

# Community Information Session Springbank Off-Stream Reservoir (SR1)

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September/October 2020  
Alberta Transportation

# 2013 Flood

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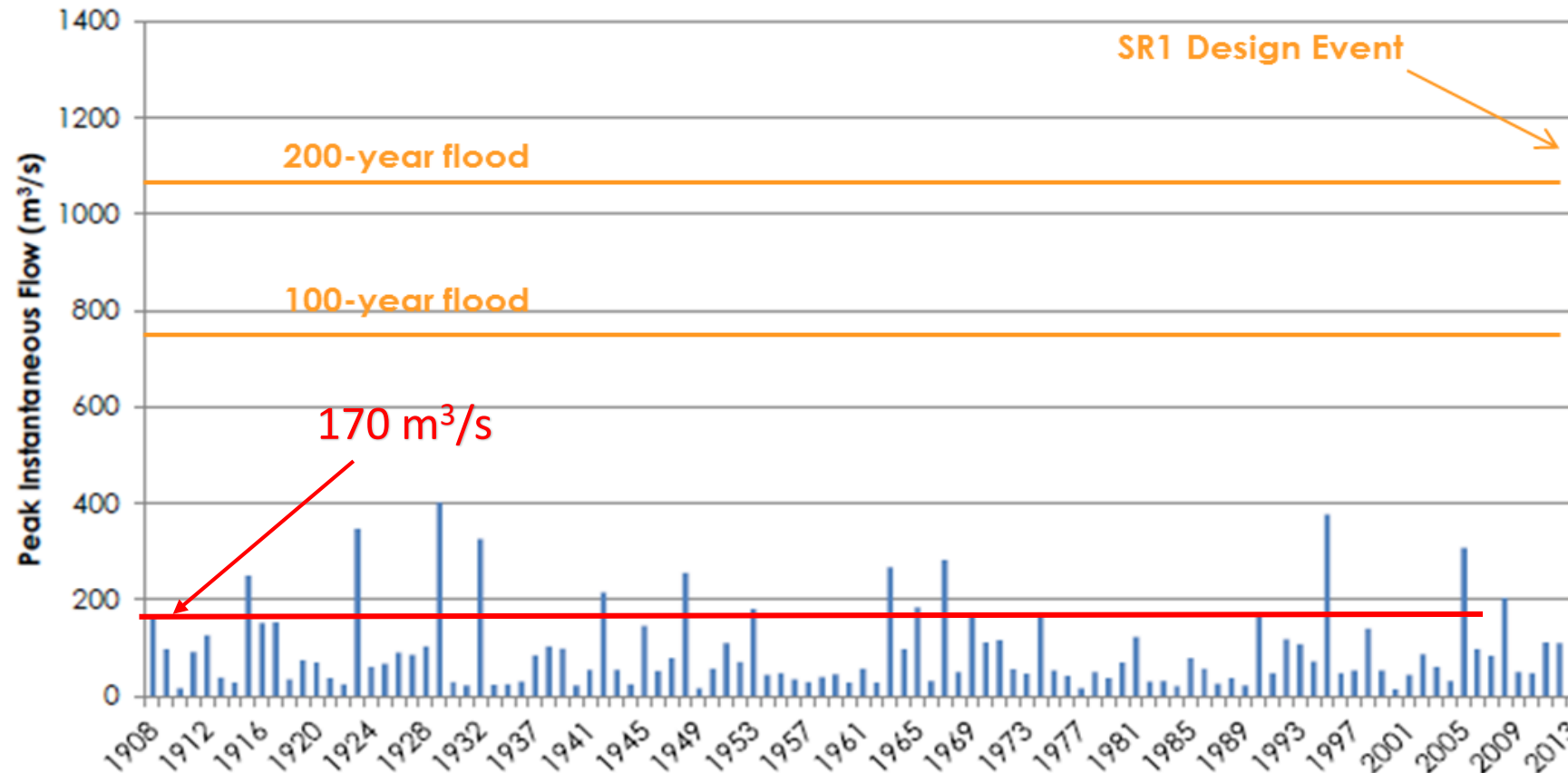
Massive flooding in southern Alberta and Calgary in 2013 resulted in significant economic and personal costs for the province:

- \$5 billion+ in damages and recovery costs
- 5 fatalities
- 4,000 impacted businesses
- Damage to roads, bridges, pathways, parks, and transit systems.
- 80,000 people evacuated
- 3,000 buildings flooded

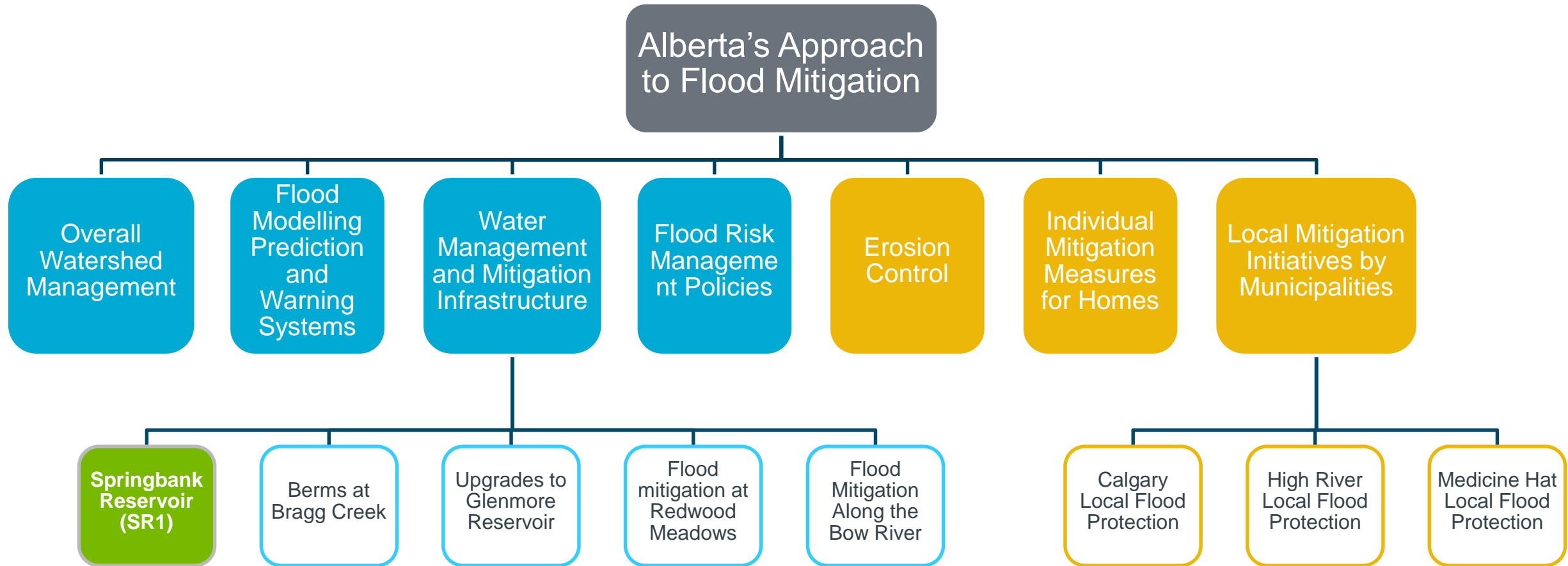


# Historic Floods on Elbow River

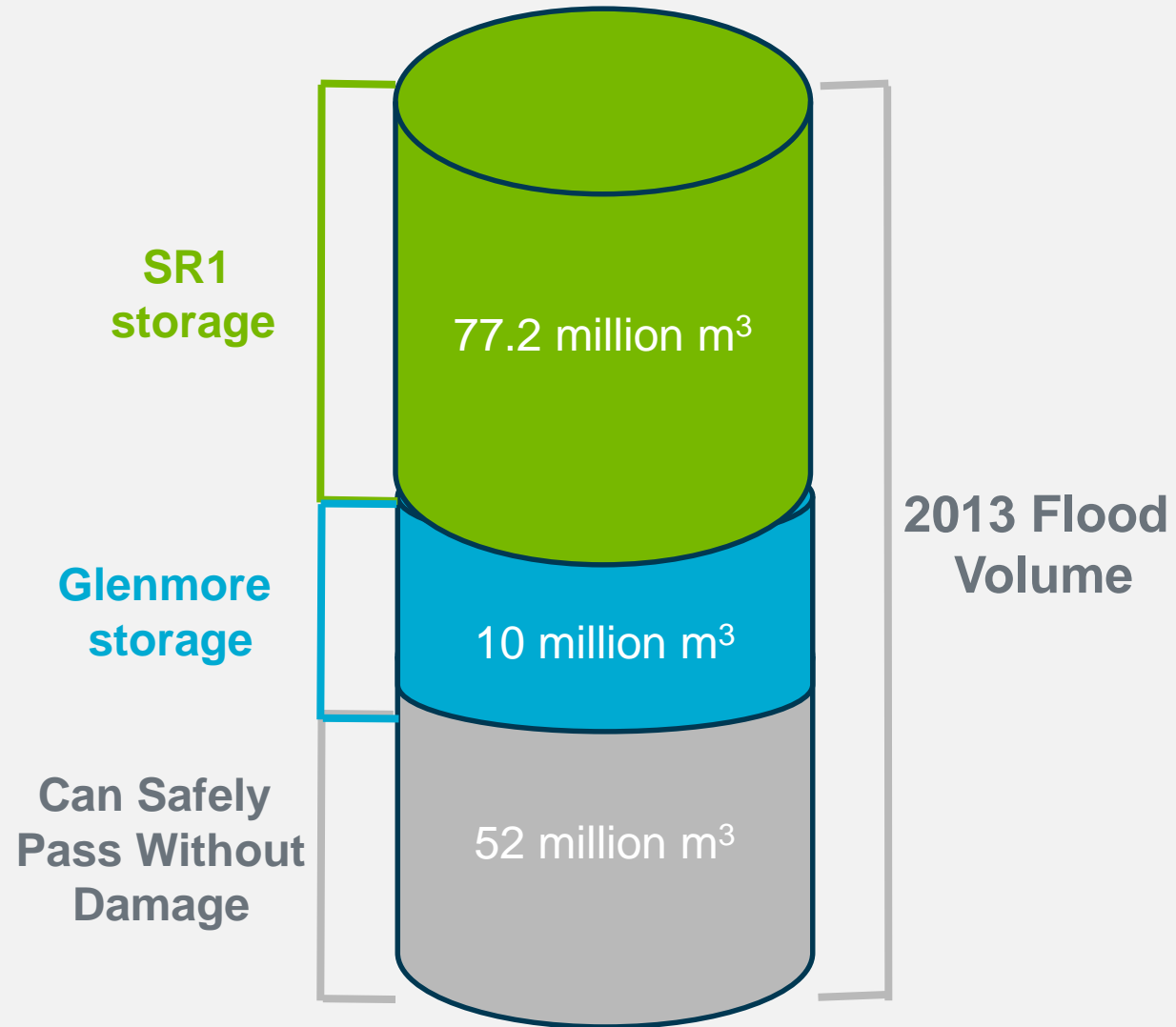
Historically, flooding in southern Alberta is a regular and common occurrence.



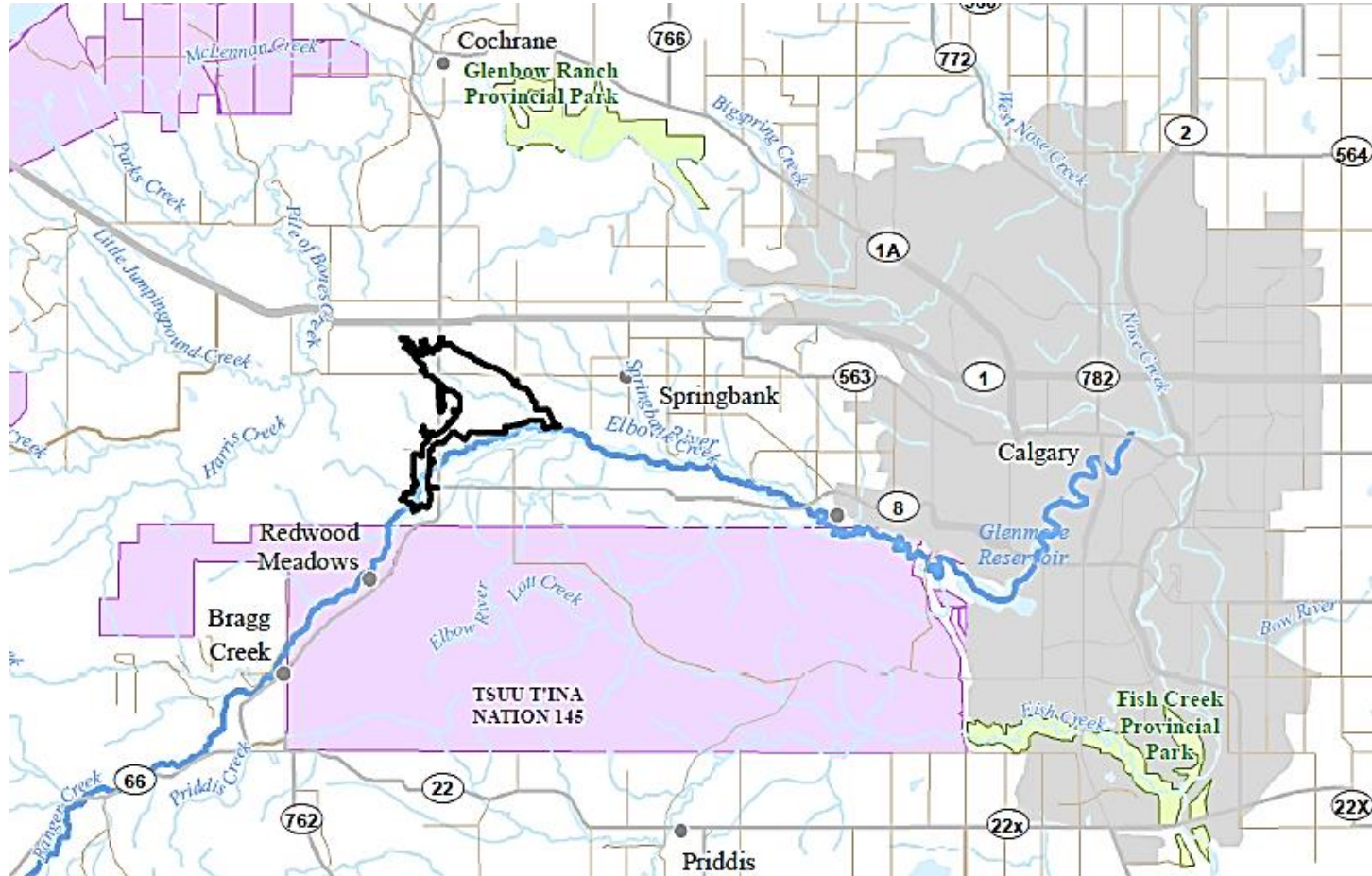
# Provincial System for Flood Mitigation



# How Does SR1 Work?

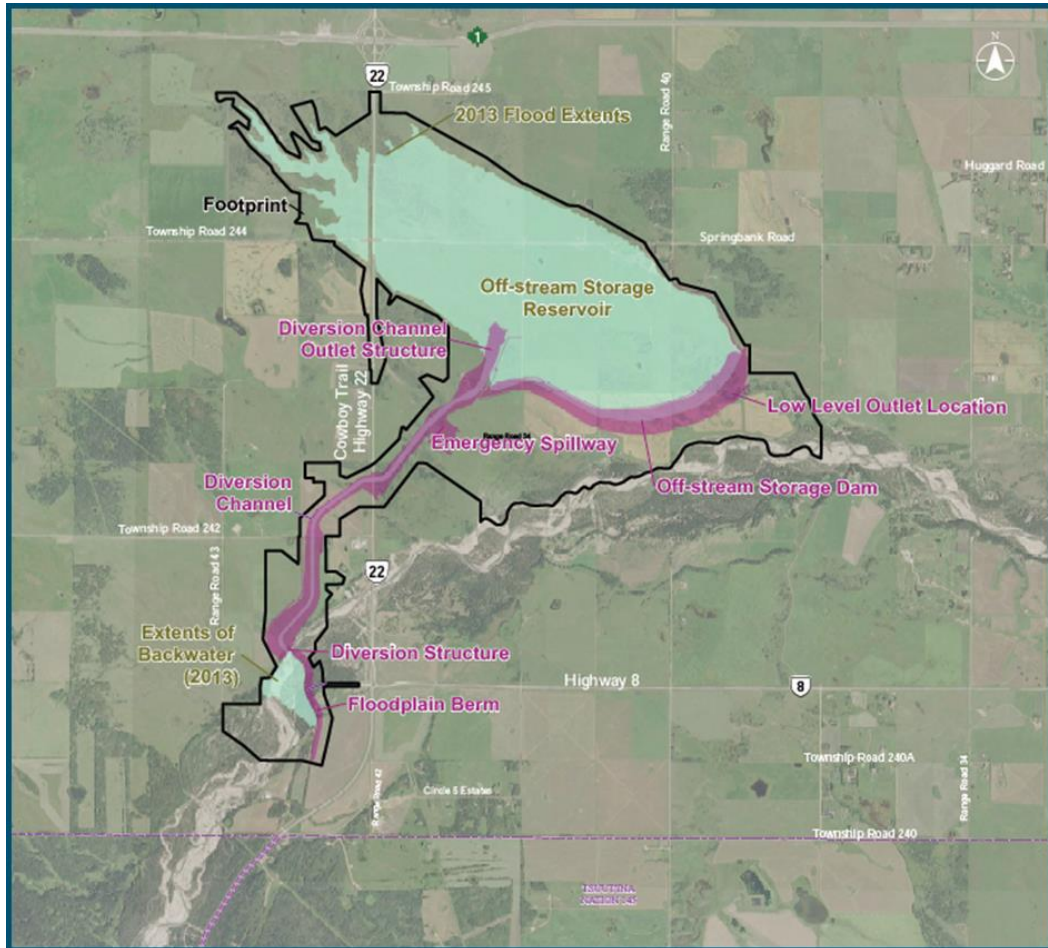


# SR1 Location



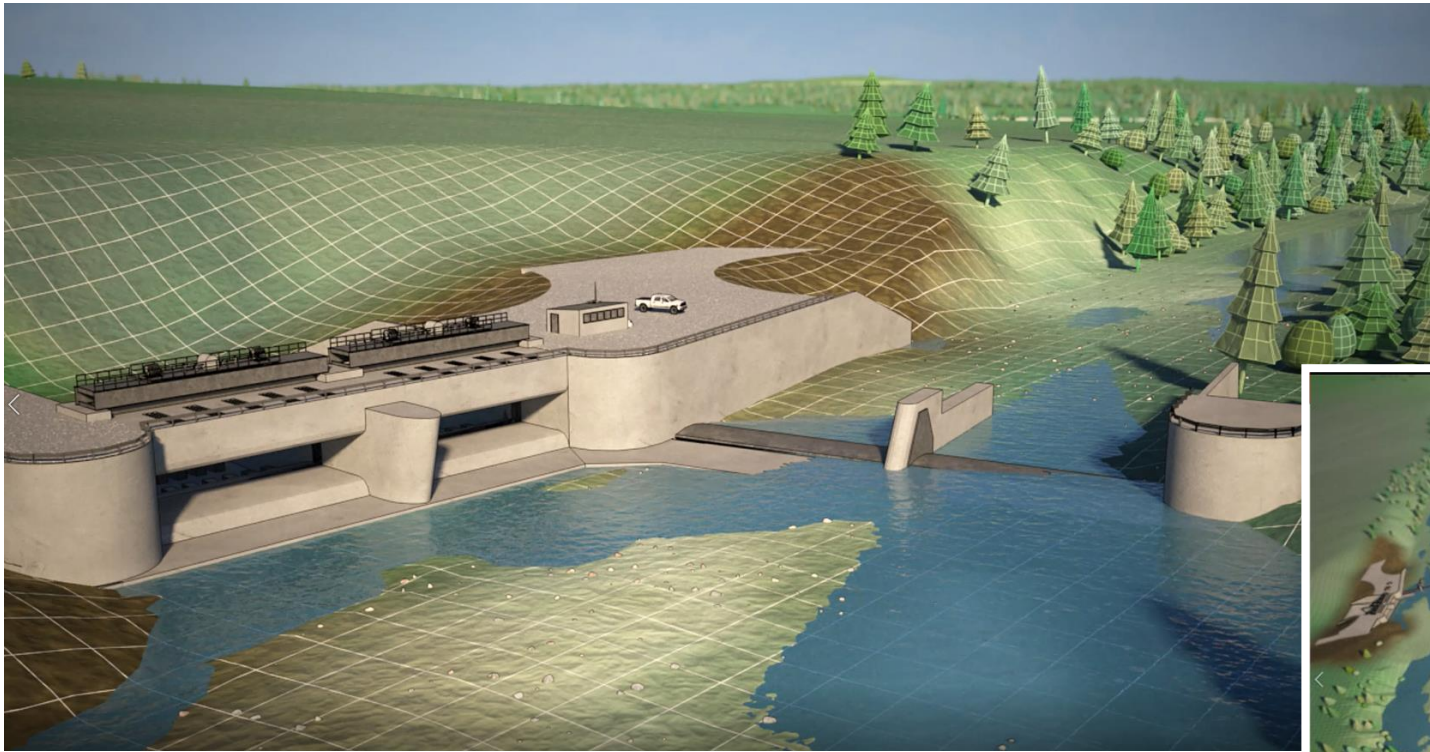
- Location based on:
- Existing topographic conditions.
  - Downstream for larger catchment
  - Safely pass larger floods
  - Minimal impact on environment

# Key Components



- Diversion Structure
  - Debris Barrier
- Floodplain Berm
  - Auxiliary Spillway
- Diversion Channel
  - Emergency Spillway
- Dam
- Low Level Outlet

# Diversion Structure and Floodplain Berm





# Project Before

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Location: Elbow River at the Diversion Structure



# Project After

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# Project Before

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Location: Highway 22, bridge crossing the Elbow river



# Project After

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# Project Before

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Location: Highway 22, Intersection with Springbank Road



# Project After

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# Project Operations

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Activates at  $160\text{m}^3/\text{s}$

Excess flow diverted to reservoir up to  $600\text{m}^3/\text{s}$

Up to 77.2 million  $\text{m}^3$  in storage

# Emergency Operations Notification

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- Alberta Environment and Parks will implement an Emergency Operations Notification system in case of emergencies such as a flood warning:
  - Residents and Indigenous groups will be notified, and public warnings will be issued.
  - Local authorities and emergency services will be contacted.
  - Evacuation zones will be established.
  - Applicable government agencies will be contacted as required.

# Regulatory Process

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## Provincial Approval

- Environmental Impact Assessment review
- Supplemental Information Requests
- Natural Resources Conservation Board Hearing process

## Federal Approval

- Impact Assessment Agency of Canada review
- Supplemental Information Requests
- Construction approvals

# Engagement

## Stakeholders:

- Landowners
- City of Calgary
- Rocky View County
- Springbank Community Association
- Calgary River Communities Action Group
- Irrigation companies
- Downstream communities
- Bow River Basin Council
- Elbow River Sustainability Alliance

## Indigenous Groups:

- Kainai/Blood Tribe
- Piikani Nation
- Siksika Nation
- Stoney Nakoda Nations
- Tsuut'ina Nation
- Ermineskin Nation
- Louis Bull Tribe
- Montana Nation
- Samson Cree Nation
- Metis Nation of Alberta Region 3
- Metis Nation of British Columbia
- Ktunaxa Nation Council
- Foothills Ojibway Society

# SR1 Stakeholder Concerns and Mitigations

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- Impacts to land, air, water and wildlife.
  - Monitoring plans have been developed to identify and address impacts.
- Land Use
  - Transportation is engaging with First Nations and others to:
    - Determine future land uses.
    - Enable Indigenous participation in construction and operations.



# SR1 Land Use

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- Primary use is flood mitigation
- Secondary use principles:
  - Safety overrides all secondary uses
  - Only uses that have a minimal impact on the land will be permitted
  - Indigenous groups' traditional uses and Treaty rights are a priority
  - Non-motorized recreation will be permitted in some areas
  - Grazing may be used to manage ecosystem health
- AEP will develop the final Land Use Plan with stakeholder input

# SR1 Land Acquisition

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- Land acquisition
  - Voluntary acquisitions are being pursued.
  - Approximately 25% of land has been acquired.
  - Compensation is based on Expropriation Act principles.

# SR1 Environmental Impacts and Mitigation

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- Environmental concerns have been expressed by stakeholders, Indigenous groups, regulators, and the SR1 team.
- Impacts that cannot be mitigated by Project design will be addressed through modeling, monitoring plans, and other restoration measures after construction.



# SR1 Mitigation and Monitoring

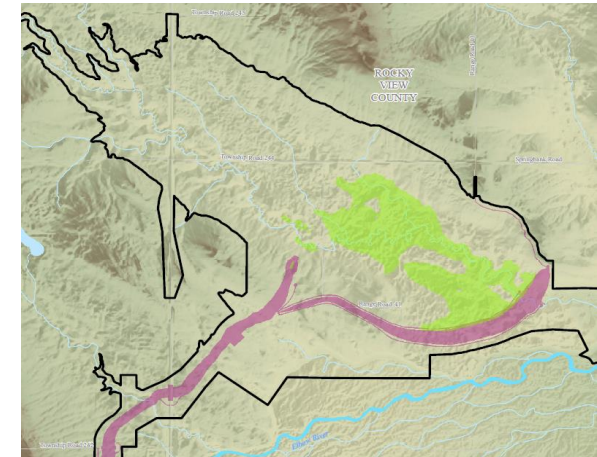
- Mitigation and Monitoring plans are in place to identify when impacts occur and to determine mitigation response.

Fish, Fish Habitat, and Downstream Migration

Sediment and Dust

Surface Water Quality and Contamination

Groundwater and Well Water Impacts



# SR1 Mitigation and Monitoring

- Mitigation and Monitoring plans are in place to identify when impacts occur and to determine mitigation response.

Wildlife – Project designed to limit effects on wildlife

Vegetation – Reverts pasture land to more natural state

Air Quality – Dust during construction / operations



# Cost and Budget

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- Total project budget is \$432 million.
- Final project cost will be based on:
  - final land acquisition costs;
  - final design and tendering;
  - cost of conditions from the regulatory process; and
  - project taking longer to complete relative to initial assumptions.
- SR1 is eligible for federal support of \$168.5 million under the Government of Canada's Disaster Mitigation and Adaptation Fund.

# Next Steps

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- Complete responses to federal and provincial SIRs
- Continue engagement with stakeholders and Indigenous groups
- NRCB issues Notice of Prehearing meeting
- Prehearing meeting (opportunity to ask NRCB to participate in public hearing)
- NRCB Hearing (opportunity for public participation)

# Questions or Comments?

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To stay up to date about the project please visit our webpage at:

<https://www.alberta.ca/springbank-off-stream-reservoir.aspx>

For future inquiries please email us at:

[Springbank-Project@gov.ab.ca](mailto:Springbank-Project@gov.ab.ca)