# Supporting a Future Watershed Investment with the City of Calgary

## The City of Calgary adopted a Source Water Protection Policy in 2020 to guide protection of water quality upstream of Calgary's water treatment plants in the Bow and Elbow watersheds.

The Source Water Protection Plan, a foundational plan supporting this Policy, included an action to develop an **Upstream Watershed Investment Program**. In 2022, a framework for an Upstream Watershed Investment Granting Program was developed for The City of Calgary. This program envisions support for on-the-ground projects to protect, restore and enhance natural infrastructure upstream of Calgary to provide beneficial ecosystem services including clean drinking water, flood and drought mitigation, and other co-benefits.

This program remains in development, however, as they continue to refine this program, The City sees the Bow River Regional Wetland Datasets (the datasets) as a potential dataset to use to:

- calculate achievable targets that support the programs goals leading to a more robust business case,
- provide context to consider achievable tasks and evaluate applicant projects.

**THE SIZE OF THE WATERSHED AREA UPSTREAM OF CALGARY IS:**

## over 1.3 million acres

**THIS AREA CONTAINS:**

- **10,476 wetlands (equating to 40,678 acres)**
- **670 restorable wetlands**
- **901 disturbed wetlands**

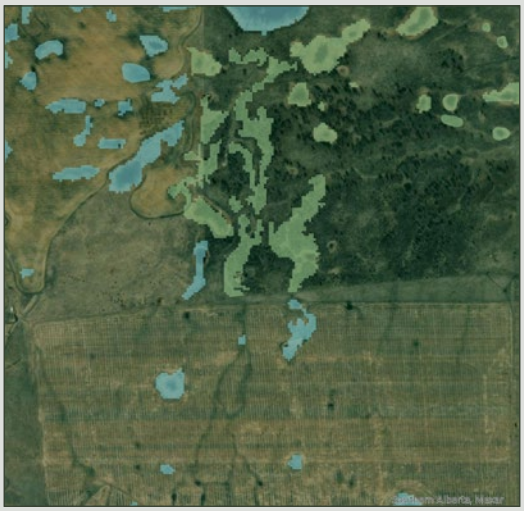

PHOTO CREDIT: MIKE MURRAY

One way to evaluate applicant projects is by using the wetland and land cover datasets to calculate the number of wetlands surrounded by natural or disturbed landcover, within a 50m buffer.

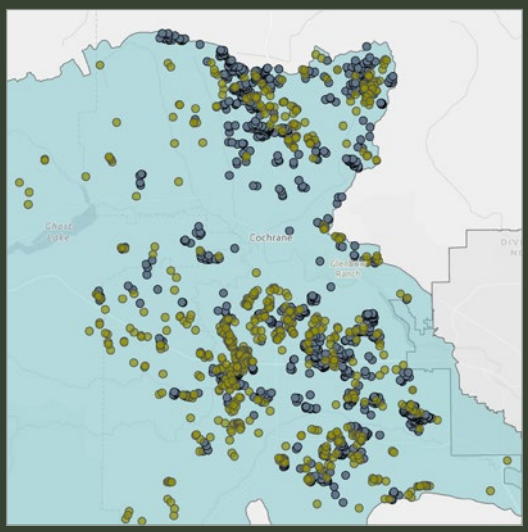
**Using the landcover datasets, we defined natural and disturbed as:**

| Natural | Disturbed |
|---|---|
| • coniferous | • lowland mineral disturbed |
| • deciduous | • cropland |
| • shrub | • pasture |
| • natural bare ground | • human built |
| • lowland mineral graminoid | • roads |
| • lowland mineral saline | • disturbed vegetation |
| • lowland mineral woody | |
| • lowland peat graminoid | |
| • lowland peat woody | |
| • natural grassland | |
| • open water | |
| • snow/ice | |

In the focal area of the Upstream Watershed Investment Grant Program, **59% of the wetlands (6,226)** are surrounded by natural land cover, and **41% (4,247)** are surrounded by disturbed landcover. The map below shows an example of natural (green) and disturbed (blue) wetlands. Natural wetlands could be prioritized for protection projects such as conservation easements. Disturbed wetlands may be more suitable for enhancement or restoration projects and could be prioritized for stewardship and restoration focused work. Which method is selected may depend on the goal of the project.



**Natural wetlands (green areas) could be prioritized for protection projects; disturbed wetlands (blue areas) may be more suited to enhancement, restoration, or stewardship-focused work.**



The datasets contain features that will provide a clearer understanding of potential project investments and associated outcomes. **The Restorable points layer** (green dots) show basins with evidence of human-caused drainage with a high likelihood of qualifying for the province's Wetland Replacement Program. Whereas **the "disturbed" attribute in the wetland inventory** (grey dots) indicates wetlands that were likely impacted or altered by agricultural activity. Both of these features in the datasets can be used to highlight wetlands that may benefit from restoration or enhancement projects to restore ecosystem services.

**Restorable points (green dots) have a high likelihood of qualifying for the Alberta Wetland Replacement Program; disturbed wetlands (grey dots) that were likely impacted or altered by agricultural activity.**

For more information, please visit
**www.bowregionwetlands.ca**

FUNDERS AND PARTNERS

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