



**Guide to Completion
of the
Environmental Review**

**Special Areas Board
January 1, 2010**



Information and copies may be obtained from:

Alberta Special Areas Board
Field Services
212 – 2nd Avenue West
P.O. Box 820
Hanna, Alberta T0J 1P0

Phone: 403.854.5600
Fax: 403.854.5627
Website: <http://www.specialareas.ab.ca/>



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Appendix A: Restricted Development Areas



i. Background

Special Areas has recently experienced a period of intense industrial development. This surge of activity has identified the need for a program that will aid the management and protection of environmental resources located within Special Areas. The Special Areas Board (SAB) has developed an Environmental Review Program to better manage surface disturbances and protect significant environmental features.

The SAB has always emphasized preservation of native range. This grassland is an important resource with intrinsic value, used for agriculture, industrial, commercial and recreational purposes. This land also provides habitat to many wildlife and plant species many of which are classified as Species at Risk.

An Environmental Review (ER) will be required for all activities that disturb land administered by the SAB including disturbed land and native range. The ER will include a field assessment and related information searches to compile a comprehensive overview of the environmental conditions at the proposed development location. The ER will also include a project description and an outline of the construction and reclamation plans.

ii. Requirements

The ER must be completed and typed using the Environmental Review form. This form is available at <http://www.specialareas.ab.ca/>. The ER must be filled out completely; any missing information will result in delays or refusal to accept the form. For categories that do not apply, simply state that it is Not Applicable and explain when necessary.

The field assessment must be site specific and 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 resource 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.

Note 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.



1.0 General Information

1.1 Submission Date

Provide the date of ER submission.

1.2 Field Assessment Date

Provide the date of on site field assessment.

1.3 Applicant

Provide the name of the company that is proposing to conduct the development.

1.4 Applicant Contact

Provide the name of the company contact and their contact information including telephone number, mobile telephone number, email address and mailing address.

1.5 Assessor Contact

Provide the name of the person and their company that conducted the on site field assessment and their contact information including telephone number, mobile telephone number, email address and mailing address. Provide the Professional Designation and member name.

1.6 Activity

An ER will be required for all developments that disturb public land within Special Areas. This includes disturbed and undisturbed lands. The following developments will require an ER; if an activity is not listed please contact the SAB to determine if the activity requires an ER.

- Wellsite
- Access Road
- Pipeline
- Temporary Workspace
- Utility Corridors (transmission lines, fiber optics, gas co-op pipeline, waterline etc.)
- Gravel Pits
- Borrow Pits
- Roads that require new right of way
- Wind Farms
- Mines

Please indicate if the ER has been conducted for a new disposition or if it was conducted for a revision to an existing disposition.



1.7 Legal Land Description

Provide the legal land description of the proposed development as per the Dominion Land Survey System. Include the start and end locations for linear developments and each quarter section between the start and end locations.

1.8 GPS Coordinates

Provide the GPS Coordinates of the proposed development. Note coordinates are not required for linear developments, such as pipelines or roads. The data should be in WGS 84 (World Geographic System 1984) or UTM NAD83 Zone 12 (Universal Transverse Mercator North American Datum 1983).

1.9 Disposition Number

A disposition has been issued for most land within Special Areas. Dispositions may include Grazing Dispositions, Cultivation Dispositions or Community Pasture Dispositions. Please include the disposition number for the land at the proposed development location. Disposition numbers can be determined by requesting a title search via email at sasearches@gov.ab.ca or a subscription can be purchased from Special Areas to access this information.

1.10 Occupant and Occupant Interview

Most public land in Special Areas is leased by an occupant; please provide the name of the occupant. The occupant can be determined by requesting a title search via email at sasearches@gov.ab.ca or a subscription can be purchased from the SAB to access this information.

The occupant is generally the best source of information regarding their leased land. Please contact the occupant and conduct a brief interview to determine if any significant environmental features exist at or near the proposed development location. For example, occupants may know of a species at risk or prefer an alternate location for the proposed development. Contact the SAB Field Services Administrator when there is no occupant.



2.0 Environmental Information

2.1 Land Use

2.1.1 Current Activities and Land Uses

Describe the current activities and land uses at or within the quarter section of the proposed development location. These may include dispositions, disturbed or native land, residences, ranching/farming operations, or other industrial/commercial developments.

2.1.2 Conflict and Mitigation

Identify stakeholders, disposition holders and other users on or within the quarter section of the proposed development that may be impacted by the project and outline a mitigation plan to eliminate or reduce the impact. For example, ranchers may not want their cattle to have access to a wellsite; or a pipeline may limit the mine plan of a nearby gravel pit.

2.1.3 Previous Disturbances

Identify any previous disturbances at or within the quarter section of the proposed development location. These disturbances may include pipelines, wellsites, access roads etc.

2.1.4 Activity Integration

Identify any surrounding disturbances that may be used in conjunction with the proposed development to reduce impact. For example, directional drill a well from an existing wellsite location rather than disturbing land to develop another wellsite. Identify any common corridors that could be paralleled with the proposed development. For example, construct a pipeline adjacent to an access road. Include an explanation if a nearby disturbance was not used or paralleled.

2.1.5 Development within 100 meters of a Government Road Allowance

Indicate if the proposed development will be within 100 m of a government road allowance. The SAB requires that all developments within 100 m of a government road allowance apply for consent to drill, operate and maintain within this setback. The application form can be found at www.specialareas.ab.ca.

2.1.6 Restricted Development Areas

There are seven restricted development areas located within Special Areas. Surface disturbance is not permitted within these areas. The locations of the Restricted Development Areas are shown in figures located in Appendix A.



Industrial development is not permitted in the valley of the Red Deer River and facilities shall be sited 150 m back from the top of the valley break of the Red Deer River as required by the Red Deer River Corridor Integrated Management Plan.

2.1.7 Environmentally Significant Areas

Identify any Environmentally Significant Areas (ESA) within 1000 m of the boundary of the proposed development. ESAs are areas with important, useful and often sensitive features of the landscape (Sweetgrass Consultants Ltd. 1997). The designation of an ESA indicates biotic and abiotic resources within an area. Identification of ESAs prior to development aids in land use planning and biodiversity conservation. Further information about ESAs is available at <http://www.tpr.alberta.ca/parks/heritageinfocentre/environsigareas/default.aspx>.

2.1.8 Provincial and Municipal Parks

Identify development within 1000 m of the boundaries of any provincial parks. There are three Provincial Parks located within Special Areas including Gooseberry Lake Provincial Park, Little Fish Provincial Park and Dinosaur Provincial Park. These parks are administered by Alberta Tourism, Parks and Recreation. Construction within or adjacent these park boundaries must be referred to Alberta Tourism, Parks and Recreation.

The Handhills Ecological Reserve is also administered by Alberta Tourism, Parks and Recreation. Development within the Reserve boundaries for industrial purposes is prohibited. Developments within 500 m of the Reserve must have a low profile design and painted earth tones with a minimum amount of surface structures. Developments within 1000 m of the Reserve must be sited and designed to minimize visual impacts from the Reserve. Refer to the Hand Hills Ecological Reserve Management Plan for further information and refer the development to Alberta Tourism, Parks and Recreation.

There are 16 municipal parks within Special Areas. Development within any SAB municipal park is prohibited and adjacent development must abide by restrictions dependent upon setback zones surrounding each park. Identify development within 1000 m of the boundaries of any municipal parks. Contact the SAB to determine if the proposed development is located within a setback zone and the conditions for each setback zone.

2.2 Soils and Landscape

A soil and landscape assessment shall be conducted to determine the soil and landscape characteristics present at the proposed development location. The landscape assessment should identify the landform, drainage, surface water flow, stoniness and any eroded or bare areas. Identify and describe any significant topographical features such as a river valley break, coulee complex, blowout, saline lowland, overflow etc. within 300 m of the boundary of the proposed development location.



The soil assessment shall be conducted at the proposed development location and identify the soil subgroup, series classification, horizon depths and textures. It is important that problem soils are identified and mitigated.

2.3 Vegetation

A vegetation assessment shall be conducted at and within 300 m of the boundary of the proposed development location to determine the dominant vegetation feature (e.g. grassland, shrubland, cereal crop etc.) and dominant species composition including shrubs, forbs and grasses. The assessment should include identification of weeds, invasive plants and agronomic plants and their level of infestation. Identify and describe any bare patches or areas of poor vegetation growth.

Indicate if the proposed development will be constructed within fescue grassland. This grassland is becoming a threatened ecosystem and is extremely difficult to reclaim. Developments will require extreme mitigation in fescue grasslands.

Identify any rare plants that are found at or within 300 m of the boundary of the proposed development location. Information about rare plants in Alberta can be accessed from the Alberta Natural Heritage Information Centre (ANHIC) at <http://www.tpr.alberta.ca/parks/heritageinfocentre/default.aspx>.

2.4 Fish and Wildlife

Alberta Sustainable Resource Development (ASRD) manages wildlife within Special Areas by means of the *Alberta Wildlife Act*, *Alberta Fisheries Regulations*, and also the *Federal Migratory Birds Convention Act*. These Acts contain provisions to protect fish and wildlife and their habitat throughout Alberta.

A field assessment shall be conducted to identify the wildlife species and habitat at and near the proposed development location. The wildlife assessment shall be within 500 m of the boundary of the proposed development location for work on disturbed landscapes and within 1000 m of the boundary of the proposed development location for work on native range. Consultants may want to request a Fisheries and Wildlife Management Information System (FWMIS) search prior to conducting the wildlife inventory to gain further knowledge of the species found in the area.

Habitat features may include:

- trees and brush (including deadfall),
- aquatic, riparian and wetland areas,
- nesting, molting or staging areas,
- leks or dens,
- snake hibernacula or rookeries,
- cliffs,
- burrows,
- hawk stands (artificial, as well as natural),
- rocky areas and outcroppings,



- coulees, breaks
- sinkholes,
- sandhills/dune complexes and
- any other unique landscape features.

Determine and identify any timing or access restrictions that may apply to the proposed development location. Note ASRD is particularly interested in protecting certain ungulate species (primarily pronghorn antelope and deer species when applicable) during severe winter weather. Guidelines include timing and setback restrictions for Critical Ungulate Winter Range from January 1 to April 30 in any given year if weather indicates that disturbance to local herds may have a negative impact on populations. Information on wildlife timing and access restrictions is available at: <http://www.srd.gov.ab.ca/> under Guidelines and Research or from the local Fish and Wildlife Biologist.

Timing restrictions on in-stream activities are implemented to protect fish and fish habitat. These restrictions are regulated by the *Water Act* and associated Codes of Practice. Information on these restrictions is available at <http://environment.alberta.ca/index.html>.

2.5 Species at Risk

Special Areas is home to many species at risk; in fact 85 % of Alberta's species at risk reside in the grasslands of south-central Alberta (Saunders et al. 2006). Alberta Sustainable Resource Development (ASRD) manages wildlife within Special Areas by means of the *Alberta Wildlife Act* and the *Federal Species at Risk Act*. A species at risk is defined as

- species listed as Endangered or Threatened under the *Alberta Wildlife Act*,
- species designated as Special Concern in Alberta,
- species in Alberta listed as Endangered, Threatened or Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), or
- species in Alberta listed as Endangered, Threatened or a Species or Special Concern under the federal *Species at Risk Act*.

There may also be other species of special management concern that occur at or near the proposed development location. These species include the status 'May be at Risk' and 'Sensitive'.

A pre-development inventory shall be conducted to determine if a species at risk or species of special management concern or its habitat are located at or near the proposed development location. The inventory shall be within 500 m of the boundary of the proposed development location for work on disturbed landscapes and within 1000 m of the boundary of the proposed development location for work on native range. Consultants may want to request a Fisheries and Wildlife Management Information System (FWMIS) search prior to conducting the wildlife inventory to gain further knowledge of the species found in the area.



2.6 Wetlands and Water Bodies

A water body can be natural or man made and includes the following:

- natural water bodies: river, stream, creek, lake and wetland;
- intermittent or seasonal natural water bodies: ephemeral draws, natural drainage features, wetlands (Note the absence of water due to dry conditions does not indicate that the water body does not exist);
- man made water bodies: irrigation canals, storm water retention ponds, reservoirs, dug outs;
- floodplains: low lying land next to a watercourse that is subject to periodic inundation to the 1-in-100 year floodplain or historic high-water level.
- ecological boundaries: extent of land directly influenced by and ecologically part of the water body (ERCB 2009).

The field assessment will identify any wetlands or water bodies within 100 m of the boundary of the proposed development. Indicate if the proposed development will occur within a wetland or water body and if a *Water Act* approval has been or will be obtained to authorize the work.

Note SAB Policy 06-02: *Access for Seismic Drill Lines and Well Site Development Near Water Bodies within the Special Areas* under the *Special Areas Disposition Regulation*, prohibits wellsite establishment within 100 m of historical water lines of named water bodies within the Special Areas. This policy is available at <http://www.specialareas.ab.ca/>.

2.7 Cultural and Historical Resources

Refer to the *Listing of Historic Resources* to determine if the proposed development will be constructed in an area that contains or may contain historic resources (<http://culture.alberta.ca/heritage/resourcemanagement/landuseplanning/default.aspx>).

Each land parcel in the listing has been assigned a Historical Resource Value (HRV) ranging from 1 to 5. Determine the HRV of the proposed development location and mark the corresponding check box; check not listed if the location is not included in the *Listing of Historic Resources*. Refer to Alberta Culture & Spirit *Listing of Historic Resources* Instructions for Use to apply for *Historical Resources Act* Clearance.



3.0 Construction, Development and Reclamation

A minimum disturbance policy exists for development located on native range. This policy emphasizes limited soil stripping, moderate levels of traffic and careful soil storage to reduce the impact to prairie vegetation. The SAB has also implemented a policy to control invasive introduced forages on reclamation sites. The objective of this policy is to minimize the loss of native grassland and to reduce the threat of invasive introduced forage species. These policies are available at <http://www.specialareas.ab.ca/>.

3.1 Construction

Describe the construction strategy for the project. Include a brief description of the project outlining the type of facility, time of year, soil conditions at the time of construction and duration of construction. Outline the construction plan including minimum disturbance principles that will be implemented, vegetation removal, soil stripping and contouring activities. A contingency plan should be developed for inclement weather etc. Describe any works that require the use of water and identify the water source.

3.2 Project Development and Management

If applicable, outline project development and management once construction is complete. Describe any further activities that may be applicable to the proposed development including additional construction, timing, access road development, soil stripping, contouring, padding, revegetation, weed control, erosion control, monitoring and maintenance.

3.3 Final Reclamation

Describe the final reclamation plan that will be implemented once the project is complete. This may include remediation, contouring, soil replacement, revegetation, weed control, erosion control, monitoring and maintenance.

4.0 Photographs

Include pre-disturbance photographs of the proposed development location including a brief description of the photograph.

5.0 References

ERCB. 2009. Oil and Gas Development Within or Proximal to Water Bodies (February 2009).
Energy Resources Conservation Board. Calgary, AB.

Saunders, E., R. Quinlan, P. Jones, B. Adams and K. Pearson. 2006. At Home on the Range:
Living with Alberta's Prairie Species at Risk. Alberta Conservation Association and Alberta
Sustainable Resource Development, Lethbridge, Alberta.

Sweetgrass Consultants Ltd. 1997. Environmentally Significant Areas of Alberta. Calgary, AB.



Appendix A: Restricted Development Areas

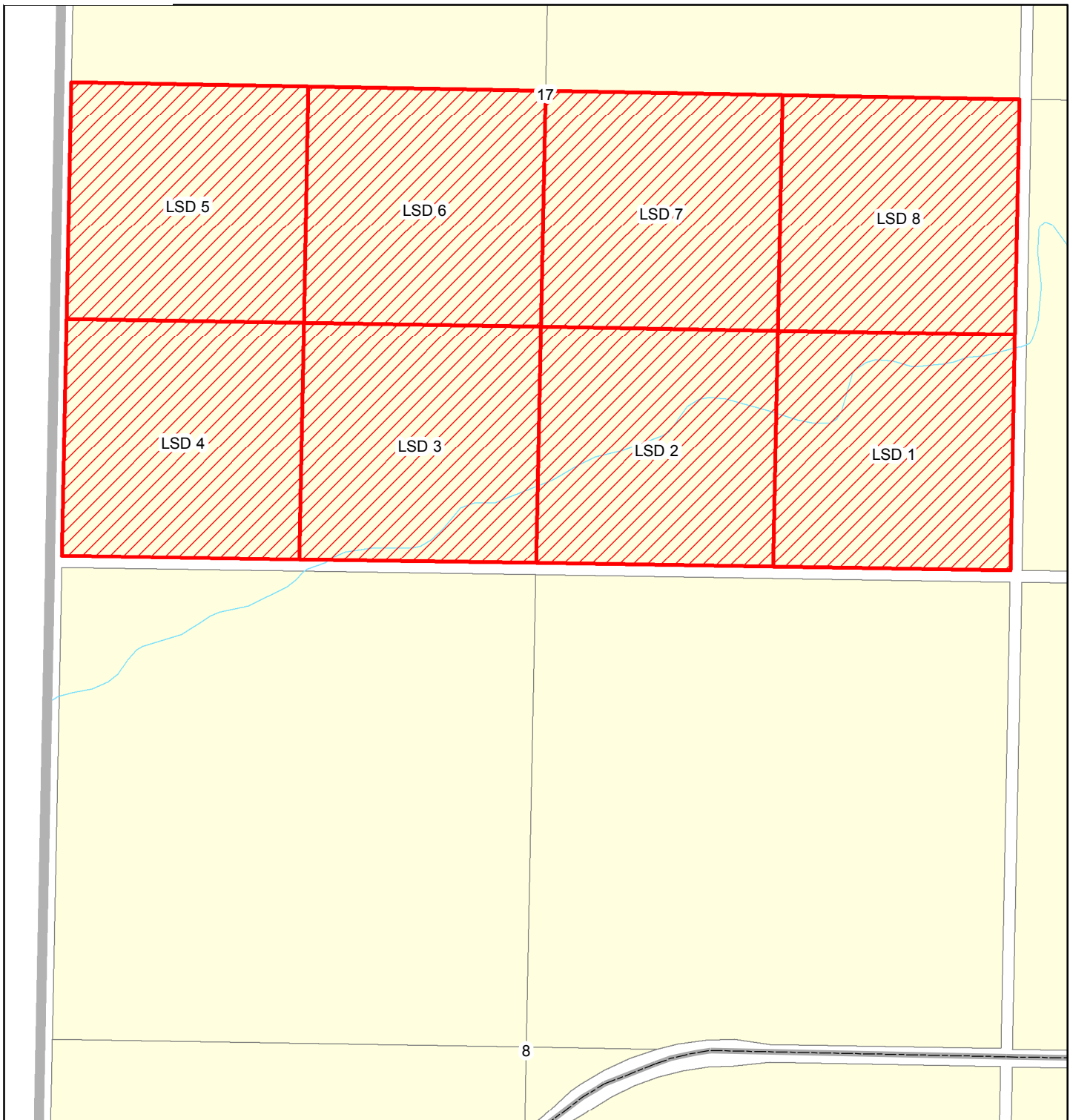


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Willow Creek Twp 28 Rge 18 W4M



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Legend			
Road Network	GRAVELED	Reservoir	Intermittent Lakes
	OILED	Lakes	Circus Coulees
SURFACE	GRAVELED_TRAIL	Paved	Lagoon
	Streams	Islands	
	River		



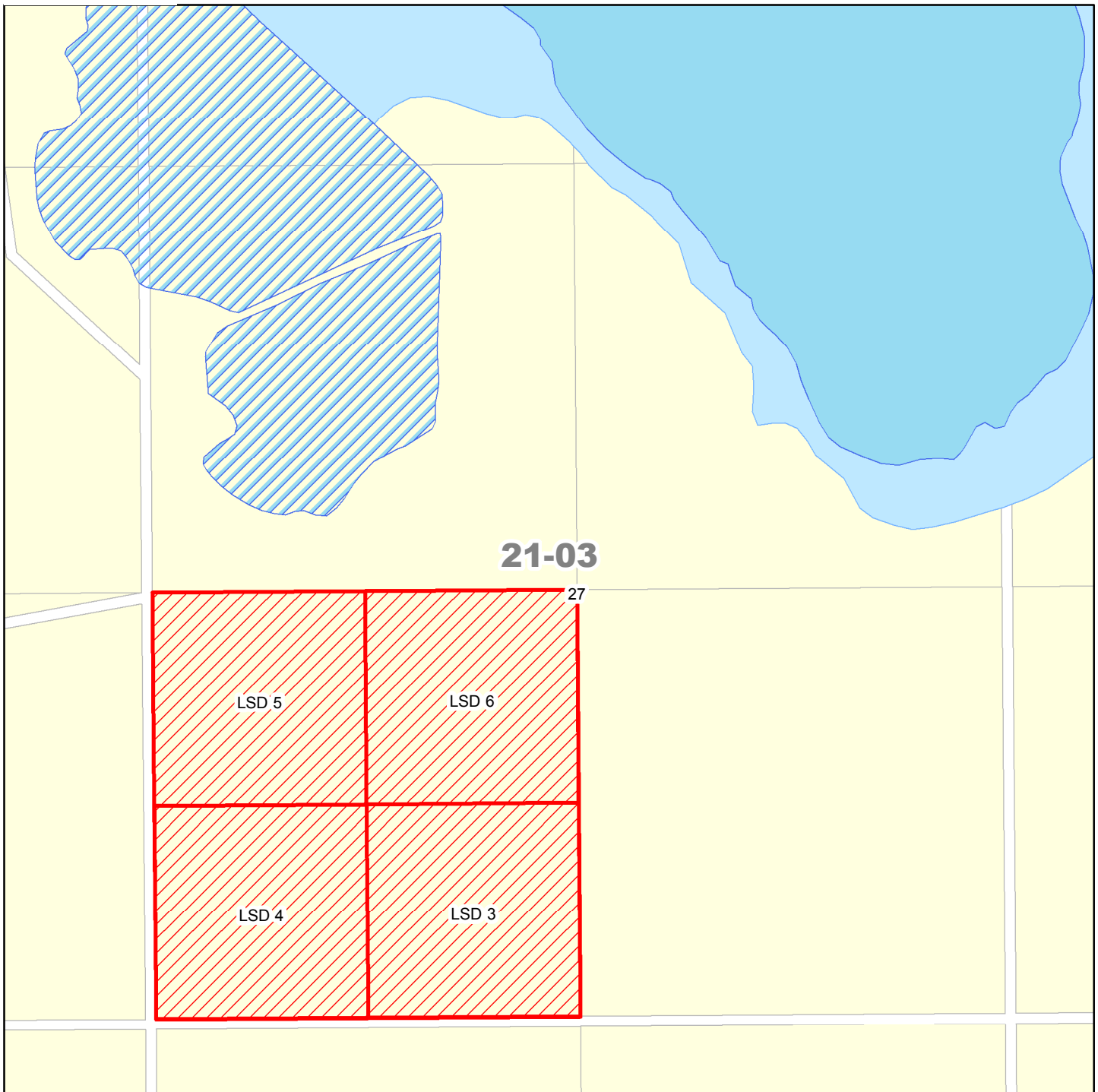
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Prince's Springs

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

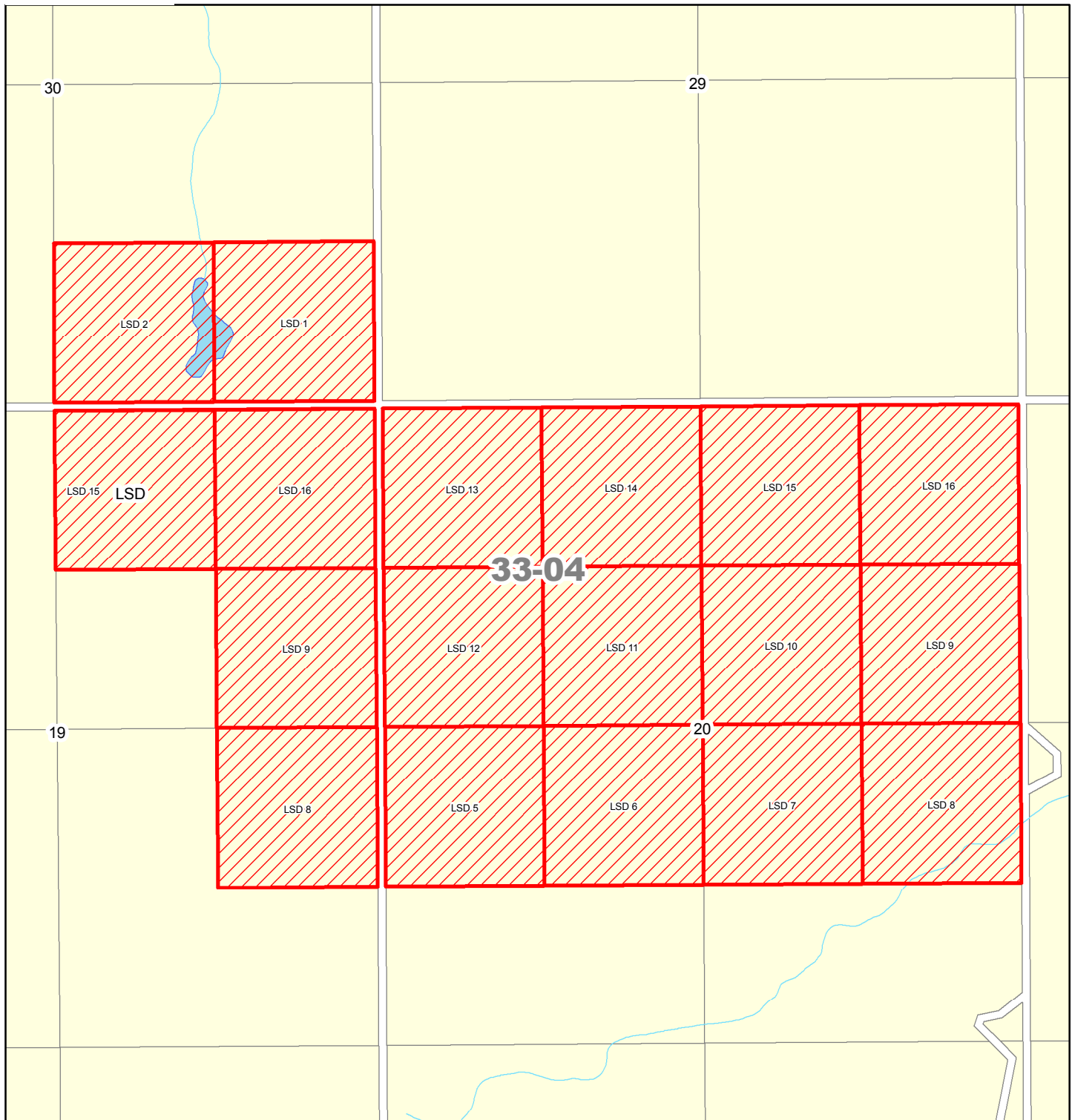


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Mud Butte Twp 33 Rge 4 W4M



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



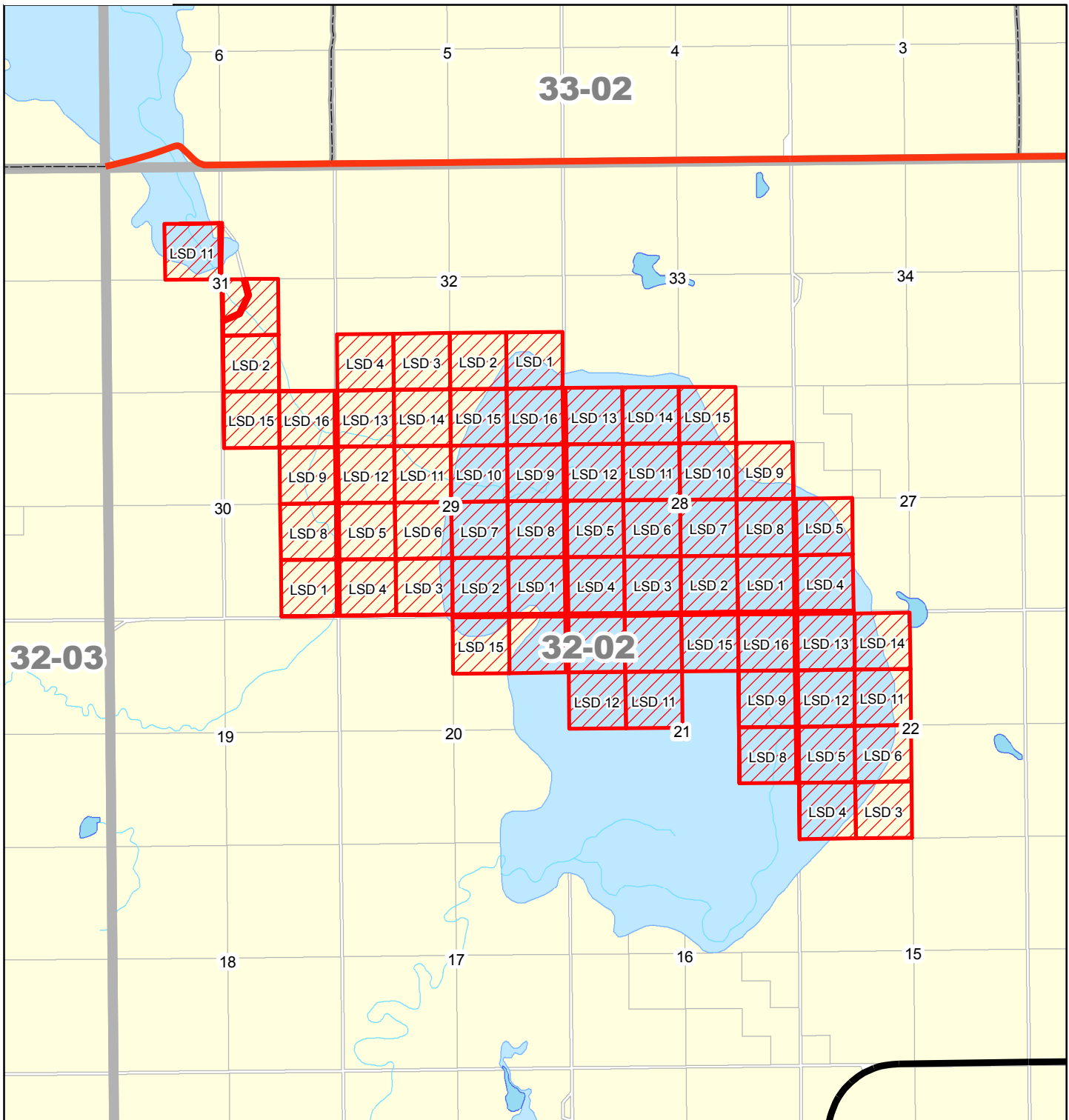
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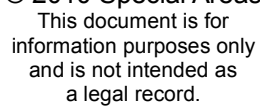
Esther Hay Meadow

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





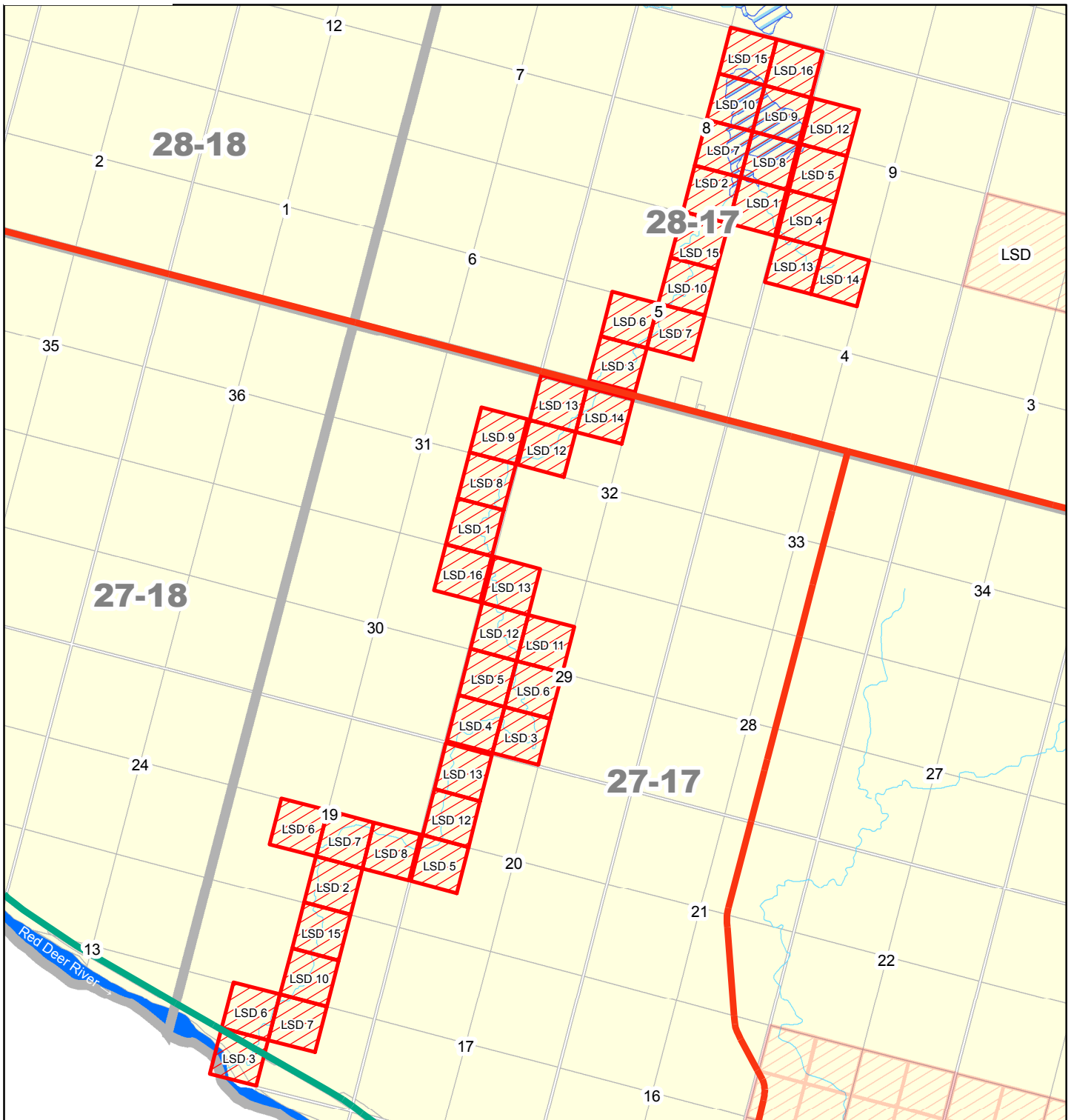
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Deep Coulee

Twp 27 Rge 17 W4M
Twp 28 Rge 17 W4M



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Legend

Road Network

SURFACE

GRADED_TRAIL

GRAVELED

OILED

PAVED

River

Reservoir

Lakes

Streams

Islands

Intermittent Lakes

Lagoon

Restricted Development Area



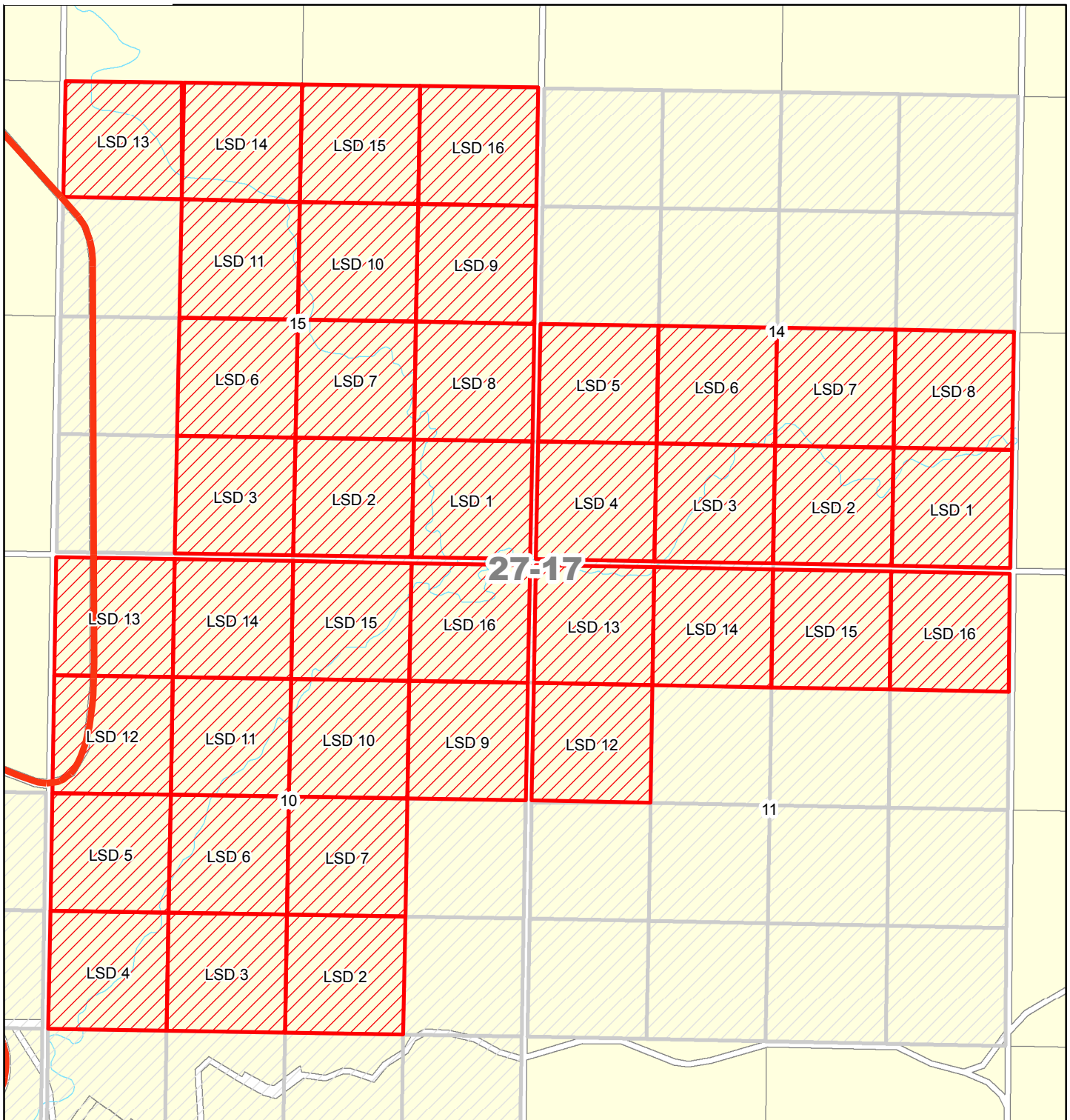
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Circus Coulee

Twp 27 Rge 17 W4M



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Legend			
Road Network	GRAVELED	Reservoir	Intermittent Lakes
SURFACE	OILED	Lakes	Circus Coulee
GRADED_TRAIL	PAVED	Lagoon	No Sale Zones
Streams	River	Islands	