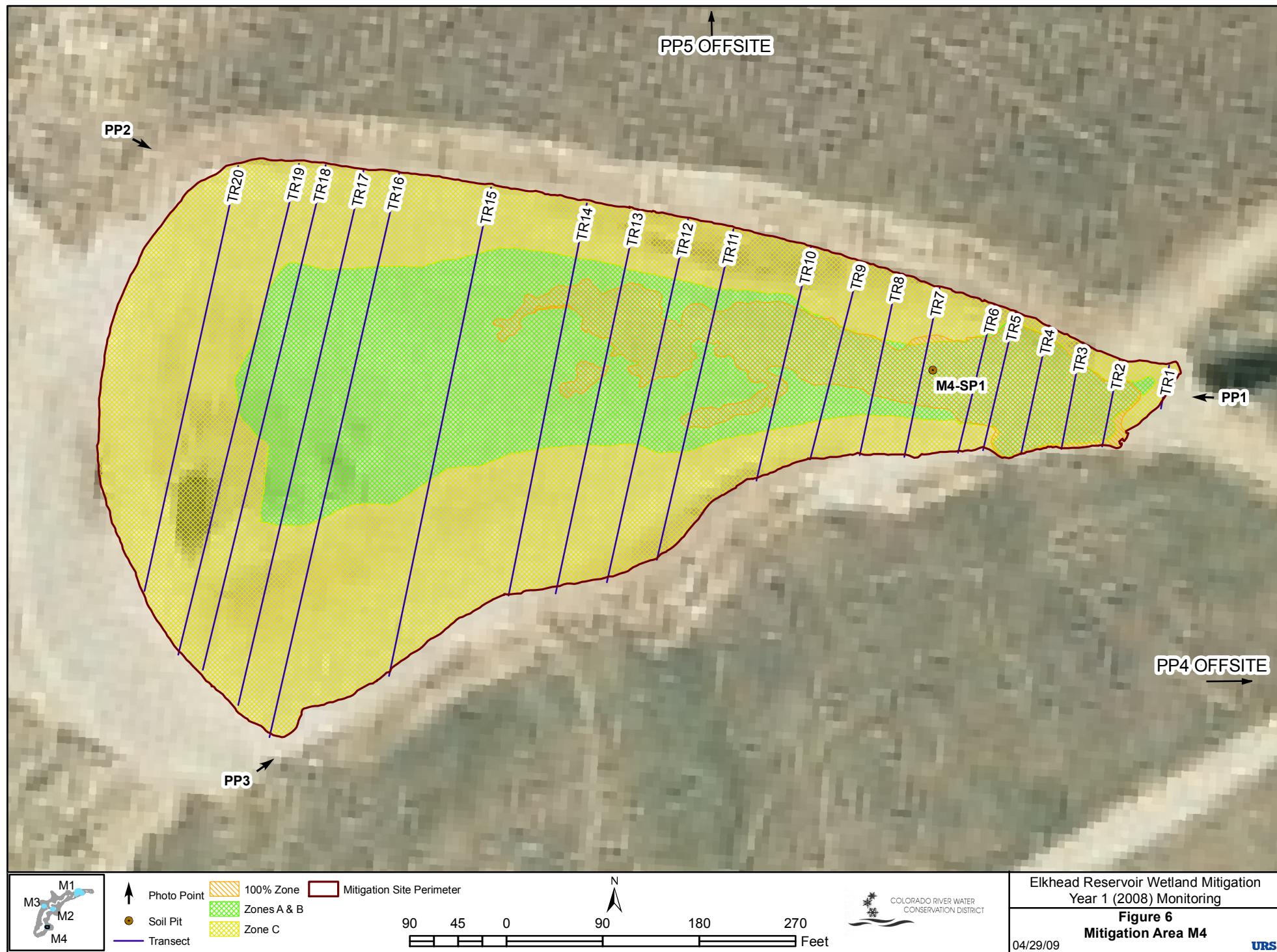


Elkhead Reservoir Wetland Mitigation  
Year 1 (2008) Monitoring

**Figure 5**  
**Mitigation Area M3**

04/29/09

URS



**Appendix B**  
**Photographs**

**Appendix B1**  
**M1 Photographs**



Photograph M1-1. Looking southwest at the northern end of M1 (9/18/2008).



Photograph M1-2. Looking northeast along M1 deposition (9/14/2008).



Photograph M1-3. Looking northeast across M1 at the mouth of Elkhead Creek (9/14/2008).



Photograph M1-4. Looking southeast across M1 at the delta (9/14/2008).

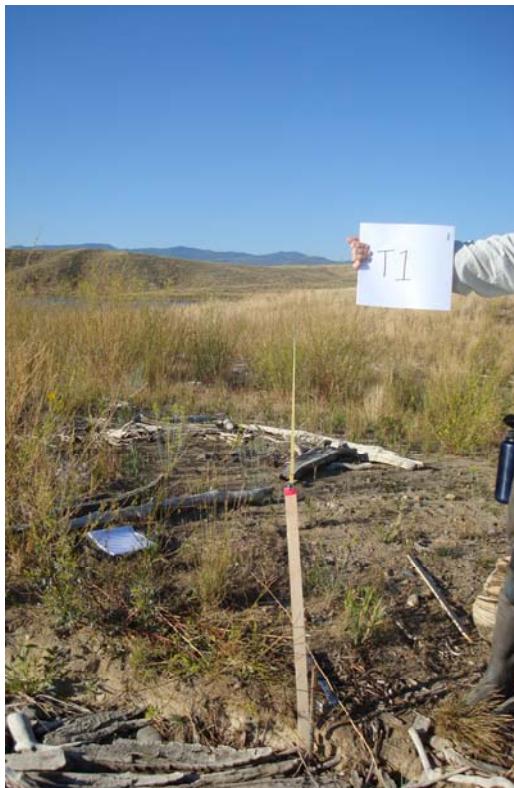


Photograph M1-5. Looking southwest of the substrate along the delta. Tracks belong to wetland monitor (9/14/2008).

**Appendix B2**  
**M2 Photographs**

## APPENDIX B2

## M2 Photographs



Photograph M2-1. Transect 1 (9/8/2008).



Photograph M2-2. Transect 2 (9/8/2008).



Photograph M2-3. Transect 3 (9/8/2008).



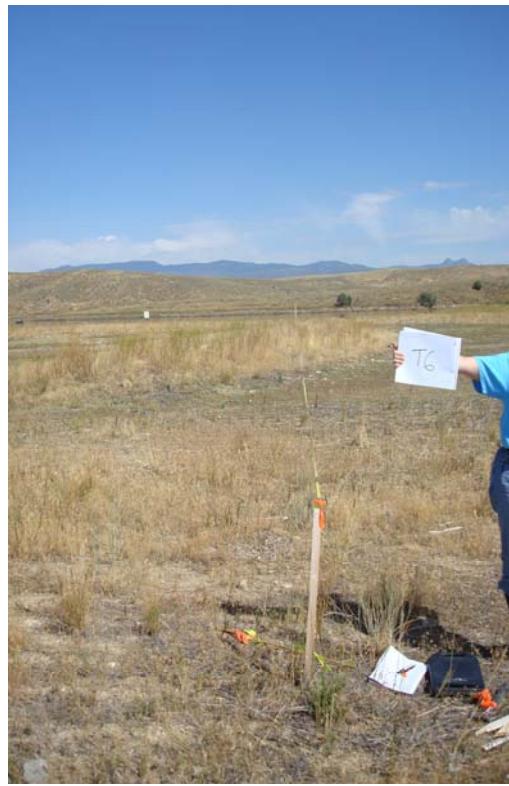
Photograph M2-4. Transect 4 (9/9/2008).

## APPENDIX B2

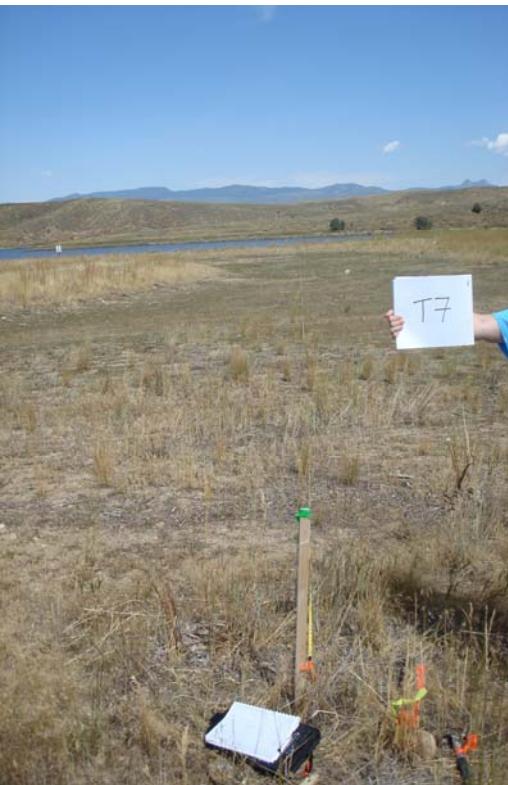
## M2 Photographs



Photograph M2-5. Transect 5 (9/9/2008).



Photograph M2-6. Transect 6 (9/9/2008).



Photograph M2-7. Transect 7 (9/9/2008).



Photograph M2-8. Transect 8 (9/9/2008).

## APPENDIX B2

## M2 Photographs



Photograph M2-9. Transect 9 (9/9/2008).



Photograph M2-10. Transect 10 (9/15/2008).



Photograph M2-11. Transect 11 (9/15/2008).



Photograph M2-12. Transect 12 (9/15/2008).

## APPENDIX B2

## M2 Photographs



Photograph M2-13. Transect 13 (9/15/2008).



Photograph M2-14. Transect 14 (9/15/2008).



Photograph M2-15. Transect 15 (9/15/2008).



Photograph M2-16. Transect 16 (9/15/2008).

## **APPENDIX B2**

## **M2 Photographs**



Photograph M2-17. Transect 17 (9/15/2008).



Photograph M2-18. Photograph Point 1. M2 from the southwest side (9/15/2008).



Photograph M2-19. Photograph Point 2. View of M2 from the northwest side (9/15/2008).



Photograph M2-20. Photograph Point 3. View of M2 from the northeast side (9/15/2008).



Photograph M2-21. Photograph Point 4. View of M2 from the southeast side (9/15/2008).

**Appendix B3**  
**M3 Photographs**

## APPENDIX B3

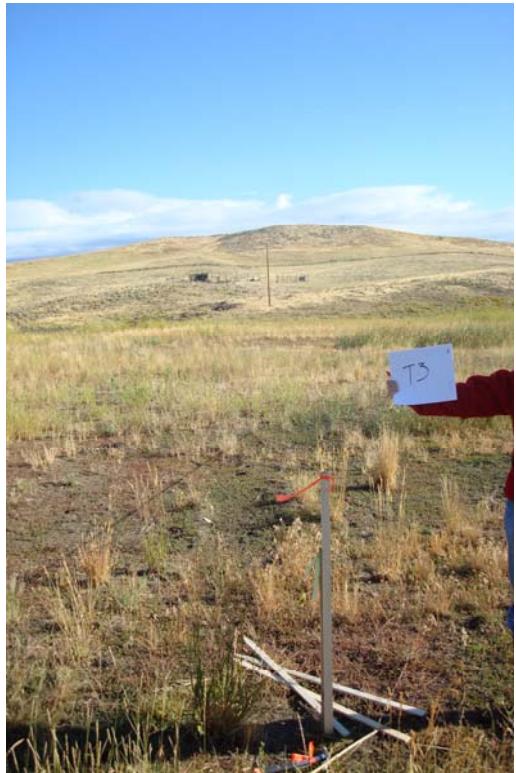
## M3 Photographs



Photograph M3-1. Transect 1 (9/9/2008).



Photograph M3-2. Transect 2 (9/9/2008).



Photograph M3-3. Transect 3 (9/10/2008).



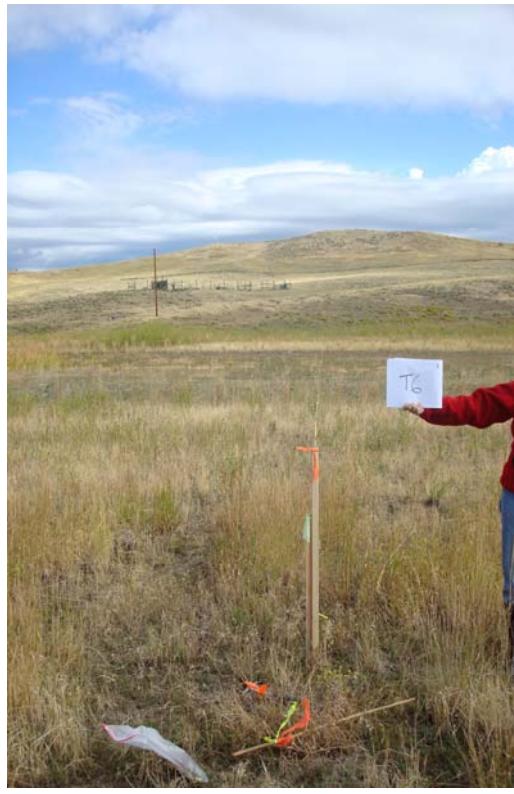
Photograph M3-4. Transect 4 (9/10/2008).

## APPENDIX B3

## M3 Photographs



Photograph M3-5. Transect 5 (9/10/2008).



Photograph M3-6. Transect 6 (9/10/2008).



Photograph M3-7. Transect 7 (9/10/2008).



Photograph M3-8. Transect 8 (9/10/2008).

## APPENDIX B3

## M3 Photographs



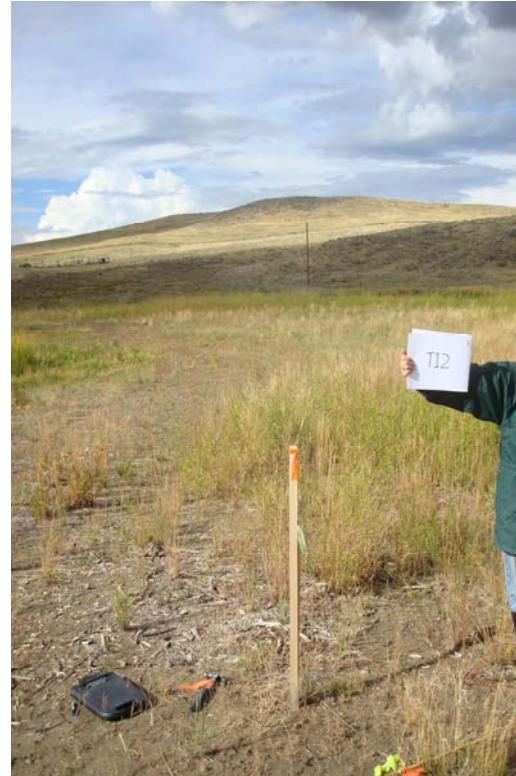
Photograph M3-9. Transect 9 (9/10/2008).



Photograph M3-10. Transect 10 (9/10/2008).



Photograph M3-11. Transect 11 (9/10/2008).



Photograph M3-12. Transect 12 (9/10/2008).



Photograph M3-13. Photograph Point 1. M3 from the southwest (9/10/2008).



Photograph M3-14. Photograph Point 2. M3 from the northwest (9/10/2008).



Photograph M3-15. Photograph Point 3. M3 from the northeast (9/10/2008).



Photograph M3-16. Photograph Point 4. M3 from the southeast (9/10/2008).

**Appendix B4**  
**M4 Photographs**

## APPENDIX B4

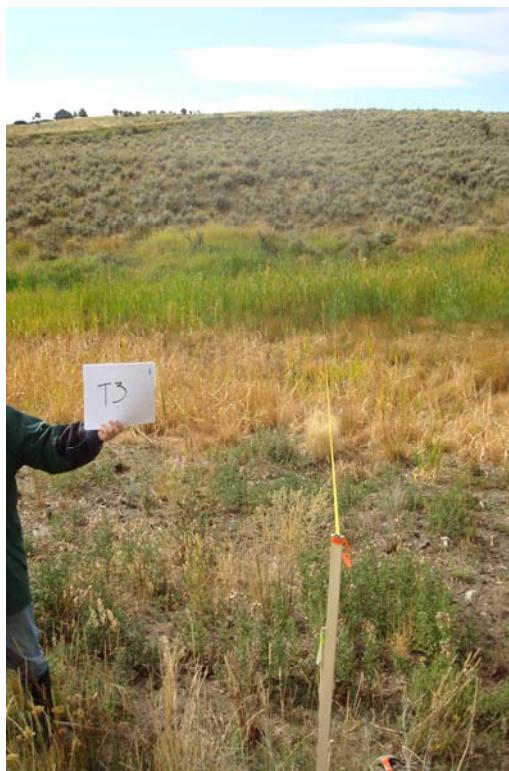
## M4 Photographs



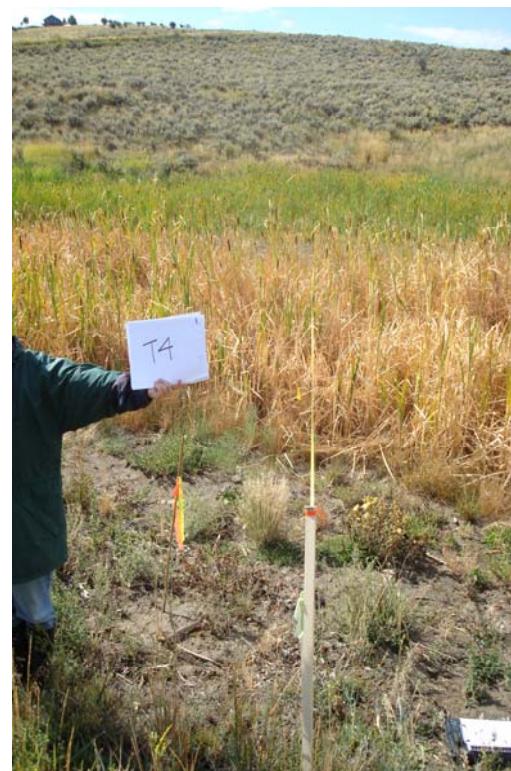
Photograph M4-1. Transect 1 (9/11/2008).



Photograph M4-2. Transect 2 (9/11/2008)..



Photograph M4-3. Transect 3 (9/11/2008).



Photograph M4-4. Transect 4 (9/11/2008).

## APPENDIX B4

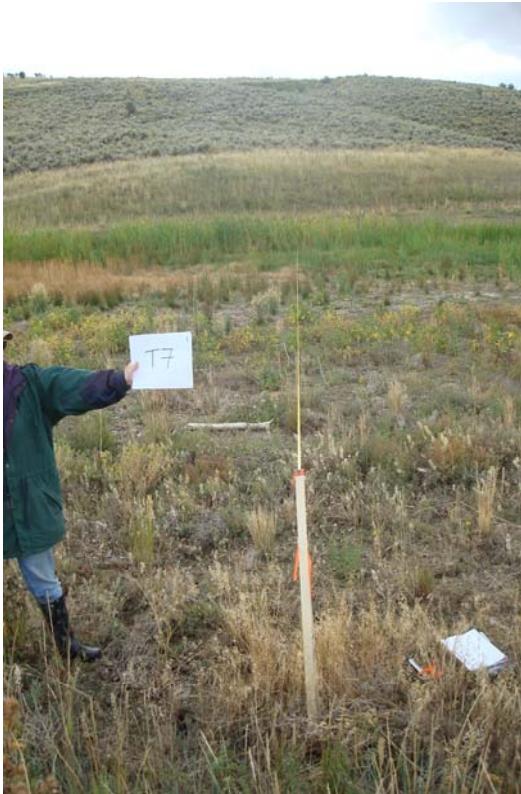
## M4 Photographs



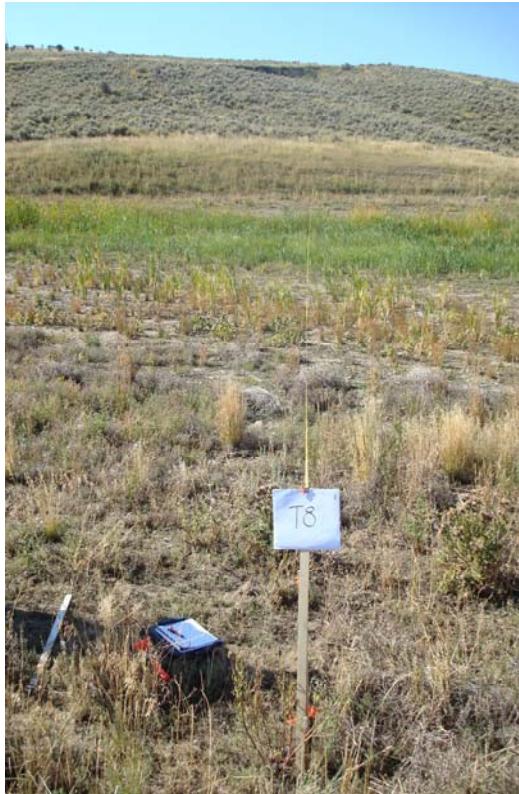
Photograph M4-5. Transect 5 (9/11/2008).



Photograph M4-6. Transect 6 (9/11/2008).



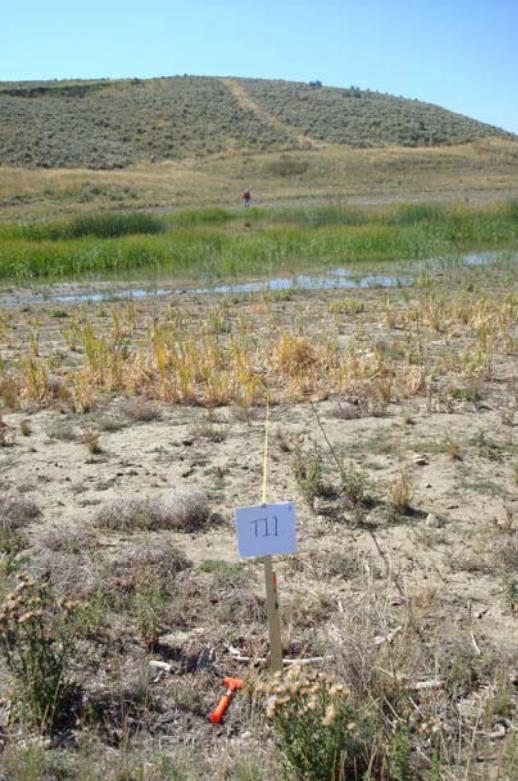
Photograph M4-7. Transect 7 (9/11/2008).

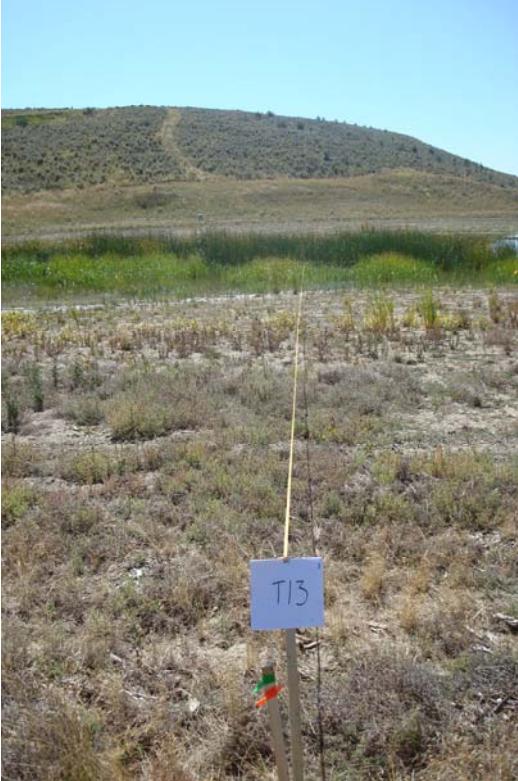
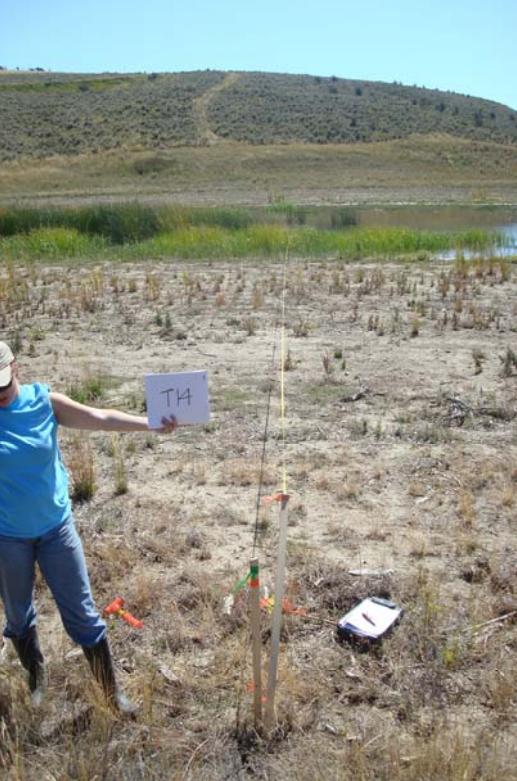


Photograph M4-8. Transect 8 (9/14/2008).

## APPENDIX B4

## M4 Photographs

	
Photograph M4-9. Transect 9 (9/14/2008).	Photograph M4-10. Transect 10 (9/14/2008).
	
Photograph M4-11. Transect 11 (9/14/2008).	Photograph M4-12. Transect 12 (9/14/2008).

	
<p>Photograph M4-13. Transect 13 (9/14/2008).</p> 	<p>Photograph M4-14. Transect 14 (9/14/2008).</p> 
<p>Photograph M4-15. Transect 15 (9/14/2008).</p>	<p>Photograph M4-16. Transect 16 (9/14/2008).</p>

## APPENDIX B4

## M4 Photographs

	
<p>Photograph M4-17. Transect 17 (9/14/2008).</p> 	<p>Photograph M4-18. Transect 18 (9/14/2008).</p> 



Photograph M4-21. Photograph Point 1. M4 from the east (9/10/2008).



Photograph M4-22. Photograph Point 2. M4 from the northwest (9/14/2008).



Photograph M4-23. Photograph Point 3. M4 from the southwest (9/14/2008).



Photograph M4-24. Photograph Point 4. M4 from the southeast (9/14/2008).



Photograph M4-25. Photograph Point 5. M4 from the north on County Road 28 (9/19/2008).

**Appendix C**  
**Transect Data Sheets**

EVIDENCE OF HYDROLOGY  
TOTAL NATIVE: 11/15 = 100

POINTSTAKEN

Project: Elkhead (2008)

Transect Number: T12-T1

EAST SIDE OF TAF

Staff Initials: SH/WAW

Transect Length: 44.5

Date/ Time: 9-8-08

Total Percent Vegetative Cover: 10/15 = 66.7

Data Point Interval: 3 ft.

Percent Wetland Vegetative Cover: 1/15 = 6.7

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BRTE	NL	SEE(1)
2	BG			
3	BG			LARGE WOODY DEBRIS
4	17			
5	BG			
6	BG			
7		BRTE	NL	
8		MELLOTUS OFFICINALIS	FACU	= MEOF
9		AGST	FACW	
10		BRTE		
11		MEOF	FACU	
12		MEOF	FACU	
13		MEOF	FACU	
14		BRTE	NL	
15		BRTE	NL	
16				
17				
18				
19				
20				
21	*	= DENOTES NON-NATIVE OR NOXIOUS SPECIES		
22				
23		(1) UNKNOWN IN CLASS 1 - C3 THEREFORE SAMPLE DEGRADED.		
24		RESEMBLED AND KEYED TO BROMUS TECTORUM.		
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
40				
41				
42				
43				
44				
45				6
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
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66				
67				
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70				
71				
72				
73				
74				
75				
76				
77				
78				
79				

EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER: 12/14 = 85.7

Project: Elkhead (2008)

Transect Number: M2-T2

Staff Initials: SH/WAW

Transect Length: 69.3

Date/ Time: 9/8/08 6pm

Total Percent Vegetative Cover: 14/23 = 60.9

Data Point Interval: 3 ft

Percent Wetland Vegetative Cover: 9/23 = 34.8

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BRTIE	NL	
2		MEOF	FACU	
3	BG			
4	BG			
5		GNAPHALIUM UGLINOSUM	FACW	= GNUL
6		POLYGONUM AVICULARE	UPL	AKA POAV
7		" "		
8	BG			
9	"			
10		GNUL	FACW	
11		" GNUL "	FACW	
12		POAV	UPL	CRACKED SOIL
13		GNUL	FACW	POAV
14		POAV / GNUL	UPL/FACW	
15		GNUL	FACW	
16	BG			CRACKED SOILS
17	Leaf litter	ELEOCHARIS PALUSTRIS	OBL	
18	BG			CRACKED SOILS
19		POAV	UPL	
20	BG			
21		UNKN. CAREX <sup>(1)</sup>	FAC	TOO TINY TO ID - ASSUMED MICROPTERA
22	BG	POAV	UPL	
23				
24				
25				
26				
27	*NEED AT LEAST 80 DATASHEETS FOR YEAR 2			
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				

(1) POINT HIT AN INSTALLED SPECIES (AND NOT C. NEBRASCENS) BASED ON INSTALLATION ZONE.

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
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61				
62				
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73				
74				
75				
76				
77				
78				
79				

EVIDENCE OF HYDRO? Y  
 TOTAL NATIVE COVER:  $19/24 = 79.2$

Project: Elkhead (2008)

Transect Number: M2-T3

Staff Initials: SH/WAW

Transect Length: 121.7

Date/ Time: 8-8-08 6:40 PM

Total Percent Vegetative Cover:  $24/35 = 68.6$  (%)

Data Point Interval: 31 ft

Percent Wetland Vegetative Cover:  $15/35 = 42.9$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		MEOF	FACU	
2		BRTE	NL	
3	BG			
4	LEAF LITTER	MEOF	FACU	
5		" "	FACU	
6		KOSC	FACU	
7		GNUL	FACW	
8	BG			
9		POAV	UPL	CRACKED SOILS
10		" "	UPL	
11		" "	UPL	
12		GNUL	FACW	
13		POAV / GNUL	UPL / FACW	
14		PASM / GNUL	UPL / FACW	
15		GNUL	FACW	
16		" " / BRTE	FACW / NL	
17		GNUL	FACW	
18		POAV / CAREX AQUATILIS	UPL / OBL	
19	BG	POAV	UPL	
20	BG			ROCK
21		ELPA	OBL	
22	BG			PLOVER PRINTS
23	"			CRACKED SOILS
24	"			
25	"			
26	"			
27	"			SATURATED CRACKED SOIL
28	BG	" " "		SATURATED
29		RUPPIA MARITIMA	OBL	SATURATED SOIL
30		" "	" "	" "
31		" "	" "	
32	H <sub>2</sub> O	" " "	" "	(2)
33	"	" " "	" "	(2)
34	"	" " "	" "	(2)
35	"	" " "	" "	(2)
36	"	" " "	" "	(2)
37	BG			
38		EXOENOPLECTUS MARTINUS (OBL)	= SCMA	

(1) THIS SPECIES GROWTH AS A WETLAND  
 DESPITE INFLATION

(2) OPEN WATER PLANTS REMOVED FROM TOTAL - ADD WATER PLANTED ON 1/2

Page 2	Transect No.	M2-T3		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		ELPA	OBL	
40		ELPA / POAV	OBL/UPL	
41				
42			29	
43				
44				
45				
46				
47	** = POINT COUNTS AS 0.5 NONNATIVE			
48				
49				
50				
51				
52				
53				
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60				
61				
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77				
78				
79				

EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $21/28 = 75\%$  GREAT BLUE

Project: Elkhead (2008) Transect Number: M2-T4 HERON  
 Staff Initials: SH/WAW GEESE  
 Date/ Time: 9-9-08 10:00 Total Percent Vegetative Cover:  $22/54 = 51.9\%$  GEESES  
 Data Point Interval: 3 ft Percent Wetland Vegetative Cover:  $10/54 = 18.5\%$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LEAF LITTER			OPEN WATER REMOVED FROM POINT TOTAL -
2	LEAF LITTER			PLANTED
3	"			
4	"			
5	BRYE		NL	
6	CONVOLVULUS ARvensis		NL	A.K.A. COAR
7	CIRSIUM VULGARE		FAC	
8	GNUL / POAV		FAEW/UPL	
9	POAV		UPL	
10	"		UPL	CRACKED SOILS
11	"		UPL	
12	"		UPL	
13	GNUL / POAV		FAEW/UPL	
14	POAV		UPL	
15	GNUL		FAEW	
16	GNUL / POAV		FAEW/UPL	
17	GNUL / POAV		FAEW/UPL	
18	POAV		UPL	
19	LEAF LITTER			
20	BG			
21	"			SATURATED
22	MAY		UPL	"
23	MIX, IMMATURE JUNCUS FRONT	(1)	CRACKED SOILS	
24	BG			SATURATED
25	"			"
26	"			ROCK
27	"			CRACKED SOILS
28	"			" "
29	"			" "
30	"			" "
31	"			
32				WILLOW GROWTH
33	RUPPIA MARITIMA	OBL	SURFACE WATER (2)	
34	"	OBL	" " "	(2)
35	"	OBL	" "	(2)
36	"	OBL	" "	(2)
37	"	OBL	" "	(2)
38	"	OBL	" "	(2)

(1) INSTALLED SPECIES. ALL INSTALLED JUNCUS HAVE INDICATORS OF OBL TO FACWT.

(2) OPEN WATER POINTS REMOVED FROM TOTAL, OPEN WATER PLANTED ON M2

## DEER

Page 2	Transect No.	M2-T4		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		RUPPIA MARITIMA	OBL	SURFACE H <sub>2</sub> O (2)
40		"	OBL	" (2)
41		"	OBL	" (2)
42		"	OBL	" (2)
43		"	OBL	" (2)
44		"	OBL	" (2)
45	BG			SATURATED
46	LEAF LITTER			
47		CAREX MICROPTERA	FAC	DEEP PNNF
48	BG			
49		GNUL	FACW	
50		POAV	UPL	
51		GNUL	FACW	
52		POAV	UPL	
53		POAV	UPL	
54		"	UPL	
55		"	UPL	
56	LEAF LITTER			
57	"			
58	"			
59	BG			
60		BRTF	NL	
61	BG			
62		BRTF	NL	
63		ERTF	NL	
64		BRTF	NL	
65	LEAF LITTER			
66	BG			WOODY DEBRIS
67				
68			40	
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				

EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $30/41 = 73.1$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08 10:36  
 Data Point Interval: 3 ft

Transect Number: M2-T5

Transect Length: 231.6

Total Percent Vegetative Cover:  $41/77 = 53.2$

Percent Wetland Vegetative Cover:  $17/77 = 22.1$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		Lachnagrostis	FACU	WATER GRASS #1
2		BRTE	NL	
3		"		
4		"		
5		"		
6		POAV	UPL	
7		BRTE	NL	
8		GRINDELIA CONIFERA	FACU	
9		POAV	UPL	
10		"	UPL	
11		BROMUS INERMIS	NL	
12		POAV	UPL	
13		"	UPL	
14		GNUL / POAV	FACW/UPL	
15		POAV	UPL	
16		GNUL / POAV	FACW/UPL	
17		POAV	LIPL	
18		GNUL	FACW	PALM UNDERSDAY
19		Polygonum ERECTUM	OBL	PER USACE GUIDANCE USE ADJACENT REGION IND. FOR NI OR NO USED REGIONS + 90°
20		POAV	UPL	
21		POAV / GNUL	UPL/FACW	
22		POAV	UPL	
23	PG			
24	PG			
25		POAV	UPL	
26	PG			
27	"			
28		S. MARITIMUS	OBL	
29		ELEOCHARIS PALLISTRIS	OBL	A.K.A. ELPA
30		PERSICARIA PUNCTATA	OBL	= PEPU (PER WEBER) AKA POLYGONUM PUNCTATUM
31	BG	PEPU	OBL	CRACKED
32		PEPU	OBL	
33		" "	OBL	
34	BG			CRACKED SOILS
35		PEPU	OBL	
36		" "	OBL	
37	PG			SATURATED
38	"			"

Page 2	Transect No.	M2-T5		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40		S. MARITIMUS	OBL	FEATHER
41	BG			
42	"			
43	"			
44		ELPA	OBL	
45		ELPA	OBL	SATURATED
46	BG			"
47	BG			"
48	BG			"
49		PEPU	OBL	
50	BG			
51	LEAF LITTER			SATURATED
52	"			"
53	"			"
54	BG			
55	BG			CRACKED SOILS
56	LEAF LITTER			
57	" "			
58		POAV	UPL	
59		GNUL / POAV	FACUN / UPL	
60		POAV	UPL	
61	BG			
62	"			
63	BG			GOOSE RODP
64		POAV	UPL	
65		BRTE	NL	
66		BRTE	NL	
67		BROMUS INERMIS	NL	= BRIN
68	BG			
69		MEOF	FACU	
70		" "	FACU	
71	BG			
72	BG			
73	"			
74	"			
75	"			
76		BRTE	NL	
77	"			LARGE WOOD DEBRIS
78				
79				

EVIDENCE OF HYDRO: ✓  
 TOTAL NATIVE COVER:  $25/58 = 43.1\%$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08 11:30 AM

Data Point Interval: 3 ft

Transect Number: M2-T6

Transect Length: 256.5

Total Percent Vegetative Cover:  $58/85 = 68.2$

Percent Wetland Vegetative Cover:  $7/85 = 8.2$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LEAF LITTER			
2		BRTE	NL	
3		BRTE	NL	
4		BRTE	NL	
5		BRTE	NL	
6		BRTE	NL	
7		BRTE	NL	
8	BG			
9	"			
10	LEAF LITTER			
11	BG			
12	"			
13	"			
14		POAV	GPL	
15		"	UPL	
16		"	UPL	
17		"	UPL	
18	LEAF LITTER			
19		POAV	GPL	
20		"	UPL	
21	LEAF LITTER			
22		BRTE	NL	
23		BRTE	NL	
24		BRTE	NL	
25		BRTE	NL	
26	"	BRTE	NL	
27		BRTE	NL	
28		BRTE	NL	
29		BRTE	NL	
30		MEOF	FACU	
31	BG			
32	MULCH			DEAD SHRUB
33		BRTE	NL	
34		BRTE	NL	
35		BRTE	NL	
36		BRTE	NL	GOOSE FOOT
37		BRTE	NL	
38		BRTE	NL	

Page 2	Transect No. 6	M2-T6		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		LEPIDIUM LATIFOLIUM	FAC	
40	BG			
41	BG			ROCK
42	BG			
43		LEPIDIUM LATIFOLIUM	FAC	
44	LEAF LITTER			
45		BRTE	NL	
46	BG			
47	BG			
48		BRTE	NL	
49		BRTE	NL	
50		POAV	UPL	
51		"	UPL	
52		"	UPL	
53		"	UPL	
54		"	UPL	
55		"	UPL	
56		BRTE	NL	
57		POAV	UPL	
58		S. MARITIMUS	OBL	
59	BG			CRACKED SOILS
60		ELPA	OBL	
61		"	OBL	
62		PEPY	OBL	
63	"			
64		POAV	UPL	
65		"		
66		"		
67		GNUL	FACW	
68		POAV	UPL	
69		"	UPL	
70		"	UPL	
71		"	UPL	
72		"	UPL	
73		"	UPL	
74	BG			
75	"			
76	"			
77	"			
78		BRTE	NL	
79		MEOF	FACU	

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08

Data Point Interval: 3 ft.

Transect Number: M2-TG

Pg. 3

Transect Length:

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
* 180		*** BRTE	NL	
* 181		MEOF	FACU	
* 182	LEAF LITTER			
* 183	"			
* 184		BRTE	NL	
* 185		BRTE	NL	
7				END TG
8				58
9				
10				
11				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: ✓  
 TOTAL NATIVE COVER:  $39/48 = 84.3\%$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08 12:27

Data Point Interval: 3 ft.

Transect Number: M2-T7

Transect Length: 260.3

Total Percent Vegetative Cover:  $46/88 = 52.3\%$

Percent Wetland Vegetative Cover:  $31/88 = 3.4\%$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2	"			
3		BRTE	NL	
4	LEAF LITTER			
5	"			
6	"			
7		BRTE	NL	
8	LEAF LITTER			
9		BRTE	NL	
10	BG			
11		CIRSUM ACULEATIF	FACU	
12	LEAF LITTER			
13	"			
14		POAV	UPL	
15		"	UPL	
16		"	UPL	
17		"	UPL	
18		"	UPL	
19		"	UPL	
20		"	UPL	
21		"	UPL	
22		"	UPL	
23	BG			
24		POAV	UPL	
25	BG			
26	LITTER			
27		POAV	UPL	CRACKED SOILS
28		"	UPL	
29		"	UPL	
30	BG			
31		POAV	UPL	↓
32	BG			—
33	"			
34		POAV	UPL	
35		"	UPL	
36		"	UPL	
37	BG			
38	"			

Page 2	Transect No.	M2-T7		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40	"			
41	"			
42		POAV	UPL	
43		"	UPL	
44	BG			
45	"			CRACKED SOILS
46	"			CRACKED SOILS
47		POAV	UPL	
48	BG			
49		POAV	UPL	
50		"	UPL	
51		"	UPL	
52		"	UPL	
53		"	UPL	
54	BG			
55		POAV	UPL	
56	BG			
57		POAV	UPL	
58	BG			
59		POAV	UPL	
60		GNUL	FACW	
61	BG			
62		POAV	UPL	
63	BG			
64	"			
65		POAV	UPL	
66		POAV	UPL	
67	LITTER			
68	BG			
69		POAV	UPL	
70		"	UPL	
71		"	UPL	
72	BG			
73		POAV	UPL	
74	LITTER			
75	BG			
76		PEPU	OBL	
77	LITTER			
78		DRTE	NL	
79	BG			

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08

Data Point Interval:

Transect Number: M2-T7

Pg. 3

Transect Length:

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
180	LITTER			
181	"			
182	"			
*183		PEPU	OBL	
584	LITTER			
*585		BRTE	NL	
*586	BG			
*587		BRTE	NL	
588		PASM	NL	END T7
10				
11				47
12				
13				
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15				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: X  
TOTAL NATIVE COVER:  $26/59 = 44.0$

Project: Elkhead (2008)

Transect Number: M2-T8

Staff Initials: SH/WAW

Transect Length: 265

Date/ Time: 9-9-08 12:59 PM

Total Percent Vegetative Cover:  $59/88 = 67.0$

Data Point Interval: 3 FT.

Percent Wetland Vegetative Cover:  $5/88 = 5.7$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		MEOF	FACU	
2		BRIN	NL	
3		"	NL	
4		"	NL	
5		MEOF / GRSQ	FACU / FACU	GRSQ - GRINDELIA SQUAR
6		MEOF	FACU	
7		BRTE	NL	
8		" / BRIN	NL / NL	
9		POAV / GNUL	UPL / FACW	
10	LITTER			
11		POAV	UPL	
12		"	UPL	
13		"	UPL	
14		"	UPL	
15		GNUL	FACW	
16		POAV	UPL	
17	BG			
18		POAV	UPL	
19	BG			CRACKED SOILS
20		GNUL	FACW / UPL	
21		POAV	UPL	
22		GNUL	FACW	
23		POAV	UPL	
24	BG			
25		GNUL / POAV	FACW / UPL	
26		POAV	UPL	
27		"	UPL	
28		"	UPL	
29		"	UPL	
30		"	UPL	
31	BG			
32		BRTE	NL	
33		GNUL		
34	LITTER			
35	"			
36	BG			
37		JUVENILE GRASS	—	
38	LITTER			

Page 2	Transect No.	M2-T8		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		POAN	UPL	
40	BG	MEOF	FACU	
41	LITTER			
42		MEOF	FACU	
43	BG			
44	"			
45	"			
46		MEOF	FACU	
47	BG			
48		MEOF	FACU	
49		BRTF	NL	
50		MEOF	FACU	
51		" BRTF	NL	
52		BRTF	NL	
53		" "	NL	
54		PROMUS INERMIS	NL	
55	BG			
56	"			
57		BRTF	NL	
58		MEOF	FACU	
59	LITTER			
60	"			
61	BG			
62	"			
63		MEOF	FACU	
64		BRTF	NL	
65		"	NL	
66		"	NL	
67		"	NL	
68		"	NL	
69	BG			
70	"			
71		BRTF	NL	
72	BG			
73	LITTER			
74		BRTF	NL	
75		"	NL	
76		PASN	NL	
77		BRTF	NL	
78		MEOF	FACU	
79	BG			

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08

Data Point Interval:

Transect Number: M2-T8

Transect Length:

Pg. 3

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
180		BRTE	NL	
281		MEOF	FACU	SMALL WOODY
282	LARGE WOODY DEBRIS			
183		BRTE	NL	
284		MEOF	FACU	
285	LITTER			
186		BRTE	NL	
287		BRTE	NL	
288	LITTER			END T8
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12				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: N  
 TOTAL NATIVE COVER:  $50/68 = 73.5$

Project: Elkhead (2008)

Transect Number: M2-T9

Staff Initials: SH/WAW

Transect Length: 290.5 ft.

Date/ Time: 9-9-08 1:39 PM

Total Percent Vegetative Cover:  $68/96 = 70.8$

Data Point Interval: 3 ft.

Percent Wetland Vegetative Cover:  $26/96 = 27.1$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		MEOF	FACU	
2		"	FACU	
3	BG			
4		BRW	NL	
5		MEOF	FACU	
6		PASM / GNUL	NL / FACW	
7		BRTE	NL	
8	BG			
9	BG			
10	LITTER			
11		GNUL	FACW	
12		MEOF	FACU	
13		GNUL	FACW	
14	LITTER			
15		CIRSIUM VULGARE	FAC	
16	LITTER			
17		MEOF / ELTR	FACU / NL	
18		BRTE	NL	
19		GRINDELIA SQUARROSA	FACU	
20	BG			
21		PASM	NL	
22	LITTER			
23		BRTE	NL	
24		HORDEUM JUBATUM	FAC	
25	LITTER			
26	BG			
27	BG			ROCK
28	BG			
29		POAV	UPL	
30		"	UPL	
31	BG			
32		GNUL	FACW	
33		POAV	UPL	
34	BG			
35		POAV	UPL	
36	LITTER			
37		POAV	UPL	
38	LITTER			

OUTSIDE  
OBJECTS

COCA  
BULL THISTLE

Page 2	Transect No. 9			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		GNUL	FACW	
40	MULCH			SHRUB HOLE
41	LITTER			
42	"			
43		PEPLU	OBL	
44	LITTER			
45		GNUL	FACW	
46		GRINDELIA SQUARRIGEA	FACU	= GRSQ
47		POAV	UPL	
48		MEOF	FACU	
49		MEOF	FACU	
50		" BRTE	NL	
51		MEOF / POAV	FACU/UPL	
52		POAV	UPL	
53		POAV	UPL	
54		PEPLU	OBL	
55		MEOF	FACU	
56		MEOF	FACU	
57	LITTER			
58	BG			
59	"			
60	"			
61	"			
62		MEOF	FACU	
63	LITTER			
64		POAV	UPL	
65		"	UPL	
66		MEOF / BRTE	FACU/NL	
67		BRTE / POAV	NL/FACU	
68		BRIN / TRAGOPOGON DUBILIS	NL/NL	
69	LITTER			
70	"			
71		POAV	UPL	
72		GNUL	FACW	
73		"	FACW	
74		GNUL / POAV	FACW/UPL	
75		POAV	UPL	TAMERISK
76		UNK (MP AND GRASS)	—	TOO SHATTERED TO ID
77		POAV	UPL	
78		POAV	UPL	
79		GNUL / POAV	FACW/UPL	

Project: Elkhead (2008)		Transect Number: M2-T9 pg. 3		
Staff Initials: SH/WAW		Transect Length:		
Date/ Time: 9-15-08 1:05		Total Percent Vegetative Cover:		
Data Point Interval: 3 ft		Percent Wetland Vegetative Cover:		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80		ELTR	NL	
2 81		GNUL	FACW	
3 82		POAV / GNUL	UPL / FACW	
4 83		POAV	UPL	
5 84		ELTR	NL	
6 85		GNUL	FACW	
7 86		"	FACW	
8 87		"	FACW	
9 88		"	FACW	
10 89		"	FACW	
11 90		"	FACW	
12 91		"	FACW	
13 92		"	FACW	
14 93		LINKN. POA	—	JUVIE
15 94		GNUL	FACW	
16 95		GNUL	FACW	
17 96		GNUL	FACW	
18				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: N  
TOTAL NATIVE COVER:  $78/86 = 90.7$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9/15/08 1:43 PM

Data Point Interval: 3 ft.

Transect Number: M2 - T10

Transect Length: 312.90 ft.

Total Percent Vegetative Cover:  $86/103 = 83.5$

Percent Wetland Vegetative Cover:  $50/103 = 48.5$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LITTER			
2		CIAR	FACU	
3		MEOF	FACU	
4		GRSQ	FACU	
5		MEOF / BRIN	FACU / NL	
6		MEOF	FACU	
7		"	FACU	
8		GNUL	FACW	
9		TAOF	FACU	
10	LITTER			
11		SETARIA GLAUCA	FACU	
12		"	FACU	
13		"	FACU	
14		GNUL	FACW	
15		"	FACW	
16	LITTER			
17		BRTE	NL	
18		GNUL	FACW	
19		" / BRTE	FACW / NL	
20		BRIN	NL	
21		GNUL	FACW	
22		"	FACW	
23		"	FACW	
24		POAV	UPL	
25		GNUL	FACW	
26	LITTER			
27		GNUL	FACW	
28		GRSQ	FACU	
29		GNUL	FACW	
30		POAV	UPL	
31	ROCK			
32		GRSQ	FACU	
33		HOJU	FAC	
34		GNUL	FACW	
35		POAV	UPL	
36		"	UPL	
37	BG			
38		GNUL	FACW	

Page 2	Transect No.	M2-T10		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		ELTR	NL	
40		POAV	UPL	
41	LITTER			
42		POAV	UPL	
43		"	UPL	
44		GNUL	FACW	
45		POAV	UPL	
46	BG			
47		POAV	UPL	
48	BG			
49		GNUL	FACW	
50	BG			
51		POAV	UPL	
52		GNUL	FACW	
53		POAV	UPL	
54		"	UPL	
55	BG			
56		GNUL	FACW	
57		POAV	UPL	
58		"	UPL	
59		GNUL	FACW	
60		"	FACW	
61		POAV	UPL	
62		GNUL	FACW	
63	BG			
64		GNUL	FACW	
65		PASM / GNUL	NL / FACW	SEED MIX (PASM)
66		ELPA	OBL	
67		GNUL / ELTR	FACW / NL	
68		" / ELPA	FACW / OBL	
69		"	FACW	
70		"	FACW	
71		POAV	UPL	
72		GNUL	FACW	
73		"	"	
74		"	"	
75		"	"	
76		" / PIAV	FACW / UPL	
77		GNUL	FACW	
78		"	FACW	
79		"	FACW	

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time:

Data Point Interval:

Transect Number: M2-T10 Pg 3

Transect Length: 291.5 + 21.4

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
x 80	BG			
z 81		GNUL	"	FACW
s 82	BG			
* 83		UNKNOWN JUVIE GRASS	-	UPLAND
8 84		POAV / GNUL		UPL / FACW
8 85		GNUL		FACW
7 86		"		FACW
8 87		"		FACW
9 88		"		FACW
10 89		"		FACW
H 90		POAV		UPL
11 91		GNUL / AMBROSIA ARTEMISIIFOLIA		FACW/FACU
12 92		GNUL		FACW
13 93	BG			
14 94		GNUL		FACW
15 95		COAR		NL
17 96	BG			
18 97		AGROSTIS SPORONIFFA		FACW
19 98		GNUL		FACW
20 99		PASMA		NL
21 100		GNUL		SEED MIX
22 101	BG			
23 102		POAV		UPL
24 103		GNUL		FACW END OF T10
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<u>Page 2</u>	<u>Transect No.</u>			
<u>Data Point</u>	<u>Ground Cover</u>	<u>Species Name</u>	<u>Wetland Indicator Status</u>	<u>Notes</u>
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER: 81/93 = 87.1

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08 2:18 PM

Data Point Interval: 3ft

Transect Number: M2-T11

Transect Length: 286.6 ft.

Total Percent Vegetative Cover: 93/116 = 80.2

Percent Wetland Vegetative Cover: 89/116 = 50.9

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BRIN	NL	
2	BG			
3		BRIN	NL	
4		GNUL / PASM	FACW/NL	PASM IN SEED MIX
5		GNUL	FACW	
6		CIRSIUM VULGARE	FAC	
7		" GNUL	FACW	
8	LITTER			
9		SETARIA GLAUCA	FACU	
10		GNUL	FACW	
11		BRIN	NL	
12		GNUL	FACW	
13		"	FACW	
14		"	FACW	
15	BG	BRIN	NL	
16		GNUL	FACW	
17		"	FACW	
18		"	FACW	
19		PASM	NL	
20		GNUL	FACW	
21		"	FACW	
22		JUBA	OBL	
23		BRIN / GR SQ	NL/FACU	
24	BG			
25	"			
26	LITTER			
27		HOTU	FAC	
28	LITTER			
29		MEDICAGO SATIVA	NL	
30	ROCK			
31	LITTER			
32		GNUL	FACW	
33		"	FACW	
34		"	FACW	
35		"	FACW	
36		POAV	UPL	
37		"	UPL	
38		"	UPL	

Page 2	Transect No. M2-TII			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		ELTR	NL	
40		GRSG	FACU	
41		GNUL	FACW	
42		HOJU / POAV	FAC/UPL	
43		POAV	UPL	
44		PASM	NL	
45		POAV	UPL	
46		"	UPL	
47		BRIN	NL	
48		POAV	UPL	
49		GNUL	FACW	
50		"	FACW	
51		POAV	UPL	
52		HOJU / POAV	FAC/UPL	
53	BG			
54	"			
55	"			
56	"			
57	"			
58		GNUL / POAV	FACW/UPL	
59		GNUL	FACW	
60		"	FACW	
61		"	FACW	
62		"	FACW	
63	BG			
64		PASM	NL	UPLAND SEED MIX
65		GNUL	FACW	
66		"	FACW	
67		"	FACW	
68		"	FACW	
69		"	FACW	
70		"	FACW	
71		"	FACW	
72		GNUL / POAV	POAV/UPL	
73		GNUL / EUPA	FACW/DBL	
74	BG			
75		EUPA	DBL	
76		PASM	NL	UPLAND SEED MIX
77		GNUL	FACW	
78	WOODY DEBRIS			
79		GNUL	FACW	

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08

Data Point Interval:

Transect Number: M2-TII pg. 3

Transect Length: 275

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80		GNUL	FACW	
1 81		AMEROSIA ARTEMISIIFOLIA	FACU	
2 82		GNUL	FACW	
4 83		ACJU	FAC	
5 84		GNUL	FACW	
6 85		TAMARISK	FACW	
7 86		GNUL	FACW	U. 1. 7
8 87		POA COMPRESSA	FACU	
9 88	BG			
10 89		GNUL	FACW	
11 90	BG			
12 91		GNUL	FACW	
13 92		GNUL	FACW	
14 93	BG			SALT DEPOSITS
15 94		GNUL	FACW	
16 95		"	FACW	
17 96		"	FACW	
18 97		"	FACW	
19 98		"	FACW	
20 99		"	FACW	
21 100		BRTE	NL	
22 101	BG			DEAD SHRUB
23 102		GNUL	FACW	
24 103		GRSG	FACU	
25 104		PASM	NL	
26 105		GNUL	FACW	
27 106		CIAR	FACU	
28 107		"	FACU	
29 108		MEOF	FACU	
30 109		"	FACU	
31 110		" (GNUL	FACU/FACW	
32 111		" "	FACU/FACW	
33 112		" / LASE / PASM		→ FACU / FACU / NL
34 113	LTER			
35 114		BRTE	NL	
36 115		CIAR	FACU	
37 116	DEFOLI			END OF TII
38				

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER: 78.5/86 = 89.0

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9/15/08 2:54 PM

Data Point Interval: 3 ft.

Transect Number: M2-T12

Transect Length: 340.8 ft,

Total Percent Vegetative Cover: 86/113 = 76.1

Percent Wetland Vegetative Cover: 61/113 = 54.0

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		ELPR	UL	
2		POAV	UPL	
3		ELTR	NL	
4		XANTHUM STRUMARIUM	FAC	
5		AGROSTIS STOLONIFERA	FACU	
6		ELTR	NL	
7		POAV	UPL	
8		BRIN	NL	
9		SETARIA GLAUCA	FACU	
10		GNUL	FACW	
11		GNUL/BRIN	FACW / NL	
12		PAJM	NL	UPLAND SEED MIX
13	BG			
14		GNUL	FACW	
15		GNUL	FACW	
16	BG			
17		GRSQ	FACU	
18		ELTR	NL	
19		AGST	FACW	
20		AGST	FACW	
21		GNUL	FACW	
22		"	FACW	
23		"	FACW	
24		"	FACW	
25		"	FACW	
26		"	FACW	
27		"	FACW	
28		"	FACW	
29		CIAZ	FACU	
30		GNUL	FACW	
31		"	FACW	
32		"	FACW	
33		"	FACW	
34		"	FACW	
35		"	FACW	
36		ELPA	OBL	
37		GNUL	FACW	
38		"	FACW	

Page 2	Transect No.	M2 - T12		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		PDSM	NL	UPLAND SEED MIX
40		"	NL	
41		GNUL	FACW	
42		AGSD	FACW	
43		GNUL	FACW	
44		"	FACW	
45		"	FACW	
46		"	FACW	
47		"	FACW	
48		EUPA / GNUL	OBL / FACW	
49		GNUL / HQJU	FACW / FAC	
50		GNUL / EUPA	FACW / OBL	
51		GNUL	FACW	
52		"	FACW	
53		"	FACW	
54		"	FACW	
55		CAR	FACU	
56		GNUL	FACW	
57		"	FACW	
58		"	FACW	
59		EUPA	OBL	
60	BG			
61	BG			
62	"			
63		EUPA	OBL	
64	BG			
65	"			
66		EUPA	OBL	
67		EUPA	OBL	
68	BG			
69	DEBRIS			
70	BG			
71	"			
72		EUPA	OBL	
73	BG			
74	BG			ROCK
75	BG			
76	"			
77		EUPA	OBL	
78	BG			
79	BG			

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15

Data Point Interval:

Transect Number: M2-T12 Pg 3.

Transect Length:

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80	BG			
2 81	"			
3 82	"			
4 83	"			
5 84	"			
6 85	LITTER			
7 86		EUPA	OBL	SATURATED
8 87		CAREX AQUATILIS	OBL	SATURATED
9 88		CAREX AQUATILIS	OBL	SATURATED
10 89		GNUL	FACW	
11 90		AGST	FACW	Agrostis stolonifera
12 91		GNUL	FACW	
13 92		GNUL/ECCR	FACW/FACW	
14 93		GNUL	FACW	
15 94		"	FACW	
16 95		MENTHA ARvensis	FACW	
17 96		GNUL	FACW	
18 97		"	"	
19 98		"	"	
20 99		CAREX MICROPTERA	FAC	HAVE SAMPLE
21 100	BG			
22 101	"			
23 102	"			
24 103		AGGI	NI	
25 104		MEOF	FACU	
26 105		PAEM/MEOF	NL/FACU	PAEM-SEED MIX
27 106		COCA	UPL	CONYZA CANADENSIS
28 107		MEOF	FACU	
29 108		MEOF	FACU	
30 109	LITTER			
31 110		BETE	NL	
32 111		MEOF	FACU	
33 112		MEOF	FACU	
34 113		MEOF /BRIN	FACU/NL	
35				END OF T12
36				
37				
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<u>Page 2</u>	Transect No.	Species Name	Wetland Indicator Status	Notes
Data Point	Ground Cover			
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EVIDENCE OF HYDRO; V  
TOTAL NATIVE COVER:  $39/45 = 86.7$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08

Data Point Interval: 3 ft.

Transect Number: M2-T13

Transect Length: 338 ft.

Total Percent Vegetative Cover:  $45/99 = 45.4$

Percent Wetland Vegetative Cover:  $31/99 = 27.7$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2	WOODY DEBRIS			RAFTED
3		MEOF	FACU	
4		CIRSIUM VULGARE	FAC	
5		"	FAC	
6		CIRSIUM VULGARE/MEOF	FAC/FACU	
7		ELTR	NL	SEED MIX
8		GRSQ	FACU	
9	LITTER			
10	"			
11	"			
12		CIRSIUM VULGARE	FAC	
13		MEOF	FACU	
14	LITTER			
15	"			
16		POAU	UPL	
17	BG			
18		POAV	UPL	
19	BG			
20		GNUL	FACW	
21		"	FACW	
22		"	FACW	
23		JUBA	OBL	
24		GNUL	FACW	
25	BG			
26	"			
27	"			
28		GNUL	FACW	
29		POAV	UPL	
30		JUBA	OBL	
31	BG			CRAYFISH - DEAD
32		SCMA	OBL	
33	BG			
34	"			
35	"			
36		SCPV	OBL	
37		EUPA	OBL	
38	BG			z1

(1) OPEN WATER POINTS REMOVED FROM TOTAL POINTS  
OPEN WATER PLANNED ON 1/2.

Page 2	Transect No.	M2-TB		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40	h.			
41		POLYGONUM BRACTUM	OBL	=POER
42		ELPA	OBL	CLAR
43	BG			
44		POER	OBL	
45	BG			
46	h.			
47	ROCK			
48	h			
49	ll			
50	ll			
51	ll			
52		ELPA	OBL	
53	h.			
54	ll			
55	ll			
56		ELPA	OBL	
57	BG			
58	BG			
59	H <sub>2</sub> O			NOT COUNTED (1)
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72	BG			
73	h.			
74	ll			
75	ll			
76	ll			
77	ll			
78		ELPA	OBL	
79	BG			

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08

Data Point Interval:

Transect Number: M2-T13 pg. 3

Transect Length:

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
X 80	BG			SNAIL SHELL - GASTROPOD
X 81	BH			
3 82	II			
4 83	II			
5 84	II			
6 85		ELPA	OBL	
7 86	BG			
8 87		ELPA	OBL	
9 88	BG			
10 89	II			
11 90	II			
12 91		CAREX AQUATILIS	OBL	SEEDLING (S. AMYGDAL)
13 92		ELPA	OBL	(S. EXIGUA)
14 93	ROCK			
15 94		GNUL	FACW	
16 95	BG			PIPER LINE
17 96		GNUL	FACW	
18 97		CAREX MICROPTERA	FAC	
19 98		JUBA / GNUL	OBL/FACW	
20 99		GNUL	FACW	
21 100		II	FACW	
22 101	ROCK			
23 102	BG			
24 103	LITTER			
25 104		BRIN	NL	
26 105		ELTR	NL	UPLAND SEED MIX
27 106		COCA	-UPL	
28 107		GNUL	FACW	
29 108		PASM	NL	UPLAND SEED MIX
30 109		ELTR	NL	" "
31 110	LITTER			
32 111		BRIN	NL	
33 112		"	NL	
34				END OF T13
35				
36				
37				
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<u>Page 2</u>	<u>Transect No.</u>			
<u>Data Point</u>	<u>Ground Cover</u>	<u>Species Name</u>	<u>Wetland Indicator Status</u>	<u>Notes</u>
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EVIDENCE OF HYDRO: Y  
TOTAL NATIVE COVER:  $36/48 = 75.0$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08

Data Point Interval: 3 FT

Transect Number: M2-T14

Transect Length: 336.6 ft

Total Percent Vegetative Cover:  $48/95 = 50.5$

Percent Wetland Vegetative Cover:  $22/95 = 23.2$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BRI(N)	NL	
2		BRI(E)	NL	
3		MEOF	FACU	(BULL THISTLE)
4		"	"	
5		"	"	
6		"	"	
7		BRI(N)	NL	
8		MEOF	FACU	
9		CIRSIUM VULGARE	FAC	
10		MEOF	FACU	
11	LITTER			
12		MEOF	FACU	
13		CIRSIUM VULGARE	FAC	
14		"	FAC	
15		PASM	NL	SEED MIX
16		ELTR	NL	"
17	LITTER			
18		PASM	NL	"
19	BG			
20		POAV	UPL	
21		"	UPL	
22		"	UPL	
23		ECCR	FACW	
24	BG			
25		GNUL	FACW	
26		CAREX AQUATILIS	OBL	
27		PASM	NL	SEED MIX
28		SCPU	OBL	
29	BG			(D)
30	BG			"
31				"
32				"
33				"
34				"
35				"
36				"
37				"
38				"

(1) OPEN WATER POINTS REMOVED FROM TOTAL POINTS. OPEN WATER PLANNED ON M2.

Page 2	Transect No.	MZ - TW		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	/			(D)
40	/			II
41	/			H
42	/			H
43	/			H
44	/			H
45	/			H
46	/			H
47	/			
48		ELPA	OBL	SATURATED
49	BG			
50	II			
51	II			
52	II			
53	II			
54	II			
55	II			
56	II			
57	II			
58		POAV	UPL	
59	II			
60	II			
61	II			
62	II			
63	II			
64	II			
65	II			
66	II			
67	II			
68	II			
69	II			
70	II			
71	II			
72	II			
73				
74				
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Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time:

Data Point Interval:

Transect Number: M2 - T14 Pg 3

Transect Length:

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
180	BG			
181		RANUNCULUS CUMBALARIA	OBL	
182		"	OBL	
183	BG			
184		CAREX ROSTRATA	OBL	
185		S. EXIGUA	OBL	SNAK SHELL
186	BG			
187		RANUNCULUS CUMBALARIA	OBL	
188		UNK. SALIX / EUPA	OBL	SEEDLINGS
189		SCMA	OBL	
190		POAV / SEEDLING SALIX	UPL / FACW	
191		EUPA	OBL	
192		LEPTOCLOA FASCULARIS	OBL	(TAMARISK)
193		"	OBL	
194	BG			
195		LEPTOCLOA FASCULARIS	OBL	
196		"	OBL	
197		PASM	NL	SEED MIX
198	BG			
199		" CHAL	FACU	
200	BG			
201		POAV	UPL	
202	LITTER			
203		BRT	NL	
204	BG			
205		PASM / HOJU	NL / FAC	
206		PASM	NL	
207		POAV	UPL	
208		EUT	NL	
209		POAV	UPL	
210	LITTER			
211	"			END OF T14
33				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: X  
TOTAL NATIVE COVER:  $36.5 / 57 = 64.0$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08 4:50

Data Point Interval: 3 ft.

Transect Number: M2-T15

Transect Length: 305.5 ft

Total Percent Vegetative Cover:  $57 / 73 = 78.0$

Percent Wetland Vegetative Cover:  $16 / 73 = 21.9$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		MEOF / BRTE	FACU/NL	
2		BRTE	NL	CARPETED W/ BULL
3		MEOF / BRTE	FACU/NL	THISTLE SEEDS
4		MEOF / GRSQ	FACU→	
5		MEOF	FACU	
6		"	FACU	
7		"	FACU	
8		"	FACU	
9		BRTE	NL	
10		"	NL	
11		"	NL	
12		"	NL	
13		"	NL	
14		"	NL	
15		MEOF / BRTE	FACU/NL	
16		"	"	
17		CIRSIUM VULGARE	FAC	
18		MEOF	FACU	
19		"	FACU	
20		"	FACU	
21	Pg			
22		POAV	UPL	
23		PDPM	NL	SEED MIX
24		SETARIAGLUICA	FACU	
25		GNUL	FACW	
26		POAV	UPL	
27	Bg			(1)
28	"			"
29	"			"
30	"			"
31	"			RACOON (1)
32	"			"
33	H <sub>2</sub> O			"
34	"			"
35				"
36				"
37			CS	"
38	↓			"

(1) POINTS REMOVED FROM TOTAL. OPEN WATER PLANNED ON MT.

Page 2	Transect No.	M2-T15		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40	"	CAREX ROSTRATA	OBL	
41	"			
42		PASM	NL	
43		CHAL	FACU	
44		PASM	NL	
45		GNUL	FACW	
46		CHAL	FACU	
47	BG			
48	"			
49	"			
50	"	CAREX ROSTRATA	OBL	R TAMARISK
51		ELPD	OBL	
52		ELPA	OBL	
53	BG			ID
54	"			"
55				"
56				"
57				"
58				"
59				"
60				"
61				"
62				"
63				"
64				"
65				"
66				"
67				"
68	↓			"
69	BG			
70		SCMA	OBL	
71		UNK JUNCUS	FACW+	NO FRUIT
72	BG			
73		SCP	OBL	
74		CIAR	FACU	
75		GNUL	FACW	
76		CIAR	FACU	
77		GNUL	FACW	
78		"	FACW	
79		HN	FACW	

Project: Elkhead (2008)

Transect Number: M2-T15

Pg. 3

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-15-08

Total Percent Vegetative Cover:

Data Point Interval:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80		GNUL	FACW	
2 81	BG			
3 82	"			
4 83		CHAL	FACU	
5 84	BG			
6 85		POAV	UPL	
7 86		"	UPL	
8 87		"	UPL	
9 88		"	UPL	
10 89		CHAL	FACU	
11 90		POAV	UPL	
12 91	LITTER			
13 92		GNUL	FACW	
14 93	LITTER			
15 94	BG			
16 95		POAV	UPL	
17 96	BG			
18 97		ELTR	NL	SEED MIX
19 98		POAV	UPL	
20 99	LITTER			
21 100		BRIN	NL	
22 101		MEOF	FACU	
23				
24				
25				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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EVIDENCE OF HNUKO, Y  
TOTAL NATIVE COVER:  $40/60 = 66.7$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08 5:24 PM

Data Point Interval: 3 ft.

Transect Number: M2-T16

Transect Length: 296.1 ft.

Total Percent Vegetative Cover:  $60/75 = 80.0$

Percent Wetland Vegetative Cover:  $23/75 = 30.7$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	Litter			
2		BRIN	NL	
3		MEOF	FACU	
4		MEOF	FACU	
5		MEOF	FACU	
6	Litter			
7		MEOF	FACU	
8		MEOF	FACU	
9		MEOF	FACU	
10		MEOF	FACU	
11		MEOF	FACU	
12		MEOF	FACU	
13		MEOF	FACU	
14		LASE	FACU	
15		PASM	NL	SEED MIX
16		BRTB	NL	
17		MEOF / BRTB	FACU/NL	
18		ELTK	NL	SEED MIX
19	LITTER			OWLS
20		BRTB	NL	
21		PASM	NL	
22		BRTB	NL	
23		MEOF	FACU	
24		CIRSIUM VULGARE	FAC	
25		BRIN	NL	
26		MEOF	FACU	
27		PASM	NL	
28		"	NL	
29		C. MICROPTERA	FAC	
30		UNK JUNCUS	FAGN	NO FRUIT
31		GNUL	FAGN	
32		UNK JUNCUS	FAGW	NO FRUIT
33		POAV	UPL	
34		C. AQUATILIS	OBL	
35		C. AQUATILIS	OBL	
36	BG			
37	"	SCPU	OBL	3
38				

(1) POINTS REMOVED FROM TOTAL OPEN WATER PLANNED ON M2.

Page 2	Transect No.	M2-T16		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			(D)
40				FISH (D)
41				" "
42				" "
43				" "
44				" "
45				" "
46				" "
47				" "
48				" "
49				" "
50				" "
51				" "
52				b
53				" "
54				" "
55				" "
56				" "
57				" "
58				" "
59				" "
60				" "
61				" "
62	✓			
63		ELPA	OBL	
64	BG			
65		LEPTOCLOA FASICULARIS	OBL	
66	BG			
67	"			
68	"			
69		LEPTOCLOA FASICULARIS	OBL	
70		ELPA	OBL	
71		GNUL	FACW	
72	"	" "	FACW	
73		JUNCUS TORRYI	FACW+	
74		GNUL	FACW	
75		GNUL	FACW	
76		GNUL	FACW	
77		J. NODOSUS	OBL	
78		POAV	UPL	
79		"	UPL	

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9:15 -

Data Point Interval:

Transect Number: M2-T16 Pg. 3

Transect Length: 296.1

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80		UNKN GRASS	-	11/12 4/11
2 81		UN KN GRASS	FACU	
3 82		UN KN GRASS	-	
4 83		HOJU	FAC	
5 84		HOJU / GNUL	FAC/FACW	
6 85		GNUL	FACW	
7 86		CHAL	FACU	
8 87		POAV	UPL	
9 88		HOJU	FAC	
10 89	LITTER			
11 90	"			
12 91	"			
13 92		BRIN	NL	
14 93	LITTER			
15 94		BRTE	NL	
16 95		BRIN	NL	
17 96		BRTE	NL	
18 97		COCA	UPL	
19 98	LITTER			
20				END OF T16
21				
22				
23				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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EVIDENCE OF HYDRO:  
TOTAL NATIVE COVER:  $85/85 = 64.7$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-16-08 5:47 PM

Data Point Interval: 3 ft.

Transect Number: M2-T17

Transect Length: 298.3

Total Percent Vegetative Cover:  $85/99 = 85.9$

Percent Wetland Vegetative Cover:  $38/99 = 38.4$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BRTE	NL	
2		LASE	FACU	
3		MEOF	FACU	
4		BRIN	NL	
5		PASM	NL	SEED MIX
6		LASE	FACU	
7	LITTER	!		
8		MEOF	FACU	
9		CIAZ	FACU	
10		LASE	FACU	
11		MEOF	FACU	
12		CIRSIUM VULGARE	FAC	
13		BRTE	NL	
14	LITTER			
15		LASE	FACU	
16		BRTE	NL	
17		LASE	FACU	
18		LASE	FACU	
19		CIRSIUM VULGARE	FAC	
20	LITTER			
21	!!			
22		LASE	FACU	
23		BRTE	NL	
24		LASE	FACU	
25		BRTE	NL	
26		LASE	FACU	
27		BRTE	NL	
28		ELTR	NL	SEED MIX
29		MEOF	FACU	
30		ELTR	NL	
31		!!	NL	
32		J. LONGISTYLUS	FACWT	
33		POAV	UPL	
34	LITTER			
35		ELTR	NL	
36		GNUL	FACW	
37	BG			
38		!! GNUL	FACW	

Page 2	Transect No.	M2-T17		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		GNUL	FACW	
40		"	FACW	
41		PASM	NL	
42		POAV	UPL	
43		AGST	FACW	
44		GNUL / AGST	FACW / FACW	
45		GNUL	FACW	
46		AGST	FACW	AGROSTIS
47		GNUL	FACW	
48		"	FACW	
49		ELPA	OBL	
50		GNUL	FACW	
51		JUBA / AGST	OBL / FACW	
52		GNUL	FACW	
53		"	FACW	
54		UNK JUNCUS	FACW	NO FRUIT
55		"	FACW	
56		J. TORRYI	FACWT	
57		GNUL	FACW	
58		LEPTOCHLOA FASICULARIS	OBL	
59		GNUL	FACW	
60		"	FACW	
61		GNUL / LEPTOCHLOA	FACW / OBL	L. FASICULARIS
62		J. TORRYI	FACWT	
63		PASM	NL	SEED MIX
64		LEPTOCHLOA FASICULARIS	OBL	
65		GNUL	FACW	
66		ELPA	OBL	
67		GNUL / ELPA	FACW / OBL	
68		GNUL	FACW	
69		LEPTOCHLOA FASICULARIS	OBL	
70		GNUL	FACW	
71		ECCR	FACW	
72		LEPTOCHLOA FASICULARIS	OBL	
73	LITTER			
74	"			
75		PASM	NL	SEED MIX
76		PASM	NL	"
77		ECCR	FACW	
78		ELPA	OBL	
79	BA			

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-15-08

Data Point Interval:

Transect Number: M2-T17

Transect Length: 298.3

Total Percent Vegetative Cover:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80		POAV	UPL	
2 81	LITTER			
3 82		BRIN	NL	
4 83	LITTER			
5 84	"			
6 85	"			
7 86		MEOF	FACU	
8 87		"	FACU	
9 88		BRIN	NL	
10 89		MEOF	FACU	
11 90		"	FACU	
12 91		BRIN	NL	
13 92	LITTER			
14 93		BRTE	NL	
15 94		MEOF	FACU	
16 95		COCA	UPL	
17 96		MEOF	FACU	
18 97		EUR	NL	
19 98		PASM	NL	SEED MIX
20 99		"	NL	
21				END OF T17
22				
23				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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## TIRETRACKS WEST END

EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER: 52/51 = 62.8 CLOUDY

Project: Elkhead (2008)

Transect Number: M3-T1 CATTLE

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-9-08 5:19 PM

Total Percent Vegetative Cover: 51/81 = 63.0

Data Point Interval: 3 FT

Percent Wetland Vegetative Cover: 17/81 = 21.0

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		ECHINACHLOA CRUS-GALLI FACW	= ECCR	
2	BG			
3	BG			
4	"			
5	MULCH			
6	BG			
7	"			SALT DEPOSITS
8	"			"
9	"			"
10	LITTER			
11	BG			SALT DEPOSITS
12	BG			" "
13	BG			" "
14		AGROSTIS STOLONIFERA	FACW	
15		POA V	UPL	
16		MEDICAGO SATIVA	NL	
17	LITTER			
18	"			
19	BG			
20	"			
21		MEOF	UPL	
22	LITTER			
23	BG			
24		ECCR	FACW	
25		"	FACW	SALT DEPOSITS
26	LITTER			
27		ECCR	FACW	
28	BG			
29		TYAN	OBL	
30		ECCR	FACW	
31	BG			
32		JUNCUS PIGTIUS	OBL	M2
33		ECCR/ TRICLOCHLUM MARITIMUM	FACW/OBL	
34		ECCR	FACW	
35		JUBA	OBL	M2
36		ECCR	FACW	
37		PASN	NL	
38		PASN	NL	

CIRSIUM VULGARE

Page 2	Transect No.	M3-T1		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		TYAN / POAV	OBL / UPL	
40		POAV	UPL	
41		"	UPL	
42		"	UPL	(Canada Thistle)
43	MULCH			SHRUB HOLE
44		AGROSTIS STOLONIFERA	FACW	
45		HORDIUM JUBATUM	FAC	= HOJU
46		POAV	UPL	
47		POAV	UPL	
48		"	UPL	
49	LITTER			
50		BRTE	NL	
51		MEOF	FACU	
52		"	FACU	
53		"	FACU	
54		"	FACU	
55	BG			
56	MULCH			SHRUB HOLE
57		MEOF	FACU	
58		POAV	UPL	
59		MEOF	FACU	
60	BG			
61		POAV	UPL	
62	BG			
63		POAV	UPL	
64		BRTE	NL	
65	BG			
66		MEOF	FACU	
67		"	FACU	
68		POAV	UPL	
69		MEOF	FACU	(COAR)
70		POAV	UPL	(COAR)
71		AGROSTIS STOLONIFERA	FACW	
72	BG			
73		POAV	FACU	
74	BG			
75		POAV	FACU	
76		POAV / ELPA	upL/OBL	
77		POAV	UPL	
78		"	UPL	
79		POAV	UPL	
80		POAV	UPL	
81		POAV	UPL	

EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER  $31.5 / 45 = 70.0$  Common Mallow

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-9-08 6:00 PM

Data Point Interval: 3 ft.

Transect Number: M3-T2

Transect Length: 227.8 ft.

Total Percent Vegetative Cover:  $45 / 75 = 60.0$

Percent Wetland Vegetative Cover:  $3 / 75 = 10.7$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		POAV	UPL	
2	BG	"		
3		POAV	UPL	
4		"	"	
5		"	"	
6		"	"	
7	BG			
8	"			
9		POAV	UPL	
10	BG			
11	"			
12	LITTER			
13		MEOF	FACU	
14	BG			
15		MEOF	FACU	
16		"	FACU	
17		"	FACU	
18		"	FACU	
19	BG			
20		AGROSTIS STOLONIFERA	FACW	= AGST
21	BG			
22	BG			
23		MEOF/AGST	FACU/FACW	
24		PASM	NL	
25		MEOF	FACU	
26		" AGST	FACW	
27	LITTER			
28		MEDICAGO SATIVA	NL	
29	BG			
30	BG			cracked soil
31		POAV	UPL	
32		"	UPL	
33		"	UPL	
34		"	UPL	
35	BG			
36		"	UPL	
37		"	UPL	
38	MULCH			SHALLOW HOLE

Page 2	Transect No.	M3-TZ		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		POAV	UPL	
40	LITTER			
41		PASM	NL	
42		POAV	UPL	
43	LITTER			
44	BG			
45	LITTER			
46		POAV	UPL	
47		"	UPL	
48		"	UPL	
49	LITTER			
50	MULCH			
51		POAV	UPL	
52		"	UPL	
53		"	UPL	
54		"	UPL	
55	BG			CRACKED SOIL
56	BG			ROCK
57	BG			
58		AGST	FACW	
59		POAV	UPL	
60		AGST	FACW	
61	LITTER			
62		MEOF	FACU	
63		"	FACU	
64	BG			
65		MEDICAGO SATIVA	NL	
66		" AGST	FACW	
67		" MEOF	FACU	
68	BG			
69		" AGST	FACW	
70	LITTER			DEER SCAT
71	BG			
72	LITTER			
73		PASM	NL	
74		LACTUCA SEPIRIOLA	FACW	
75		CIRSIUM VULGARE	FAC	
76				
77				
78				
79				

Partly Cloudy

EVIDENCE OF HYDRO: ✓  
TOTAL NATIVE COVER:  $17/20 = 85.0$

Project: Elkhead (2008)

Transect Number: M3-T3

Staff Initials: SH/WAW

Transect Length: 222.4 ft

Date/ Time: 9-10-08 8:45 AM

Total Percent Vegetative Cover:  $20/43 = 46.5$

Data Point Interval: 5 Ft.

Percent Wetland Vegetative Cover:  $5/43 = 11.6$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		PASM	NL	DIFF FROM N2
2		POAV	UPL	
3		POAV	UPL	
4	LITTER			
5		POAV	UPL	
6		POA PALUSTRIS	FACW	
7	BG			
8	BG			
9	"			
10	"			
11	"			
12	"			
13	MULCH			
14	BG			
15		MEOF	FACW	
16		POAV	UPL	
17		AGST	FACW	
18	BG			
19	LITTER			
20	BG			
21		ECCR	FACW	
22		POAV	UPL	
23		"	UPL	
24		"	UPL	
25		"	UPL	
26	BG			
27	"			
28	"			CRACKED SOIL
29	"			CRACKED SOIL
30		PEPU	OBL	
31	BG			
32	"			
33	"			
34		PASM	NL	
35		POAV	UPL	
36	LITTER			
37	BG			
38		BRIN	NL	

## YELLOW HEADED BLACK BIRD

Page 2	Transect No.	M8-T3		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		BRN/AGST	NL/FACW	
40		ECTR	NL	SEED MIX
41	BG			
42	MULCH			
43		MEOF	FACW	
44				
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $21/24 = 87.5$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-08 9:24 AM

Data Point Interval: 5 FT

Transect Number: M3-T4

Transect Length: 205.5 ft.

Total Percent Vegetative Cover:  $24/41 = 58.5$

Percent Wetland Vegetative Cover:  $9/41 = 22.0$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		POA PALUSTRIS	FAC W	
2	" "		FAC W	
3	BG			CRACKED SOIL
4	LITTER			
5		PASM	NL	
6	LITTER			
7		AEGILOPS CYLINDRICA	NL	(O. LIST B)
8	BG			
9	LITTER			
10	BG			
11		PASM	NL	
12		POAV	UPL	
13	BG			
14		POAV	UPL	MULCH
15	BG			
16	"	POAV	UPL	
17	BG			
18	BG			
19	LITTER			
20	BG			
21		POAV	UPL	
22		POAV	UPL	
23	BG			
24	LITTER			DEAD RUPPIA
25		SCIRPUS VALIDUS	OBL	SURFACE H <sub>2</sub> O
26		SCIRPUS ACUTUS	OBL	"
27	" "		OBL	"
28	" "		OBL	"
29	" "		OBL	"
30		SCIRPUS VALIDUS	OBL	"
31		POA PALLISTRIS	FAC W	
32		POAV	UPL	
33		PASM	NL	LIT
34		UNKN. FORB	-	
35		PASM	NL	
36	LITTER			
37	BG			
38	BG			

Page 2	Transect No.	M3-T4		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		CIRSIUM VULGARE	FACU	
40		MEOF	FACU	
41		PASM	NL	
42				
43				
44				
45				
46				
47				AGROPYRON CRISTATUM
48				ALONG XSECP
49				
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EVIDENCE OF HYDROLOGY  
TOTAL VEGETATIVE COVER:  $17/24 = 70.8$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-2008 10:00AM

Data Point Interval: 5 FT.

Transect Number: MB-T5

Transect Length: 198.1 ft.

Total Percent Vegetative Cover:  $24/39 = 61.5$

Percent Wetland Vegetative Cover:  $4/39 = 10.3$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		PASM	NL	
2		POAV	UPL	
3	MULCH			
4	LITTER			
5		MEOF	FACU	
6		MEOF	FACU	
7	LITTER			
8	"			
9	"			
10		POAV	UPL	
11	LITTER			
12	BG			
13		POAV	UPL	
14	BG			
15		POAV	UPL	
16		POAV	UPL	
17		"	UPL	
18	BG			
19	"			
20		POAV	UPL	
21	BG			
22		POAV	UPL	
23	BG			
24	"			SATURATED
25		SCIRPUS VALIDUS	OBL	SURFACE H <sub>2</sub> O
26		"	OBL	"
27	LITTER			SATURATED
28		ELPA / POAV	OBL/UPL	"
29		POAV	UPL	
30		POAV	UPL	
31	LITTER			
32		LACTUCA SERRIOLA	FACU	
33		MEOF	FACU	
34		"	FACU	
35		"	FACU	
36		MULBERGIA ASPERIFOLIA	FACU+	
37		MEOF	FACU	
38		PASM	NL	

## Bull THISTLE

Page 2	Transect No.	M3-T5		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		BRIN	NL	
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $15/20 = 75.0$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-08 10:24

Data Point Interval: 5 Ft.

Transect Number: M3-T6

Transect Length: 188 FT.

Total Percent Vegetative Cover:  $20/37 = 54.1$

Percent Wetland Vegetative Cover:  $3/37 = 8.1$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG	"		
2		AEGILOPS CYLINDRICA	NL	
3	BG			
4	LITTER			
5	"			
6		AEGILOPS CYLINDRICA	NL	
7	MULCH			SANCHUS ASPER
8	BG			
9	BG			
10	-	POAV	UPL	
11		PASM	NL	
12	BG			
13		PANICUM CAPILLARE	FACU	
14		POAV	UPL	
15	LITTER			
16		POAV	UPL	
17	BG			
18		POAV	UPL	
19		POAV	UPL	
20	BG			CRACKED SOILS
21	BG			" "
22		ELPA	OBL	" "
23	BG			" "
24		POAV	UPL	
25		POAV	UPL	
26		POAV	UPL	
27		"	UPL	
28	BG			
29	LITTER			
30		PEPU	OBL	
31		AEGILOPS CYLINDRICA	NL	
32		MEOF	FACU	
33		"	FACU	
34		AGST	FACU	
35	LITTER			
36		ERAGROSTIS PILOSA	FACU	Eragrostis
37	BG			
38				

Page 2	Transect No.	M3-T6		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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## EVIDENCE OF HYDRO; N

TOTAL NATIVE COVER:  $20/28 = 71.4\%$ 

Project: Elkhead (2008)

Transect Number: M3-T7

Staff Initials: SH/WAW

Transect Length: 193.7 ft.

Date/ Time: 9-10-08 11:01

Total Percent Vegetative Cover:  $28/38 = 73.7\%$ 

Data Point Interval: 5 ft.

Percent Wetland Vegetative Cover:  $5/38 = 13.2\%$ 

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		AGSP	FACW	
2		PASM	NL	
3		MEOF	FACU	
4		AGSP	FACW	
5	BG			
6		PASM	NL	
7	BG			
8	"			
9	"			
10		UNK. JUVENILE GRASS	—	(AEGILOPS CYLINDRICA)
11	LITTER			
12		POAV	UPL	
13		CHAL	FACU	
14	BG			
15		GNUL	FACW	
16		POAV	UPL	
17		"	UPL	
18		DEAD CATTAIL / POAV	OBL / UPL	
19		POAV	UPL	
20	BG			
21		POAV	UPL	
22		ECCIR	FACW	
23		POAV	UPL	
24		"	UPL	
25	LITTER			
26		POAV	UPL	
27	LITTER			
28		POAV	UPL	
29		AEGILOPS CYLINDRICA	NL	
30		" PASM	NL	
31		UNKNOWN GRASS	—	BEAR SCAT
32		LASE	FACU	
33	LITTER			
34		LASE	FACU	
35		MEOF	FACU	
36		LASE / MEOF	FACU / FACU	
37		UNK (NEW) FESCUE	—	
38		MEOF	FACU	

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ALONG XSECT

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF ANDRO: ✓  
 TOTAL NATIVE COVER:  $23/30 = 76.7\%$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-08 11:30 AM

Data Point Interval: 5 ft.

Transect Number: M3-T8

Transect Length: 200 ft.

Total Percent Vegetative Cover:  $30/40 = 75.0$

Percent Wetland Vegetative Cover:  $5/40 = 12.5$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		ELTR	NL	ELTR
2	BG	"		
3		ELTR	NL	
4		GRSG	FACU	
5		POLYGONUM ERECTUM	OBL	SEE M2-T5, 19
6		POAV	UPL	
7		CODONVILLUS ARVENSE	NL	
8		"	NL	
9		PANICUM CAPILLARE	FACU	(CIRSIUM ARVENSE)
10		"	FACU	
11		POA COMPRESA	FACU	
12		PANICUM CAPILLARE	FACU	
13		TARAXACUM OFFICINALE	FACU+	
14		GNUL	FACU	
15	BG			
16		CHAL	FACU	BWS
17	BG			
18		POLYGONUM ERECTUM	OBL	SEE M2-T5, 19
19		"	OBL	"
20	MULCH			
21		CHAL	FACU	
22		POLYGONUM ERECTUM	OBL	SEE M2-T5, 19
23	BG			
24	BG			Cracked Soils
25	BG			
26		POAV	UPL	
27		"	UPL	
28		"	UPL	
29		POAV	UPL	
30		"	UPL	
31	LITTER			
32		POAV	UPL	
33	LITTER			
34		UNKNOWN GRASS	—	
35	LITTER			
36		MEOF	FACU	
37		"	FACU	
38		LAGE	FACU	

Page 2	Transect No.	M3-T8		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		LASE	FACU	
40		POAV	UPL	
41				
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER:  $25/28 = 89.3\%$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-08 11:52 AM

Data Point Interval: 5 ft.

Transect Number: M3-T9

Transect Length: 204.7 ft,

Total Percent Vegetative Cover:  $28/40 = 70.0$

Percent Wetland Vegetative Cover:  $9/40 = 10.0$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LITTER			
2		CHAL	FACU	
3		POAV	UPL	
4		CIAR	FACU	CIRSIUM ARVENSE
5		POAV	UPL	
6	BG			CRACKED SOILS
7		CIAR	FACU	
8		POAV	UPL	
9	BG			CRACKED SOILS
10		PASM	NL	
11	BG			CRACKED SOILS
12		CHAL	FACU	
13		PASM	NL	
14		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
15		CHAL/POAV	FACU/UPL	
16		RANUNCULUS CUMBALARIA	OBL	
17		PASM	NL	
18	LITTER			
19		POLYGONUM BRACTEUM	OBL	SEE M2-T5, 19
20		PASM	NL	
21		CHAL	FACU	
22		"	FACU	
23		POAV	UPL	
24	MULCH			
25		POAV	UPL	
26	MULCH			
27		CHAL	FACU	
28	BG			
29		POAV	UPL	
30	LITTER			
31		POAV	UPL	
32		"	UPL	
33	LITTER			
34		AGST	FACU	
35	DEAD SHRUB			FROM INSTALLATION
36	BG			
37		PASM	NL	
38		POAV	UPL	

Page 2	Transect No. M3-T9			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		MEOF / POAV	FACU / UPL	
40		MEOF / PASM	FACU / NC	
41				
42				
43				
44				
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49				
50				XANTHIUM STRUMARIUM
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EVIDENCE OF HYDRO: Y  
TOTAL NATIVE COVER: 24 / 36 = 66.6%

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-10-08 12:32 PM

Data Point Interval: 5 ft

Transect Number: M3-T10

Transect Length: 216.9 ft,

Total Percent Vegetative Cover: 35/43 = 81.4

Percent Wetland Vegetative Cover: 14/43 = 32.6

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2		MEOF	FACU	
3	BG			
4	"			
5		CHAL/CIAR	FACU/FACU	
6		" "	FACU/FACU	
7		UNKNOWN JUVENILE GRASS	—	
8		TYAN	OBL	
9		POAV	UPL	
10	BG			CRACKED, SULTS
11		EUPA	OBL	DEER, RACCOON TRACKS
12		EUPA	OBL	
13		S. MARITIMUS	OBL	
14		S. ACUTUS	OBL	
15		S. VAUDUS	OBL	
16		"	OBL	
17		"	OBL	"
18		RANUNCULUS CIBALNUM	OBL	
19		EUPA	OBL	
20		POAV	UPL	
21		CHAL	FACU	
22		ECCK	FACW	
23	PSI			
24		POAV	UPL	
25		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
26		ECCR	FACW	
27		" ECCR	FACW	
28		CHAL	FACU	
29		POAV	UPL	
30		UNKNOWN FORB	—	
31		POAV	UPL	
32		POAV	UPL	
33		POAV	UPL	
34	LITTER	"		
35		MEOF	FACU	
36		" "	FACU	
37		" "	FACU	
38		LASE	FACU	

Page 2	Transect No.	M3-T10		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		POAV	UPL	
40	NITER			
41	II			
42		LA50	FACU	
43		PASM	NL	
44				
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## STORMS PREVIOUSLY

EVIDENCE OF HYDRO: X  
TOTAL NATIVE COVER: 19/29 = 65.5

Project: Elkhead (2008)

Transect Number: M3-T11

Staff Initials: SH/WAW

Transect Length: 204.6 ft.

Date/ Time: 9-10-08 4:01 PM

Total Percent Vegetative Cover: 29/41 = 70.7

Data Point Interval: 5 ft.

Percent Wetland Vegetative Cover: 8/41 = 19.5

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG	"		
2		PASM	NL	
3		POAV	UPL	
4		" CHAI	FACU	
5		POA COMPRESSA	FACU	
6	LITTER			
7		PASM	NL	RAFTED VEG
8		ELPA	OBL	
9	LITTER			
10		UNKNOWN GRASS	-	
11		ELPA	OBL	
12		"	OBL	
13		"	OBL	
14	BG			
15	BG			
16	BG			
17	BG			
18		VERONICA CATENATA	OBL	
19		ECCR	FACU	
20		POAV	UPL	
21		POAV	UPL	
22		"	UPL	
23	BG			
24		POAV	UPL	
25		POAV	UPL	
26		PASM	NL	
27		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
28	BG			
29		ECCR	FACU	
30	BG			
31		PASM	NL	HORNED TOAD / Large Unquited se
32	BG			
33		MEOF	FACU	
34		"	FACU	
35		"	FACU	
36	BG			DEER SCAT
37		MEOF	FACU	
38		" MEOF	FACU	

Page 2	Transect No.	M3-T11		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
*	39	LASE	FACU	
+	40	MEOF	FACU	
*	41	MEOF	FACU	
	42			
	43			
	44			
	45			
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## EVIDENCE OF HYDROLOGY

TOTAL NATIVE COVER:  $19.5 / 26 = 75.0$ 

Project: Elkhead (2008)

Transect Number: M3-T12

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-10-08 4:36 P.M.

Total Percent Vegetative Cover:  $26 / 36 \approx 72.2$ 

Data Point Interval: 5ft

Percent Wetland Vegetative Cover:  $10 / 36 = 27.8$ 

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
*		MEOF	FACU	
1		MEOF		
2	MULCH			MULCH
3		AGST	FACW	
4		MEOF / AGST	FACU / FACW	
*		MEOF	FACU	
5				
6	BG			
7	BG			
8	"			
*		POAV	UPL	
9		PANKUM CAPILLARE	FACU	
10		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
11		POAV	UPL	
12		PASM	NL	
13				
14	BG			
15	"			
16		PASM	NL	
17		POAV	UPL	
18		PASM	NL	
19	BG			
20	"			
21		UNK FORB	—	
22	BG			
*		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
23		PASM	NL	
24		PASM	NL	
25		POA COMPRESSA	FACU	
26		PASM	NL	
27				
28	BG			CRACKED SOILS / SALT
29		GNUL	FACW	
30		PASM	NL	
31		GNUL	FACW	
32		MENTHA ARVENSIS	FACW	
33		PLANTAGO MAJOR	FAC	SEE M2-T5, 19 UNIDENTIFIED SCAT
34		AGST	FACW	
35		PEPU	OBL	
36		LASE	FACU	
37				
38				HOJU AMELANCHIOR ALNIFOLIA HALOGETON SALSOLI KALI

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDROLOGY: Y(1)  
 TOTAL NATIVE COVER: 3/3 = 100  
 PARTLY CLOUDY STORMS IMMINENT

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 9:45am

Data Point Interval: 5 ft,

Transect Number: M4-T1

BURDOCK

Transect Length: 39.7 ft,

Total Percent Vegetative Cover: 3/7 = 42.9

Percent Wetland Vegetative Cover: 1/7 = 14.3

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2		XANTHIUM STRUMARIUM	FAC	
3	MULCH			
4	ROCK			SATURATED
5		PASM	NL	
6	BG			
7		UNKNOWN JUVENILE GRASS	—	
8				
9				
10				
11				TIRE TRACKS
12				
13				
14	(1) SURFACE HYDROLOGY EVIDENT THIS AREA IS THE INLET TO THE WETLAND.			
15				
16				
17	THIS AREA IS ROUTINELY DAMAGED BY LIVESTOCK, WILDLIFE & HUMAN PRESSURE.			
18				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDROLOGY  
TOTAL NARVE COVER: 12/16 = 92.3 SNOPORELLUM

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 10:04am

Data Point Interval: 5 ft.

Transect Number: M4-T2

Transect Length: 82.2 ft,

Total Percent Vegetative Cover: 13/16 = 81.3

Percent Wetland Vegetative Cover: 11/16 = 68.8

ACANTHUM  
ROSETTES

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LITTER			
2		SALSOLO KALI	FACT	UNKNOWN HAIRY FORM
3	BG			
4		POAV	UPL	
5		ELPA	OBL	
6		ELPA / TYLA	OBL/OBL	LOW TRACKS & MANURE
7		ELPA	OBL	
8		SCPU / ELPA	OBL/OBL	
9		TYLA / ELPA	OBL/OBL	TYLA = TYPHA LATIFOLIA
10		SCMA / ELPA	OBL/OBL	
11		ELPA	OBL	
12		S. MARITIMUS	OBL	
13		TYLA	OBL	
14		DISTICHlis SPICATA	FACT	
15		II	FACT	
16	BG			
17				
18				
19				
20				
21				
22				
23				
24		{ SATURATED }		
25		{ INUNDATED }		
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: ✓  
 TOTAL NATIVE COVER: 13/14 = 92.9

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 10:24 AM

Data Point Interval: 5 FT

Transect Number: M4-T3

Transect Length: 101.1 ft,

Total Percent Vegetative Cover: 14/20 = 70.0

Percent Wetland Vegetative Cover: 12/20 = 60.0

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		CAR	FACU	
2		GRSQ	FACU	
3	BG			
4		JUNCUS BALTIKUS	OBL	
5		ELPA	OBL	
6	BG			
7		ELPA	OBL	
8		"	OBL	
9		"	OBL	
10		"	OBL	
11	BG			
12		ELPA / SCMA	OBL/OBL	SCIRPUS MARITIMUS
13		"	OBL/OBL	SATURATED / INUNDATED
14		ELPA	OBL	
15		"	OBL	
16	H <sub>2</sub> O			
17		JUNCUS BALTIKUS	OBL	= JUBA
18		SC MA	OBL	
19	H <sub>2</sub> O			
20	BG			
21				
22				
23				
24				
25				VERONICA CATENATA
26				ALONG XSECT
27				
28				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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## EVIDENCE OF HYDRO: Y

TOTAL NATIVE COVER: 21/21 = 100 LEPTACHLOA FASICULARIS

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 10:43 AM

Data Point Interval: 5 ft

Transect Number: M4-T4

Transect Length: 122.6 ft.

Total Percent Vegetative Cover: 21/24 = 87.5

Percent Wetland Vegetative Cover: 17/24 = 70.8

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		UNKNOWN JUVIE FORB	—	
2	LITTER			
3		TYAN	OBL	= TYPHA AESTUARIA
4		"	OBL	
5		TYAN / ELPA	OBL/OBL	
6		ELPA	OBL	
7		CHENOPODIUM ALBUM	FACU	= CHAL
8		POAV	UPL	
9		POLYGONUM FRUCTUM	OBL	SEE M2-T5, 19
10		POAV	UPL	
11		CAREX / CHAL	FACW/FACU	
12		ELPA	OBL	
13		"	OBL	
14	H <sub>2</sub> O			
15		ELPA	OBL	
16		"	OBL	
17		"	OBL	
18	H <sub>2</sub> O			
19		ELPA	OBL	
20		SCIRPUS PUNGENS / ELPA	OBL/OBL	
21		" / "	OBL/OBL	H <sub>2</sub> S
22		SCIRPUS ACUTUS	OBL	
23		"	OBL	
24		CAREX NEBRASCENSIS / TYAN	OBL/OBL	
25				EVIDENCE OF
26				COW BEDDED down)
27				BEAR SCAT
28				
29				
30		DEFINATIVELY		
31	(1) COULD NOT CONFIRM SPECIES EXCEPT TO EXCLUDE			
32	ANNUAL AND CHENOPODIUM THAT OCCUR IN CO.			
33	SPECIES OBSERVED IN ASSOCIATION IN A VARIETY OF HYDRO			
34	REGIMES. FOUND WITH SINGLE TYPHA + JUNCUS BALTIKUS.			
35	SMOOTH SEEDS; FLATTENED HORIZONTALLY. EVIDENCE SUGGESTS			
36	THIS TO BE CHENOPODIUM ALBUM BUT MOST PLANTS FOUND TO			
37	BE SHORT STATURED.			
38				

<u>Page 2</u>	<u>Transect No.</u>	<u>Species Name</u>	<u>Wetland Indicator Status</u>	<u>Notes</u>
<u>Data Point</u>	<u>Ground Cover</u>			
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $18/21 = 85.7$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 11:30 AM

Data Point Interval:

Transect Number: M4-T5

Transect Length: 132.3 ft.

Total Percent Vegetative Cover:  $21/26 = 80.8$

Percent Wetland Vegetative Cover:  $16/26 = 61.5$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		AGROPYRON CRISTATUM	NL	
2		PLANTAGO MAJOR	FAC	SEE M2-T5, 19
3		HAZEL	FACU	
4		TYLA / ELPA	OBL/OBL	
5		ELPA	OBL	BEAR SCAT
6		ELPA / JUBA	OBL/OBL	
7		ELPA	OBL	MED SEED HEADS
8		SCMA	OBL	
9		JUBA / ELPA	OBL/OBL	
10		POAV	UPL	CRACKED SOILS
11	BG			"
12	"			"
13		ELPA	OBL	
14		SCMA	OBL	
15		SCMA / ELPA	OBL/OBL	
16		TYLA / ELPA	OBL/OBL	
17		SCMA / TALL ELPA	OBL/OBL	GAME TRAIL
18	H2O			
19	"	ELPA	OBL	MACROSTYCHA?
20		SPARTINA PECTINATA	OBL	
21		TULA / ELPA	OBL/OBL	
22		JUBA	OBL	
23		SALSOLI KALI	NL	
24	MULCH			
25		BROMUS JAPONICUS	NL	
26	MULCH			
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER: 17/19 = 89.5

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-11-08 11:47 AM

Data Point Interval: 5 ft.

Transect Number: M4-T6

Transect Length: 143.2 ft.

Total Percent Vegetative Cover: 19/28 = 67.9

Percent Wetland Vegetative Cover: 13/28 = 46.4

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		CIAK	FACU	
2	"	"	FACU	
3	MULCH			
4		XANTHIUM STRUMARIUM	FAC	
5		CIAK	FACU	
6	BG			
7		JUBA	OBL	
8	LITTER			
9		JUBA / ELPA	OBL/OBL	
10		ELPA	OBL	
11	LITTER			BEAR SCAT
12		ELPA	OBL	
13	LITTER			
14		JUBA	OBL	
15		PODU / EGER	UPL/FACU	
16		TYLA / CHAL	OBL/FACU	
17		ELPA	OBL	
18		SCMA / ELPA	REC/OBL	INUNDATION
19		TYLA / ELPA / CCMA	OBL →	
20		JUBA	OBL	SAME TRAIL
21		TYLA / SCMA / ELPA	OBL →	
22		LEPTOCHLOA FASCIULARIS	OBL	DEER TRACKS
23		CHAL	FACU	
24	BG			
25	"			
26	LEAF LITTER			
27	BG			
28		ELYMUS TRACHYCAULIS	NL	
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER: 20/24 = 83.3

Project: Elkhead (2008)

Transect Number: M4-T7

Staff Initials: SH/WAW

Transect Length: 161.6 ft.

Date/ Time: 9-11-08 12:28 PM

Total Percent Vegetative Cover: 24/32 = 75.0

Data Point Interval: 5 ft.

Percent Wetland Vegetative Cover: 15/32 = 46.9

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2		SALSOLA KALI	NL	
3		PIAPP/ SALSOLA KALI	FACU/NL	PIAPP = PHLEUM PRATENSE
4		UNKN. WEED ROSETTE	-	
5		SALSOLA KALI	NL	
6		XANTHICUM STRUMARILUM	FAC	
7	BG			
8	MULCH			BEARSCAT
9	SCUM			POND SCUM
10		POAV	UPL	
11		JUNCUS BALTICUS	OBL	
12		ELPA	OBL	
13		JUBA	OBL	
14		ELPA	OBL	
15		RANUNCULUS CIBALARIA	OBL	SATURATED
16		ELPA/RANUNCULUS CIBALARIA	OBL/OBL	"
17		TYLA / ELPA / J. NODOSUS	OBL → H <sub>2</sub> O	
18		ELPA	OBL	
19		"	OBL	
20		JUNCUS TENUIS	OBL	INVA. WETLAND
21		TYLA / J. TENUIS / J. PUNGENS	OBL →	
22		SCPW	OBL	
23		POAV	UPL	
24		SPARTINA PECTINATA	OBL	
25	BG			
26	"			
27		POAV	UPL	
28	"			
29		HORDEUM JUBATUM	FAC	
30		SALSOLA KALI??	NL	
31	BG			
32		SALSOLA KALI	NL	
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<u>Page 2</u>	<u>Transect No.</u>	<u>Species Name</u>	<u>Wetland Indicator Status</u>	<u>Notes</u>
<u>Data Point</u>	<u>Ground Cover</u>			
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $17.5 / 20 = 87.5$

Project: Elkhead (2008)

Transect Number: M4-T8

Staff Initials: SH/WAW

Transect Length: 173 ft,

Date/ Time: 9-14-08 9:40

Total Percent Vegetative Cover:  $20 / 34 = 58.8$

Data Point Interval:

Percent Wetland Vegetative Cover:  $12 / 34 = 35.3$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		LASE	FACU	
2	MULCH			
3		SALCOLA KALI	NL	
4	LITTER			
5		POAV	UPL	
6		PLMA / TAOF	FAC / FACUT	PLMA = PLANTAGO MAJOR
7		JUBA	OBL	
8		" CHAL	FACU	
9	MULCH			
10	BG			
11		POAV	UPL	
12	BG			
13		ELPA	OBL	
14		SCMA	OBL	INUNDATED
15		" ELPA	OBL/OBL	
16		" "	OBL/OBL	
17		GLYCERIA STRIATA	OBL	?
18	BG			
19		JUBA	OBL	
20		TYLA / ELPA	OBL/OBL	
21		ELPA	OBL	
22		SCMA / ELPA	OBL/OBL	
23		ELPA	OBL	
24	BG			
25		POAV	UPL	
26	NEAF LITTER			
27	"			
28	"			
29	"			
30	WOODY DEBRIS			
31		POAV	UPL	
32	BG			
33		DHPR	FACU	
34	LITTER			
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $27/27 = 92.6$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 9:57 AM

Data Point Interval: 5 ft.

Transect Number: M4-T9

Transect Length: 191 ft

Total Percent Vegetative Cover:  $27/38 = 71.1$

Percent Wetland Vegetative Cover:  $16/38 = 42.1$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		PHPR	FACU	
2		BROMUS JAPONICA	NL	
3	LITTER			
4		XANTHIUM STRUMARILUM	FAK	
5		CHAL	FACU	
6		JUBA	OBL	
7		POAV	UPL	
8		JUBA	OBL	
9	MULCH			
10	BG			
11	"			
12		POAV	UPL	
13		SCMA	OBL	
14		"	OBL	
15		RANUNCULUS CIBALAFIA	OBL	
16		SCMA	OBL	CHANNEL
17		ELPA	OBL	
18		"	OBL	
19		SCMA	OBL	
20		TYLA	OBL	
21		CAREX AQUATILIS	OBL	
22		ELPA	OBL	
23		"	OBL	ABANDONED NEST
24		"	OBL	
25		JUBA	OBL	
26	BG			RABBIT SCAT
27	BG			
28	LITTER			
29		POAV	UPL	
30	BG			
31		POAV	UPL	
32		"	UPL	
33		"	UPL	
34	BG			
35		TAOF / UNK GRASS	FACU/-	NO INFLORESCENCE
36	BG			
37		SECALE CEREALE	NL	(COVER CRDP)
38	BG			

Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $29/31 = 93.5$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 10:13 AM

Data Point Interval: 5 ft

Transect Number: M4-T10

Transect Length: 223 ft.

Total Percent Vegetative Cover:  $31/44 = 70.5$

Percent Wetland Vegetative Cover:  $24/44 = 54.5$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2	"			
3	"			
4		XANTHIUM STRUMARIUM	FAC	
5		JUBA	OBL	
6	"			
7		ELPA	OBL	
8		JUBA	OBL	
9		JUBA	OBL	
10	LITTER			
11		TYLA	OBL	
12		"	OBL	
13		SCMA	OBL	
14		ELPA	OBL	
15		ELPA	OBL	
16		ELPA	OBL	
17		SPARTINA PECTINATA	OBL	
18		SCMD	OBL	
19		"	OBL	H <sub>2</sub> S
20		SCIRPUS PUNGENS	OBL	SURFACE WATER
21		SCMA	OBL	"
22		SCMA	OBL	"
23		"	OBL	"
24	BG			
25		ELPA	OBL	
26		SCMA	OBL	
27		"	OBL	
28	H <sub>2</sub> O			
29		TYLA / SCMA	OBL	
30		SCMA	OBL	
31		HYAL CHAL	FACU	
32	BG			
33	"			
34		POLY	UPL	
35		"	UPL	
36	BG			
37	LITTER			
38		FOAV	OBL	

M4

Page 2	Transect No. 10			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		CHAR	FACU	
40	LITTER			
41		GRSG	FACU	
42		PHPR	FACU	
43		SALSOLA KALI	NL	
44	BG			ROCK
45				
46				
47				
48				
49				
50				CYNOGLOSSUM
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EVIDENCE OF HYDRO: Y  
TOTAL NATIVE COVER: 16/22 = 72.7

Project: Elkhead (2008)		Transect Number: M4-T11		
Staff Initials: SH/WAW		Transect Length:		
Date/ Time: 9-14-08 10:45 AM		Total Percent Vegetative Cover: 22/63 = 34.9		
Data Point Interval: 5 ft		Percent Wetland Vegetative Cover: 9/63 = 14.3		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		BROMUS JAPONICUS	NL	CLAY AT X SECT END
2	BG			BULL "
3		POAV	UPL	
4	BG			
5	LITTER			
6		TYLA	OBL	
7	BG			
8		POAV	UPL	
9		ELPA	OBL	
10	BG			
11		POLYGONUM BRACTEUM	OBL	SEE M2 - T5, 19
12	H <sub>2</sub> O			
13	"			
14	"			
15	"			
16		SCND	OBL	
17		"	OBL	
18		"	OBL	
19	H <sub>2</sub> O			
20		SONA	OBL	
21		ELPA	OBL	
22	H <sub>2</sub> O			
23				
24				
25				CHAPAS, SP. IN WATER
26				
27				
28				
29				
30				
31				
32				
33	▽			
34	H <sub>2</sub> O			
35	H <sub>2</sub> O			
36	H <sub>2</sub> O			
37		SCMA	OBL	
38	H <sub>2</sub> O			

Page 2	Transect No. 11			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	H <sub>2</sub> O			
40	"			
41	"			
42	BG			
43	BG			ROCK
44	BG			
45		POAV	UPL	
46	BG			
47	"			
48		POAV	UPL	
49	BG			
50		POAV	UPL	
51		"	UPL	
52		GRSQ	FACU	
53		CYNOGLOSSUM OFFICINALE / CIAR	NL / FACU	
54		CIAR	FACU	
55	BG			
56		SALSOLA KALI	NL	
57		"	NL	
58	LITTER			
59	DEAD SHRUB			
60	BG			
61	"			
62		SALSOLA KALI	NL	
63	BG			
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $27/32 = 84.4$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 11:20 AM

Data Point Interval: 5 FT.

Transect Number: M4-T72

Transect Length:

Total Percent Vegetative Cover:  $32/70 = 45.7$

Percent Wetland Vegetative Cover:  $14/70 = 20.0$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		SALSOLA KALI	NL	
2		PoAV	UPL	
3	BG			
4		SALSOLA KALI	NL	
5		XANTHIUM STRUMARIUM	FAC	
6		"	NL	
7	BG			
8		JUBA	OBL	
9		ELPA	OBL	
10	MULCH			SHRUB HOLE
11		TYLA	OBL	
12	BG			
13	"			
14	"			
15	H <sub>2</sub> O			
16				
17				
18	V			
19	V			
20	H <sub>2</sub> O			
21		SCMA	OBL	
22		SCMA	OBL	
23		SCIRPUS VALIDUS	OBL	
24	H <sub>2</sub> O			
25		Scirpus validus	OBL	
26	H <sub>2</sub> O			
27	H <sub>2</sub> O			
28		ELPA	OBL	
29	H <sub>2</sub> O			
30	H <sub>2</sub> O			
31		ELPA	OBL	
32		Ruppia MARITIMA	OBL	Ditchwood SURFACE H <sub>2</sub> O
33		" "	OBL	Ditchwood "
34	H <sub>2</sub> O			
35		SCMA	OBL	
36	H <sub>2</sub> O			
37	H <sub>2</sub> O			
38		CHAL	FACU	

Page 2	Transect No. 12			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		POAV	UPL	
40		CHAR	FACU	
41		POAV	UPL	
42		"	UPL	
43	BG			
44		POAV	UPL	
45		"	UPL	
46	BG			
47	"			
48		POAV	UPL	
49	BG			
50	"			
51	"			
52		Polygonum ERECTUM	OBL	SEE MZ-TS, 19
53		POAV	UPL	
54		"	UPL	
55		"	UPL	
56	BG			
57		CHAR	FACU	
58	BG			
59	BG			types start @ 237.8
60		PHPR	FACU	1st pt @ 240
61	BG			
62		SALSOLA KALI	NL	
63	BG			
64	Leaf litter			
65	Leaf litter			
66	BG			
67	BG			
68	BG			
69	Leaf litter			
70	BG			
71				
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $34/39 = 87.2$

Project: Elkhead (2008)		Transect Number: M4-T13		
Staff Initials: SH/WAW		Transect Length:		
Date/ Time: 9-14-08 1:10 PM		Total Percent Vegetative Cover: $39/69 = 56.5$		
Data Point Interval: 5 ft		Percent Wetland Vegetative Cover: $16/69 = 23.2$		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	WOODY DEBRIS			
2		SALSOLA KALI	NL	
3		"	NL	
4		"	NL	
5	LITTER			
6	BG			
7	"			
8		PLMA	FAC	
9		XANTHIUM STRUMARIUM	FAC	
10	BG			
11		POAV	UPL	
12		CHAL	FACU	
13	BG			
14		ELPA	OBL	
15	H <sub>2</sub> O			
16	"			
17		ELPA	OBL	
18		SCMA	OBL	
19		"	OBL	
20		SCHOENOPLECTUS ACUTUS	OBL	
21		"	OBL	
22		"	OBL	
23		"	OBL	
24		Schoenoplectus acutus	OBL	
25		"	OBL	schoenoplectus acutus
26	H <sub>2</sub> O			
27				
28				
29				
30	H <sub>2</sub> O			
31	"	SCMA	OBL	H <sub>2</sub> O
32		Ruppia MARITIMA	OBL	H <sub>2</sub> O
33	H <sub>2</sub> O			
34	"			
35		SCMA	OBL	H <sub>2</sub> O
36	H <sub>2</sub> O			
37		ELPA	OBL	H <sub>2</sub> O
38	H <sub>2</sub> O			

Page 2	Transect No. 13			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	H <sub>2</sub> O			
40		CHAL	FACU	
41	BG			
42		POAV	UPL	
43		"	UPL	
44		"	UPL	
45	BG			
46	BG			
47	BG			
48		POAV	UPL	
49		"	UPL	
50	BG			
51		POAV	UPL	
52		"	UPL	
53		"	UPL	
54		"	UPL	
55		"	UPL	
56		"	UPL	
57	BG			
58	BG			Extend tape start Sept 29
59		POAV	UPL	
60	BG			
61	BG			
62	"			
63	"			
64	"			
65		POAV	UPL	
66	BG			
67		POAV	UPL	
68	BG			
69		POAV	UPL	
70	BG			
71		SALSOLA KALI	NL	
72		AMARANTHUS RETROFLEXUS	FACU	
73				
74				
75				
76				
77				
78				
79				

EVIDENCE OF HYDRO: X  
 TOTAL NATIVE COVER: 26/29 = 89.7

Project: Elkhead (2008)

Transect Number: MF-T14

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-14-08 2:09

Total Percent Vegetative Cover: 29/71 = 40.8

Data Point Interval:

Percent Wetland Vegetative Cover: 11/71 = 15.5

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		POAV	UPL	
2		AEGILOPS CYLINDRICA	NL	
3		POAV	UPL	
4	BG			
5	"			
6	DEAD SCRUB			
7	BG			
8	"			
9		XANTHILUM STRUMARICUM	FAC	
10	BG			
11		POAV	UPL	
12	BG			
13		TYLA	OBL	
14		CHAL	FACU	
15	H <sub>2</sub> O			
16	"			
17		SCMA	OBL	
18		"	OBL	H <sub>2</sub> O
19		"	OBL	
20	H <sub>2</sub> O			
21	"			
22	"			
23	"			
24	"			
25	"			
26	"			
27	"			
28	"			
29	"			
30	"			
31		ELPA	OBL	
32		"	OBL	
33	H <sub>2</sub> O			
34	"			
35		SCMA	OBL	
36		"	OBL	
37	H <sub>2</sub> O			
38		ELPA	OBL	

Page 2	Transect No. 14			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	H2O			
40	"			
41	BG			
42		POAV	UPL	
43	BG			
44	"			
45		POAV	UPL	
46	DEAD SHRUB			
47		POAV	UPL	
48		"	UPL	
49	BG			
50	BG			
51	"			
52	"	POAV	UPL	
53		"	UPL	
54	BG			
55	"			
56	"			
57	"			
58		PLMA	FAC	
59	BG			
60		POAV	UPL	
61		"	UPL	
62		CIAR	FACU	
63		POAV	UPL	
64	BG			CIAP
65	BG			
66		SALSOLA KALI	NL	
67	BG			
68		POAV	UPL	
69		CHAL	FACU	
70	BG			
71	LITTER			
72				
73				
74				
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77				
78				
79				

EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $28/35 = 80.0\%$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 2:45 PM

Data Point Interval: 5 ft.

Transect Number: M4-T15

Transect Length: 460 ft.

Total Percent Vegetative Cover:  $35/92 = 38.0$

Percent Wetland Vegetative Cover:  $10/92 = 10.9$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LITTER			
2	MULCH			
3	BG			
4	"			
5	"			
6	"			
7	"			
8	"			
9	"			
10	"			
11		TYLA	OBL	
12	BG			
13	LITTER			
14	BG			
15	BG			
16		ECCR	FACW	
17		CHAL	FACU	
18		CHAL	FACU	
19	BG			
20	"			
21	H <sub>2</sub> O			
22		ELPA	OBL	
23		"	OBL	
24	H <sub>2</sub> O			
25	"			
26		ELPA	OBL	
27	H <sub>2</sub> O			
28	"			
29	"			
30	"			
31	"			
32				
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34				
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36				
37				
38				

Page 2	Transect No.	M4-T15		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		ELPA	OBL	
40	H <sub>2</sub> O			
41				
42				
43	↓			
44		ELPA	OBL	
45		EURA	OBL	
46	H <sub>2</sub> O			
47	"			
48		ELPA	OBL	
49		ELPA	OBL	
50	H <sub>2</sub> O			
51	↓			
52	↓			
53	H <sub>2</sub> O			
54		CHAL	!	FACU
55		POAV		UPL
56	BG			
57		POAV		UPL
58	BG			
59	BG			
60		CHAL	!	FACU
61		POAV		UPL
62		"		UPL
63	BG			
64		POAV		UPL
65	BG			
66	"			
67		POAV		UPL
68	BG			
69		POAV		UPL
70		"		UPL
71		"		UPL
72		"		UPL
73		"		UPL
74	BG			
75	Rock			
76		POAV		UPL
77		SALSOLA KALI		NL
78	BG			
79		POAV		UPL

Project: Elkhead (2008)		Transect Number: M4-T15	PG. 3
Staff Initials: SH/WAW		Transect Length: 168 ft.	
Date/ Time: 9-16-08		Total Percent Vegetative Cover:	
Data Point Interval: 5 ft.		Percent Wetland Vegetative Cover:	
Data Point	Ground Cover	Species Name	Wetland Indicator Status
1 80	BG		
2 81	"		
3 82	"		
4 83		POAV	UPL
5 84		"	UPL
6 85		MEOF	FACU
7 86		SALSOLA KALI	NL
8 87	Debris (woody)		
9 88		SALSOLA KALI	NL
10 89		"	NL
11 90		"	NL
12 91	BG		
13 92	BG		END OF T15
14			
15			
16			
17			
18			
19			
20			
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22			
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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dragonflies using the SCUA for shedding

EVIDENCE OF HYDRO: X  
TOTAL NATIVE COVER:  $41/44 = 93\%$

Project:	Elkhead (2008)	Transect Number:	M4-T16
Staff Initials:	SH/WAW	Transect Length:	540 ft.
Date/ Time:	9-14-08 4:05	Total Percent Vegetative Cover:	$44/106 = 41.5$
Data Point Interval:	5 ft	Percent Wetland Vegetative Cover:	$17/106 = 16.0$
Data Point	Ground Cover	Species Name	Wetland Indicator Status
1	BG		
2		LASE/ CIAR	FACU/FACW
3	BG		
4	BG		
5	II.		
6		BROMUS JAPONICUS	NL
7	LITTER		
8		SALSOLA KALI	NL
9	BG		
10		POAV	UPL
11	BG		
12	II.		
13	LITTER		
14	BG		
15	II.		
16	II.		
17	BG	CHENOPODIUM MURALE	NL
18			NETTLE LEAF
19		CHAL	FACU
20		POAV	UPL
21	H <sub>2</sub> O		
22	↓		
23			
24		ELPA	OBL
25	H <sub>2</sub> O		
26	II.		
27	II.		
28		ELPA	OBL
29	H <sub>2</sub> O		
30	II.		
31	II.		
32		Sagittaria latifolia	OBL
33	H <sub>2</sub> O		
34		ELPA	OBL
35	H <sub>2</sub> O		
36	H <sub>2</sub> O		
37		ELPA	OBL
38	H <sub>2</sub> O		

Page 2	Transect No. M4-T 16			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	H <sub>2</sub> O			
40	"			
41		ELPA	OBL	
42		JUVENILE SCIRPUS	OBL	JUVIS
43		ELPA	OBL	
44	" "		OBL	
45		POLYGONUM ERECTUM	NO	
46		ELPA	OBL	
47		POAV	UPL	
48	BG			
49	"			
50		POAV	UPL	
51		CHAL	FACU	
52	BG			
53	"			
54	"			
55	"			
56		ELPA	OBL	
57	BG			
58	"			
59	"			
60	"			
61		P. ERECTUM	NO	
62	BG			
63	"			
64		P. ERECTUM	NO	
65	BG			
66	BG			
67	BG			
68	"			
69	H <sub>2</sub> O			POND SCUM
70	"			
71	"			
72	"			
73	"			
74		TILA	OBL	
75		CHAL	FACU	
76	BG			
77		POAV	UPL	
78		"	UPL	
79		CHAL	FACU	

Project: Elkhead (2008)		Transect Number: M4-T16	
Staff Initials: SH/WAW		Transect Length: 540 ft.	Pg. 3
Date/ Time: 9-14-08		Total Percent Vegetative Cover:	
Data Point Interval:		Percent Wetland Vegetative Cover:	
Data Point	Ground Cover	Species Name	Wetland Indicator Status
1 80	BG		
2 81		POAV	UPL
3 82		"	UPL
4 83		"	UPL
5 84		"	UPL
6 85		"	UPL
7 86	LITTER		
8 87		POAV	UPL
9 88	BG		
10 89		Polygonum ERECTUM	OBL
11 90		"	OBL
12 91		"	OBL
13 92		"	OBL
14 93	BG		
15 94		POAV	UPL
16 95	BG		
17 96	"		
18 97	"		
19 98	"		
20 99	LITTER		(DIETICHLIS SPICATA)
21 100		POAV	UPL
22 101		"	UPL
23 102		DISTICHLIS SPICATA / PASM FAC / NL	
24 103		PASM	NL
25 104	LITTER		
26 105	"		
27 106	Large Woody debris		END OF T16
28	BS		
29			
30			
31			
32			
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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50				
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EVIDENCE OF HYDRO: Y  
 TOTAL NATIVE COVER:  $44/45 = 97.8$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 4:48 PM

Data Point Interval: 5 ft,

Transect Number: M4-T17

Transect Length: 512.8 ft.

Total Percent Vegetative Cover:  $45/102 = 44.1$

Percent Wetland Vegetative Cover:  $23/102 = 22.5$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	LITTER			
2	"			
3	"			
4		AEGILOPS CYLINDRICA	NL	NOXIOUS
5	BG			
6	"			
7		POAV	UPL	
8	BG			
9	"			
10	"			
11	LITTER			
12	BG			
13	"			
14		POAV	UPL	
15	BG			(@IGR)
16	"			(S. MONOCOAA)
17		CHAL	FACU	
18		"	FACU	
19		"	FACU	
20	BG			
21	"			
22		ELPA	OBL	
23	H <sub>2</sub> O			
24	"			
25		TYLA	OBL	
26		ELPA	OBL	
27	H <sub>2</sub> O			
28		TYLA / ELPA	OBL / OBL	
29		ELPA	OBL	
30		JUBA	OBL	
31	BG			
32		ELPA	OBL	
33	BG			
34		CHAL	FACU	
35	BG			
36		POAV	UPL	
37		CHAL	FACU	
38		"	FACU	

Page 2	Transect No.	M4-T17		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40	"			
41		P. ERECTUM	NO	
42	BG			
43	"			
44	"			
45	"			
46		P. ERECTUM	OBL	SEE M2-T5, 19
47		CHENOPODIUM MURALE	NL	NETTLELEAF?
48	BG			
49	"			
50	"			
51		CHAL	FACU	
52		"	FACU	
53		"	FACU	
54		ELPA	OBL	
55		TYLA	OBL	
56		P. ERECTUM	OBL	
57	H <sub>2</sub> O			
58	"			
59		P. ERECTUM	OBL	
60	H <sub>2</sub> O			
61	"			
62	"			
63	"			
64	"			
65	"			
66	BG			
67	"			
68	"			
69	"			
70		TYLA	OBL	
71	BG			
72	"			
73		CHAL	FACU	
74	BG			
75	"			
76		TYLA	OBL	
77	BG			
78	LITTER			
79		P. ERECTUM	OBL	

Project: Elkhead (2008)		Transect Number: M4-T17 Pg3		
Staff Initials: SH/WAW		Transect Length:		
Date/ Time: 9-14-08		Total Percent Vegetative Cover:		
Data Point Interval: 5 ft		Percent Wetland Vegetative Cover:		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1 80	BG			
2 81		P. ERECTUM	OBL	
3 82	MULCH			
4 83		CHAL	FACU	
5 84		P. ERECTUM	OBL	
6 85		P. ERECTUM	OBL	
7 86		"	OBL	
8 87		CHAL	FACU	
9 88	BG			
10 89	"			
11 90	LITTER			
12 91		CHENOPODIUM MURDLE	NL	
13 92		P. ERECTUM	OBL	
14 93		"	OBL	
15 94	BG			
16 95		CHAL	FACU	
17 96		P. ERECTUM	OBL	
18 97		"	OBL	
19 98	BG			
20 99	"			
21 100		CHENOPODIUM MURDLE	NL	
22 101	BG			
23 102		POSM	NL	END OF T17
24				
25				
26				
27				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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50				
51				
52				
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EVIDENCE OF HYDRO: Y Jilverian elm  
 TOTAL NATIVE COVER: 36/38 = 94.7% KILDEER  
 Project: Elkhead (2008) Transect Number: M4-T18 PHAR  
 Staff Initials: SH/WAW Transect Length: 485.4 ft.  
 Date/ Time: 9-14-08 5:30 PM Total Percent Vegetative Cover: 38/96 = 39.6  
 Data Point Interval: 5 ft. Percent Wetland Vegetative Cover: 21/96 = 21.9

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2	LITTER			
3		JUBA	OBL	
4	BG			
5		JUBA	OBL	
6	BG			
7		XANTHIUM STRUMARIUM	FAC	
8	LITTER			
9	BG			
10	"			
11		TYLA	OBL	
12	LITTER			
13	BG			
14		XANTHIUM STRUMARIUM	FAC	
15	BG			
16	LITTER			
17		ELPA	OBL	
18		CHAL	FACU	
19		"	FACU	
20		"	FACU	
21		ELPA	OBL	
22	BG			
23	"			
24	"			
25	"			
26		ELPA	OBL	
27	BG			
28		POAU	UPL	
29		ELPA	OBL	
30	BG			
31	LITTER			
32		CHAL	FACU	
33		"	FACU	
34		P. ERECTUM	OBL	
35	BG			
36		COAR	NL	
37	BG			
38		CHENOPODIUM MURALE	NL	

Page 2	Transect No.	M4-T18		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39	BG			
40		CHAL	FACU	
41	LITTER			
42		P. ERECTUM	OBL	
43	"	"	OBL	
44	BG			
45		CHAL	FACU	
46		"	FACU	
47	BG			
48	"			
49	"			
50		CHAL	FACU	
51		"	FACU	
52	BG			
53	"			
54	"			
55		P. ERECTUM	OBL	
56	H <sub>2</sub> O			
57	"			
58	"			
59		P. ERECTUM	OBL	
60	H <sub>2</sub> O			
61	M.			
62	"			
63	"			
64	"			
65	"			
66	"			
67	N.			
68	"			
69	"			
70	"			
71	"			
72		CHENOPODIUM MURALE	NL	NETTLELEAF
73	H <sub>2</sub> O			
74	BG			
75		ECCR	FACW	
76		" "	FACW	
77		TYLA	OBL	
78		CHAL	FACU	DOG SCAT
79		"	FACU	

Project: Elkhead (2008)

Transect Number: T14-T18

Pg. 3

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-14-08

Total Percent Vegetative Cover:

Data Point Interval:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
180		CHENOPODIUM MURALE	NL	
181	BG			COW MANURE
182	BG			Cracked Soils
183	BG			"
184	MULCH			dried scum
185	BG			
186	"			
187		P. ERECTUM	OBL	
188		"	OBL	
189	BG			
190	BG			
191	"			
192	LITTER			
193		P. ERECTUM	OBL	
194		"	OBL	
195	BG			
196	"			END OF T18
18				
19				
20				
21				
22				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER: 41/42 = 97.6

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08

Data Point Interval: 5ft.

Transect Number: M4-TL9

Transect Length: 473 ft.

Total Percent Vegetative Cover: 42/93 = 45.2

Percent Wetland Vegetative Cover: 24/93 = 25.8

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1		JUBA	OBL	
2	LITTER			
3	"			
4	"			
5	BG			
6	BG			
7	"			
8		POAV	UPL	
9		CHAL	FACU	
10	BG			
11	BG			
12		XANTHIUM STRUMIDIUM	FAC	CRACKED SOILS
13	BG			
14	BG			
15	"			
16	"			
17	LITTER			
18	"			
19		CHAL	FACU	
20		"	FACU	
21		"	FACU	
22	BG			
23	"			
24	"			
25	"			
26	"			
27		JUBA	OBL	
28		POAV	UPL	
29		"	UPL	
30		CHAL	FACU	
31	BG			
32	"			
33	"			
34		CHAL	FACU	
35		"	FACU	
36	BG			
37		CHAL	FACU	
38		"	FACU	

Page 2	Transect No.	M4-T19		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		CHENOPodium MURALE	NL	
40		P. ERECTUM	OBL	
41		JUBA	OBL	
42		D. ERECTUM	OBL	
43		CHENOPodium MURALE	NL	
44	BG			
45		P. ERECTUM	OBL	
46	LITTER			
47		P. ERECTUM	OBL	
48		CHAL	FACU	
49		P. ERECTUM	OBL	
50		"	OBL	
51		CHAL	FACU	
52	BG			
53		TYLA	OBL	
54	BG			
55		ECCR	FACU	
56	H <sub>2</sub> O			
57		P. ERECTUM	OBL	
58	H <sub>2</sub> O			
59	BG			
60	BG			
61	H <sub>2</sub> O			
62	"			
63	"			
64	"			
65	"			
66	"			
67	"			
68	"			
69	"			
70	"			
*				
71		ECCR	FACU	
72		P. ERECTUM	OBL	
73		TYLA	OBL	
74		"	OBL	
75		"	OBL	
76	BG			
77		CHENOPodium MURALE	NL	
78		D. ERECTUM	OBL	
79				

Project: Elkhead (2008)

Transect Number: M4-T19 Pg 3

Staff Initials: SH/WAW

Transect Length:

Date/ Time: 9-14-08

Total Percent Vegetative Cover:

Data Point Interval:

Percent Wetland Vegetative Cover:

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
179	BG			
280	DEAD SHRUB			
381	BG			
482	"			
583		" CHAL	FACU	
684	BG			
785		P. ERECTUM	OBL	
886		"	OBL	
987	BG			
1088	"			
1189		P. ERECTUM	OBL	
1290	BG			
1391		P. ERECTUM	OBL	
1492	BG			
1593		P. ERECTUM	OBL	END OF T19
16				
17				
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Page 2	Transect No.			
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39				
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EVIDENCE OF HYDROLOGY  
TOTAL NATIVE COVER:  $43.5/49 = 88.8$

Project: Elkhead (2008)

Staff Initials: SH/WAW

Date/ Time: 9-14-08 6:23 pm

Data Point Interval:

Transect Number: M4-T20

Transect Length: 406.7 ft

Total Percent Vegetative Cover:  $49/80 = 61.3$

Percent Wetland Vegetative Cover:  $19/80 = 23.8$

Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
1	BG			
2	"			
3		POAV	UPL	
4		"	UPL	
5	BG			CRACKED SOILS
6	WOODY DEBRIS			
7		CHAL	FACU	
8		ELPA	OBL	
9		CHAL	FACU	
10	BG			
11		HOJU	FAC	
12	BG			
13	"			
14		CHAL	FACU	
15		"	FACU	
16	LITTER			
17		CHAL	FACU	SPIDER.
18	LITTER			
19		CHAL	FACU	
20		"	FACU	
21		"	FACU	
22	MULCH			
23		POAV	UPL	
24	BG			
25		POAV	UPL	
26		CHAL	FACU	
27		P. ERECTUM	OBL	
28		TALA	OBL	
29	BG			
30	"			
31	"			
32		P. ERECTUM	OBL	
33	BG			
34	"			
35		CHAL	FACU	
36	BG			
37		TYLD	OBL	
38		CHENOPodium murale	NL	

Page 2	Transect No.	M4-20		
Data Point	Ground Cover	Species Name	Wetland Indicator Status	Notes
39		CHAL	FACU	
40		TYLA	OBL	
41		"	OBL	
42		P. ERECTUM	OBL	
43	BG			
44		P. ERECTUM	OBL	
*		ECCR	FACW)	
46	BG			
47		CHAL	FACU	
*		ECCR	FACW)	
49	BG			CRACKED SOILS
50	BG			"
51	BG			"
52	"			
53		XANTHIUM STRUMARIUM	FAC	
54	BG			
55		XANTHIUM STRUMARIUM	FAC	
56		CHAL	FACU	
57	BG			
58	"			
59		CHENOPODIUM MURALE	NL	
60		CHAL	FACU	
61		P. ERECTUM	OBL	
62		" CHAL "	FACU	
63		P. ERECTUM	OBL	
64		TYLA / TAMARISK	OBL (FACU)	
*		CIA	FACU	
*		CHAL	FACU	
67		CHENOPODIUM MURALE	NL	
68	BG			
69		P. ERECTUM	OBL	
*				COAR
70	BG			
71		P. ERECTUM	OBL	
72	VA			
73		CHAL	FACU	
74		"	FACU	
75		"	FACU	
76		"	FACU	
77		P. ERECTUM	FACU	
78	BG			
79		CHAL	FACU	