



Drumheller Flood Mitigation Dike C – Pre-clearing Wildlife Sweep

Prepared for Kerr Wood Leidal
Associates
CCI Project #3615

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Date: 2022/08/17

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INTRODUCTION

CCI Inc. (CCI) was retained by Kerr Wood Leidal Associates (KWL) to conduct a pre-clearing wildlife sweep of a portion of the Project footprint for the Drumheller Resiliency Flood Mitigation Dike C Project (the Project). Specifically, the area North of the Red Deer River and east of Highway 56 where tree clearing will take place. A map outlining this location can be found in Appendix D. The wildlife sweep was completed as part of pre-clearing activities within the Project footprint located along the Red Deer River, within NE 11-029-20 W4M.

The Project is located predominantly on urbanized riparian land in the Northern Fescue Natural Sub-region of southeastern Alberta (Natural Regions Committee, 2006). The Northern Fescue Natural Subregion is characterized by a mixture of cultivated fields and moist native prairie rolling to hummocky terrain. It represents a climate-related transition between the Dry Mixedgrass Natural Subregion and the more northern Central Parkland Natural Subregion. Much of the subregion is cultivated for crops and the rest is grazed native prairie. The Northern Fescue subregion features dense Plains Rough Fescue (*Festuca hallii*) with few other associated species that form the type of native grassland found on moist sites in this subregion. Drier sites within the subregion feature porcupine grass (*Miscanthus sinensis*), western porcupine grass (*Stipa curtisetata*) and northern wheat grass (*Agropyron dasystachyum*) mixed with the Plains Rough Fescue. Buckbrush (*Ceanothus cuneatus*), silverberry (*Elaeagnus commutata*), common wild rose (*Rosa woodsia*) and Saskatoon (*Amelanchier alnifolia*) shrublands occur in moist pockets in the uplands or along coulees. Rivers and coulees in the region also support stands of Plains Cottonwood (*Populus deltoides*) similar to the Dry Mixedgrass and Mixedgrass natural subregions, but here there are also Balsam Poplar (*Populus balsamifera*) stands, and in some areas the two species form hybrids.

SURVEY METHODS

An Energy Development Planning Analysis report was completed on August, 2022 for the Project, which indicated the proposed area is within Sensitive Raptor Ranges, Sharp-tailed Grouse Survey, and Burrowing Owl Range (Appendix A) (Alberta Government, 2019).

The wildlife sweep occurred on August 17, 2022. The trees to be cleared plus a 100-meter buffer was traversed on foot and searched for dens, nests and hibernacula. Observations were taken at points approximately every 50 meters along the path tracked by the Wildlife Specialist. At each point, time was taken to collect visual or auditory observations of wildlife or habitat features in and around the Project footprint.

Temperature, wind and sky conditions were noted during the assessment.

RESULTS

Findings from the wildlife sweep conducted on August 17, 2022, are described below. Observation pathways and mapping is provided in Appendix B. Photos taken during this sweep can also be found in Appendix C.

Overview

The temperature high during the field assessment was approximately 28°C, while low was -15°C. Wind speeds ranged between 1-5 kilometers/hour (1 on the Beaufort Scale). Sky conditions ranged from sunny and clear to partly cloudy. There was no precipitation during the fieldwork.

Wildlife Observations

Wildlife species identified during the assessment are listed in Table 1, below. Eight (8) species were sighted, all of which are currently classified as “secure” in Alberta. There were also various signs of wildlife observed during this sweep such as tracks and droppings. Shells of freshwater clams were also observed along the banks of the river indicating that certain animals are using the area to forage for food. No dens or hibernacula were observed within 100 meters of the Project footprint.

Table 1. Wildlife Observations

Species	Scientific Name	Observation Count	Alberta Status (2015)	Federal Status
House Sparrow	<i>Passer domesticus</i>	12	Exotic/Alien	Not Listed
Black Billed Magpie	<i>Pica hudsonia</i>	2	Secure	Not Listed
Osprey	<i>Pandion haliaetus</i>	1	Secure	Not Listed
Black Capped Chickadee	<i>Poecile atricapillus</i>	4	Secure	Not Listed
Yellow Warbler	<i>Setophaga petechia</i>	4	Secure	Not Listed
Gray Catbird	<i>Dumetella carolinensis</i>	2	Secure	Not Listed
American Crow	<i>Corvus brachyrhynchos</i>	2	Secure	Not Listed
Song Sparrow	<i>Melospiza melodia</i>	2	Secure	Not Listed

RECOMMENDATIONS

1. The *Migratory Birds Convention Act* (1994) protects migratory birds, their nests, eggs and young. Project activities should be completed outside of the breeding and nesting season which ranges between mid-April and late August (Government of Canada, 2017). If activities occur during this time, workers should watch for nests or young birds while performing work in the area.
2. Should active nests, dens, hibernacula or young birds be discovered during Project activities, operators should contact KWL and inform Alberta Fish and Wildlife and seek direction on actions to take.
3. Ensure that all construction vehicles and hand-fellers remain with the Project boundaries to minimize disturbance to surrounding wildlife habitat. Conduct construction activities efficiently to maintain a tight schedule and reduce the duration of activities that may potentially disrupt wildlife. Prohibit construction personnel from feeding/harassing wildlife.
4. This wildlife sweep should be re-done if clearing does not commence within ten (10) days of this assessment, by August 27, 2022, to minimize the chance of breeding birds nesting in the Project area.

CLOSURE

Please retain this report as proof that the wildlife sweep was conducted for the pre-clearing of trees North of the Red Deer River (Appendix D), Dike C, including its 100 m buffer and forward it to AEP, if requested.

CCI has prepared this report for the exclusive use of KWL, on behalf of the Drumheller Resiliency Flood Mitigation program. The information contained in this report reflects CCI's professional judgment considering all available information at the time of preparation. Any use which a third party makes of this report or any reliance on, or decisions to be based on this report, are the responsibility of such third parties. CCI accepts no responsibility for damages, if any, suffered by any third party because of decisions made or actions based on this report.

If you have any questions or comments regarding this wildlife sweep, please contact Mac Niewchas by email at Mac.Niewchas@ccisolutions.ca or by telephone at (403) 506-2675.

On behalf of CCI Inc.,

Prepared by:



Mac Niewchas, B.Sc., BIT
Biologist, Wildlife Specialist

Reviewed by:



Jon Boyle, P.Ag.
Planning and Permitting Manager

APPENDIX A – ENERGY DEVELOPMENT PLANNING ANALYSIS

Company Name/BA ID: CCI INC.

Project: 3615

Report #: 19784

Report Date: August 17, 2022

Responsibility of Applicants:

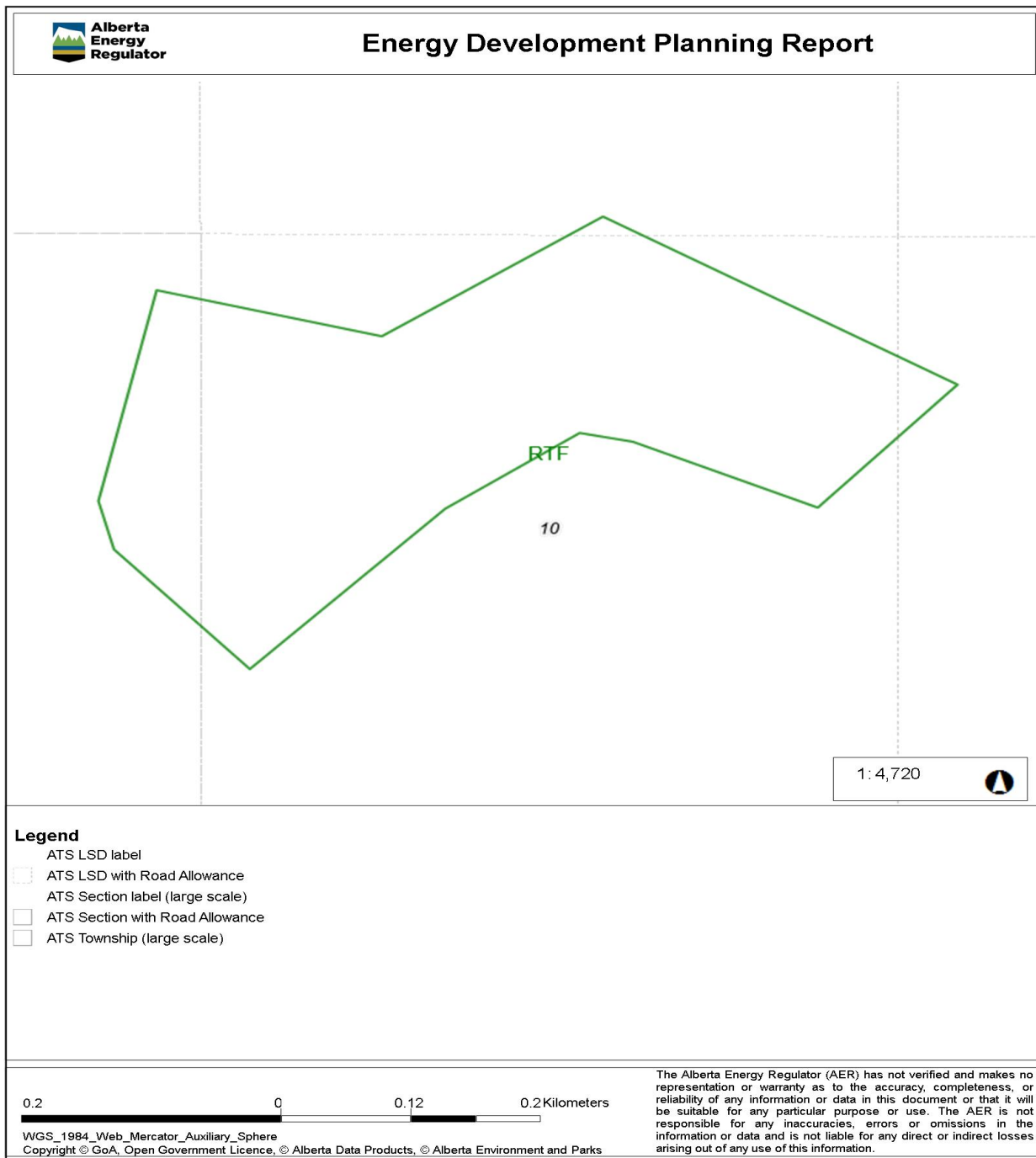
It is the applicant's responsibility to conduct a full review of the generated EDP Report, ensuring that you have a full understanding of the defined standards and conditions, and any limitations as may also be imposed by any other law or Order of the Province or the Government of Canada that may impact on the proposed use of the land.

If this activity is related to an EPEA approval the standards and conditions may change for your application.

Disclaimer:

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Activity #: 2
Disposition: RTF
Purpose: Erosion Protection
Activity: Upland Erosion Protection



Legal Locations Intersected

Quarter	Section	Township	Range	Meridian
NE	11	29	20	4
NW	11	29	20	4

Section 1: Registered Applications and Interests

Note for Report: These are not comprehensive and only what is available geospatially at time of report. Please refer to a current Public Land Standing Report for a complete listing and to make application.

Reservations

Reservation	Holder	Purpose	Reason	Sectors	Action
NULL					

All Other Registered Applications and Interests

Disposition Number	Disposition Type	Holder	Status
PLS200015	PLS	Unknown/ Undetermined	Active
DLO575	DLO	ATCO ELECTRIC LTD	ACTIVE/ DISPOSED
RRD3315EZ	RRD	TRANSPORTATION	ACTIVE/ DISPOSED
PLS200015	PLS	DRUMHELLER, TOWN OF	APPLICATION
RRD4225EZ	RRD	TRANSPORTATION	ACTIVE/ DISPOSED
DRS040042	DRS	ENVIRONMENT AND WATER, DEPARTMENT OF	ACTIVE/ DISPOSED
DRS667	DRS	TRANSPORTATION	ACTIVE/ DISPOSED
PLA1071	PLA	APEX UTILITIES INC.	ACTIVE/ DISPOSED

Section 2: Intersection Information

Category	Layer	Name/Description	Additional Information and Details
Historical Resources	Historic Resource Value	5 a, p	
Land	Green White Areas	White Area	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Land	AER Operational Boundaries	Calgary	Contact information available on AER website
Regional or Higher Level Plan	Land-Use Framework Boundaries	Red Deer	Ensure activity aligns with approved Regional Plans.
Regional or Higher Level Plan	IRP Subregional	Red Deer River Corridor Integrated Management Plan	Ensure activity aligns with Higher Level Plans or Variance required
Vegetation	Natural Regions	Grassland	Specific approval standards and conditions of approval may apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Vegetation	Natural Sub-Regions	Grassland Northern Fescue	Specific approval standards and conditions of approval may apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Burrowing Owl Range	Burrowing Owl	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Sensitive Raptor Range	Golden Eagle	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sensitive Raptor Range	Ferruginous Hawk	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sensitive Raptor Range	Prairie Falcon	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sharp-tailed Grouse Survey	Sharp-tailed Grouse	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Grassland and Parkland Natural Region (Grassland Bird Survey)		Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Grassland and Parkland Natural Regions	Grassland	

Section 3: Operating Standards and Conditions

LAND

Land Management

- 1030-AS Where an Integrated Resource Plan or a Reservation/Protective Notation identifies a greater set back, the greater set back will prevail.
- 1031-AS Where a Higher Level Plan* exists, the Disposition Holder must follow any direction provided within that plan.
- 1033-AS With the exception of pipelines, for activities that fall within any Protective Notation (PNT) lands with a purpose code 400 Series encompassing a section of land (259 hectares) or less, located in the Provincial White Area, the Disposition Holder must construct all activities within lands previously disturbed or cleared. Where no previous disturbance exists, activities must occur within 100 metres of the PNT.
- 1040 The Disposition Holder must repair or replace any improvements immediately that were damaged as a result of the Activity on the Lands to pre-existing dispositions to the pre-existing condition. Damages to tame pastures must be repaired within one growing season.
- 1041 The Disposition Holder must maintain proper drainage of surface water.
- 1044-AS The Disposition Holder must not locate activities within 45 metres from the top of any coulees* with the exception of activities such as; access, pipelines and linear easements crossing those features.
- 1049 The Disposition Holder must remove all garbage and waste material from this site.
- 1053 The Disposition Holder must not enter the boundaries of any research or sample plot. Unless consent is received from the holder.

- 1054-AS When proposed activities cross designated or recreation trail(s)* or when operations encroach on those trail(s)*, the Disposition Holder must ensure that:
- a. activities crossing trails* are constructed in a manner that will not remove snow from the trail(s)*, produce ruts in the trail(s)*, or otherwise adversely affect travel;
 - b. no mechanical equipment is permitted to travel along the trail(s)* and;
 - c. warning signs are posted along trail(s)* during construction and reclamation activities advising trail* users of the upcoming crossing location.
- 1061 Where FireSmart activities are considered, the Disposition Holder must follow Information Letter - "Authorization of FireSmart Activities on Public Land" as amended from time to time.

Vegetation

- 1300 The disposition holder must manage all regulated weeds to the satisfaction of the regulatory body.
- 1302 The Disposition Holder must remove all deciduous or coniferous merchantable timber from the Activity as per the following utilization standards;
- Deciduous Timber: 15 centimetres Base/10 centimetres Top
 - Coniferous Timber: 15 centimetres Base/11 centimetres Top
- and haul said timber to the location of end use.
- 1303 The Disposition Holder must slash, limb and buck flat to the ground all woody debris* and leaning trees created by the activity.
- 1304 For fire control purposes on forested lands, the Disposition Holder must dispose of excess coarse woody debris* not utilized for rollback* or stockpiled for reclamation*.

Soil

- 1356 The Disposition Holder must not conduct the Activity during adverse ground conditions*.
- 1357 The Disposition Holder must prevent erosion* and sedimentation on to adjacent* Lands or Water bodies * that results from the activity.
- 1359-AS The Disposition Holder must not remove from the lands topsoil* or subsoil* unless approved in writing by the Regulatory Body.
- 1360 Where activities have occurred on the Lands that do not involve minimal disturbance* construction, the Disposition Holder must salvage topsoil* for land reclamation as follows:
- a. salvage all topsoil* from:
 - i. mineral soils;
 - ii. shallow organic soils* and;
 - iii. reclaimed soils.
 - b. where the depth of the topsoil* is less than 15 centimetres, the topsoil* and part of the subsoil* to a total depth of 15 centimetres must be salvaged, unless the upper subsoil* is considered chemically unsuitable*.
- 1363 All reclamation material* must be considered suitable as defined in the May 2001 Salt Contamination Assessment Guidelines and meet the February 2016 Alberta Tier 1 Soil and Groundwater Remediation Guidelines, as amended or replaced from time to time.
- 1365 The Disposition Holder must store reclamation material* in accordance with all of the following:
- a. reclamation material* must not be placed beneath the ground surface or buried in any way;
 - b. coarse woody debris* stored for reclamation purposes for greater than 12 months must be mixed with topsoil*; and
 - c. topsoil* and subsoil* must be stored separately.
- 1366 For progressive reclamation* the Disposition Holder must retain reclamation material* to be replaced at the active operational area at the time of final reclamation*.
- 1367 The Disposition Holder must not mix wood chips with any reclamation material*.
- 1368 The Disposition Holder must not apply wood chips to the lands at a depth greater than five (5) centimetres.
- 1369 The Disposition Holder must manage wood chips in accordance with the directive ID 2009-01 Management of Wood Chips on Public Land as amended from time to time.

- 1370 The Disposition Holder must not store piles or windrows of reclamation material* within standing timber.
- 1371 The Disposition Holder must not use soil sterilant on the Lands.

WATER

Watercourse/Waterbody

- 1402-AS The Disposition Holder must not conduct the Activity within the following watercourse* setbacks from the top of the breaks:
- a. intermittent watercourses* including springs must have a setback of at least 45 metres;
 - b. small permanent watercourses* must have a setback of at least 45 metres and;
 - c. large permanent watercourses* must have a setback of at least 100 metres.
- 1403-AS For all site activities, paralleling linear activities or pipeline bore sites, the Disposition Holder must not conduct the Activity within the following water body* setbacks from the disposition edge:
- a. non-permanent seasonal wetlands* must have a setback of 45 metres of undisturbed vegetation from the bed and shore and;
 - b. semi-permanent and permanent ponds, wetlands*, shallow open water ponds and lakes must have setback of 100 metres from the bed and shore*.
 - c. intermittent watercourses* including springs must have a setback of at least 45 metres.
 - d. Small permanent watercourses* must have a setback of at least 45 metres.
 - e. large permanent watercourses* must have a setback of at least 100 metres.
- 1412 The Disposition Holder must acquire an authorization for access (off-disposition) for water withdrawal activities.
- 1419 For use of equipment within the bed of a water body*, the Disposition Holder must prior to operations follow the "Decontamination Protocol for Work in or Near Water", as amended from time to time.
- 1420 The Disposition Holder must provide a completed Record of Decontamination form as proof of decontamination to the Regulatory Body upon request.

RECLAMATION

Reclamation

- 1451 For progressive reclamation* on forested lands*, the Disposition Holder must replace all reclamation materials* that have been salvaged in accordance with all of the following:
- a. all salvaged subsoil* must be replaced, then all salvaged topsoil*; and
 - b. reclamation materials* must be replaced over the entire progressive reclamation area*; unless otherwise approved in writing by the Regulatory Body.
- 1453 The Disposition Holder must complete temporary reclamation* on the Lands within 1 growing season of construction phase* for all topsoil* and subsoil* stockpiles required for final reclamation*.
- 1454 The Disposition Holder must prior to seeding herbaceous seed in forested* or peatlands* submit a Request for Seeding in writing to the Regulatory Body that contains all of the following:
- a. rationale for conducting seeding of herbaceous species*;
 - b. a description of the proposed site for seeding including information with respect to the following:
 - i. whether the Lands are subject to high erosion* and;
 - ii. whether the Lands are prone to invasion from agronomic or weed species.
 - c. a proposed seed mix composition for re-vegetation of the Lands in accordance with the Native Plant Revegetation Guidelines for Alberta, 2001 as amended or replaced from time to time or a rationale for alternate species;
 - d. provide a seed certificate in accordance with the Seed Act for the seed mix to be used for re-vegetation* and;
 - e. any other information requested by the Regulatory Body.

- 1455 The Disposition Holder must only conduct seeding in accordance with the written authorization of the Regulatory Body.
- 1456 The Disposition Holder must when seeding cultivated lands*:
a. use agronomic or forage seed that meets or exceeds Certified #1 as outlined in the Seeds Act and Seeds Regulations;
b. use seed mixes that are free of species listed in the Weed Control Act and;
c. provide a seed certificate to the Regulatory Body within 30 days of request.
- 1459 The Disposition Holder must not have slash and rollback* accumulations within five (5) metres of the perimeter of the disposition boundary, greater than the percent ground cover on the surrounding undisturbed forest floor.
- 1463 For final reclamation*, the Disposition Holder must complete all of the following:
a. contour the disturbed land to the pre-disturbance landform or to the landform approved by the Regulatory body;
b. replace all stockpiled subsoil*, then replace all stockpiled topsoil*;
c. spread all coarse woody debris* on forested lands* and;
d. reclamation materials* must be replaced over the entire area from which they were removed unless otherwise approved in writing by the Regulatory Body.
- 1464 The Disposition Holder must reclaim the Lands to the pre-disturbance land use type* unless otherwise authorized in writing by the Regulatory Body.

SPECIES AT RISK

Wildlife

- 1600 The Disposition Holder must conduct a complete and immediate Wildlife Sweep* of the Lands subject to the disposition prior to any activity, as per the "Wildlife Sweep Protocol".
- 1601 The Disposition Holder must submit observations from a Wildlife Sweep* to the Fisheries and Wildlife Management Information System (FWMIS) and notify the issuing Regulatory Body in writing upon request that the Wildlife Sweep* was completed.
- 1602-AS The Disposition Holder must incorporate a buffer* zone of a minimum width of 100m undisturbed vegetation, where an established buffer* does not already exist for any and all key habitat features including, but not limited to leks*, nests, dens and houses identified in the Wildlife Sweep*.
- 1603 When Wildlife Surveys* are required, the Disposition Holder must submit results as defined by the sensitive species inventory guidelines from Wildlife Survey* to the Fisheries and Wildlife Management Information System (FWMIS).
- 1608 The Disposition Holder must incorporate buffers*, setbacks and activity timing restrictions for any and all key habitat features including, but not limited to leks*, nests, dens and houses identified in the wildlife survey*.
- 1611-AS The Disposition Holder must conduct appropriate pre-construction wildlife* surveys as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time where you intersect any of the following sensitive species;
- Sensitive Raptor Range
- Burrowing Owl Range
- Sensitive Snake Hibernacula Range
- Sharp-tailed Grouse Survey
- Swift Fox Range
- Ords Kangaroo Rat Range
- Piping Plover Waterbodies
- Endangered and Threatened Plant Ranges
- Grassland and Parkland Natural Regions (Grassland Bird Surveys)

Sensitive Raptor

- 1651-AS The Disposition Holder must not construct any activities within 1000 metres of a sensitive raptor active nest* with the following exception:
- When construction and operational activities occurs between July 16th and March 14th, the Disposition Holder must not conduct the activity within 100 metres from a sensitive raptor active nest*.

Burrowing Owl

- 1703-AS Between August 16 and March 31, the Disposition Holder must not conduct any activities* within 50 metres of an active burrowing owl den* or nest*.
- 1704 Between April 1 and August 15, the Disposition Holder must not conduct any operational maintenance* within 500 metres of an identified burrowing owl nest* .

Sharp-Tailed Grouse

- 1743-AS The Disposition Holder must ensure that noise resulting from the activity does not exceed 49 decibels within 500 metres of a sharp-tailed grouse lek when the level of noise is measured 10 meters from the source of the noise.
- 1744-AS The Disposition Holder must not construct any activities* within 500 metres from the perimeter of an active or known sharp-tailed grouse lek from March 15 to June 15 of any given year.
- 1745-AS The Disposition Holder must not construct any activities* within 100 metres from the perimeter of an active or known sharp-tailed grouse lek from June 16 to March 14 of any given year.
- 1746-AS Between March 15 and June 15, the Disposition Holder must only conduct operational* work or maintenance between 10:00 a.m. and 4:00 p.m for sites located 100 metres to 500 metres from a sharp-tailed grouse lek.

Other Sensitive and Endangered Species

- 1880-AS Between April 15 and August 15, the Disposition Holder must not conduct any activities* within 100 metres of an active nest site for Federally listed species.

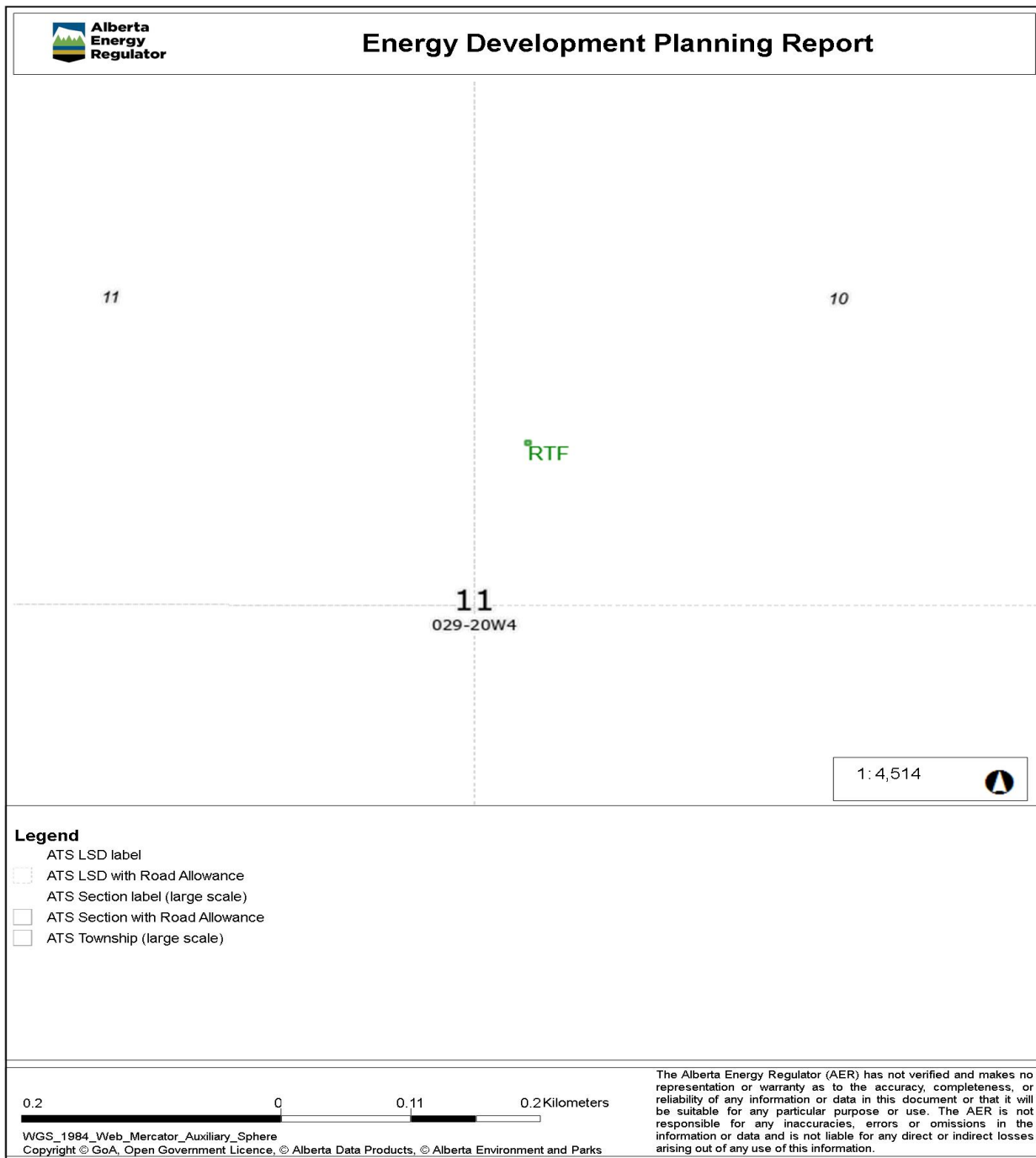
NATURAL REGIONS

Grassland and Parkland Natural Region

- 2054 On native grasslands*, the Disposition Holder must not crimp straw subject to the following exceptions:
- a. the straw used for crimping must be sourced from a native species from the same ecological range site as the Lands and;
 - b. the weed analysis for the straw used for crimping must comply with the Weed Control Act, as amended or replaced from time to time.

- 2061 For activities that fall within native grasslands* as identified by the Northern Fescue Subregion that requires Assisted Natural Recovery*, the Disposition Holder must submit a request for Assisted Natural Recovery in writing to the Regulatory Body that contains all of the following:
1. Rationale for conducting Assisted Natural Recovery*;
 2. A description of the proposed site for Assisted Natural Recovery* including information with respect to the following:
 - a. whether the Lands are subject to high erosion;
 - b. whether the soil on the Lands has been disturbed to an area greater than 50m²;
 - c. whether the Lands are prone to invasion from agronomic or weed species;
 3. A proposed seed mix composition for re-vegetation of the Lands:
 - a. that is consistent with native plant communities that are adjacent to and in the immediate vicinity of the Lands as determined by the Range Plant Communities and Range Health Assessment Guideline for the Northern Fescue Grass Natural Subregion of Alberta, as amended or replaced from time to time; or
 - b. that is consistent with the seed mix composition for the ecological range site of the Lands as provided in The Recovery Strategies for Industrial Development in Native Prairie, Northern Fescue Subregion of Alberta, as amended or replaced from time to time;
 4. Provide a seed certificate in accordance with the Seed Act for the seed mix to be used for Assisted Natural Recovery* and;
 5. Any other information requested by the Regulatory Body.
- 2068 The Disposition Holder must not construct activities on native grassland within the Grassland and Parkland Natural Region between April 15th and August 15th, unless grassland bird surveys are completed as per the Sensitive Species Inventory Guidelines Protocol as amended.
- 2069 The Disposition Holder must not conduct any activities within 100 metres of an active nest site between April 15th and August 15th for the following species:
- a. short-eared owl;
 - b. mountain plover;
 - c. long-billed curlew;
 - d. upland sandpiper;
 - e. sprague's pipit;
 - f. chestnut-collared longspur;
 - g. loggerhead shrike or;
 - h. bank swallow.
- 2070-AS On native grasslands* identified in the Central Parkland and Northern Fescue layer, the Disposition Holder must conduct a conservation assessment as outlined in Conservation Assessments in Native Grassland Strategic Siting and Pre-disturbance Site Assessment Methodology for Industrial Disturbances as amended or replaced from time to time.
- Upon request by the Regulatory Body, the Disposition Holder must submit the conservation assessment report in writing to the Regulatory Body within 30 days of the request.
- 2071-AS The Disposition Holder must not conduct activities on loamy soils* in the Central Parkland and Northern Fescue layer as confirmed by the Disposition Holder through the required pre-disturbance Conservation Assessment, subject to the following exceptions:
- a. using existing disturbances for activities and;
 - b. locating activities adjacent to existing occupied dispositions and non-native vegetation areas.

Activity #: 1
Disposition: RTF
Purpose: Erosion Protection
Activity: Upland Erosion Protection



Legal Locations Intersected

Quarter	Section	Township	Range	Meridian
NE	11	29	20	4

Section 1: Registered Applications and Interests

Note for Report: These are not comprehensive and only what is available geospatially at time of report. Please refer to a current Public Land Standing Report for a complete listing and to make application.

Reservations

Reservation	Holder	Purpose	Reason	Sectors	Action
NULL					

All Other Registered Applications and Interests

Disposition Number	Dispo sition Type	Holder	Status
NULL			

Section 2: Intersection Information

Category	Layer	Name/Description	Additional Information and Details
Historical Resources	Historic Resource Value	5 a, p	
Land	Green White Areas	White Area	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Land	AER Operational Boundaries	Calgary	Contact information available on AER website
Regional or Higher Level Plan	Land-Use Framework Boundaries	Red Deer	Ensure activity aligns with approved Regional Plans.
Regional or Higher Level Plan	IRP Subregional	Red Deer River Corridor Integrated Management Plan	Ensure activity aligns with Higher Level Plans or Variance required
Vegetation	Natural Regions	Grassland	Specific approval standards and conditions of approval may apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Vegetation	Natural Sub-Regions	Grassland Northern Fescue	Specific approval standards and conditions of approval may apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Burrowing Owl Range	Burrowing Owl	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Sensitive Raptor Range	Golden Eagle	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sensitive Raptor Range	Ferruginous Hawk	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sensitive Raptor Range	Prairie Falcon	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions.
Wildlife	Sharp-tailed Grouse Survey	Sharp-tailed Grouse	Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Grassland and Parkland Natural Region (Grassland Bird Survey)		Specific approval standards and conditions of approval will apply as per the Master Schedule of Standards and Conditions. See Section 3 of Report.
Wildlife	Grassland and Parkland Natural Regions	Grassland	

Section 3: Operating Standards and Conditions

LAND

Land Management

- 1030-AS Where an Integrated Resource Plan or a Reservation/Protective Notation identifies a greater set back, the greater set back will prevail.
- 1031-AS Where a Higher Level Plan* exists, the Disposition Holder must follow any direction provided within that plan.
- 1033-AS With the exception of pipelines, for activities that fall within any Protective Notation (PNT) lands with a purpose code 400 Series encompassing a section of land (259 hectares) or less, located in the Provincial White Area, the Disposition Holder must construct all activities within lands previously disturbed or cleared. Where no previous disturbance exists, activities must occur within 100 metres of the PNT.
- 1040 The Disposition Holder must repair or replace any improvements immediately that were damaged as a result of the Activity on the Lands to pre-existing dispositions to the pre-existing condition. Damages to tame pastures must be repaired within one growing season.
- 1041 The Disposition Holder must maintain proper drainage of surface water.
- 1044-AS The Disposition Holder must not locate activities within 45 metres from the top of any coulees* with the exception of activities such as; access, pipelines and linear easements crossing those features.
- 1049 The Disposition Holder must remove all garbage and waste material from this site.
- 1053 The Disposition Holder must not enter the boundaries of any research or sample plot. Unless consent is received from the holder.

- 1054-AS When proposed activities cross designated or recreation trail(s)* or when operations encroach on those trail(s)*, the Disposition Holder must ensure that:
- a. activities crossing trails* are constructed in a manner that will not remove snow from the trail(s)*, produce ruts in the trail(s)*, or otherwise adversely affect travel;
 - b. no mechanical equipment is permitted to travel along the trail(s)* and;
 - c. warning signs are posted along trail(s)* during construction and reclamation activities advising trail* users of the upcoming crossing location.
- 1061 Where FireSmart activities are considered, the Disposition Holder must follow Information Letter - "Authorization of FireSmart Activities on Public Land" as amended from time to time.

Vegetation

- 1300 The disposition holder must manage all regulated weeds to the satisfaction of the regulatory body.
- 1302 The Disposition Holder must remove all deciduous or coniferous merchantable timber from the Activity as per the following utilization standards;
- Deciduous Timber: 15 centimetres Base/10 centimetres Top
 - Coniferous Timber: 15 centimetres Base/11 centimetres Top
- and haul said timber to the location of end use.
- 1303 The Disposition Holder must slash, limb and buck flat to the ground all woody debris* and leaning trees created by the activity.
- 1304 For fire control purposes on forested lands, the Disposition Holder must dispose of excess coarse woody debris* not utilized for rollback* or stockpiled for reclamation*.

Soil

- 1356 The Disposition Holder must not conduct the Activity during adverse ground conditions*.
- 1357 The Disposition Holder must prevent erosion* and sedimentation on to adjacent* Lands or Water bodies * that results from the activity.
- 1359-AS The Disposition Holder must not remove from the lands topsoil* or subsoil* unless approved in writing by the Regulatory Body.
- 1360 Where activities have occurred on the Lands that do not involve minimal disturbance* construction, the Disposition Holder must salvage topsoil* for land reclamation as follows:
- a. salvage all topsoil* from:
 - i. mineral soils;
 - ii. shallow organic soils* and;
 - iii. reclaimed soils.
 - b. where the depth of the topsoil* is less than 15 centimetres, the topsoil* and part of the subsoil* to a total depth of 15 centimetres must be salvaged, unless the upper subsoil* is considered chemically unsuitable*.
- 1363 All reclamation material* must be considered suitable as defined in the May 2001 Salt Contamination Assessment Guidelines and meet the February 2016 Alberta Tier 1 Soil and Groundwater Remediation Guidelines, as amended or replaced from time to time.
- 1365 The Disposition Holder must store reclamation material* in accordance with all of the following:
- a. reclamation material* must not be placed beneath the ground surface or buried in any way;
 - b. coarse woody debris* stored for reclamation purposes for greater than 12 months must be mixed with topsoil*; and
 - c. topsoil* and subsoil* must be stored separately.
- 1366 For progressive reclamation* the Disposition Holder must retain reclamation material* to be replaced at the active operational area at the time of final reclamation*.
- 1367 The Disposition Holder must not mix wood chips with any reclamation material*.
- 1368 The Disposition Holder must not apply wood chips to the lands at a depth greater than five (5) centimetres.
- 1369 The Disposition Holder must manage wood chips in accordance with the directive ID 2009-01 Management of Wood Chips on Public Land as amended from time to time.

- 1370 The Disposition Holder must not store piles or windrows of reclamation material* within standing timber.
- 1371 The Disposition Holder must not use soil sterilant on the Lands.

WATER

Watercourse/Waterbody

- 1402-AS The Disposition Holder must not conduct the Activity within the following watercourse* setbacks from the top of the breaks:
- intermittent watercourses* including springs must have a setback of at least 45 metres;
 - small permanent watercourses* must have a setback of at least 45 metres and;
 - large permanent watercourses* must have a setback of at least 100 metres.
- 1403-AS For all site activities, paralleling linear activities or pipeline bore sites, the Disposition Holder must not conduct the Activity within the following water body* setbacks from the disposition edge:
- non-permanent seasonal wetlands* must have a setback of 45 metres of undisturbed vegetation from the bed and shore and;
 - semi-permanent and permanent ponds, wetlands*, shallow open water ponds and lakes must have setback of 100 metres from the bed and shore*.
 - intermittent watercourses* including springs must have a setback of at least 45 metres.
 - Small permanent watercourses* must have a setback of at least 45 metres.
 - large permanent watercourses* must have a setback of at least 100 metres.
- 1412 The Disposition Holder must acquire an authorization for access (off-disposition) for water withdrawal activities.
- 1419 For use of equipment within the bed of a water body*, the Disposition Holder must prior to operations follow the "Decontamination Protocol for Work in or Near Water", as amended from time to time.
- 1420 The Disposition Holder must provide a completed Record of Decontamination form as proof of decontamination to the Regulatory Body upon request.

RECLAMATION

Reclamation

- 1451 For progressive reclamation* on forested lands*, the Disposition Holder must replace all reclamation materials* that have been salvaged in accordance with all of the following:
- all salvaged subsoil* must be replaced, then all salvaged topsoil*; and
 - reclamation materials* must be replaced over the entire progressive reclamation area*; unless otherwise approved in writing by the Regulatory Body.
- 1453 The Disposition Holder must complete temporary reclamation* on the Lands within 1 growing season of construction phase* for all topsoil* and subsoil* stockpiles required for final reclamation*.
- 1454 The Disposition Holder must prior to seeding herbaceous seed in forested* or peatlands* submit a Request for Seeding in writing to the Regulatory Body that contains all of the following:
- rationale for conducting seeding of herbaceous species*;
 - a description of the proposed site for seeding including information with respect to the following:
 - whether the Lands are subject to high erosion* and;
 - whether the Lands are prone to invasion from agronomic or weed species.
 - a proposed seed mix composition for re-vegetation of the Lands in accordance with the Native Plant Revegetation Guidelines for Alberta, 2001 as amended or replaced from time to time or a rationale for alternate species;
 - provide a seed certificate in accordance with the Seed Act for the seed mix to be used for re-vegetation* and;
 - any other information requested by the Regulatory Body.

- 1455 The Disposition Holder must only conduct seeding in accordance with the written authorization of the Regulatory Body.
- 1456 The Disposition Holder must when seeding cultivated lands*:
a. use agronomic or forage seed that meets or exceeds Certified #1 as outlined in the Seeds Act and Seeds Regulations;
b. use seed mixes that are free of species listed in the Weed Control Act and;
c. provide a seed certificate to the Regulatory Body within 30 days of request.
- 1459 The Disposition Holder must not have slash and rollback* accumulations within five (5) metres of the perimeter of the disposition boundary, greater than the percent ground cover on the surrounding undisturbed forest floor.
- 1463 For final reclamation*, the Disposition Holder must complete all of the following:
a. contour the disturbed land to the pre-disturbance landform or to the landform approved by the Regulatory body;
b. replace all stockpiled subsoil*, then replace all stockpiled topsoil*;
c. spread all coarse woody debris* on forested lands* and;
d. reclamation materials* must be replaced over the entire area from which they were removed unless otherwise approved in writing by the Regulatory Body.
- 1464 The Disposition Holder must reclaim the Lands to the pre-disturbance land use type* unless otherwise authorized in writing by the Regulatory Body.

SPECIES AT RISK

Wildlife

- 1600 The Disposition Holder must conduct a complete and immediate Wildlife Sweep* of the Lands subject to the disposition prior to any activity, as per the "Wildlife Sweep Protocol".
- 1601 The Disposition Holder must submit observations from a Wildlife Sweep* to the Fisheries and Wildlife Management Information System (FWMIS) and notify the issuing Regulatory Body in writing upon request that the Wildlife Sweep* was completed.
- 1602-AS The Disposition Holder must incorporate a buffer* zone of a minimum width of 100m undisturbed vegetation, where an established buffer* does not already exist for any and all key habitat features including, but not limited to leks*, nests, dens and houses identified in the Wildlife Sweep*.
- 1603 When Wildlife Surveys* are required, the Disposition Holder must submit results as defined by the sensitive species inventory guidelines from Wildlife Survey* to the Fisheries and Wildlife Management Information System (FWMIS).
- 1608 The Disposition Holder must incorporate buffers*, setbacks and activity timing restrictions for any and all key habitat features including, but not limited to leks*, nests, dens and houses identified in the wildlife survey*.
- 1611-AS The Disposition Holder must conduct appropriate pre-construction wildlife* surveys as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time where you intersect any of the following sensitive species;
- Sensitive Raptor Range
- Burrowing Owl Range
- Sensitive Snake Hibernacula Range
- Sharp-tailed Grouse Survey
- Swift Fox Range
- Ords Kangaroo Rat Range
- Piping Plover Waterbodies
- Endangered and Threatened Plant Ranges
- Grassland and Parkland Natural Regions (Grassland Bird Surveys)

Sensitive Raptor

- 1651-AS The Disposition Holder must not construct any activities within 1000 metres of a sensitive raptor active nest* with the following exception:
- When construction and operational activities occurs between July 16th and March 14th, the Disposition Holder must not conduct the activity within 100 metres from a sensitive raptor active nest*.

Burrowing Owl

- 1703-AS Between August 16 and March 31, the Disposition Holder must not conduct any activities* within 50 metres of an active burrowing owl den* or nest*.
- 1704 Between April 1 and August 15, the Disposition Holder must not conduct any operational maintenance* within 500 metres of an identified burrowing owl nest* .

Sharp-Tailed Grouse

- 1743-AS The Disposition Holder must ensure that noise resulting from the activity does not exceed 49 decibels within 500 metres of a sharp-tailed grouse lek when the level of noise is measured 10 meters from the source of the noise.
- 1744-AS The Disposition Holder must not construct any activities* within 500 metres from the perimeter of an active or known sharp-tailed grouse lek from March 15 to June 15 of any given year.
- 1745-AS The Disposition Holder must not construct any activities* within 100 metres from the perimeter of an active or known sharp-tailed grouse lek from June 16 to March 14 of any given year.
- 1746-AS Between March 15 and June 15, the Disposition Holder must only conduct operational* work or maintenance between 10:00 a.m. and 4:00 p.m for sites located 100 metres to 500 metres from a sharp-tailed grouse lek.

Other Sensitive and Endangered Species

- 1880-AS Between April 15 and August 15, the Disposition Holder must not conduct any activities* within 100 metres of an active nest site for Federally listed species.

NATURAL REGIONS

Grassland and Parkland Natural Region

- 2054 On native grasslands*, the Disposition Holder must not crimp straw subject to the following exceptions:
- a. the straw used for crimping must be sourced from a native species from the same ecological range site as the Lands and;
 - b. the weed analysis for the straw used for crimping must comply with the Weed Control Act, as amended or replaced from time to time.

- 2061 For activities that fall within native grasslands* as identified by the Northern Fescue Subregion that requires Assisted Natural Recovery*, the Disposition Holder must submit a request for Assisted Natural Recovery in writing to the Regulatory Body that contains all of the following:
1. Rationale for conducting Assisted Natural Recovery*;
 2. A description of the proposed site for Assisted Natural Recovery* including information with respect to the following:
 - a. whether the Lands are subject to high erosion;
 - b. whether the soil on the Lands has been disturbed to an area greater than 50m²;
 - c. whether the Lands are prone to invasion from agronomic or weed species;
 3. A proposed seed mix composition for re-vegetation of the Lands:
 - a. that is consistent with native plant communities that are adjacent to and in the immediate vicinity of the Lands as determined by the Range Plant Communities and Range Health Assessment Guideline for the Northern Fescue Grass Natural Subregion of Alberta, as amended or replaced from time to time; or
 - b. that is consistent with the seed mix composition for the ecological range site of the Lands as provided in The Recovery Strategies for Industrial Development in Native Prairie, Northern Fescue Subregion of Alberta, as amended or replaced from time to time;
 4. Provide a seed certificate in accordance with the Seed Act for the seed mix to be used for Assisted Natural Recovery* and;
 5. Any other information requested by the Regulatory Body.
- 2068 The Disposition Holder must not construct activities on native grassland within the Grassland and Parkland Natural Region between April 15th and August 15th, unless grassland bird surveys are completed as per the Sensitive Species Inventory Guidelines Protocol as amended.
- 2069 The Disposition Holder must not conduct any activities within 100 metres of an active nest site between April 15th and August 15th for the following species:
- a. short-eared owl;
 - b. mountain plover;
 - c. long-billed curlew;
 - d. upland sandpiper;
 - e. sprague's pipit;
 - f. chestnut-collared longspur;
 - g. loggerhead shrike or;
 - h. bank swallow.
- 2070-AS On native grasslands* identified in the Central Parkland and Northern Fescue layer, the Disposition Holder must conduct a conservation assessment as outlined in Conservation Assessments in Native Grassland Strategic Siting and Pre-disturbance Site Assessment Methodology for Industrial Disturbances as amended or replaced from time to time.
- Upon request by the Regulatory Body, the Disposition Holder must submit the conservation assessment report in writing to the Regulatory Body within 30 days of the request.
- 2071-AS The Disposition Holder must not conduct activities on loamy soils* in the Central Parkland and Northern Fescue layer as confirmed by the Disposition Holder through the required pre-disturbance Conservation Assessment, subject to the following exceptions:
- a. using existing disturbances for activities and;
 - b. locating activities adjacent to existing occupied dispositions and non-native vegetation areas.

Fish and Wildlife Internet Mapping Tool (FWIMT)

(source database: Fish and Wildlife Management Information System (FWMIS))

Species Summary Report

Report Date: 17-Aug-2022 11:37

Species present within the current extent

Fish Inventory

BURBOT
 EMERALD SHINER
 FLATHEAD CHUB
 GOLDEYE
 LONGNOSE DACE
 LONGNOSE SUCKER
 MINNOW FAMILY
 NORTHERN PIKE
 SAUGER
 SHORHEAD REDHORSE
 WALLEYE
 WHITE SUCKER

Wildlife Inventory

ALDER FLYCATCHER
 BANK SWALLOW
 EASTERN KINGBIRD
 LEAST FLYCATCHER

Stocked Inventory

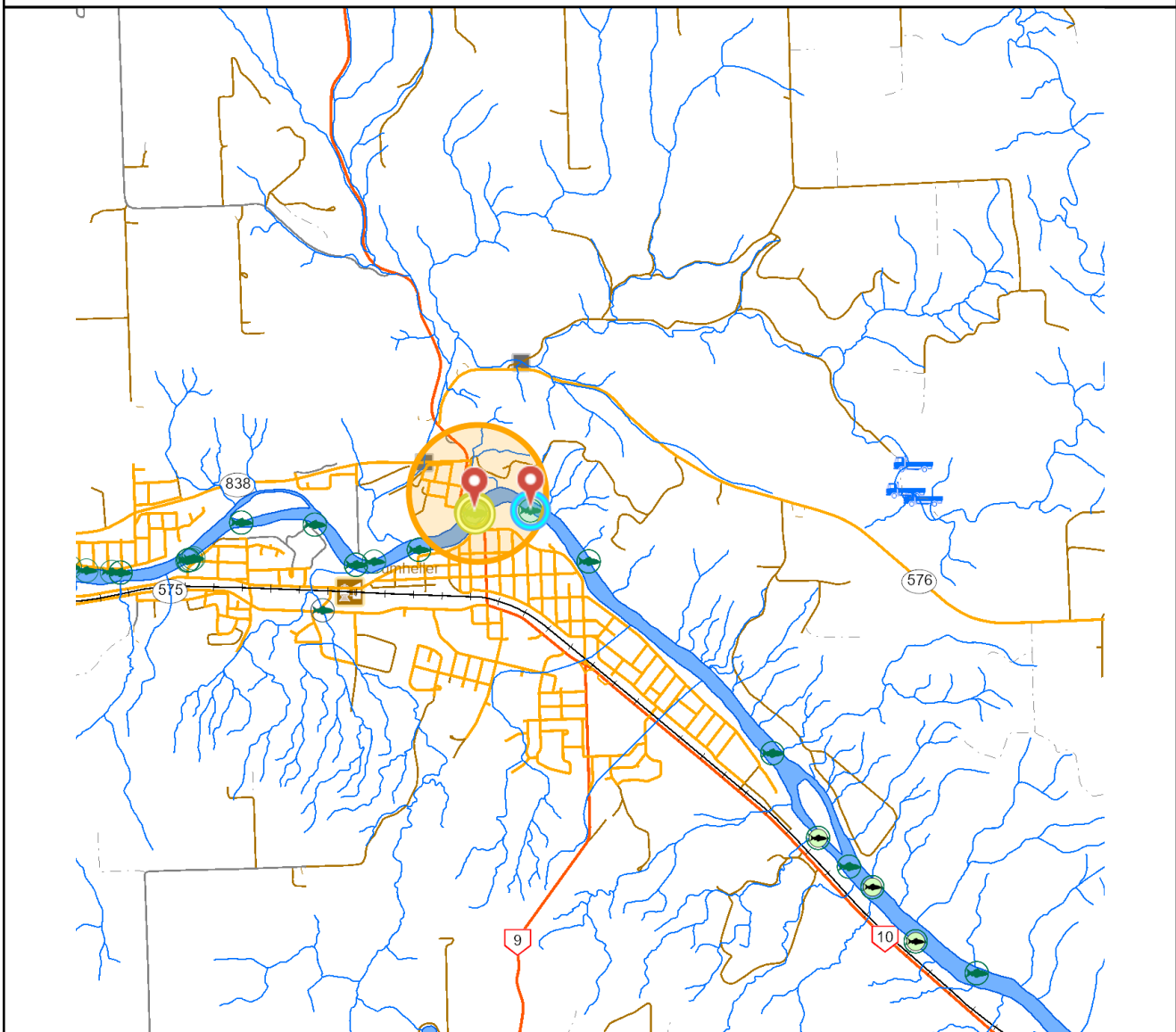
No Species Found in Search Extent

Buffer Extent

Centroid (X,Y)	Projection	Centroid (Qtr Sec Twp Rng Mer)	Radius or Dimensions
658898, 5702216	10-TM AEP Forest	NE 11 29 20 4	500 meters

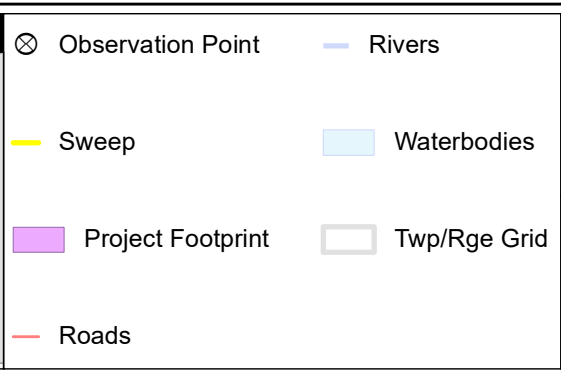
Contact Information

For contact information, please visit:
<https://www.alberta.ca/fisheries-and-wildlife-management-contacts.aspx>



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APPENDIX B – WILDLIFE SWEEP MAP



Town of Drumheller Kerr Wood-DRFM Dike C Wildlife Survey Overview

0 60 120
Metres

Project #3615
Date: August 22, 2022
NAD 1983 UTM Zone 12N
File: WildlifeSweepMap_Aug19_2022

1:2,500

APPENDIX C – WILDLIFE SWEEP PHOTOS



Figure 1: View of the area to be cleared looking Northeast.



Figure 2: View of the area to be cleared looking Southwest towards the Red Deer River.

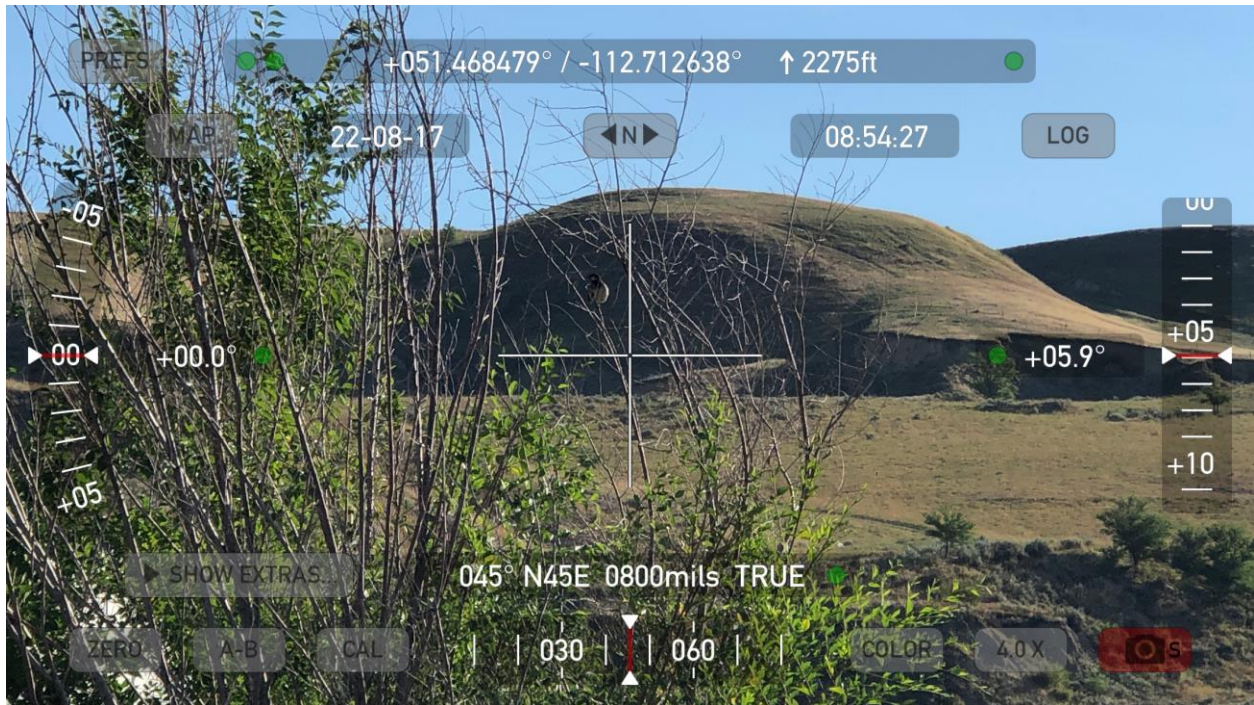


Figure 3: House Sparrow observed within the Project footprint.



Figure 4: View of the area to be cleared from the top of the river bank looking Northeast.



Figure 5: View of the area to be cleared looking south towards the Red Deer River.

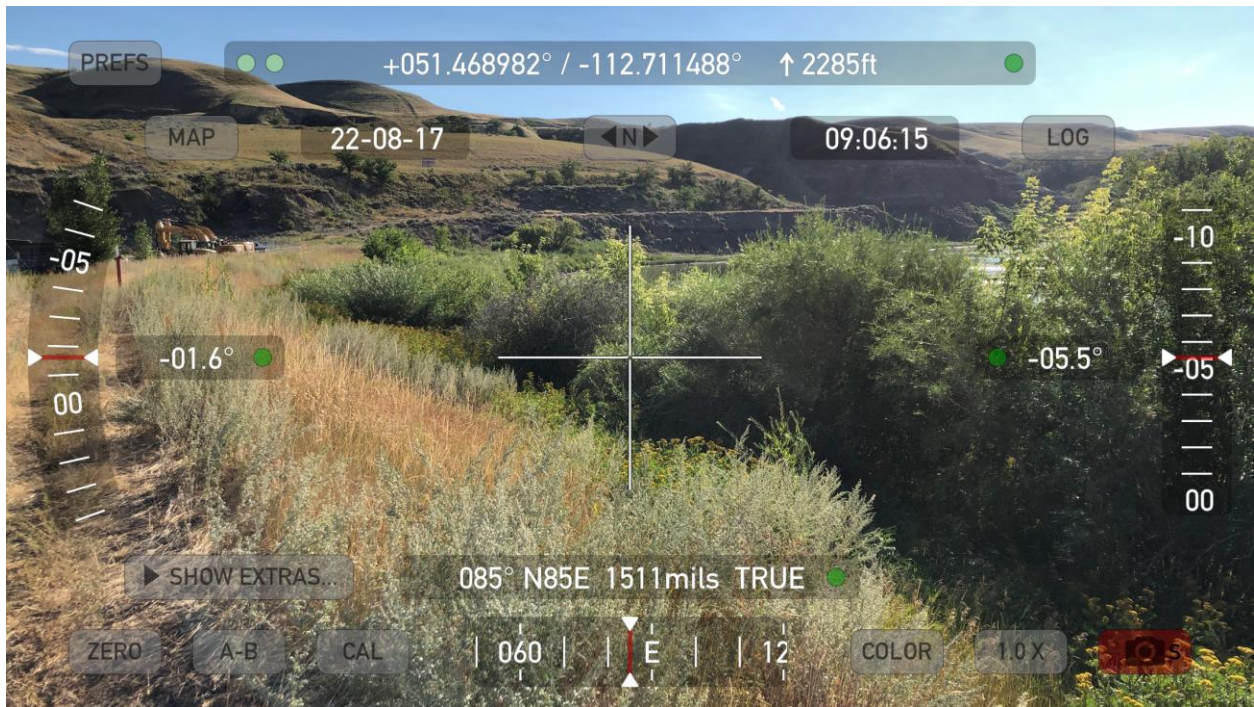


Figure 6: View of the area to be cleared from the top of the river bank looking Northeast.



Figure 7: View of the area to be cleared from the top of the river bank looking downstream.



Figure 8: View of the area to be cleared from the top of the river bank looking upstream.



Figure 9: Song Sparrow observed within the Project footprint.



Figure 10: View of the area to be cleared from the top of the river bank looking downstream.



Figure 11: View of the yard North of the Project area.



Figure 12: View of trees to be cleared at the eastern end of the Project footprint



Figure 14: Red Deer river looking downstream at the eastern most portion of the Project footprint.



Figure 15: View of the Project area looking West from the eastern edge of the footprint.

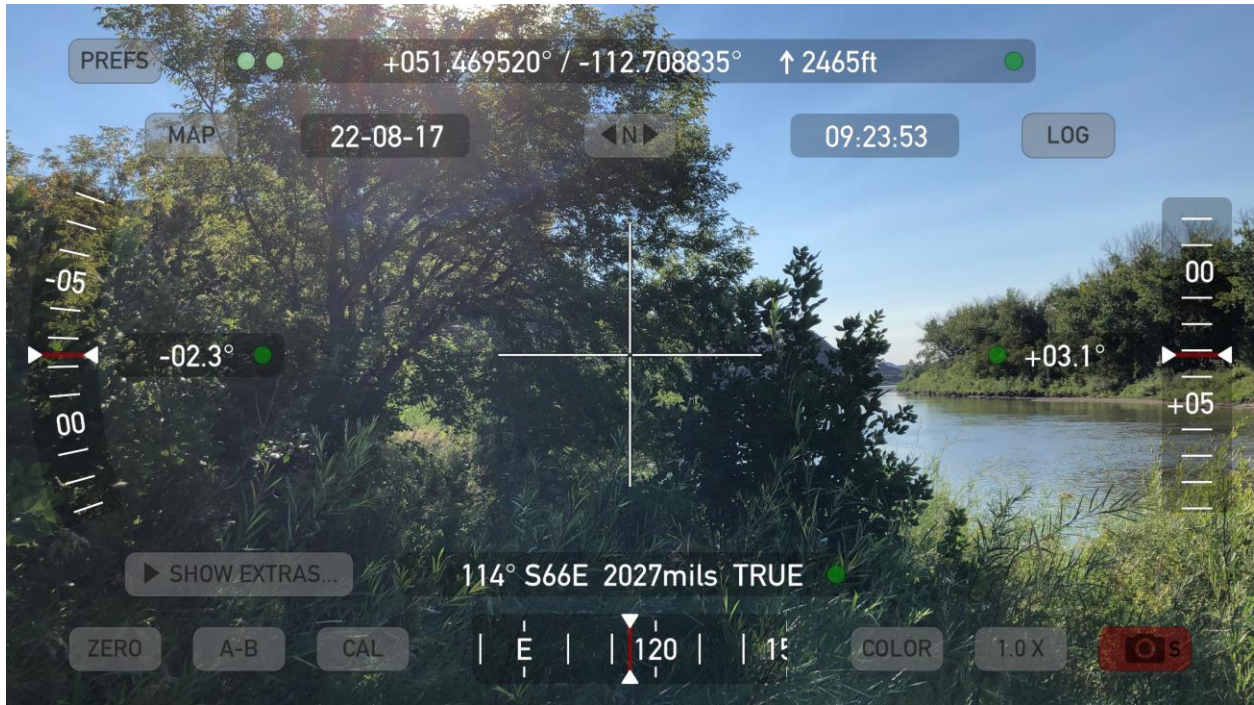


Figure 16: Trees on the eastern most end of the Project footprint.



Figure 17: Grey Catbird observed on the Project footprint.



Figure 18: Bank of the Red Deer River on the edge of the Project footprint.



Figure 19: Freshwater clam shells observed on the banks of the river.



Figure 20: Freshwater clam shells observed on the banks of the river.



Figure 21: Freshwater clam shells observed on the banks of the river.



Figure 22: Bank Swallow nests near the Project footprint, not currently in use.

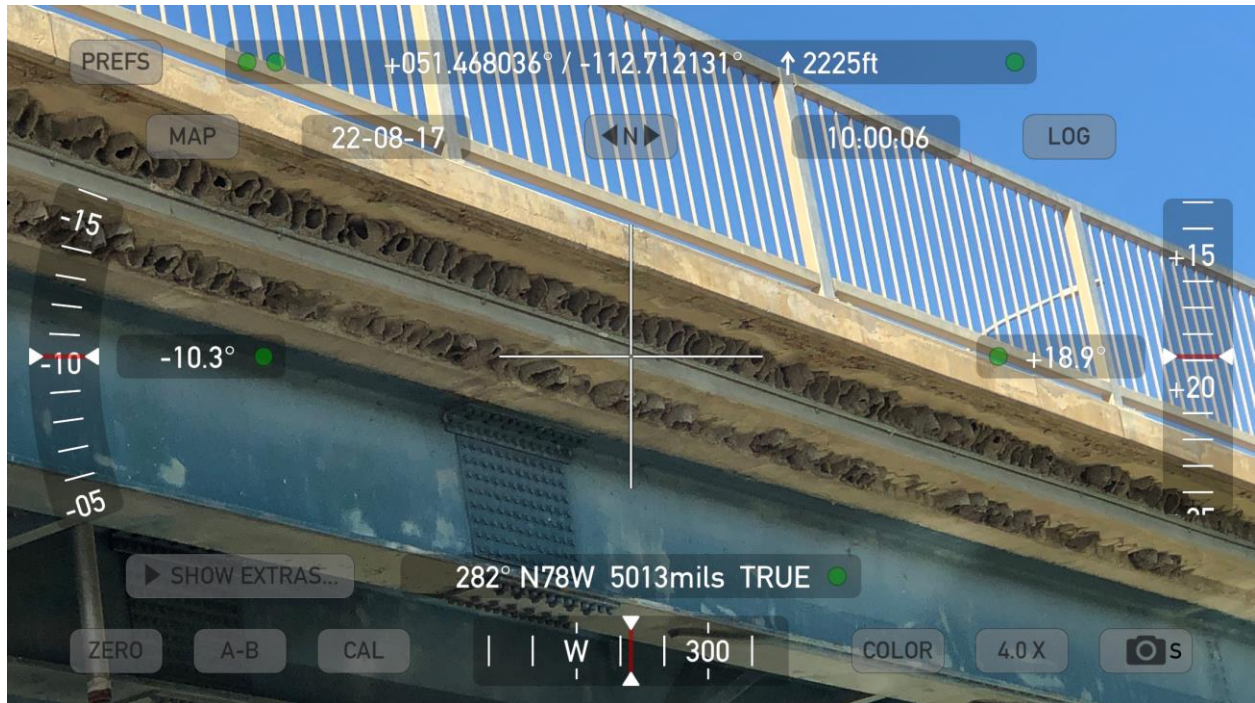


Figure 23: Bank Swallow nests near the Project footprint, not currently in use.