

ALBERTA LOTIC WETLAND HEALTH ASSESSMENT
FOR STREAMS AND SMALL RIVERS (Survey)

Record ID No: _____

Polygon No: _____

ADMINISTRATIVE DATA

A1. Field Data Collected by (Organization): _____

A2. Funding Agency/Organization: _____

A3. Date Field Data Collected: _____ **A4.** Year: _____ **A5.** Observers: _____

A6a. Is this site representative?: _____ If **Yes**, **A6b.** choose category: _____

A6c. How was this site chosen?: _____

A7a. Park(s)? (Yes; No): _____ **A7b.** Please Check all that apply: National Urban or Rural Municipalities
 Provincial Other

A7c. Name? _____

A8a. Other Protected Areas? (Yes; No): _____ **A8b.** Please check all that apply: Ecological Conservation Easement
 Environmental Other
 Municipal

A8c. Name(s)/Other: _____

A9. Watershed Group Affiliation: _____ **A10.** Project Name: _____

A11. Is This Private Land? (Yes; No): _____ **A11b.** Owner's Name: _____

A12a. Is This Rented Private Land? (Yes; No): _____ **A12b.** Renter's Name: _____

A12c. Renter's Home Legal Land Description: _____ **A12d.** County, if different than polygon: _____

A13a. Is this Public Land? (Yes; No): _____ **A13b.** Type (Federal, Prov., Municipal): _____

A13c. Land Manager's Name: _____ **A13d.** Land Manager's Title, Office/Dept: _____

A14a. Is this part of a grazing lease or grazing reserve? (Yes; No): _____ **A14b.** Lessee Name: _____

A14c. Agricultural disposition No.: GRL: _____ GRP: _____ FGL: _____ Other: _____

A14d. Agricultural disposition Name (e.g., Community Pasture): _____

A15a. Has this polygon been inventoried before? (Yes; No): _____ **A15b.** Other years sampled: _____

A15c. Does this polygon coincide exactly with a previously inventoried polygon? (Yes; No): _____

A15d. ID No.(s) of other inventories of this exact polygon: _____, _____, _____, _____, _____

A16a. Does this polygon share common area with other inventoried polygon(s), but is not exact? (Yes; No): _____

A16b. ID No.(s) of other records sharing area with this polygon: _____, _____, _____, _____

A17a. Has a change in management occurred? (Yes; No, Unknown): _____ If **Yes**, **A17b.** Year changed occurred: _____

A17c. Type of management change applied: _____

A18. Primary Contact (Include agency name): _____

LOCATION DATA

B1. Province: _____ **B2.** Municipality or Reserve Type: _____

B3a. Indian Reserve: _____ **B3b.** Military Reserve: _____

B4a. Rural or Specialized Municipality: _____ **B4b.** Hamlet: _____

B5a. City/Town/Village: _____ **B5b.** SubdivPlan #: _____ **B5c.** Block #: _____ **B5d.** Lot #: _____

B6a. Waterbody Name: _____ **B6b.** Side of Waterbody: _____

B7. Legal Land 1/4 1/4 Sec: _____ 1/4 Sec: _____ Section: _____ Township (NS): _____ Range (EW): _____ Meridian: _____
Location: _____

B8a. Natural Region: _____ **B8b.** Sub-Region: _____

B9a. Major Watershed (e.g. North Saskatchewan River): _____

B9b. Minor Watershed (e.g. Battle River): _____

B9c. Sub-basin (e.g. Iron Creek): _____

B10a. UTM coordinates of polygon Upper end: Easting: _____; Northing: _____; Zone: _____ GPS Projection: _____

B10b. UTM coordinates of polygon Lower end: Easting: _____; Northing: _____; Zone: _____

B10c. UTM coordinates of any other point of interest in the polygon: East: _____; North: _____; Zone: _____

B10d. GPS Unit #: _____ WPt Upper: _____ WPt Lower: _____ WPt Other: _____

B10e. Comments: _____

B11a. Map Title(s): _____

B11b. Map Scale: _____ **B11c.** Map Year: _____

B12. Aerial Photo Info: Scale: _____ Date: _____ Job#: _____ Line#: _____
AS#: _____ Photo#: _____ Other Info: _____

SELECTED SUMMARY DATA

- C1.** Water body type: _____ **C2.** Polygon size (acres): _____ ; (hect): _____
- C3a.** Is the entire polygon an upland? (Yes; No): _____ If **No**, **C3b.** Does the polygon consist entirely of functional wetland types? (Yes; No): _____ **C3c.** Functional wetland (acres): _____ ; (hect): _____ **C3d.** Percent of total polygon: _____
- C4.** Does the polygon contain a defined streambank or channel? (Yes; No; NC): _____
- C5.** Polygon length (river miles, usually the same as channel length) (mi): _____ ; (km): _____
- C6.** Number of river miles the polygon represents: _____ ; (km): _____
- C7a.** Average polygon width (usually same as width of the riparian zone) (ft): _____ ; (m): _____
- C7b.** Riparian zone width range (ft): _____ to _____ ; (m): _____ to _____

C8. Habitat Types and Community Types

| Classification Type Name | Phase | Percent of Polygon | Successional Stage or Comments/Guides Used |
|--------------------------|-------|--------------------|--|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

OPTIONAL SITE CHARACTERISTICS

- D1a.** Does the polygon has potential for tall woody type(s)? (Yes, No): _____
- D1b.** Does the polygon has tall woody type(s) present? (Yes, No): _____
- D2a.** Tree **AND** shrub removal by other than browse: None (0-5%); Light (6-25%); Moderate (26-50%); Heavy (>50%); NA; NC: _____
- D2b.** Basis of Call: _____
- D3.** Waterbody number (FMIS/Hydro code): _____
- D4a.** Is water quality data available on this waterbody? (Yes, No, Unknown, NA): _____
 If **Yes**, **D4b.** Describe the reference for that data (name, year, etc.): _____
- D5.** Detailed description of upper and lower ends and width (lateral boundaries) of the polygon:

PHOTOGRAPH DATA

Polygon Number: _____ Record ID No: _____

E1. Identification of photos (taken at the most *upstream* end of polygon): Photographer: _____

Photo #: Upstream views/OUT of polygon (Describe Views) Camera Number: _____

WPt Upper: Easting
Northing Zone

Downstream views/INTO the polygon (Describe Views)

E2. Identification of photos (taken at the most *downstream* end of polygon): Photographer: _____

Photo #: Downstream views/OUT of polygon (Describe Views) Camera Number: _____

WPt Lower: Easting
Northing Zone

Upstream views/INTO the polygon (Describe Views)

E3. Other photos of the polygon):

Photographer: _____

| WPt: | Easting Northing | Zone | Photo # | Describe Views | Camera Number: |
|-------|---------------------|-------|---------|----------------|----------------|
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |

E3a. Additional LOTIC photo page entered? (Yes; No): _____

E4a. Is there an adjacent polygon *upstream*? (Yes; No): _____

E4b. Adjacent Poly Name Upstream: _____

E5a. Is there an adjacent polygon *downstream*? (Yes; No): _____

E5b. Adjacent Poly Name Downstream: _____

E6. Film and Camera Specs: Camera Type: _____ Film Speed(ASA)/Image Quality (dpi): _____

Lens dia. (mm): _____ Lens foc. len. (mm): _____ Filter used (polarizer or none): _____

LOTIC WETLAND HEALTH ASSESSMENT SCORE SHEET

Polygon Number: _____ Data Record ID: _____

| | Actual Score | Possible Score | Comment |
|--|--------------|----------------|---------|
| 1. Vegetative Cover of Floodplain and Streambanks | _____ | _____ | _____ |
| 2a. Total Canopy Cover of Invasive Plant Species | _____ | _____ | _____ |
| 2b. Density Distribution of Invasive Plant Species | _____ | _____ | _____ |

List Invasive Plant Species present, including Percent Canopy Cover and Density Distribution Class:

| | Can.Cov. | Dens. | Dist. | | Can.Cov. | Dens. | Dist. | | Can.Cov. | Dens. | Dist. |
|------------------------|----------|-------|-------|-------------------------------|----------|-------|-------|----------------------|----------|-------|-------|
| blueweed: | _____ | _____ | _____ | field bindweed: | _____ | _____ | _____ | spotted knapweed: | _____ | _____ | _____ |
| Canada thistle: | _____ | _____ | _____ | leafy spurge: | _____ | _____ | _____ | tall buttercup: | _____ | _____ | _____ |
| caragana: | _____ | _____ | _____ | nodding thistle: | _____ | _____ | _____ | tamarisk/salt cedar: | _____ | _____ | _____ |
| cleavers: | _____ | _____ | _____ | ox-eye daisy: | _____ | _____ | _____ | white cockle: | _____ | _____ | _____ |
| common burdock: | _____ | _____ | _____ | perennial sow-thistle: | _____ | _____ | _____ | yellow toadflax: | _____ | _____ | _____ |
| common hound's-tongue: | _____ | _____ | _____ | purple loosestrife: | _____ | _____ | _____ | | | | |
| common tansy: | _____ | _____ | _____ | Russian knapweed: | _____ | _____ | _____ | | | | |
| Dalmatian Toadflax: | _____ | _____ | _____ | Russian olive: | _____ | _____ | _____ | Others: | _____ | _____ | _____ |
| diffuse knapweed: | _____ | _____ | _____ | scentless chamomile: | _____ | _____ | _____ | Others: | _____ | _____ | _____ |
| downy ches: | _____ | _____ | _____ | smooth perennial sow-thistle: | _____ | _____ | _____ | | | | |
| European buckthorn: | _____ | _____ | _____ | | | | | | | | |

2c. Are there elevated status species for this county? (Yes; No; NC):

| | | | | | |
|-----------------|-------|-----------------|-------|-----------------|-------|
| Elevated Sps 1: | _____ | Elevated Sps 2: | _____ | Elevated Sps 3: | _____ |
|-----------------|-------|-----------------|-------|-----------------|-------|

| | | | |
|--|-------|-------|-------|
| 3. Disturbance-Increaser Undesirable Herbaceous Species | _____ | _____ | _____ |
| 4. Preferred Tree and Shrub Establishment and Regeneration | _____ | _____ | _____ |
| 5a. Browse Util. of Preferred Trees and Shrubs | _____ | _____ | _____ |
| 5b. Woody Veg. Removal other than Browsing | _____ | _____ | _____ |
| 6. Standing Decadent and Dead Woody Material | _____ | _____ | _____ |
| Vegetation Subtotal: | _____ | _____ | _____ |
| 7. Streambank Root Mass Protection | _____ | _____ | _____ |
| 8. Human-Caused Bare Ground | _____ | _____ | _____ |
| 9. Streambank Structurally Altered | _____ | _____ | _____ |
| 10. Human Physical Alteration to the Rest of the Polygon | _____ | _____ | _____ |
| 11. Stream Channel Incisement | _____ | _____ | _____ |

Soil/Hydrology Subtotal: _____

Overall Polygon Total: _____

RATING CALCULATION

| (Actual Score/Possible Score) X 100 = Rating Percent | Descriptive Category |
|--|----------------------|
| Vegetation Rating: _____ / _____ x 100 = _____ | _____ |
| Soil / Hydrology: _____ / _____ x 100 = _____ | _____ |
| OVERALL: _____ / _____ x 100 = _____ | _____ |

| Rating Percent Range | Descriptive Category |
|----------------------|---|
| 80-100 | Proper Functioning Condition (Healthy) |
| 60-79 | Functional At Risk (Healthy, but with Problems) |
| <60 | Nonfunctional (Unhealthy) |

ADDITIONAL MANAGEMENT CONCERNS

Polygon Number: _____ Data Record ID: _____

The following items do not contribute to a site's score. Rather they help to quantify inherent physical site characteristics or assess the direction of change on a site. These data can be useful for planning future site management.

12a. Polygon trend (Is the polygon: Improving, Degrading, Static, or Status Unknown?): _____
 (If "status unknown" answer NA to the sub-questions 12b and 12c)

12b. Has management influenced trend? (Yes; No; Unknown; NC; NA): _____

12c. Describe how health parameters have changed and justify your call.

13a. Streambank rock volume: _____

13b. Streambank rock size: _____

14. Vegetation use by animals: _____

15. Susceptibility of parent material to erosion: _____

16. Percent of streambank accessible to large animals: _____

17. Primary Land Use Sector:

- ___ Agriculture
- ___ Commercial
- ___ Energy (Oil, Gas, Coal)
- ___ Industrial (excl. other types listed)
- ___ Forestry
- ___ Recreation (excl. other types listed)
- ___ Parks/Protected Areas
- ___ Residential (excl. other types)
- ___ Rural Residential (excl. other types listed)
- ___ Acreage (excl. other types listed)
- ___ Lakefront/Waterfront (excl. other types listed)
- ___ Transportation
- ___ Utility
- ___ Institutional
- ___ Military
- ___ Open/Vacant
- ___ Other _____

18a and b: Break down the polygon and the area adjacent to the polygon into the land uses listed (must total to approx. 100%):

| | a) Polygon | b) Adjacent |
|---|-------------------|--------------------|
| No land use apparent: | _____ | _____ |
| Turf grass (lawn): | _____ | _____ |
| Tame pasture (grazing): | _____ | _____ |
| Native pasture (grazing): | _____ | _____ |
| Recreation (ATV paths, campsites, etc.): | _____ | _____ |
| Development (buildings, corrals, paved lots, etc.): | _____ | _____ |
| Tilled Cropping: | _____ | _____ |
| Perennial forage (e.g., alfalfa hayland): | _____ | _____ |
| Roads: | _____ | _____ |
| Logging: | _____ | _____ |
| Mining: | _____ | _____ |
| Railroads: | _____ | _____ |
| Other: | _____ | _____ |

Description of Other Usage Noted: _____

19. Comments and Observations:

