



Special Areas Board

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Guide to Completion of the Environmental Review

January 2021

Special Areas Board
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i. Preface

The Special Areas Environmental Review Program was initiated on January 1, 2010 to address the on-going development of industrial activity on public lands administered by the Special Areas Board. This program aids in the proper management and protection of environmental features during planning, construction, operations, and reclamation of industrial activities. This document provides information to proponents that are conducting an Environmental Review for a proposed project located within public lands administered by the Special Areas Board.

The Special Areas Board has always emphasized preservation of native range. These grasslands provide habitat to wildlife and plant species, many of which are classified as Species-at-Risk. They are also valuable to agriculture, industrial, commercial and recreational land uses.

An Environmental Review must be completed for proposed projects that require an approval for new surface dispositions on public land administered by the Special Areas Board. The purpose of the Environmental Review is to identify risks associated with the proposed disturbance and includes desktop information searches and a field assessment to compile a comprehensive overview of the environmental conditions at the proposed project location. The proponent must demonstrate a reasonable understanding of the project and the environment into which it is to be placed, potential impacts associated with the project and the mitigation measures that will be taken to address these impacts. Flexibility in final plans needs to account for the risks identified through the Environmental Review.

ii. Requirements

The Environmental Review must be completed using the Environmental Review (ER) form. This form is available at <http://www.specialareas.ab.ca/business/oil-and-gas/>. The ER form must be filled out completely; any missing information will result in delays or project refusal.

The field assessment must be site specific and conducted at the appropriate time. Soils assessments must be conducted under unfrozen ground conditions, vegetation should be assessed when it is actively growing, between June and mid-September, and wildlife surveys conducted in the appropriate timeframe for the species present.

The assessments must also be conducted by a qualified professional. Qualified professionals include individuals or groups with the following qualifications:

- a. Degree or diploma in biological, environmental or natural resource sciences from an accredited college or university, technical diploma in biological, environmental or natural resources sciences from an accredited college or technical institute, or educational equivalencies.
- b. Technical knowledge and experience in soil, plant and wildlife assessment
- c. Membership in good standing with a regulated professional association in Alberta that is constituted under an act of the Alberta Legislature, holds a code of ethics and is subject to disciplinary action.



The assessor does not need to be a member of a regulated professional association if they hold the qualifications outlined in points a and b, and their work is reviewed by a member of a professional organization as outlined in point c. Multiple assessors with various disciplines may be required to complete entire scope of the project. Only one qualified professional is required to sign off the submitted Environmental Review.

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1 General Information

1.1 Submission Date

Provide the date the ER was submitted.

1.2 Field Assessment Date(s)

Provide the date each field assessment took place. Multiple field visits may be required to capture appropriate assessment windows for each environmental feature assessed.

1.3 Applicant Information

Provide the name of the company that is proposing to conduct the project as well as the company representative who will be the main point of contact for the project and their contact information including address, telephone number, and email.

1.4 Assessor Information

Provide the name of the company conducting the assessment and the name and contact information for the main person completing the Environmental Review.

1.5 Professional Sign-off

Provide the name of the qualified individual, professional designation and registration number for who will be signing off on the entire Environmental Review.

2 Occupant Interview

Most public land in the Special Areas is leased by an occupant who is generally the best source of information regarding their Special Areas leased land. The occupant can be determined by requesting a disposition search via email at sasearches@gov.ab.ca or a subscription can be purchased from the Special Areas Board to access this information.

Adjacent landowners and/or occupants that may be directly impacted by the project can also be interviewed. Concerns that could be raised by affected parties must be mitigated by the project applicant to ensure the proposed project has the least amount of impact to the stakeholder's land uses.

3 Project Description

3.1 Project Description

Consider all stages of the project and all work that will be required at each stage and describe in this section.

3.2 Project Schedule

Describe estimated planned start and completion dates of construction and the anticipated life span of the project including timing of the project activities to avoid seasonal conflicts with wildlife as well as ground conditions.

3.3 Project Land Use

Describe the primary land uses (native pasture, tame pasture, cultivated, or various types of industrial activity) found immediately within and adjacent to the project location including significant topographical features and previous linear and non-linear disturbances.

3.4 Activity Integration

Describe how the project has been planned to integrate with the surrounding landscape and minimize the impacts. Avoidance of native grasslands is often the best strategy to reduce cumulative effects on these difficult to reclaim landscapes. The integration of a new disturbance with an existing disturbance(s) will reduce impacts to native prairie.

4 Environmental Information

4.1 Landscape

Restricted Development Areas

No projects will be approved within the Special Areas Restricted Development areas or the Boundaries of any Special Areas municipal parks. A listing including maps of these areas is presented in Appendix A.

Red Deer River Corridor

There is also no development permitted within the valley floor of the Red Deer River and 150 m from the top of the valley break as stated in the *Red Deer River Corridor Integrated Management Plan* (Alberta Environment 2000). No projects will be approved within these setbacks.

Environmental Significant Areas

Environmentally significant areas are defined in the document *Environmentally Significant Areas in Alberta* (Fiera 2014). The designation of an ESA indicates unique or significant features of the landscape with biotic and abiotic resources within an area. Other features that are not specifically listed as an ESA might include springs, coulee breaks, or some other unique landscape feature. Special Areas Policy 06-02 does not permit well center to be within 100 m of topographic features such as coulee breaks or other unique landscape formations, and any disturbance within 100 m of these areas and/or features must have mitigation measures in place to protect the feature.

Overlapping Jurisdictional Areas

Gooseberry Lake Provincial Park, Little Fish Lake Provincial Park, Dinosaur Provincial Park and the Handhills Ecological Reserve are administered by Alberta Environment and Parks and all applications for development in these areas must be referred to Alberta Environment and Parks. In addition, any development adjacent to the Handhills Ecological Reserve must meet requirements set out in the *Handhills Ecological Reserve Management Plan* (Alberta Recreation and Parks 1989).

4.2 Soils

4.2.1 Soil Classification

Various resources such as the *Agricultural Regions of Alberta Soil Inventory Database* (AGRASID) and soil surveys can be utilized to assist in determining the soil subgroup and series for the proposed project location. Soil polygons can be presented on the soils map.

4.2.2 Soil Characterization

A field visit must be undertaken to determine the depth and texture of topsoil and subsoil. The number and location of field soil assessment points as well as methods to be used to collect the appropriate soils data is described in section 6.2.1 of the *Conservation Assessments in Native Grasslands* (AEP 2018). Field soil assessment locations are to be included in the soils map.

4.2.3 Problem Soils

Problem soils often require special mitigation in order to protect these areas and leave them in a viable state for when the project has reached the end of its life. Problem soils might include those that are sandy texture, solonetzic profile, saline influenced, shallow topsoil, eroded, pitted and/or duned.

4.3 Vegetation

4.3.1 Principle Plant Communities

Plant communities for the Special Areas are described in the *Dry Mixedgrass, Northern Fescue, Central Parkland, and Mixedgrass Range Plant Community Guides* (GoA 2020). A native plant community is defined as having a vegetation cover of greater than 30 per cent native species. Each plant community within the project area must be identified and delineated.

All plant communities that make up 30 percent or more of the proposed project footprint must have at least one detailed transect survey completed to identify the species composition and confirm the principle plant community of the area. If the proposed development is significantly large or traverse's variable terrain, several transect surveys will be required and it may become practical to capture plant communities that make up less than 30 percent of the project area to adequately represent the vegetation in the area.

The method for conducting detailed transect surveys is outlined in the *Conservation Assessments in Native Grasslands* (AEP 2018) section 6.2.2. Inventory forms and more in-depth description of how to conduct a detailed vegetation inventory survey can be found in the *Range Survey Manual* (ASRD 2007).

Areas where vegetation is seeded to non-native perennial forages (cultivated and hayed) do not require transects. Fields identified as modified grassland or tame pasture (consisting of greater than 70 percent non-native species), will require transect surveys in order to determine species composition.

A map showing the delineated vegetation community types, locations of detailed transect surveys, and proposed project outline must be included.

4.3.2 Fescue Grasslands

Fescue plant communities are listed as rare (S1) plant communities by the *Alberta Conservation Information Management System* (ACIMS) (Allen 2014). Rough fescue plant communities are sensitive to disturbance and extremely difficult to restore after disturbance. Avoidance of these grasslands must be seriously considered during project planning. It is important to conduct a detailed transect survey to determine the presence and abundance of fescue species within the project area. For any proposed developments in fescue plant communities, thoroughly describe mitigation and monitoring to take place that will effectively reduce the impact to these plant communities.

4.3.3 Rare Plant Occurrences

A rare plant survey must be conducted on the project footprint if the proposed project is determined to contain a native plant community. Only the project footprint requires survey outside of the *Threatened and Endangered Plant Range*.

The rare plant survey shall be conducted in accordance with the protocol established by the *Guidelines for Rare Vascular Plant Surveys in Alberta* (ANPC 2012). Rare plant survey only needs to occur in areas identified as native (as defined in section 4.3.1). Cultivated and perennial forage areas are unlikely to have rare plants and do not require survey.

All ACIMS tracked vascular plants shall be recorded and reported during the survey and included on the vegetation map. Locations and information on ACIMS tracked plants can be found on the ACIMS portion of the Alberta Parks website at :

<https://www.albertaparks.ca/albertaparksca/management-land-use/alberta-conservation-information-management-system-acims/> (GoA 2019).

4.3.4 Threatened and Endangered Plant Range

Any proposed projects proposed within or 300 meters adjacent to a *Threatened or Endangered Plant Range* will require a rare plant survey on the proposed project footprint as well as a 300 m buffer area surrounding the project. The project must be located to meet the required setbacks from *threatened* and/or *endangered* plants identified. Species identified during the survey must be identified on the vegetation map. The rare plant survey shall be conducted in accordance with the protocol established by the *Guidelines for Rare Vascular Plant Surveys in Alberta* (ANPC 2012).

4.3.5 Weeds

Weeds that are listed as *noxious* or *prohibited noxious* as defined by the *Alberta Weed Control Act* and are identified in the project area or surrounding area must be recorded. It is important to note the potential sources of weed infestations for a proposed project so that effective monitoring and control programs can be initiated. This may require looking outside of the proposed project footprint and into the surrounding area.

4.4 Wildlife

4.4.1 Sensitive Species Ranges

Proposed projects that occur within or adjacent to a sensitive species range(s) will require a wildlife survey for the species. The sensitive species ranges can be access from Alberta Environment and Parks. The Other sources of information regarding wildlife occurrences may come from AEP regional biologists or during stakeholder interviews.

4.4.2 Fisheries and Wildlife Management Information System (FWMIS)

The FWMIS database provide a listing of wildlife occurrences recorded across the province. Wildlife surveys are required for sensitive species reported within the project area including locations outside of the sensitive species range(s).

Wildlife survey methods to be used are detailed in the *Sensitive Species Inventory Guidelines* (GoA 2013), and setback distances are listed *Table 1. Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta* (GoA 2011) below. If any habitat features (eg. nests, dens, leks, hibernacula,

etc.) are identified during the wildlife survey, the appropriate setback distance and timings must be applied. Any deviations from these listed setbacks and timing restrictions will require approval from the AEP Wildlife Biologist.

| Recommended Restricted Activity Dates and Setback Distances by Level of Disturbance | | | | | |
|---|--------------------------------------|--|----------------------|--------|--------|
| Species | Location | Time of Year | Level of Disturbance | | |
| | | | Low | Medium | High |
| Great Plains Toad and Plains Spadefoot | Class III wetlands on Native Prairie | Year round | 100 m | 100 m | 100 m |
| Northern Leopard Frog | Breeding ponds | Year round | 100 m | 100 m | 100 m |
| Eastern Short Horned Lizard* | Habitat | Year Round | 100 m | 100 m | 200 m |
| Bull Snake, Western Hognose Snake, Prairie Rattlesnake | Hibernacula | Year around | 200 m | 200 m | 500 m |
| | Rookery | March 15 th – October 31 st | 200 m | 200 m | 200 m |
| | | November 1 st – March 14 th | 50 m | 50 m | 200 m |
| Greater Sage Grouse* | Leks | Year around | 3200 m | 3200 m | 3200 m |
| | Habitat | Year-Round | 1000m | 1000 m | 1000m |
| Sharp-Tail Grouse | Leks | March 15 th – June 15 th | 500 m | 500 m | 500 m |
| | | June 16 th – March 14 th | 100m | 100 m | 500m |
| Peregrine Falcon, Bald Eagle, Golden Eagle, Prairie Falcon, Ferruginous Hawk | Nesting sites | March 15 th – July 15 th | 1000 m | 1000 m | 1000 m |
| | | July 16 th – March 14 th | 50 m | 100 m | 1000 m |
| Burrowing Owl | Nesting sites | April 1 st – August 15 th | 200 m | 500 m | 500 m |
| | | August 16 th – October 15 th | 200 m | 200 m | 500 m |
| | | October 16 th – March 31 st | 50 m | 100 m | 500 m |
| Colonial Nesting Birds: American White Pelican, Great Blue Heron* | Nesting sites | April 1 st – August 31 st | 1000 m | 1000 m | 1000 m |
| | | September 1 st – March 31 st | 100 m | 100 m | 1000 m |
| Piping Plover waterbodies* | Nesting sites | April 15 th – July 31 st | 100 m | 200 m | 200 m |
| | | August 1 st – April 14 th | 100 m | 100 m | 200 m |
| Ord's Kangaroo Rat** | Nesting sites (dens) | Year Round | 50 m | 100 m | 250 m |
| Threatened and Endangered Plants | Habitat | Year Round | 30 m | 30 m | 300 m |
| Swift Fox | Den | February 16 th – July 31 st | 500 m | 500m | 500 m |
| | | August 1 st – February 15 th | 50 m | 100 m | 500 m |
| Long-billed Curlew Upland Sandpiper Mountain Plover Short-eared Owl Sprague's Pipit | Active nest and surrounding habitat | April 1 st – July 15 th | 100 m | 100 m | 100 m |

Table 1: Recommended Restricted Activity Date and Setback Distances for selected Species. Table from the document: *Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta* (GoA 2011).

*these species habitats are mapped on LAT

**All activity should conclude before sunset and not use artificial illumination within 1000 m of Ord's Kangaroo Rat range

4.4.3 Migratory Birds

In accordance with the *Migratory Bird Convention Act*, no disturbance to nests or actively nesting birds is permitted during the breeding and nesting periods. A sweep is required up within seven days prior to the start of project activity to ensure no active nests are present within 100 m of the project during project activities. If active nests are found within 100 m, the project should be delayed or require approval from an AEP Wildlife Biologist prior to proceeding.

4.5 Wetlands & Waterbodies

4.5.1 Water Act Approval

Any work occurring within any waterbody, or any water withdrawals require *Water Act* approval from the appropriate regulatory body. It is the responsibility of the proponent to ensure that the appropriate approvals and conditions have been met.

4.5.2 Well Center Setbacks

Special Areas Policy 06-02 prohibits the placement of a well center within 100 m of the banks of seasonal (S&K Class III), semi-permanent (SK Class IV), and permanent (SK Class V) wetlands.

4.5.3 Wetland & Waterbody Setbacks

Placement of any development within 45 m of a seasonal (Class III) or 100 m of a semi-permanent (Class IV) or permanent (Class V) wetland will require additional mitigation to prevent the development from negatively impacting the wetland. Placement of a pipeline or vehicle crossing within 15 m of a seasonal (Class III) waterbody requires additional mitigation measure to ensure that the wetland will not be impacted.

5 Cultural & Historical Resources

5.1 Historical Resource Value (HRV)

The HRV of a location can be obtained by performing a search of the most updated Listing of Historic Resources available on the Government of Alberta's webpage. If any part of the proposed project location has a listed HRV, a Historic Resources Application will need to be submitted through the Online Permitting and Clearance System. The clearance received after completing all required steps will need to be submitted with the disposition application. Further information can be found on the Government of Alberta's Historic Resources Pages:

<https://www.alberta.ca/listing-historic-resources.aspx>.

5.2 First Nations & Metis Settlement Consultation

If the project is located within WMU 200, the proponent must contact Alberta Municipal Affairs to determine if consultation with First Nations and/or Metis Settlements will be required. Supporting project information such as mapping, surveys, aerial photographs, or shape files can be sent to Municipal Affairs by email at: ma.consultation@gov.ab.ca.

Municipal Affairs will respond with either a letter stating no consultation required or advise that that consultation is required. If consultation has been advised, the project applicant must complete the consultation process, at the end of which Municipal Affairs will issue a consultation adequacy letter.

The letter issued by Municipal Affairs, either the *No Consultation Required Letter* or the *Consultation Complete Letter*, must be included with the disposition application for all projects located in WMU 200.

6 Project Development & Mitigation Activities

6.1 Project Impacts

Describe the impacts the proposed project may have on the features identified from Sections 2 and 4 of the Environmental Review. The different potential impacts that may occur at each project phase are important to consider; for example, impacts that may occur during construction, drilling, operations, decommissioning, and reclamation.

6.2 Mitigation Measures

Indicate how the impact will be avoided, reduced, and mitigated. Monitoring during and after construction and throughout the life of the project is also important to minimize impacts

6.3 Construction Plan

Proposed duration of construction, soil conservation techniques, specialized equipment selection, vegetation removal techniques, and inclement weather contingency plan should all be included in the construction plan.

Special Areas Policy 06-05: Minimum Disturbance on Native Range Policy provides guidance on minimum disturbance techniques and planning measures to be utilized in order to prevent the loss of native prairie. The policy encourages proper planning and construction based on the needs of the specific project.

6.4 Reclamation

Interim and final reclamation should be scheduled to occur as quickly after disturbance as possible to provide the best opportunity for disturbed lands to return to a natural condition. Disturbance size and the condition of the surrounding grassland will direct whether natural recovery or assisted natural recovery is the best method of restoration. For disturbances requiring seeding, identify the seed mix based on the principal communities, seed source, seeding methods and seeding rates. For more information on seed mix selection and design refer to *Plant Material Selection and Seed Mix Design for Native Grassland Restoration Projects* (TCS 2016).

Special Areas Policy 06-06: Invasive Introduced Forages on Reclamation Sites prohibits the use of non-native agronomic species during interim and final reclamation in native prairie. Identifying and controlling infestations of weeds and/or agronomic grasses early while populations are small will encourage successful restoration of native plant communities.

7 Photographs

Photographs of the proposed project location should be taken during all assessments and included in the Environmental Review. Photographs should show an overview of the site as well as any important areas and features identified during investigations completed during the Environmental Review.

Labeling of photographs should include the date the photograph was taken, where the photograph was taken in relation to the proposed disturbance, direction facing, and what the photograph is depicting.

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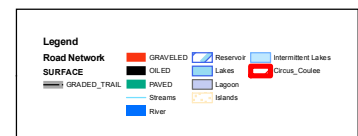
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Appendix A: Restricted Development Areas





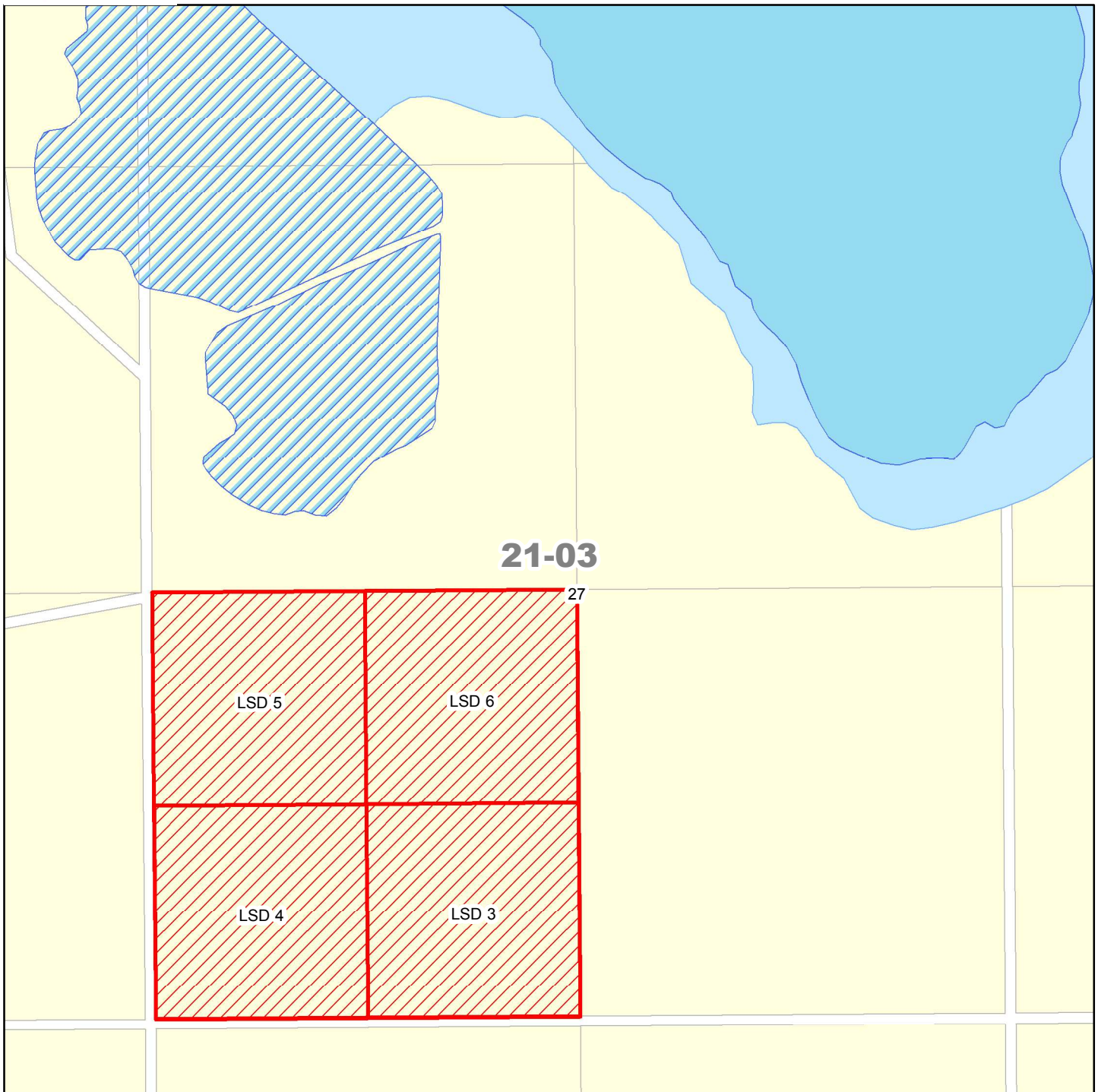
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Prince's Springs

SW 27-21-03-W4M



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Legend

Road Network

SURFACE

GRADED_TRAIL

GRAVELED

OILED

PAVED

Streams

River

Reservoir

Lakes

Lagoon

Islands

Intermittent Lakes

Restricted Development Area

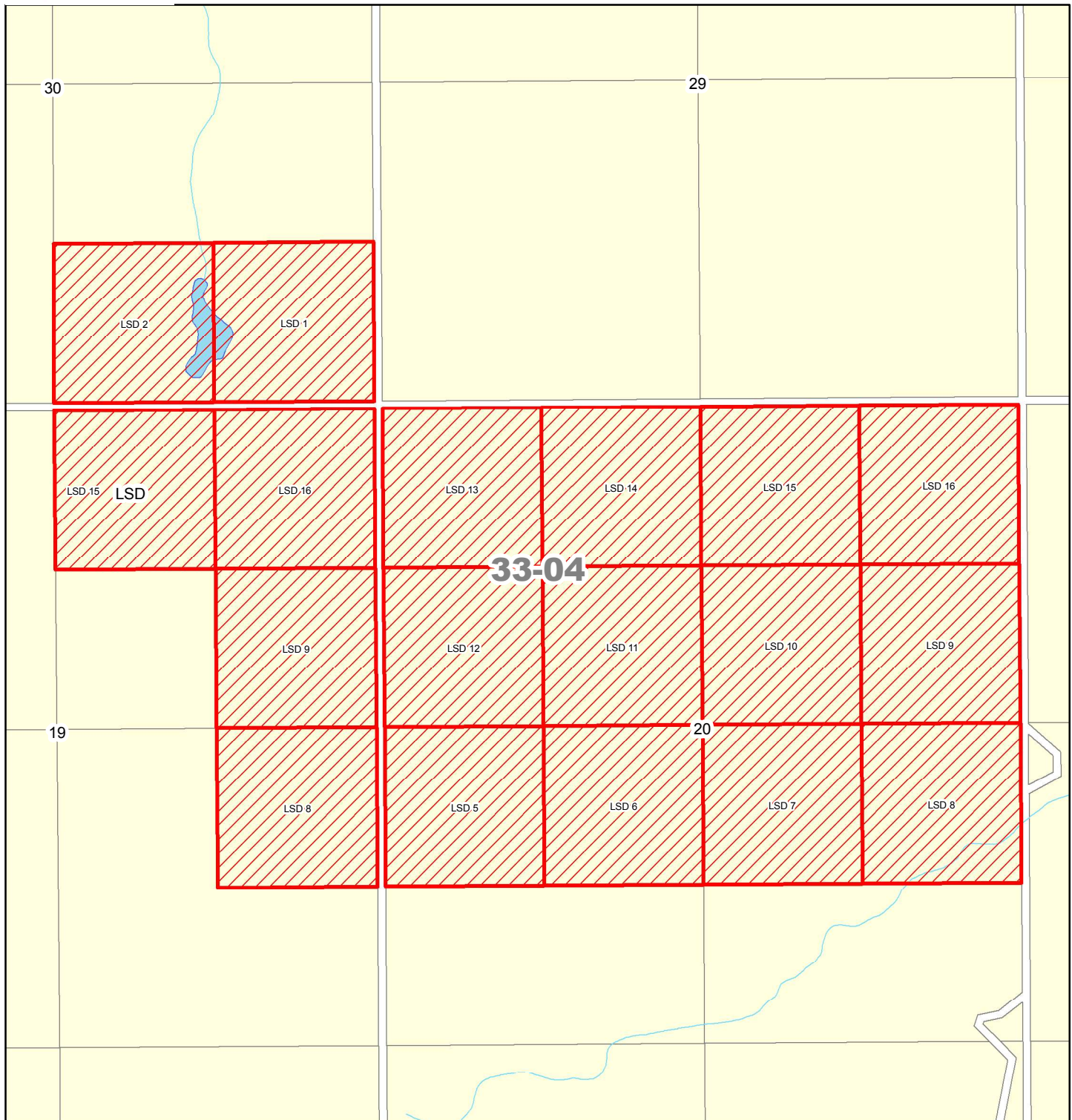


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Mud Butte Twp 33 Rge 4 W4M



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| Legend | |
|--------------------|-----------|
| Road Network | GRAVELED |
| SURFACE | OILED |
| GRADED_TRAIL | PAVED |
| Streams | River |
| Reservoir | Lakes |
| Intermittent Lakes | Mud Butte |
| Lagoon | Islands |



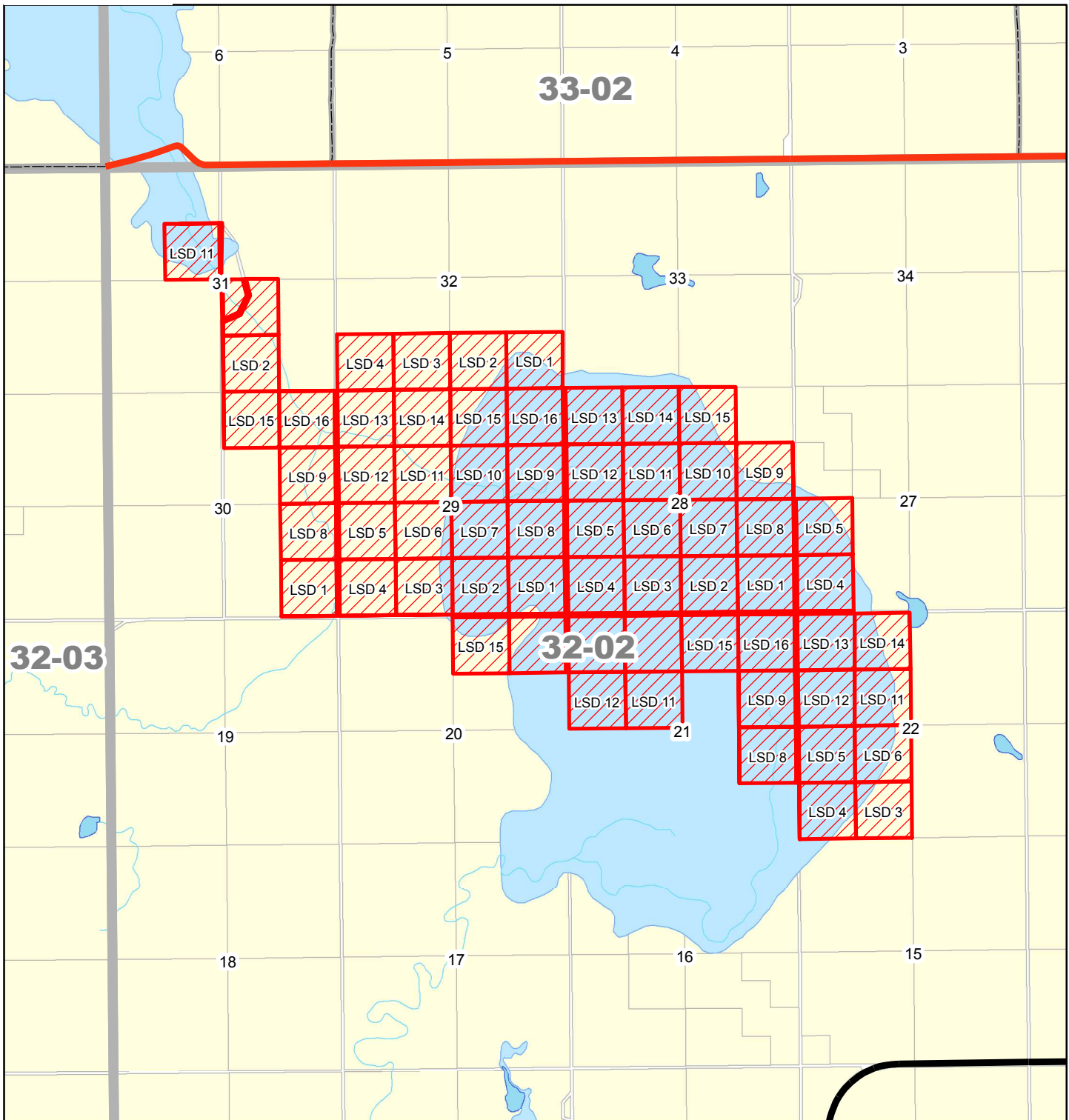
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Esther Hay Meadow

Twp 32 Rge 02 W4M



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| Legend | | | | |
|--------------|--------------|-----------|-----------------------------|--|
| Road Network | GRAVELED | River | Islands | |
| | OILED | Reservoir | Intermittent Lakes | |
| SURFACE | GRADED_TRAIL | Lakes | Restricted Development Area | |
| | PAVED | Streams | Lagoon | |



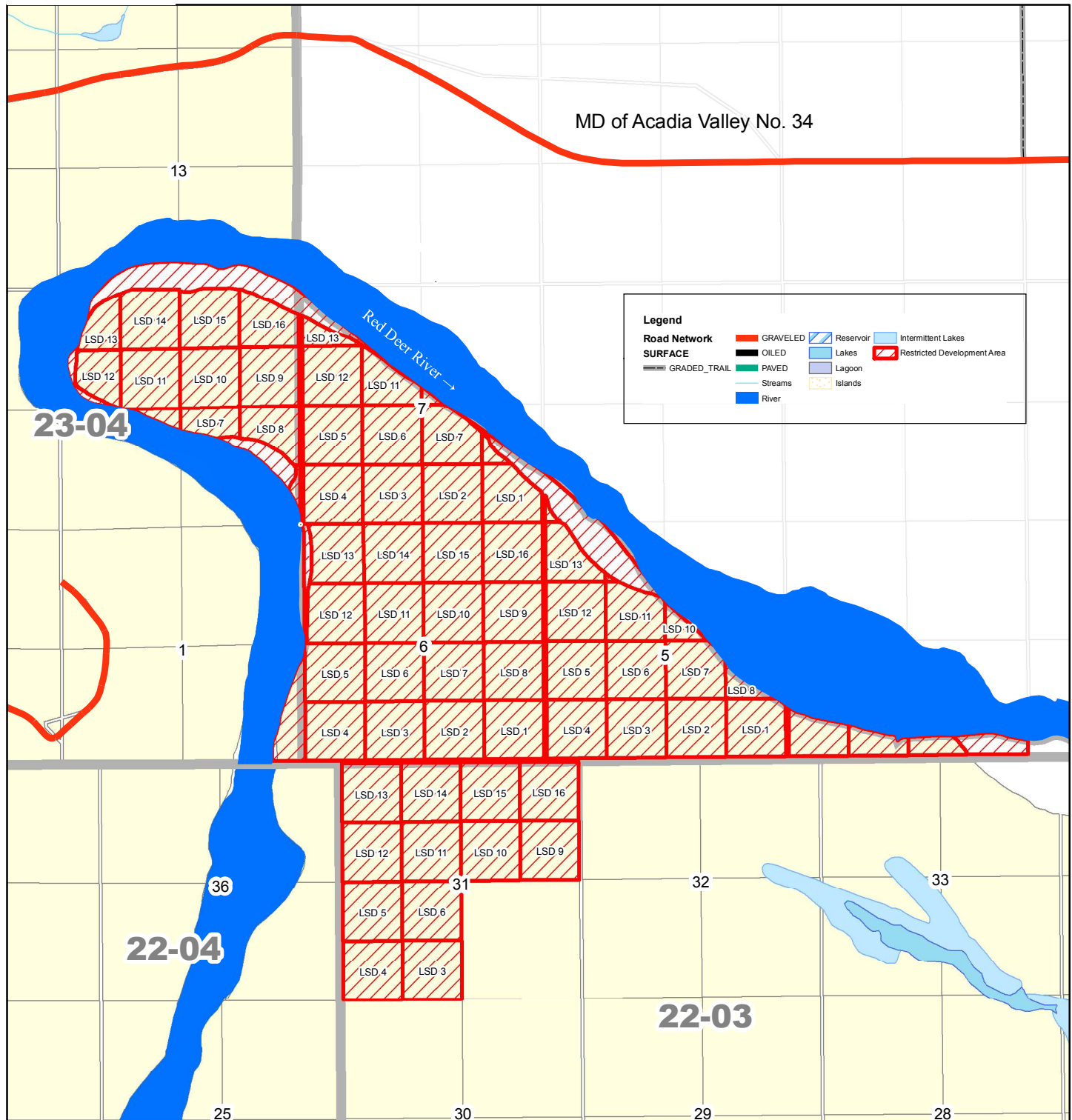
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Dune Point

Twp 22 Rge 03 W4M
Twp 23 Rge 03 W4M
Twp 23 Rge 04 W4M



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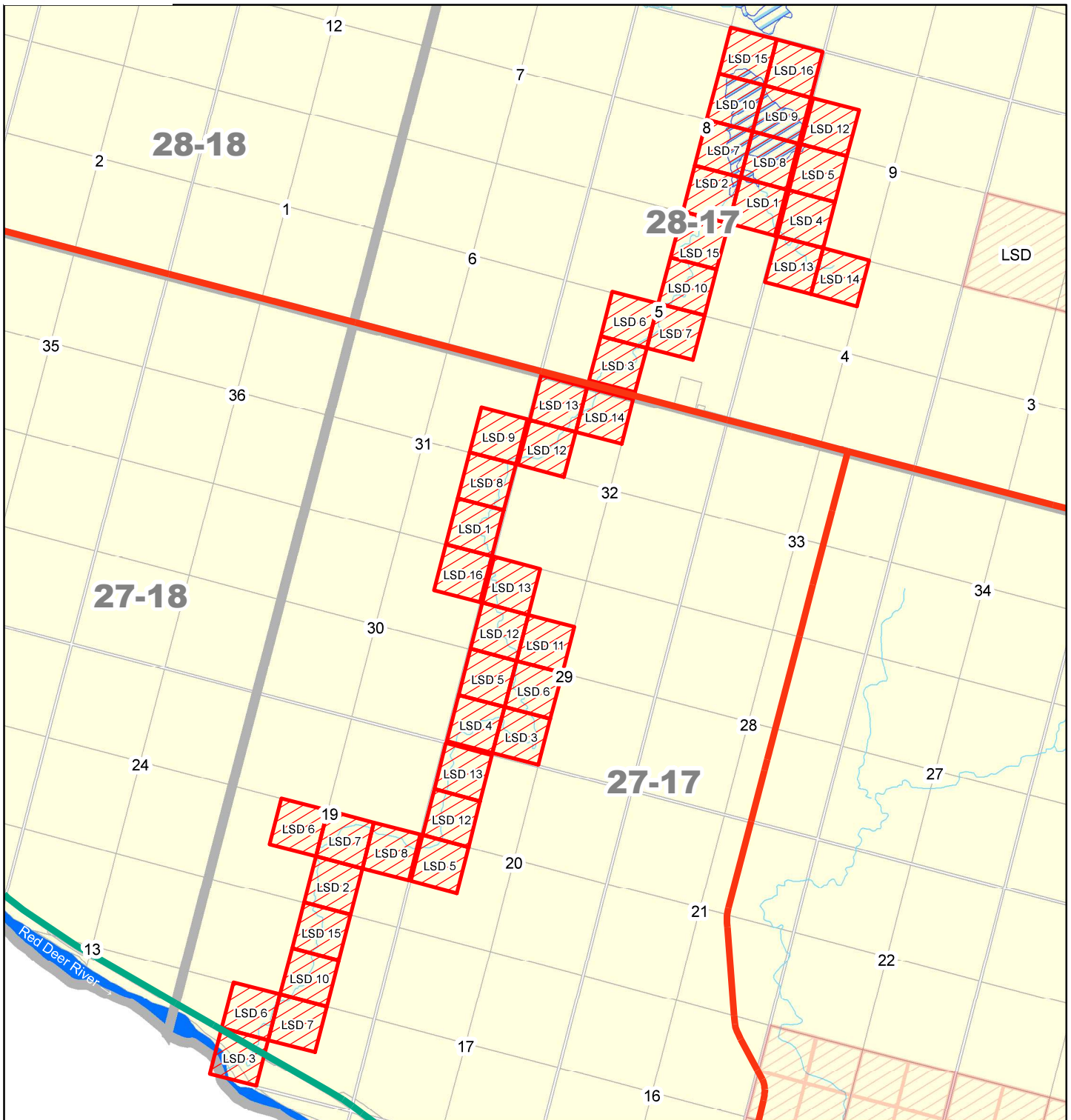
Special Areas Board

HANNA, ALBERTA

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Deep Coulee

Twp 27 Rge 17 W4M
Twp 28 Rge 17 W4M



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Legend

Road Network

GRAVELED

PAVED

GRADED_TRAIL

Streams

River

Reservoir

Lakes

Lagoons

Islands

Intermittent Lakes

Restricted Development Area



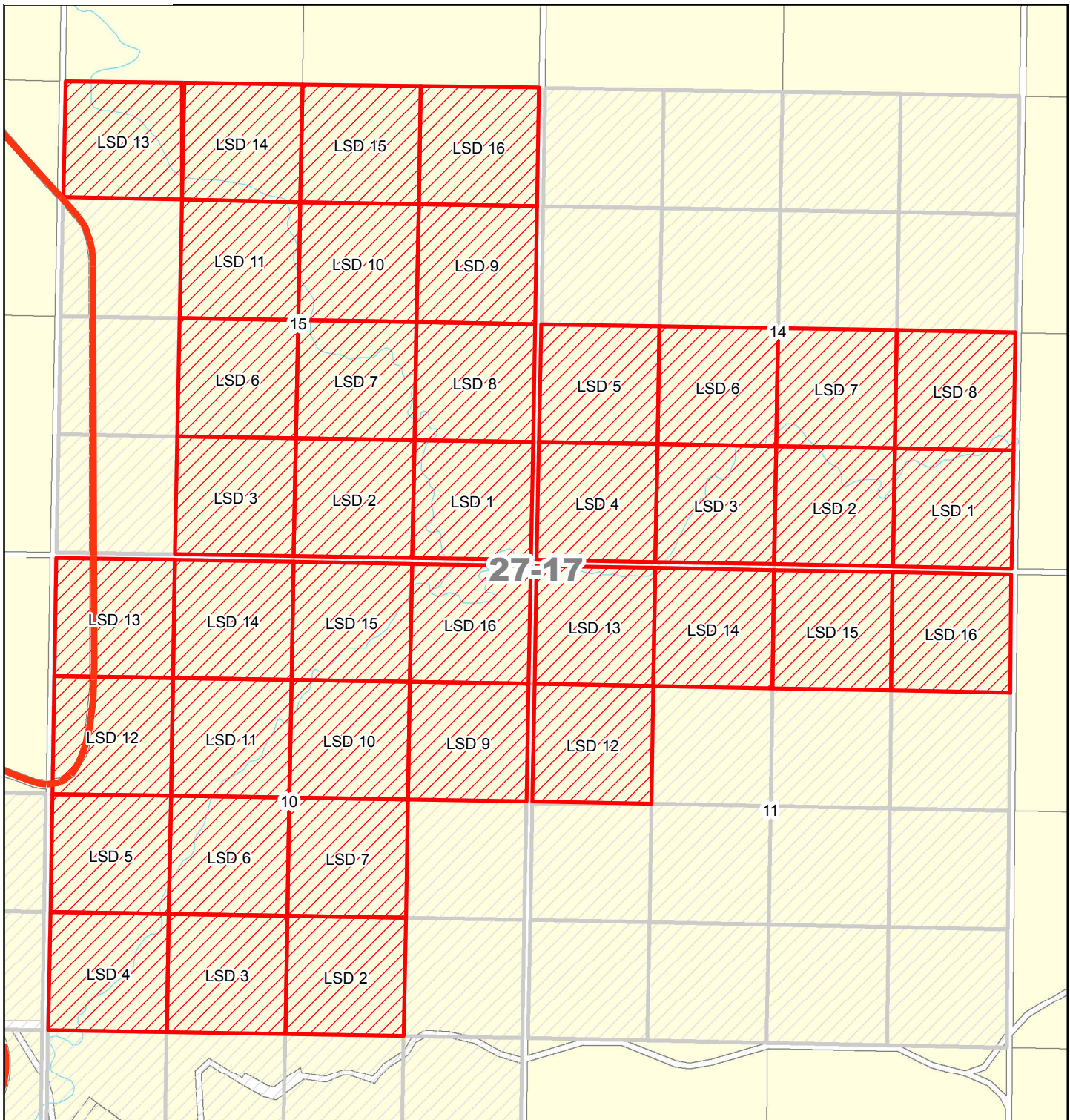
Special Areas Board

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Circus Coulee

Twp 27 Rge 17 W4M



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| Legend | | | |
|--------------|----------|------------|--------------------|
| Road Network | GRAVELED | Reservoirs | Intermittent Lakes |
| SURFACE | OILED | Lakes | Circus Coulee |
| GRADED_TRAIL | PAVED | Lagoon | No_Sale_Zones |
| Streams | River | Islands | |