

Irrigation expansion in East Central Alberta

MD of Acadia & Special Areas Regional Irrigation Project

Project funded by:

Alberta

CIB  BIC



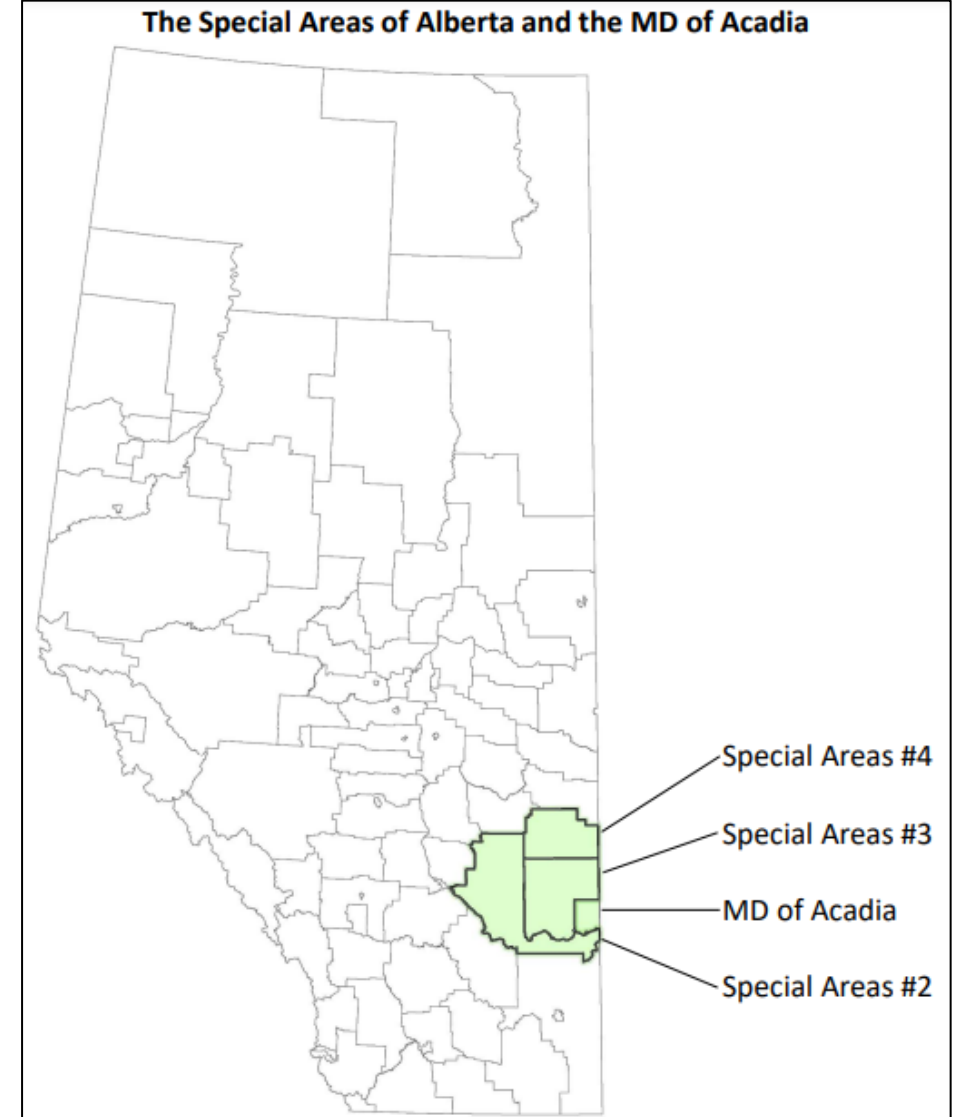
Municipal District
of Acadia #34



Special Areas Board
est. 1938

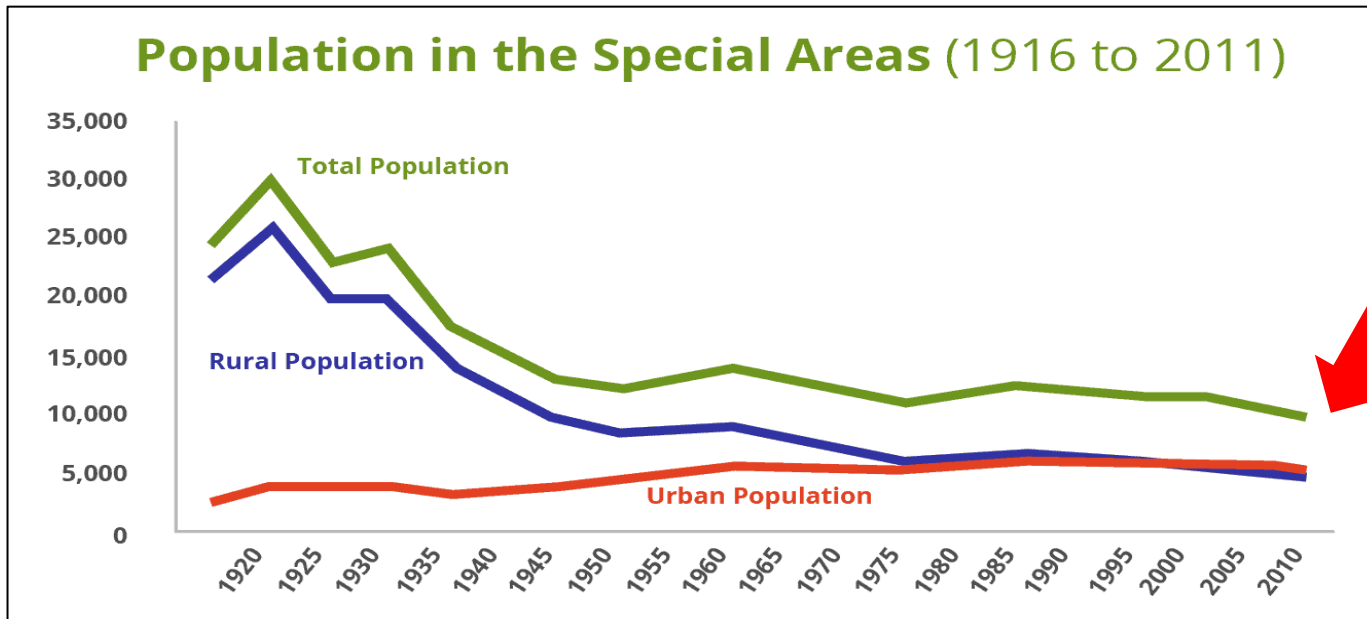
Project Overview

- **MD of Acadia & Special Areas Regional Irrigation Project**
- Project participants include:
 - Government of Alberta
 - Canada Infrastructure Bank
 - MD of Acadia
 - Special Areas Board
- Goal of current regional irrigation project work?
 - Confirm design & costs to develop new irrigation in region (MD of Acadia & Special Areas)
 - Environmental & regulatory considerations
 - Advancing the Conceptual Design to Preliminary Design



Irrigation in East-Central Alberta – A Brief History

1921 – Special Areas
population reaches 29,700



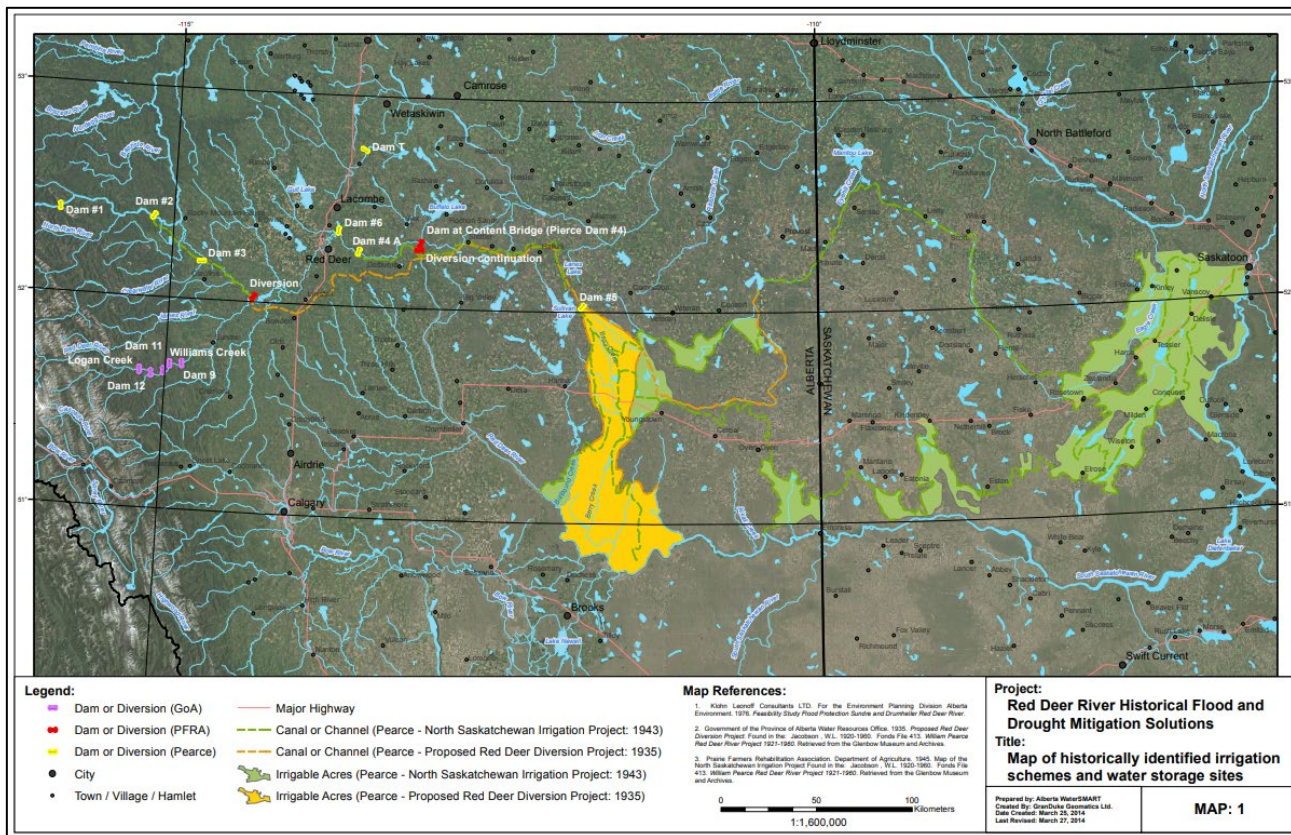
Today (2021):

- 4,732 – rural (MD Acadia & Special Areas)

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1935 – Red Deer River
Irrigation Study



Irrigation was first proposed in 1935

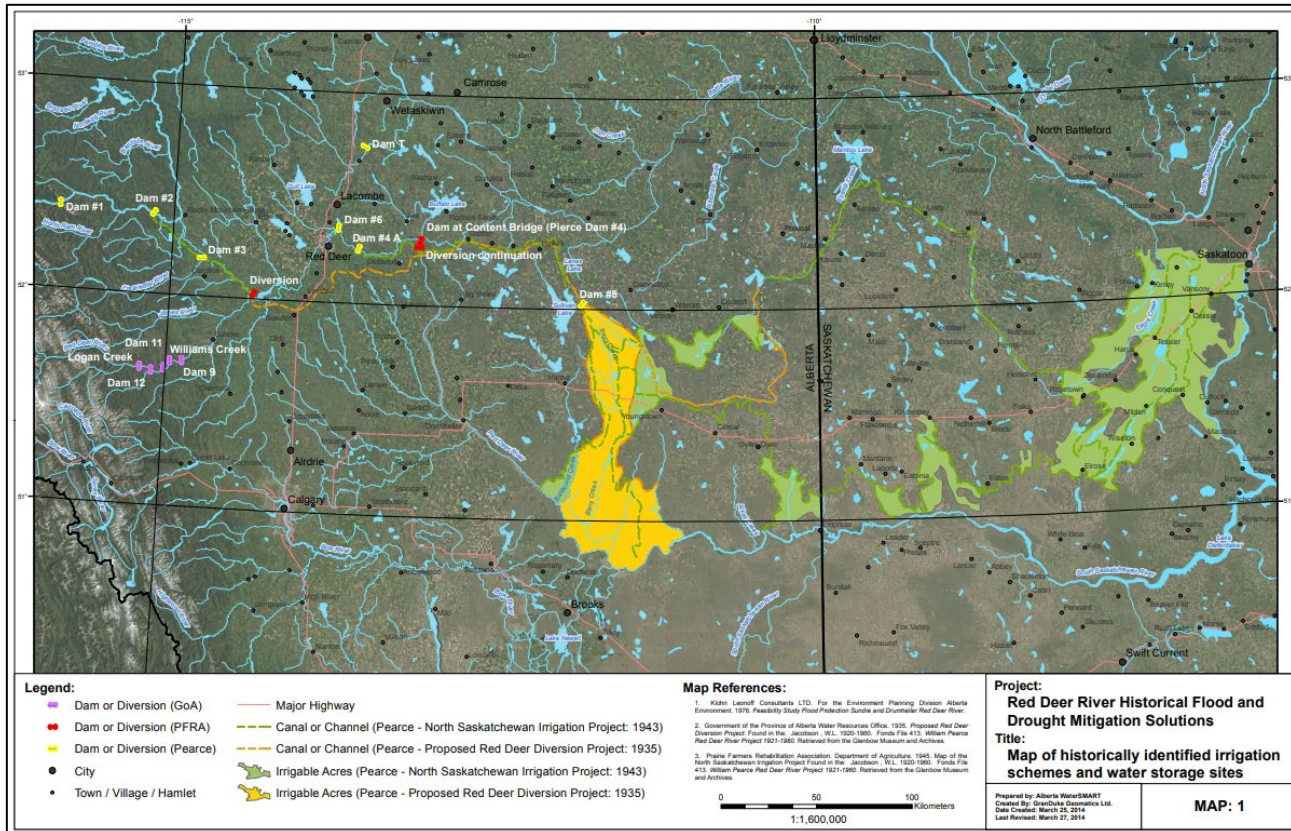
1935 - Pearce – Diversion of the Red Deer River to Sullivan Lake to irrigate along Bullpound and Berry Creeks.

Irrigation in East-Central Alberta - A Brief History

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population reaches 29,700

1935 – Red Der River
Irrigation Study

1943 – North Sask. River
Irrigation Study



Irrigation was further explored in 1943

1943 - Pearce – Diversion of The North Saskatchewan River to irrigate the area proposed in 1935 plus Sounding Creek, MD of Acadia and vast areas from the Alberta border to Saskatoon.

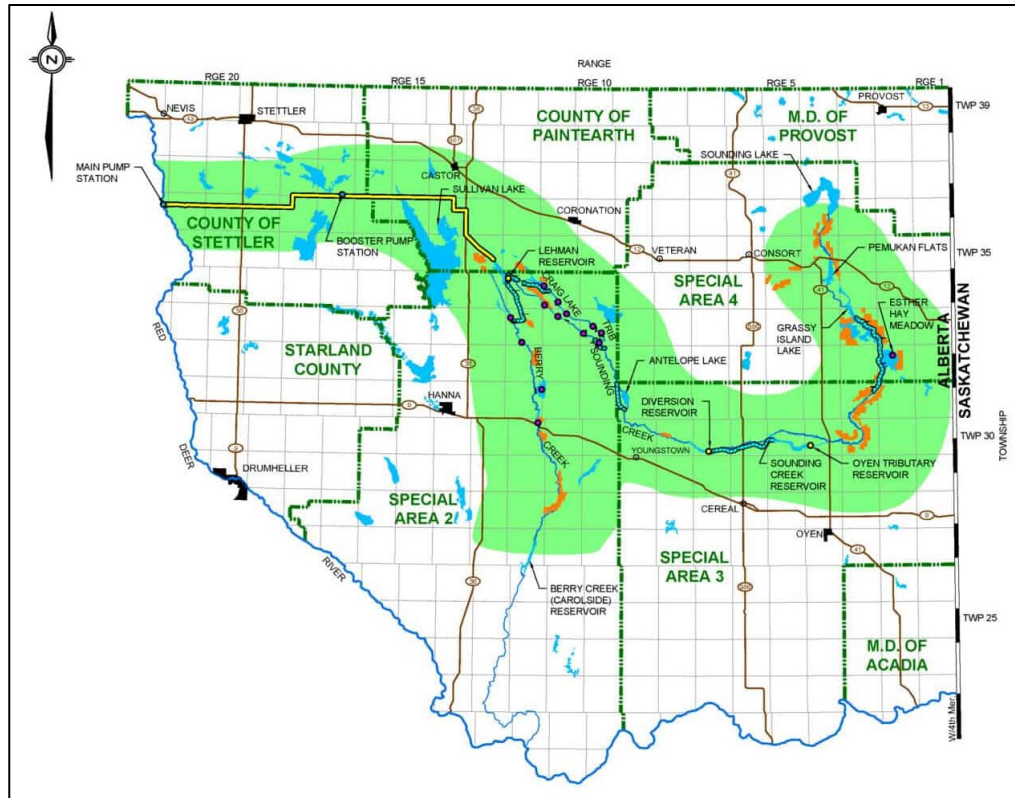
Irrigation in East-Central Alberta - A Brief History

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1980's – Special Areas
Water Supply Project
(SAWSP)

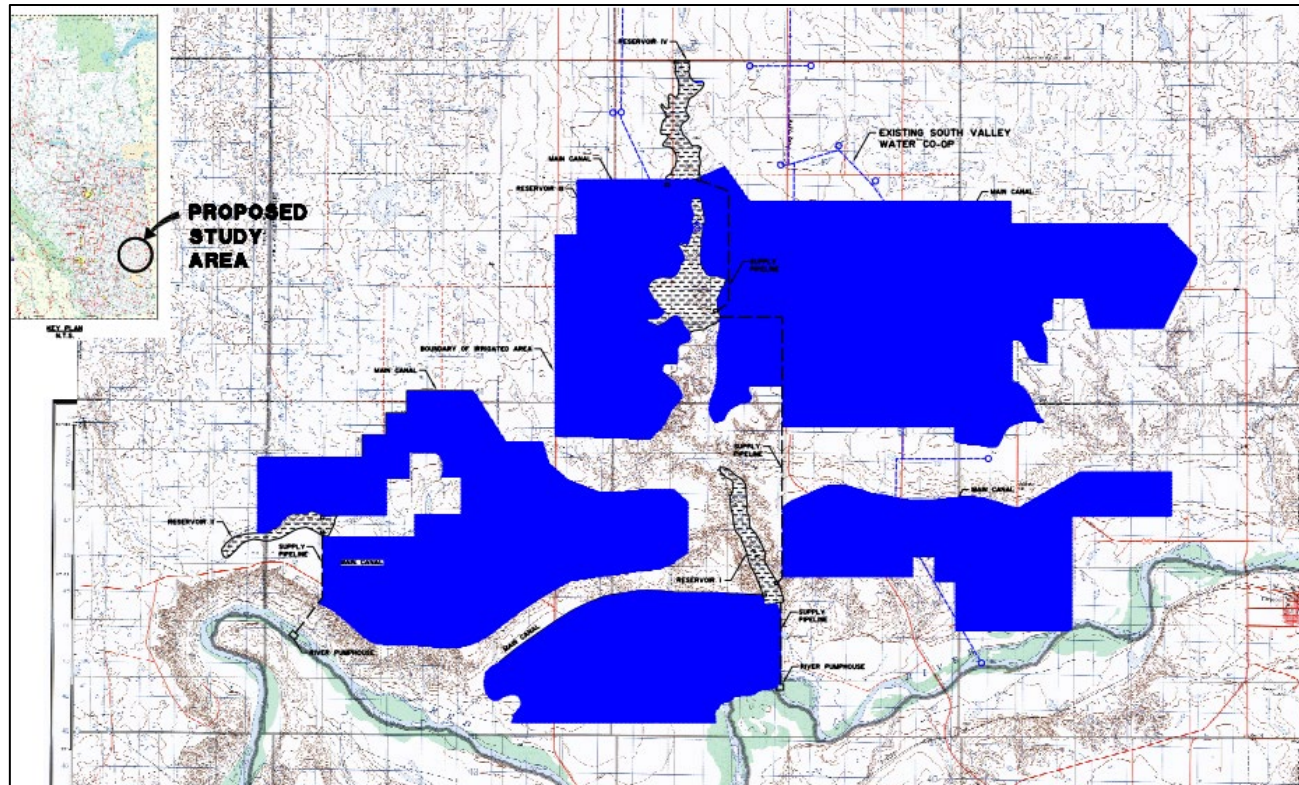
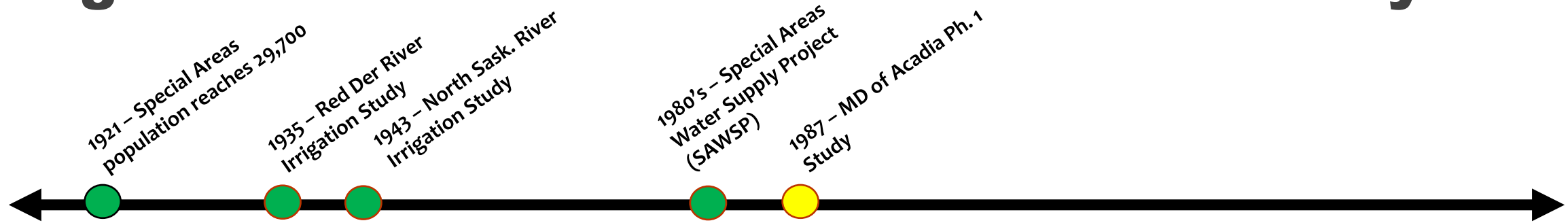


1980's - Special Areas Water Supply Project (SAWSP)

Various studies assessing the feasibility of delivering water from the Red Deer River (pumpstation near Nevis) to Sounding Creek and Berry Creek.

Deemed uneconomic due to elevation and pumping distances required.

Irrigation in East-Central Alberta - A Brief History



1987 MD of Acadia Phase 1 - Conceptual Study

Looked at the feasibility of irrigating 10,000, 20,000 and 40,000 acres in the MD of Acadia.

Multiple reservoirs proposed.

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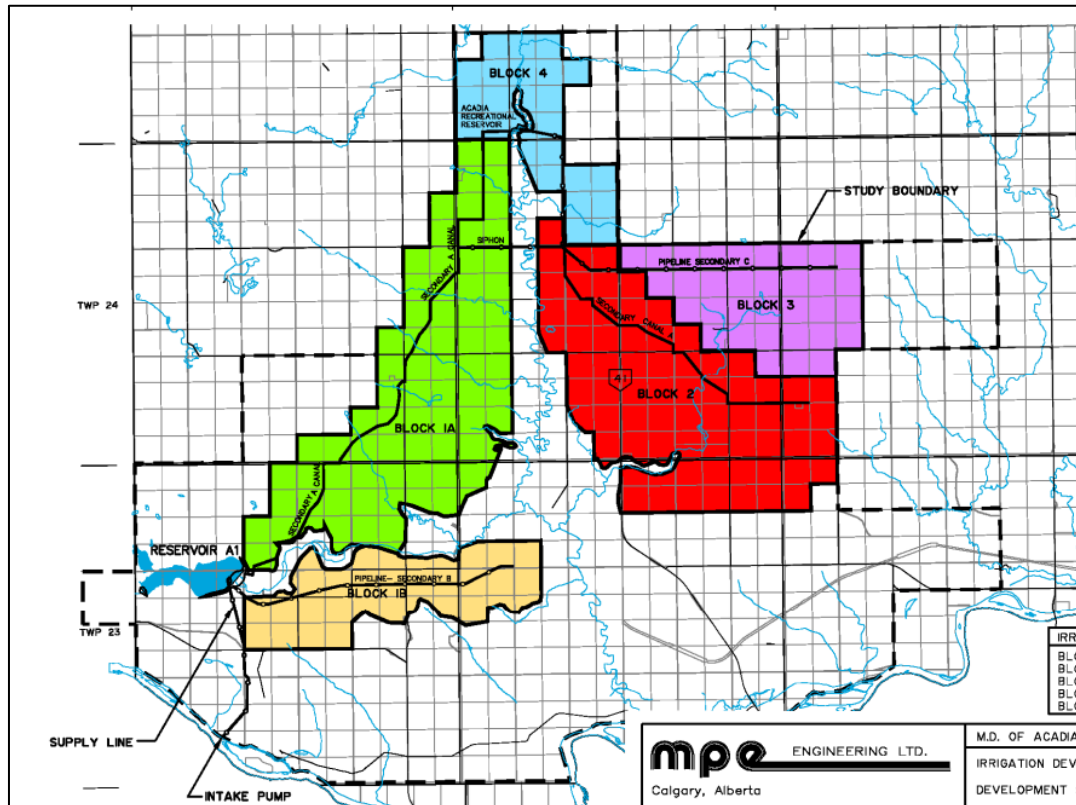
1935 – Red Deer River
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(SAWSP)

1987 – MD of Acadia Ph. 1
Study

2005 – MD of Acadia
Irrigation Study



2005 – MD of Acadia Irrigation Study

This study assessed the feasibility of irrigating up to 27,000 acres in five blocks from the Red Deer River to the MD of Acadia.

All water pumped to reservoir from the Red Deer River, then gravity fed from one reservoir.

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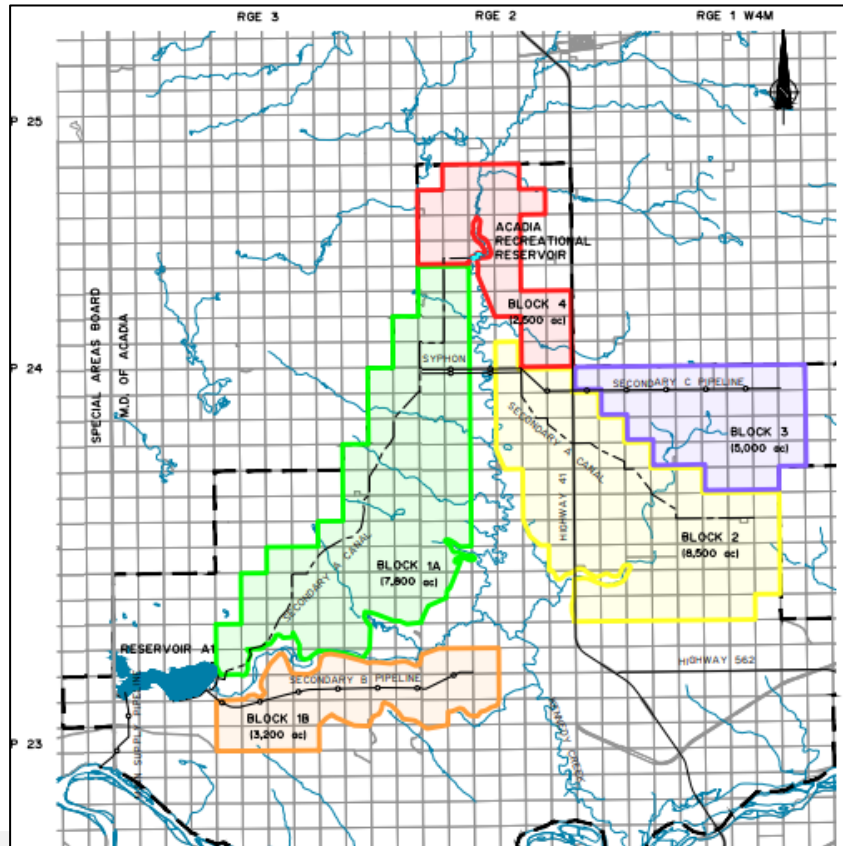
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2019 – MD of Acadia
Update Study



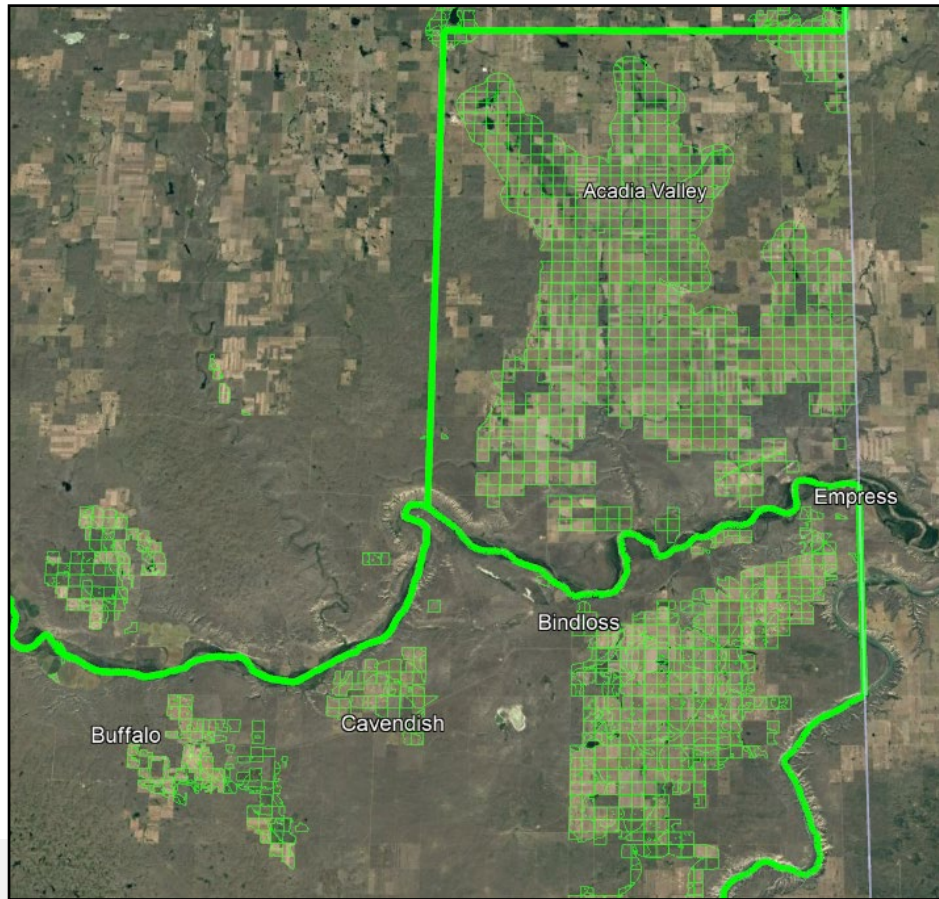
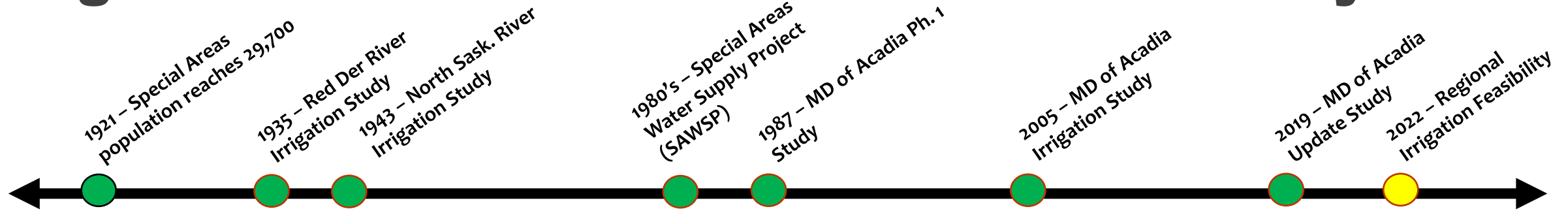
2019– MD of Acadia Irrigation – Update Study

This study updated the costs and economics from the 2005 project. Blocks and areas the same as the 2005 report.

Three scenarios were investigated: 13,500 acres, 22,000 acres, 27,000 acres.

Benefit – Cost Ratio of 1.41 for scenario 3 (27,000 acres)

Irrigation in East-Central Alberta - A Brief History



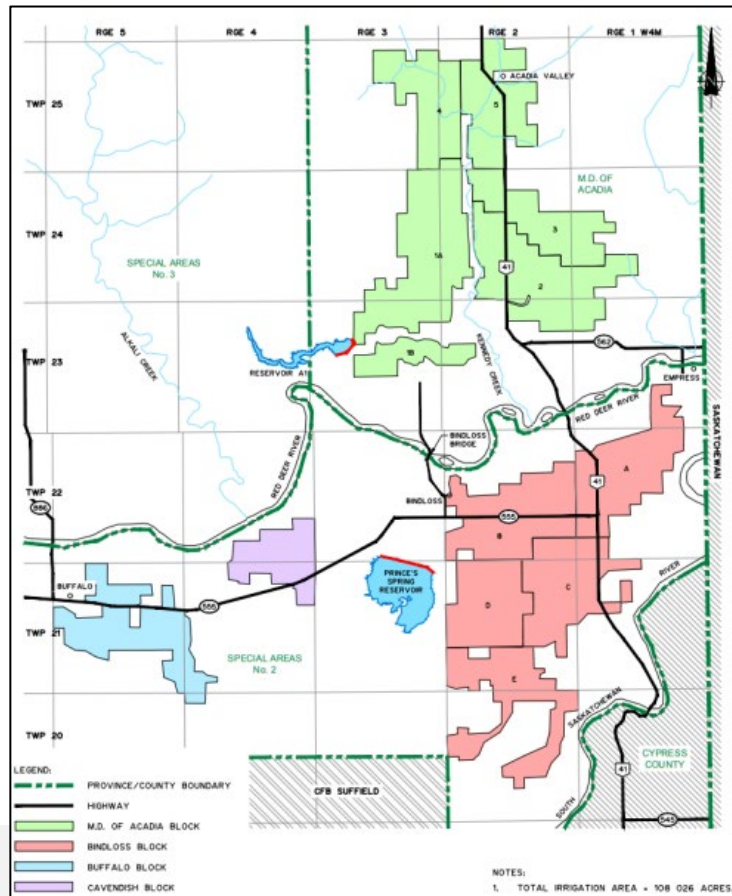
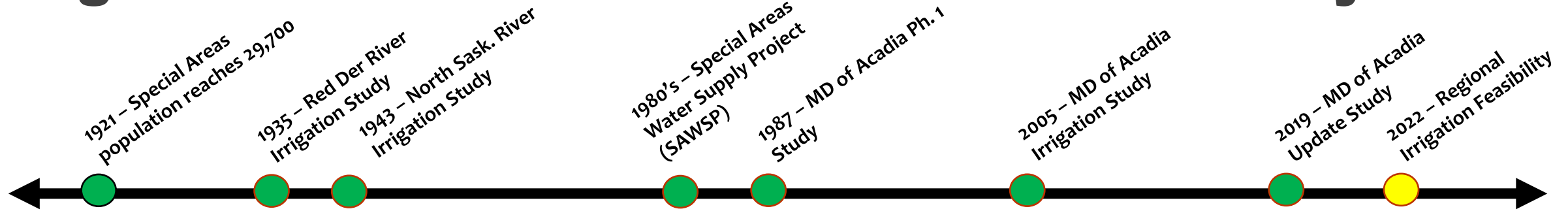
August 2022 – Feasibility report for Regional Irrigation (MD of Acadia & Special Areas) released.

Project began in Jan 2021 to assess opportunity to develop regional irrigation project, using 2019 MD of Acadia update as base starting point.

- MD of Acadia irrigation area - increased from 27,000 to 49,200 acres.
- Special Areas (South of Red Deer River) blocks added, totalling 58,900 acres.

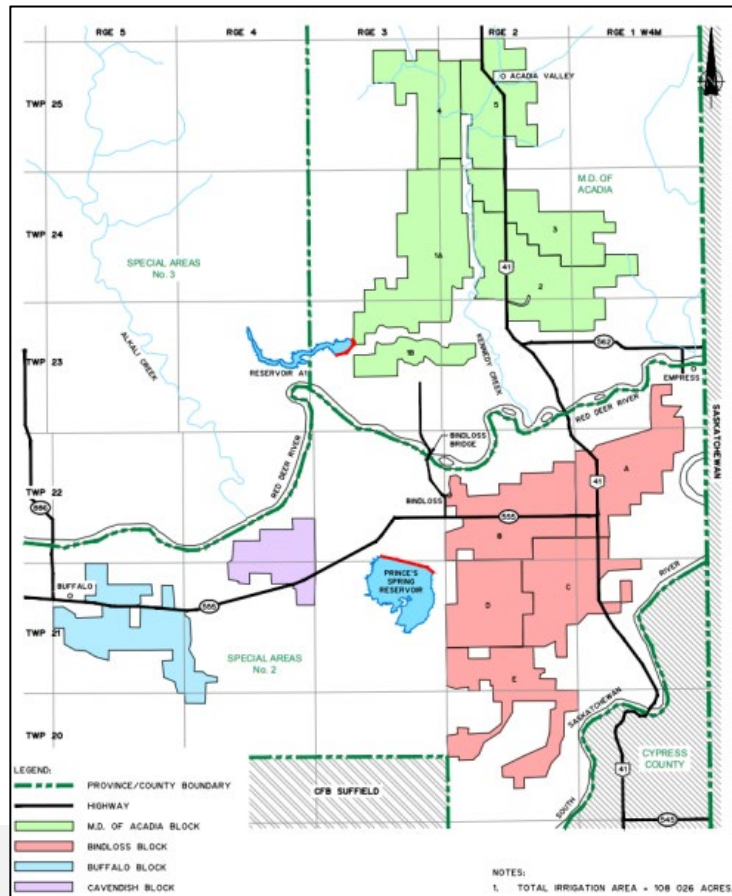
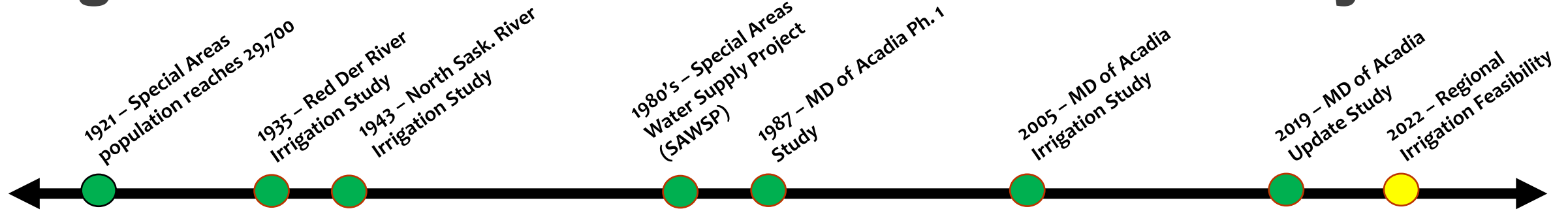
108,000 acres identified as for potential irrigation development in feasibility study.

Irrigation in East-Central Alberta - A Brief History



- All proposed land under pivot is currently cultivated.
- One pump site, two reservoirs, and 13 distinct irrigation blocks.
- All lands require water to be pumped to reservoirs.
- Level 3 Irrigation suitability studies completed in the 1980s (*Meridian Dam Study*).
- Similar agro-climatic factors as the Eastern Irrigation District.
 - These areas are the hottest and driest lands in the study region.
 - These areas are adjacent to the Red Deer River and the provincial border.

Irrigation in East-Central Alberta - A Brief History



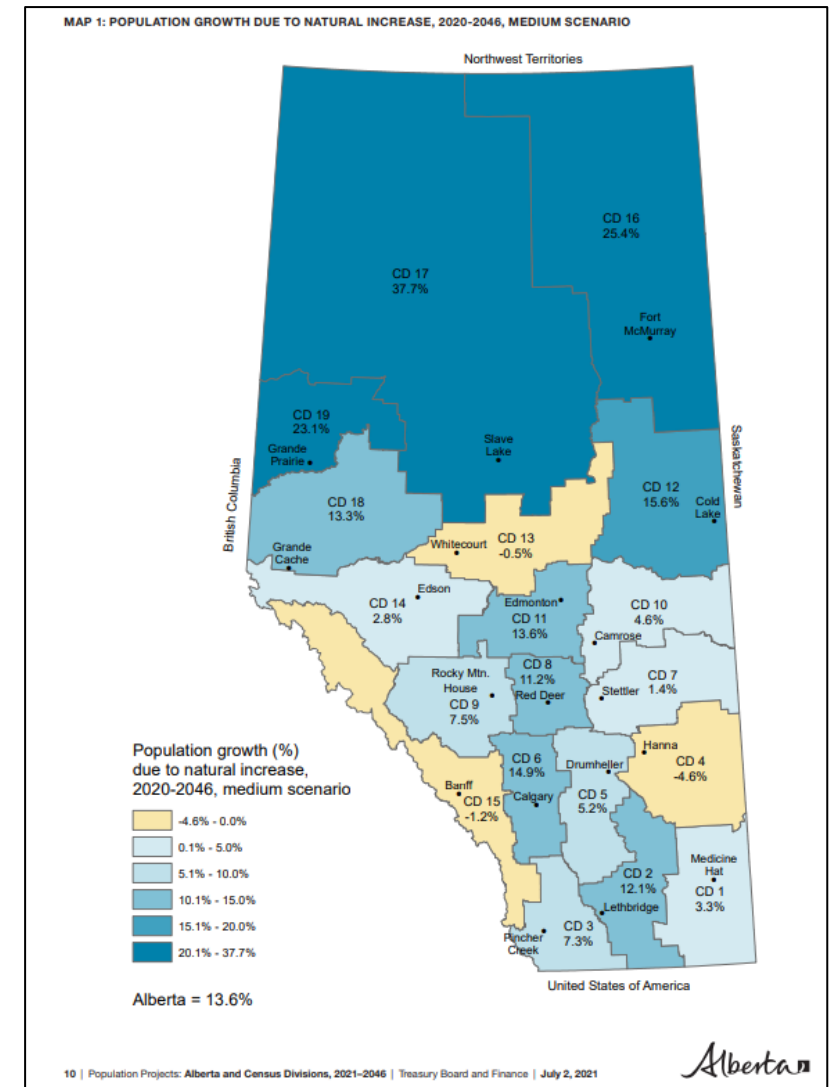
Next Steps for MD Acadia – Special Areas Regional Irrigation Project work

- February 2023 – RFP for Phase 2 Project Work (expected to be a 2-year study).
- Focus will be:
 - Preliminary design & engineering
 - Environmental & regulatory considerations
 - Refine the economic model

Irrigation in East-Central Alberta – The Opportunity

Without economic intervention, the population is projected to continue to decline by nearly 5% between 2020 to 2046 – the largest projected decline of any census division in Alberta.

Source: Population Projects: Alberta and Census Divisions, 2021–2046 | Treasury Board and Finance | July 2, 2021



Questions?

MD Acadia & Special Areas Regional Irrigation Project

Sign up for more information by emailing public.input@specialareas.ab.ca

Contact Information

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