



8 May 2024

Hon. Rebecca Schulz, Minister of Environment and Protected Areas, epa.minister@gov.ab.ca

Hon. R.J. Sigurdson, Minister of Agriculture and Irrigation, agric.Minister@gov.ab.ca

Hon. Todd Loewen, Minister of Forestry and Parks, fp.minister@gov.ab.ca

Hon. Ric McIver, Minister of Municipal Affairs, minister.municipalaffairs@gov.ab.ca

Dear Minister Schulz, Minister Sigurdson, Minister Loewen and Minister McIver:

Re: Managing irrigation expansion to protect native grasslands and associated biodiversity

Recent proposals for over 100,000 hectares (250,000 acres) of irrigation agriculture expansion within the South Saskatchewan River basin have raised several concerns about environmental impacts, including potential loss of native grasslands.

Native grasslands are valued by Albertans as habitat for a broad diversity of plants and animals, including over two dozen species at risk. Southern Albertans benefit greatly from the ecological goods and services native grasslands provide such as water storage, carbon storage, erosion control, pollination and pest control. Native grasslands support ranchers in sustainable livestock production. Conversion of native grassland for expansion of irrigated cropland would compromise these invaluable and irretrievable assets.

In acknowledging the significant value of native grasslands, the approved *South Saskatchewan Regional Plan 2014-2024 (Amended 2018) (SSRP)* establishes a regional outcome that “Biodiversity and ecosystem function are sustained through shared stewardship”. Regional objectives specify that “Intact grassland habitat is sustained” and “Species at risk are recovered and no new species at risk are designated”.

Reservoir and other infrastructure development would flood native grasslands and/or impact habitat for species at risk at proposed project sites including Chin Coulee, Deadhorse Coulee, Snake Lake and potentially as part of the MD Acadia Special Areas project. Proponents of irrigation expansion assert that, in keeping with the direction established in the SSRP, expansion of irrigated cropland will occur on already cultivated parcels and not lead to conversion of native grasslands. However, legislation and policy governing decisions about expanding irrigation acres fail to support shared stewardship for sustaining native grasslands.

Gaps include the following that are described more fully in ENCLOSURE 1:

- Lack of a regulatory requirement in the SSRP prohibiting conversion of native grasslands to cropland on public land.
- Lack of regulatory and policy mechanisms for municipalities when implementing irrigation expansion projects (e.g. Special Areas, M.D. Acadia) to prevent loss of native grasslands on municipal and private land.
- Lack of land classification standards and land assessment criteria that preclude adding parcels of native grassland (and parcels of other ecological significance) to Irrigation Districts' assessment roles. Furthermore there is a lack of ability for an Irrigation District, under the *Irrigation District Act* (IDA) when making a decision about an application to add a private parcel to the assessment role, to deny approval on the basis that native grasslands or species at risk will be impacted.

We are contacting you to suggest improvements in government policy and legislation towards a more integrated approach to managing land-use pressure on native grasslands and biodiversity from irrigation agriculture expansion. The measures suggested in the attachment would help integrate important environmental considerations along with economic and social ones into decisions regarding irrigation expansion.

We welcome discussions with you and/or your staff regarding improving government policy and legislation to protect native grasslands and biodiversity from irrigation agriculture expansion.

Yours sincerely



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ENCLOSURE 1: Suggested improvements in government policy and legislation towards a more integrated approach to managing land-use pressure on native grassland and biodiversity from irrigation agriculture expansion.

ENCLOSURE 2: Native grassland at risk from irrigation expansion in Irrigation Districts

cc:

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ENCLOSURE 1

Suggested improvements in government policy and legislation towards a more integrated approach to managing land-use pressure on native grassland and biodiversity from irrigation agriculture expansion

1) Provincial Public Land options

Maintaining crown lands with native grassland in public ownership is consistent with direction provided by the SSRP. SSRP contemplates exchange of public lands determined irrigable for private lands with native grasslands, however this results in a net loss of native grassland. There are sufficient private lands already cultivated to accommodate proposed irrigation expansion.

Past proposals for selling public land with native grassland for irrigation expansion have met with public scrutiny and significant opposition. To avoid selling public land for irrigation agriculture it is possible that government could retain public land and allow conversion to irrigation agriculture by making the land subject to a *Public Lands Act* (PLA) agricultural disposition. We suggest the following legislative or policy options to better protect native grassland from being converted in either of these processes.

Option 1: Amend the South Saskatchewan Regional Plan (SSRP), a regional plan under the *Alberta Land Stewardship Act* (ALSA), to establish a regulatory requirement that prohibits the conversion of native grassland on public land. Numerous PLA provisions require regulatory actions such as sales, and dispositions, to be consistent with ALSA regional plans, and the PLA provides for enforcement actions where dispositions do not comply. We note that the *Alberta Land Stewardship Act* requires a review of SSRP beginning on or before September 1, 2024

Option 2: Regarding sales, sec 21 of the PLA empowers the Minister to put restrictions on the use of land to be sold, and the conditions are registrable at Land Titles. The PLA could be amended, or at least strong government policy developed, to require that native grassland sold by the government be subject to the condition that they not be converted to cropland.

Option 3: The director be compelled, either through amendment of the PLA or at least strong government policy, to put a condition on any dispositions of native grassland that the land not be converted to cropland. Section 15(1) of the PLA enables conditions on dispositions.

Option 4: Regarding sale, little in the PLA limits the discretion of the Minister in selling public land, but government policy requires determination of suitability for sale including impact on “important resource values and environmental actors (e.g., conservation, recreation)”. Native grassland and habitat for species at risk are environmentally sensitive features whose preservation would need to be considered (Ref: Sale of Public Land (October 1998)). We suggest that this policy be enshrined in legislation through regulatory development or statutory amendment.

2) Special Areas and MD Acadia Project options

The MD Acadia & Special Areas Project, currently under study, proposes to flood native grassland and habitat for species at risk through development of a reservoir at Prince's Springs. However project proponents also propose to avoid direct loss of native grassland from cultivation and "transition 108,000 acres from dryland farming to irrigated farming". Additional important considerations for sustaining native grasslands would be assessing potential changes in regional hydrology including surface drainage and groundwater quantity and quality that can lead to alteration of vegetation (e.g. invasion of non-native species) in adjacent native grasslands.

We would appreciate knowing the legislative and/or policy measures being considered in Special Areas and MD Acadia that will ensure native grassland on private, public and municipal land (formerly tax recovery land) are not converted to cropland or otherwise adversely impacted for irrigation expansion. Suggested options follow.

Option 1: The Minister assign a duty to the Special Areas Board that requires the Board to prohibit the conversion of native grassland in carrying out the Special Areas and MD Acadia irrigation project. This could be done under section 30(1) of the *Special Areas Act* which provides that the Board is required to exercise the duties the Minister assigns to it.

Option 2: Amend the SSRP to establish a regulatory requirement that prohibits the conversion of native grassland. Section 618(3)(1) of the *Municipal Government Act* requires a municipality to comply with any applicable ALSA Regional Plan, and sec 570.01(1) enables the Minister to take action to compel compliance.

3) Irrigation Districts options

Since 2020 when GoA announced major investment in irrigation infrastructure improvement and expansion, five Irrigation Districts (ID) have proposed increase in irrigated acres of 64,200 hectares (160,500 acres). Analysis by GIS specialists indicates approximately 286,000 hectares of native grassland are potentially at risk within these five districts, 63% on private land, including ID-owned land, 30% on provincial public land and 7% on municipal public land (see ENCLOSURE 2, Table 1). Most of these native grassland parcels potentially at risk occur in environmentally significant areas identified in provincial and municipal studies (see ENCLOSURE 2).

Appropriate cumulative effects assessment would consider potential impacts on native grassland and biodiversity of all proposed irrigation expansion. However, government has determined that environmental impact assessment will be limited to two proposed reservoir sites – Chin Reservoir expansion and Snake Lake Reservoir expansion, both of which would destroy native grasslands and habitat for species at risk during construction and subsequent flooding, as would Deadhorse Coulee Reservoir which is not required to undergo environmental assessment. Environmental assessment will not include assessment of potential impacts of expanded irrigated acres that appear to be necessarily incidental to these projects for financial reasons. The lack of regional cumulative impacts assessment is a fundamental shortcoming in making a determination of whether major irrigation expansion is in the public interest.

Irrigation Districts are established and governed by the *Irrigation Districts Act*. There are currently eleven Irrigation Districts in southern Alberta. An Irrigation District, when making a decision about an application to add a private parcel to the assessment role, does not currently have the right under the *Irrigation District Act* (IDA) to deny approval on the basis that native grassland or species at risk will be impacted.

Here are three options we suggest that would enable or require consideration of native grassland and SAR habitat in regulatory decisions by Irrigation Districts:

Option 1: Amend the South Saskatchewan Regional Plan (SSRP) to establish a regulatory requirement that prohibits the conversion of native grassland. The *Irrigation Districts Act* (Sec 15(2)) makes irrigation district agreements subject to compliance with any applicable ALSA Regional Plan. The SSRP presently defines outcomes and objectives to conserve native grassland and biodiversity, however this intent is not reflected under its Regulatory Details section. The *Alberta Land Stewardship Act* requires a review of SSRP beginning on or before September 1, 2024. We suggest considering an amendment of the Regulatory Details that will bind irrigation districts to conserve native grassland and species at risk in decisions about adding parcels to their assessment roles. (Ref: *A Critical Exploration of the South Saskatchewan Regional Plan in Alberta* (2016): CIRL Occasional Paper #54 [here](#)).

Option 2: Amend land classification standards and/or land assessment criteria, referred to in the *Irrigation Districts Act* (IDA) to preclude adding parcels of native grassland (and of other ecological significance) to assessment rolls thereby ensuring consistency with the various government policies on native grassland protection. The standards and criteria, established by regulation, must be used by an Irrigation District in making decisions about adding irrigation acres (IDA Sections 4(1) & 94). Current land classification standards for irrigation outline minimum requirements to assess suitability of a parcel for irrigation considering soil conditions and topography. There appear to be two versions - *Standards for the classification of land for irrigation in the province of Alberta, 2004* ([here](#)) and *Land Classification for Irrigation in Alberta* Agdex 560-3 (revised May 2016) ([here](#)).

Option 3: Amend the *Irrigation Districts Act* to include a requirement for considering if a parcel has native vegetation and/or is habitat for species at risk. Currently in making a decision to add a parcel to the assessment roll, the Irrigation District (IDA Secs 84, 94 & 95) must determine whether there is sufficient water supply, whether there is drainage available if required, whether the expansion limit of the district would be exceeded, whether it meets land assessment criteria and whether the land is suitable for irrigation purposes according to the provincial standards.

The above legislation and policy options do not negate the importance of recognizing stewardship of native grasslands on private lands including using economic instruments that incentivize landowners to maintain ecosystem services such as carbon sequestration, water storage through wetland protection and biodiversity while practicing sustainable livestock production.

ENCLOSURE 2

Native Grassland at Risk from Irrigation Expansion in Irrigation Districts

In the absence of specific data showing where irrigation expansion is planned, this analysis used assumptions on the distance to irrigation infrastructure that makes the area potentially irrigable. Distances from existing irrigated areas to irrigation infrastructure were used to identify an appropriate assumption. The Alberta Grassland Vegetation Inventory was used to identify native grassland. Irrigation suitability was estimated and used to filter the results. Assessments of native grassland at risk are based on publicly available datasets for which accuracy could not be verified and include broad-scale assumptions. Therefore estimates should be considered preliminary and approximate.

Copies of maps generated from the analysis can be made available upon request.

Table 1: Ownership of parcels with native grassland potentially at risk from irrigation expansion within five irrigation districts where expansion is currently proposed.

Irrigation District	Expansion proposed 1 ha = 2.5 ac	Amount of native grassland at risk (hectares)				Total
		Private	Public - Provincial	Public - Municipal	Other EID	
Bow River ID	10,000 ha (25,000 ac)	18,949	76,626	18,885		
Eastern ID	13,600 ha (34,000 ac)	41,064	1,166	92	69,317*	
Raymond ID	2,600 ha (6,500 ac)	7,154	366	0		
St. Mary River ID	32,000 ha (80,000 ac)	22,216	15,251	1,737		
Western ID	6,000 ha (15,000 ac)	22,820	87	11		
Total	64,200 ha (160,500 ac)	112,203	83,496	20,725	69,317	285,741

* owned by Eastern ID and managed as community pasture or grazing lease

Notes on native grassland at risk from proposed irrigation expansion in Irrigation Districts

Mapping of native grassland at risk from irrigation expansion in the five IDs currently proposing to expand irrigated acres was compared to mapping of environmental significant areas undertaken by municipalities and the province since the mid-1980s. Areas of overlap are summarized below.

Bow River Irrigation District

- Carmangay ESA, Travers Reservoir ESA and Little Bow Reservoir ESA along Little Bow River from Hwy 23 east to Little Bow Reservoir with discontinuous parcels of native grassland on the uplands; valley is nesting habitat for Prairie Falcon, Golden Eagle and Ferruginous Hawk; historical Peregrine Falcon nesting area
 - Majorville ESA and Majorville Wetlands ESA from McGregor Reservoir east to the Bow River with extensive native grassland and numerous wetlands on hummocky moraine; nesting Burrowing Owl and feeding area for birds of prey
- Bow Flats ESA west of Bow River south of Bow City, including Lonesome Lake, with extensive native grassland, numerous wetlands and some sand dunes; feeding area for birds of prey; rare plants in sand dunes
- Barnwell Dunes ESA and Oldman River-Taber ESA north of Oldman River north of Barnwell with native grassland on sand dunes; rare plants and nesting Burrowing Owl
- Vauxhall-Hays ESA, Hays Wetlands ESA, Wolf Island Dunes ESA and Lower Bow Dunes ESA between the Oldman River and the Bow River east of the confluence with extensive native grassland and numerous wetlands; feeding area for birds of prey who nest along river valleys; nesting Burrowing Owl; rare plants in sand dunes

Eastern Irrigation District

- Bow River-Majorville ESA along north side of the Bow River valley from Blackfoot IR downstream to Bow City; nesting area for birds of prey including Ferruginous Hawk and Prairie Falcon
- Ranier Dunes ESA along east side of the Bow River southwest of Ranier and northwest of Scandia
- Bow River-Hays ESA on north side of the Bow River south of Rolling Hills
- Twelve Mile Coulee ESA and Little Rolling Hills ESA east and northeast of Rolling Hills with extensive native grassland, dunes, springs and wetlands
- Lake Newell ESA including Lake Newell, Little Rolling Hills Reservoir and adjacent uplands south of Brooks; extensive native grassland and wetlands
- Kininvie ESA and Louisiana Lakes ESA east and north of Tilley with extensive native grassland and variety of wetlands
- Lathom-San Francisco Lakes ESA and Spring Hill ESA between Bassano and Brooks with extensive marshes, ephemeral saline wetlands and adjacent native grassland; includes low badlands and minor sand dune; encompasses Antelope Creek Ranch and Snake Lake
- Crawling Valley ESA from Bassano north to the Red Deer River with extensive native grassland and wetlands on hummocky moraine and along a spillway valley; nesting burrowing owls
- Matzhiwin Creek straddling Matzhiwin Sand Plain ESA and Red Deer River-Finnegan/Steveville Terraces ESA

Raymond Irrigation District

- native grassland along northwest and southeast shores of Milk River Ridge Reservoir and coulees draining into the reservoir (Milk River Ridge Reservoir ESA and Milk River Ridge-Ravines ESA)
- native grassland and shrublands associated with Kipp Coulee ESA; important deer habitat
- scattered native grassland adjacent to Tyrrell - Rush Lakes ESA and McNab Slough ESA

- diverse and extensive native grassland associated with Etzikom Coulee ESA
- native grassland parcels east and northeast of the Pothole Creek-St. Mary's confluence

Saint Mary River Irrigation District

- native grassland along the southern edge of the Oldman and South Saskatchewan River valleys from Lethbridge to Medicine Hat (Oldman River – Lethbridge East ESA, Oldman River – Taber ESA, Oldman River-Vauxhall ESA, Oldman-South Saskatchewan Junction ESA, South Saskatchewan River – Medicine Hat West ESA)
- Purple Springs Dunes ESA and Grand Forks Grassland ESA
- Chin Coulee ESA including parcels of native grassland that would be destroyed by an expanded Chin Reservoir
- 40 Mile Coulee ESA including native grassland parcels in vicinity of Horsefly, Sherburne, and Yellow reservoirs
- Rattlesnake Lake ESA including native grassland parcels to the east
- Murray Lake ESA, Peace Butte Creek ESA and Bullshead Creek ESA south of Medicine Hat

Western Irrigation District

- scattered parcels east of Calgary to Highway 56 from Bow River north to Rosebud River including productive wetlands (McElroy Slough, Shepard Slough)
- lower Rosebud River and lower Serviceberry Creek ESA
- Irricana sloughs and sandplain ESA
- Eagle, Namaka and Stobart Lakes ESA and Important Bird Area
- native grassland along northern edge of Bow River valley from Calgary to Blackfoot IR

References:

South Saskatchewan Regional Plan 2014-2024, Map 5: Biodiversity Values

Alberta Prairie Conservation Action Plan 2021-2025, Figure 4: Native Biodiversity High Value Landscapes in Prairie and Parkland Alberta

Environmentally Significant Areas (ESA) reports for Alberta and for rural municipalities (Calgary Region, County of Cardston, County of Cypress, County of Forty Mile, County of Lethbridge, County of Newell, Municipal District of Taber, County of Vulcan, County of Warner)