



DAWSON'S LANDING POND 2A STORM PARK

➤ **QUALICO®
COMMUNITIES
(2020 - 2021)**

➤ **CHESTERMERE, AB**

"This system takes water management and unites it with nature to introduce both function and beauty to the community. The vision of Dawson's Landing was always intended to be one with nature and very sensitive to the ecology of Chestermere. As developers of this site, we are proud to say that the Stormwater Kidney® in Dawson's Landing is the first residential community in the world to implement this technology and MAGNA played an integral role in this achievement."

**Joanne Voll,
Development Manager,
QUALICO® COMMUNITIES**

PROJECT CONTEXT

Qualico® Communities Calgary (Qualico®) was looking to develop a new residential community in Chestermere; however, the City faces a unique challenge in having limited discharge options for stormwater, which requires enhanced water quality objectives. As a result of these challenging development conditions, a unique solution was needed to offer the necessary stormwater management performance.

Simultaneously, Qualico® had development ambitions within the City to devise a community plan that ultimately improved inner-community amenity space for residents and create a naturalized amenity hub that was thoughtfully integrated into the urban fabric. To meet these challenging goals, Qualico® explored innovative and alternative stormwater infrastructure systems to meet their unique needs.

MAGNA'S SOLUTION

With this in mind, Qualico® retained MAGNA to design and build the Source2Source Stormwater Kidney®, a type of Storm Park design. The design consists of specialized system components, including a sediment clarifier forebay, known infamously as the Nautilus Pond®, a main pond storage body, a treatment wetland, and a biofilter. The treatment wetland and biofilter consist of layered media and surface plants that host microbes which clean the water. In this way, the treatment is both naturalized and passive. As a unit, these system components successfully clean stormwater, mitigate stormwater surges, and improve community life.

A Storm Park provides multiple community services, including:

- Improved water treatment
- Improved flood protection
- Biodiversity and habitat preservation
- Community cultural ecosystem services

COMMUNITY OUTCOME

The outcome of this project is a stormwater facility that provides a unique inner-community amenity space and produces high-quality stormwater discharge. The Storm Park was successfully able to produce irrigation-quality water for release that was innovatively used for spring wheat-field irrigation during the 2022 growing season. Additionally, residents visited the Storm Park throughout the year for recreational purposes. Overall, the project successfully achieved Qualico's® community development goals.

