

## Backgrounder – Shepard Regional Drainage Plan



The purpose of the Shepard Regional Drainage Plan is to develop a stormwater drainage plan for the Shepard Drainage Corridor, also referred to as the study area (see Figure 1 – Shepard Regional Drainage Corridor) and to identify interim drainage solutions for the area.

The Shepard drainage corridor includes portions of Rocky View County, The City of Calgary and the Town of Chestermere. The boundary of the study area extends from Township Road 254 on the north and the Bow River on the South. It can be described as:

- Including the area north of the WH canal; east of the TUC towards the Town of Chestermere that naturally drains to the WH Canal (Areas A, B and C)
- Including the area south of the WH canal; including area within and outside The City limits that drains to the Bow River via the Shepard Slough complex or Shepard Stormwater Diversion Project (Areas F1, F2, G, H, I1 and I2).
- Including the area currently east of Chestermere Town limits (Area E).
- Excluding the Town of Chestermere 2004 town boundary (Area D).

The major water features include the WH Canal which intercepts the drainage from the north portion of the area; Chestermere Lake; the Shepard Stormwater Diversion Project; and the Upper Shepard Slough Complex.

A study was completed in 2008 for the Western Headworks Regional Stormwater Management Subcommittee (WHRSMS). The WHRSMS included Western Irrigation District, Alberta Environment, Rocky View County, Town of Chestermere, and The City of Calgary. The study was entitled, Drainage Servicing Strategies for the Shepard Drainage Corridor (Shepard DSS). One major outcome that was confirmed by the study was that stormwater drainage from newly developed lands cannot drain to the WH Canal and Chestermere Lake. Alberta Environment (AENV) owns the WH Canal, and the Western Irrigation District (WID) operates the WH Canal. WID provides water for municipalities and for agricultural purposes, and stormwater drainage may have negative impacts on water quality and water quantity reaching the canal. The study recommends under-drains (pipes under canal) to direct flows from the north under the WH canal to the Bow River via the Shepard bypass and ditch.

The study also identified issues to be resolved for areas south of the WH Canal such as how to connect upstream areas to the newly constructed Shepard Ditch via the Shepard Bypass, confirming catchment boundaries, and providing the required right of way for the storm conveyance system. The Shepard Bypass is located adjacent to the Shepard Constructed Wetland.

Increasing development pressure, in combination with long range municipal planning within the study area, makes it necessary to develop a Regional Drainage Plan. As development occurs, there is an opportunity to integrate stormwater management with the preservation of wetlands, riparian corridors, and natural areas. The Shepard Regional Drainage Plan will be a tool in setting policy for municipal development by providing guidance and direction regarding:

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- adequate conveyance systems for surface runoff;
- protection of water resources; and
- preservation of valuable open space and water features in the region.