



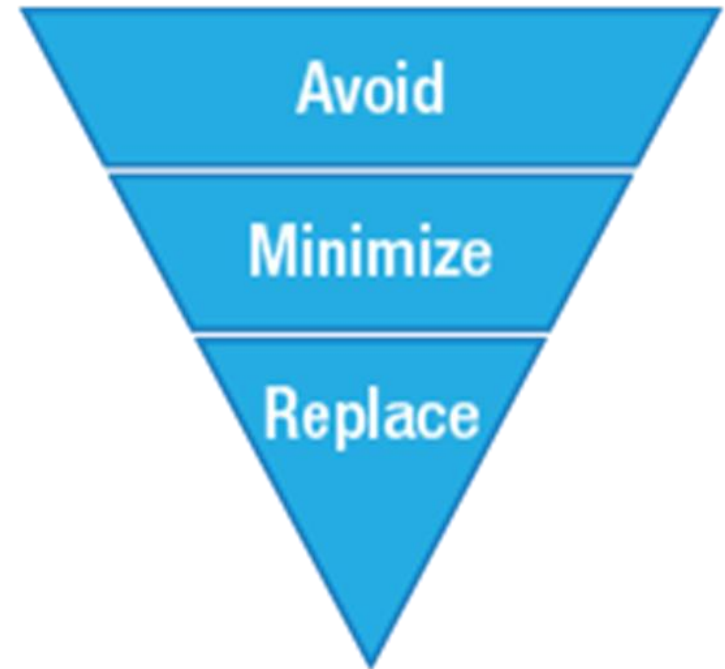
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## **2024 WETLAND REPLACEMENT**

COUNCIL JUNE 25<sup>TH</sup>, 2024

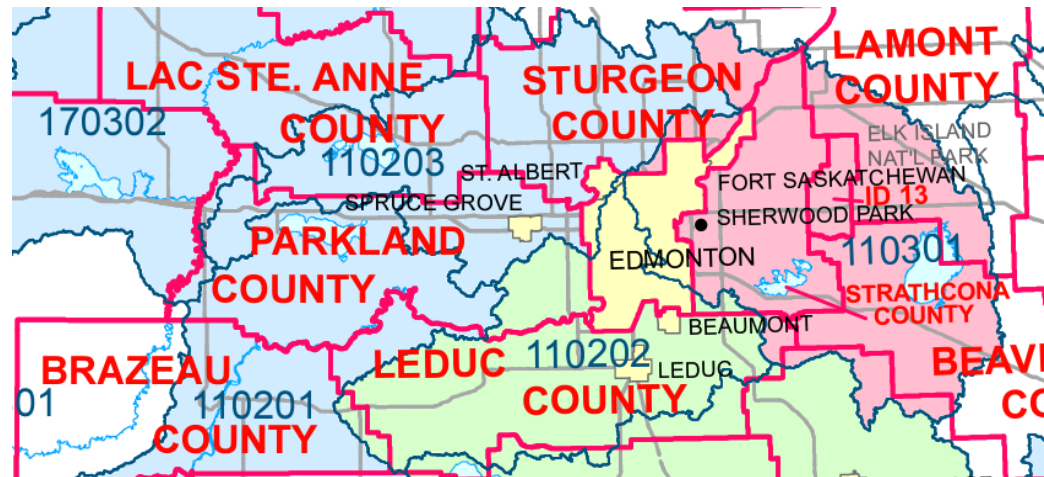
# THE ALBERTA WETLAND POLICY

- The goal of the Alberta Wetland Policy is to conserve, restore, protect and manage Alberta's wetlands.
- Policy focuses on four main outcomes:
  1. Wetlands of the highest value are protected for the long-term benefit of Albertans
  2. Wetlands and their benefits are conserved and restored in areas where losses have been high
  3. Wetlands are managed by avoiding, minimizing and if necessary, replacing lost wetland value
  4. Wetland management considers regional context



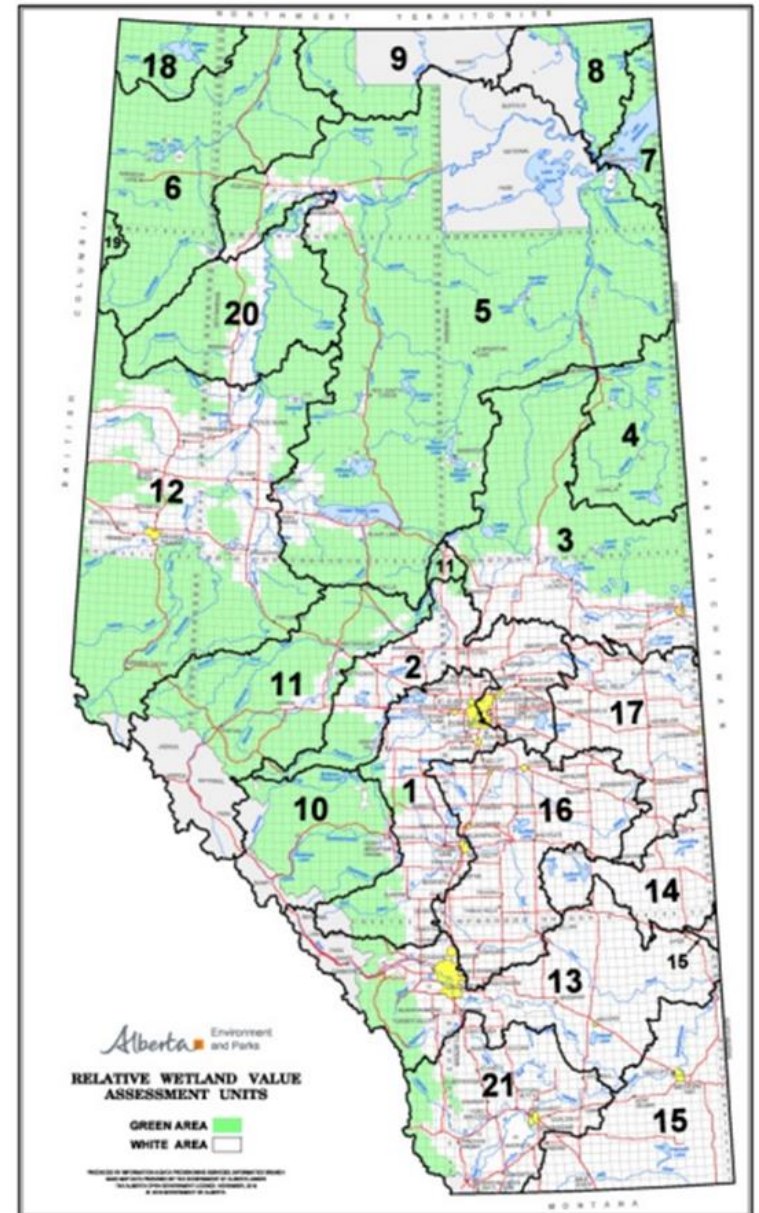
# WETLAND REPLACEMENT PROGRAM OVERVIEW

*"Wetlands are a vital part of Alberta's ecological landscape and necessary for a sustainable economy and healthy communities. The Wetland Replacement Program (WRP) aims to re-establish wetlands in partnership with Albertans by providing resources for collaborative restoration projects across the province."*

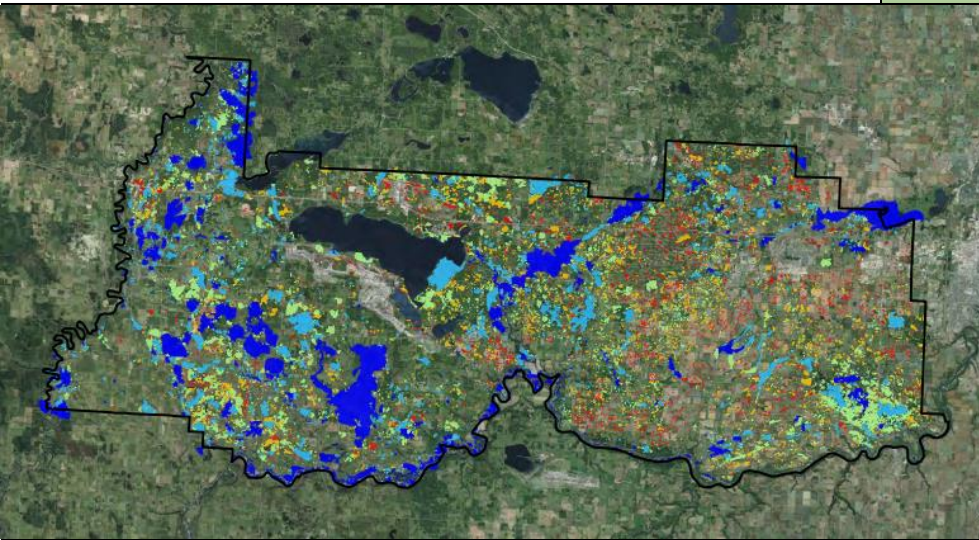


# WRP OVERVIEW

- Wetland Replacement includes:
  - Wetland Restoration
  - Wetland Construction
- AEP has funding available for eligible wetland replacement projects:
  - In-lieu wetland replacement fees
  - Partnerships with municipalities and non-profits to identify and undertake projects



# WRP PROJECT PROCESS



- **Phase 1:** Site Selection & Proposal Development
- **Phase 2:** Detailed Design & Regulatory Authorization
  - Water Act Code of Practice for Wetland Replacement Works
- **Phase 3:** Construction
- **Phase 4:** Monitoring & Maintenance
  - A minimum of 4 years

# LEVERAGING CAPACITY



Watershed Resiliency and  
Restoration Program (WRRP)  
Grant : **\$293,500**

Project manager (two years):



# SITE SELECTION



# EDINBURGH PARK UPDATE

**Goal:** Construct a permanent wetland while maintaining road integrity

**Objectives:**

- Naturally appearing and functioning
- No high maintenance water control structures
- Mitigate flood and drought
- Increase species richness and biodiversity
- Diversification of wetland zones
- Clean runoff from surrounding residents

**Conceptual design plan:**

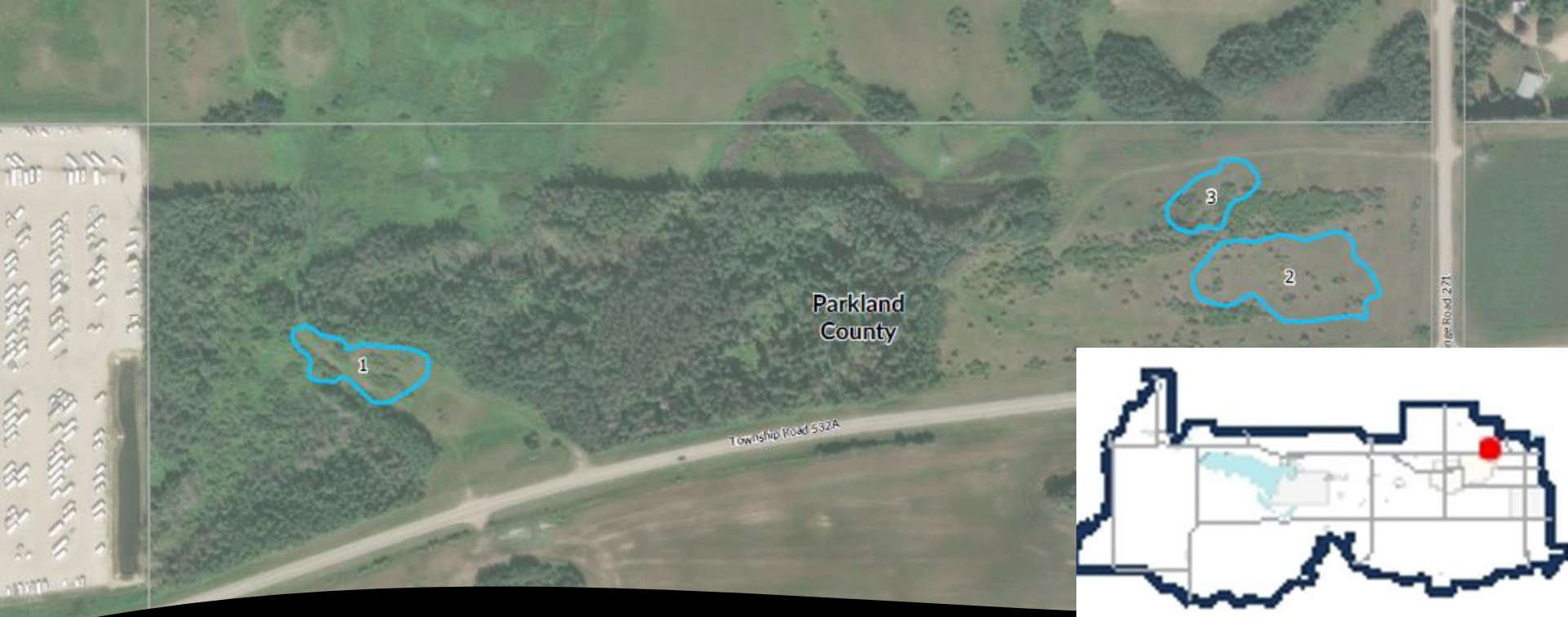
- Build a 5-hectare wetland that is connected to the county drainage network
- Include:
  - Deep water pools
  - Tufts, mounds (diversity)
  - Large woody debris
  - Planted native trees and shrubs
- Remove temporary ditch plug
- Hold open water similar to pre-road repairs



# CONSTRUCTION







# 2024 PROJECT – TWP 532A

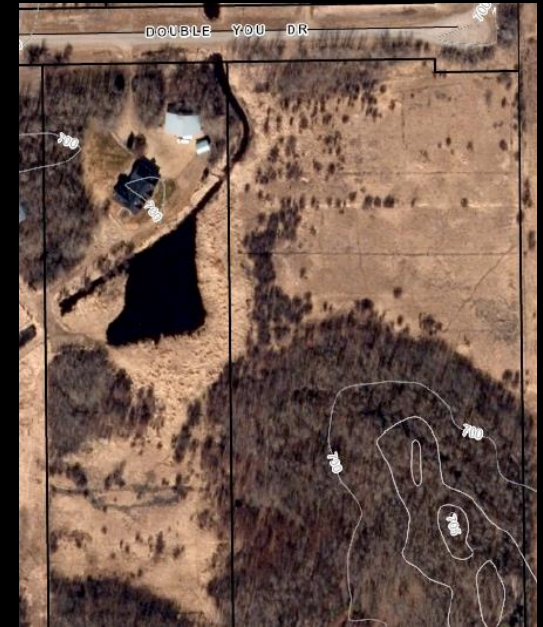
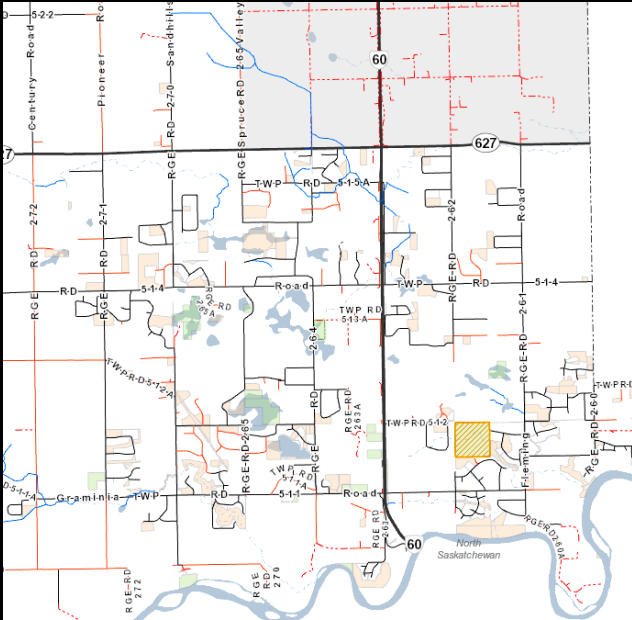
- Objectives:

- Create 1 ha of marsh and swamp wetlands
- Mitigate flooding impacts by building wetlands in locations that will receive water during high flows in the adjacent watercourse.
- Improve water quality by filtering sediment, nitrogen and phosphorous from runoff.
- Improve habitat for a diversity of wildlife
- Increase habitat for pollinators
- Establish a diversity of native

plants

- Estimated Cost:

- WRP Proposal - \$20K
- Regulatory/Detailed Design/Tender - \$35K
- Construction including earthwork planting, and construction supervision - \$155K
- Post construction monitoring (4 years) - \$40K
- **Total= \$250K**

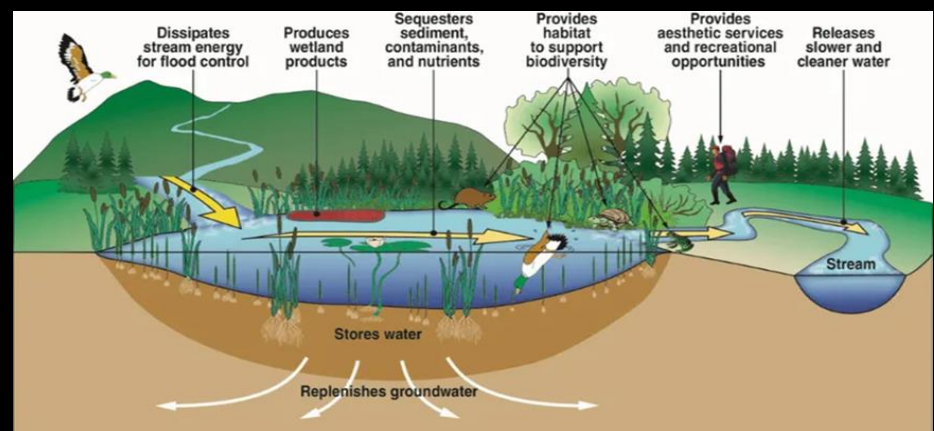


# FUTURE PROJECTS

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# CHALLENGES & OPPORTUNITIES

education  
community  
wetland perfect functions risk  
engagement  
site  
cost timing  
difference use  
drainage  
concerns



# IMPORTANCE OF LANDOWNER BUY-IN



# PUBLIC ENGAGEMENT

- Adopting proactive approach
  - Article in 2023 summer newsletter
  - Mail out to 759 residents
  - 40 residents attended info night April 17
- What We Heard:
  - Public wants to stay informed
  - Historical flooding of private property
  - Provincial process confusing
  - Concerns around wetland removal
  - Majority open to wetland replacement in their neighbourhood



**Wetland Replacement Program**

**What is a Wetland?**

Wetlands are submerged or saturated with water, either permanently or temporarily, and are characterized by plants adapted to saturated soil conditions. Wetlands in Alberta include shallow open water, marshes, swamps, bogs and fens. Wetlands are highly productive ecosystems that make a great home for many mammals, amphibians, insects, and birds. Parkland County has lost approximately 56% of its wetland area since 1950.

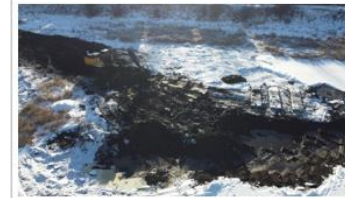
**Parkland County and the Wetland Replacement Program:**

The Wetland Replacement Program (WRP), run by the Government of Alberta, aims to mitigate the loss of wetlands across the province. The program prioritizes watersheds and municipalities with high historical loss of wetland area. Parkland County's partnership with the WRP seeks to identify, restore, and protect wetlands across the community.

**Frequently Asked Questions:**

**Who runs the Wetland Replacement Program?** The Alberta Government partners with municipalities and non-profit organizations to provide funding for eligible wetland projects. The program does not use tax dollars. Revenue from funds collected to compensate for wetland loss are used for wetland construction and restoration.

**Who can apply?** Municipalities and non-profit organizations that are committed to managing wetland restoration and wetland construction projects. Parkland County currently has an agreement to participate in the Wetland

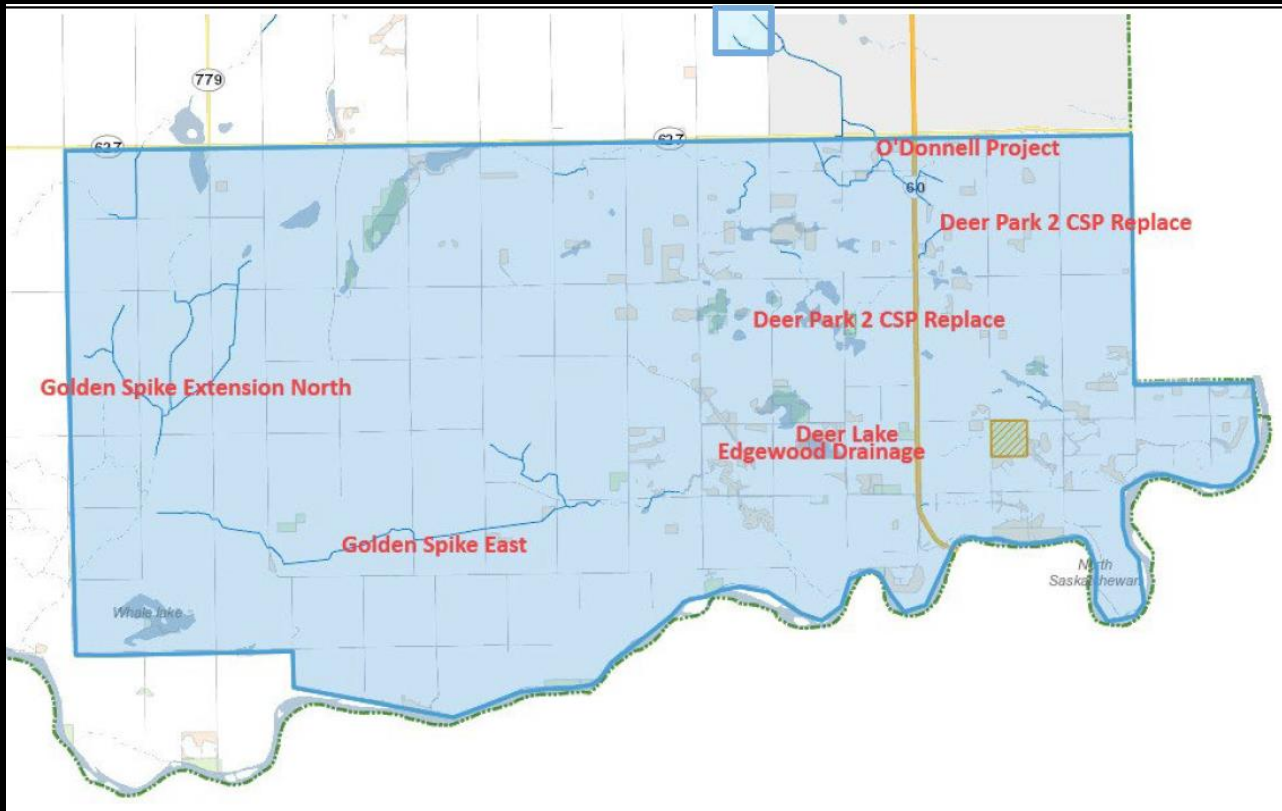


Importance of Wetlands in Parkland County:

**Wetland Replacement Program**

Wetlands are highly productive ecosystems that are essential for protecting water quality, providing habitat for wildlife, and reducing the impacts of flood and drought by providing increased water storage. Parkland County has lost approximately 56% of our previous wetland area since the 1950s. We now have a unique opportunity to re-establish wetlands in our area through the provincial Wetland Replacement Program. Funds that have been collected to compensate for wetland loss can now be accessed and used for wetland construction and restoration projects. If you would like to see a wetland in your area, email [sustainability@parklandcounty.com](mailto:sustainability@parklandcounty.com) or phone 780-968-8888 ext. 8236.

# DRAINAGE STUDY



## Objectives:

- Better understand groundwater & surface water interactions
- Identify water storage opportunities on County lands
- Identify County lands suitable for wetlands
- Prioritize projects that can mitigate flooding issues



# SUMMARY

**Proposed Motion:** That Council approve \$250,000 for the 2024 wetland construction project, funded by the Provincial Wetland Replacement Program.

Note: Total Cost for 2024 (Excludes Monitoring): \$210, 000