Dry Ponds: A simple, yet innovative approach to flood mitigation

Community landscapes have changed over time. Areas that once contained small lakes and sloughs may have been suppressed or diverted decades ago for neighborhood development.

But that doesn't change the nature of water.

Whether it comes up out of the ground or falls out of the sky, it will still want to go where it's been going for millennia. Which can be a problem when your neighborhood used to be a lake, and you have an old basement. So, what can be done?

Welcome to the dry pond. A dry pond is a depression in the landscape, which is usable for recreation, but when storms and floods occur, they act as a catchment and hold excess water until the drainage network can handle it.

The concept is deceptively simple. A hole is dug, weeping tiles are put in place, pipes are fed in for overflow control, drainage grates are installed, and the surface is landscaped. The dry pond then functions as a park in a high-flood-risk neighborhood, so that excess water ends up there instead of your basement.

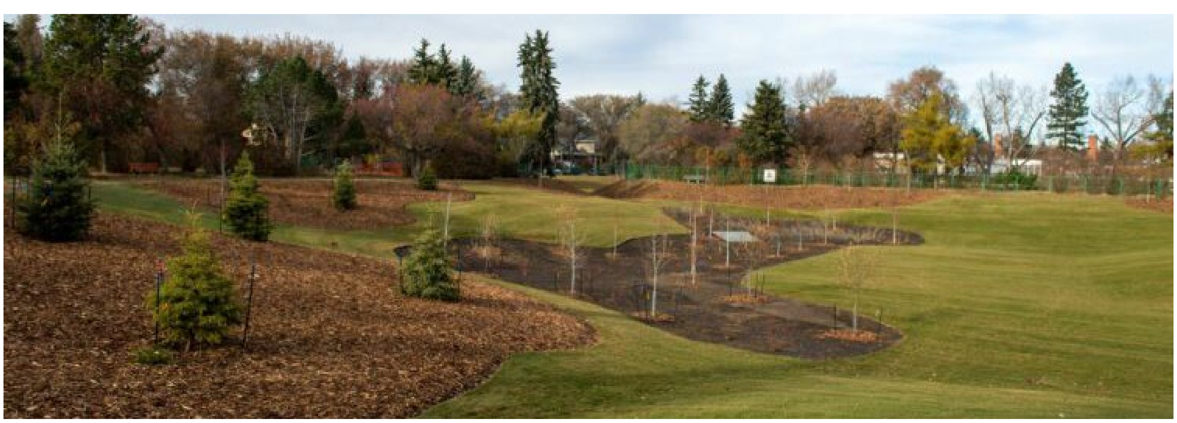
There are five components. SLOW (slowing stormwater entry into the drainage network), MOVE (moving excess water away from high-risk areas), SECURE (making sure properties are protected), PREDICT (using technology to predict stormwater flow and management) and RESPOND (reacting to storm events to protect the community).

Once the location makes sense, then it's about a deeper conversation with the community. Yes, dry ponds are there for flood mitigation, but they can also serve as sports fields, pathways, green spaces, sledding hills, and natural habitats for flora and fauna. They are integral aspects of a community.

There are many engagement opportunities, including surveys, open houses, online information sessions, chances for individual feedback, and ways for schools, school boards and community leagues to participate.

It used to be about green versus grey infrastructure, with people thinking green, like a dry pond, was not as reliable as the grey, such as pipes. With the SLOW strategy and gray the MOVE strategy, and connected them to SECURE, PREDICT and RESPOND. It's a unique strategy.

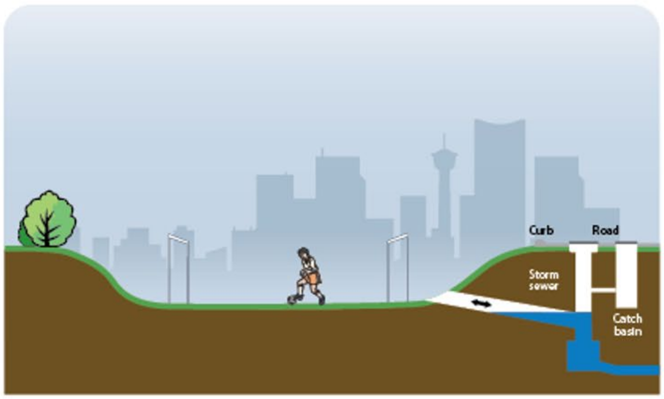
Dry ponds are proving to be cost-efficient, low-impact, community-oriented and future-forward.



Meadowlark Park Dry Pond – City of Calgary, Canada

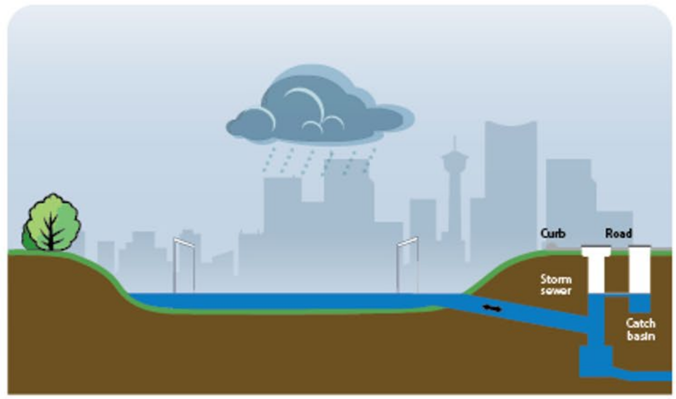
This project will offer the community a place to play, relax, gather, and socialize. We will look for ways to improve the park's natural environment, add fun and seasonal activities, and manage storm water better.

The dry pond for the park space at 623 58 Avenue SW will reduce flooding during extreme rain events within the community. A dry pond provides temporary storage for stormwater during large rain events, typically to prevent flooding of downstream areas. A dry pond is almost always dry and will rarely fill to its full capacity. If it does, the pond should take a few hours to drain, depending on the length of the storm.



Before heavy rainfall

A dry pond can be located on parkland, next to roadways or on recreation or school fields. Once constructed the entire site is fully landscaped to blend into local surroundings, and can continue to be used for sport, recreation or leisure purpose.



During heavy rainfall

A dry pond captures stormwater runoff during a rainstorm, as well as water from an underground stormwater pipe. **Water collected in a dry pond only takes one to six hours to drain after a storm.** This is done by gravity via drains built into the bottom of the pond.