FACT SHEET

RAIN GARDENS
BIORETENTION

DESCRIPTION

A rain garden, also known as a biorentention, is a planted area designed to soak up stormwater runoff from rooftops, driveways, and other impervious areas. Replicating the natural hydrological processes, rain gardens filter contaminants and reduce the runoff flowing out onto the streets or into the sewer systems.

RAIN GARDENS ARE:

- Versatile in size and shape,
- Landscaped with a variety of plants to fit the surroundings, and
- Dry most of the time,
- Expected to have standing water during storms and is emptied within 48 hours

APPLICATION

Rain gardens can be deliberately placed to collect excess water from lawns, rooftops and downspouts, or along driveways and sidewalks. The topography of the property and the flow of runoff will help determine the exact location.

CONSIDERATIONS

- **Infiltration rate**: water must infiltrate within a reasonable amount of time to prevent drowning of vegetation and mosquito breeding.
- **Topography**: land adjacent to the rain garden should have a slope of 2-5%. Lower slopes may not capture runoff during minor storms, while larger slopes will result in erosion. Special consideration are required for downspout and pavement runoff.
- **Underground utilities**: Alberta OneCall (1-800-242-3447) should be contacted for a free utility mark out before any digging takes place. This will protect the property, personal safety, and public utilities.

FUNCTIONS/BENEFITS

- Reduce contaminants
- Replenish groundwater
- Reduce flooding
- Provide a natural habitat for birds and insects
- Relatively easy to integrate into existing landscapes
- Enhance the natural beauty of the surrounding neighbourhood

MAINTENANCE

Rain gardens, just like other gardens, need maintenance including removal of debris and dead vegetation, watering, pruning, and weeding to ensure adequate long-term performance.

- Inspect for sedimentation, erosion, plant health, mulch condition semi-annually
- Avoid the use of pesticides and herbicides on rain gardens
- Pay extra attention during the first two years of installation to ensure that the vegetation has established successfully
- Inspect rain gardens after every major rainfall event
- Replace mulch when required and avoid sand application to areas adjacent to the rain garden to prevent clogging
- Maintain plant health via pruning, weeding, and replacing unhealthy/dead plants

Edmonton