

# CASE STUDY: EASTGATE YARD RAIN GARDEN

Location: Eastgate Yard, 9504 49 Street  
Construction Completed: 2015



## Project Description

During rainstorms and spring melt, the gravel area behind the City of Edmonton's Eastgate building was experiencing drainage issues. When the yard was being paved in 2014, City staff saw an opportunity to create a rain garden to slow down and treat stormwater runoff, instead of simply having stormwater piped away from the site. In addition to its stormwater absorption and retention, the rain garden also provides a habitat for wildlife and gives staff a place to enjoy nature.

## Facility Design

A rain garden, also known as bioretention, is a shallow, bowl-shaped area planted with special types of soil and native vegetation to collect, absorb and treat stormwater runoff. The rain garden consists of three soil cells, each with different soil mix. The runoff from the yard was routed to a defined inlet where it was then equally split into each soil cell. This rain garden was designed to facilitate collecting comprehensive monitoring results to demonstrate the effectiveness and contribute to the development of design standards and performance targets for rain garden.

## Monitoring

The rain garden will be monitored on an ongoing basis to give staff the chance to measure runoff volume reduction, water quality improvement, plant health and impacts of soil types.

The rain garden continues to thrive in this location, with its plants growing well and ponding water draining away within less than 24 hours after rainfall.



*Thriving vegetation observed in the rain garden, Summer 2016.*