

Mount Vista Rain Gardens

Frequently Asked Questions



September 2011

What is a rain garden?

A rain garden is a natural way to collect, slow, filter and clean stormwater runoff from hard surfaces such as streets, driveways and roofs. Without proper management, stormwater runoff picks up oil, fertilizers, pesticides, pet waste and other contaminants and carries them into streams and wetlands, which can harm fish and other aquatic life.

Traditional stormwater management directs runoff into pipes. For newer development, that runoff is conveyed to a bioswale or other treatment facility. In older neighborhoods, untreated stormwater runoff may be discharged directly into streams and other waterways, or in some instances to groundwater.

In contrast, a rain garden is a simple method for collecting and treating stormwater runoff on-site, close to where rain hits the ground. Stormwater runoff flows directly into a rain garden, where plants and soil remove up to 90 percent of the pollutants. Water, once it has been treated, infiltrates into the ground or discharges into existing storm drains. During heavy precipitation, rain gardens are designed to overflow to stormwater drains when they reach capacity.

What are the benefits of rain gardens?

The Washington State Department of Ecology has identified stormwater runoff as the No. 1 source of water pollution in urban areas. Rain gardens slow and treat stormwater runoff, thereby reducing stream erosion and habitat degradation and removing pollutants. They also reduce street flooding, replenish groundwater and improve neighborhood aesthetics. Rain gardens, when built as curb extensions, can slow traffic and discourage speeding.

How does Clark County select locations for rain gardens?

Clark County Environmental Services examines the existing stormwater system and looks for places where additional treatment capacity is needed. Watershed and stream assessments also play a role in determining where these improvements will have the greatest benefit.

more FAQs inside...



Why does Clark County want to build these in Mt. Vista?

During heavy rains in early January 2009, the stormwater detention pond near NE 163rd Street and NE 36th Avenue failed. The county subsequently rebuilt the stormwater pond and shored up the hillside overlooking the unnamed tributary of Mill Creek, but the facility remains undersized to meet the area's stormwater needs. Adding rain gardens will ease the pressure on this facility and decrease chances of a future failure and costly repairs.

Recent watershed assessments in Mill Creek, specifically the small tributary near the Mt. Vista neighborhood, have identified water quality and habitat degradation. Although degraded, Mill Creek continues to support threatened salmon and steelhead populations. This project will support actions to improve water quality and habitat in the stream.

Why doesn't the county enlarge the existing stormwater facility?

There is not room for a bigger facility at its existing location.

Who will pay for the rain gardens in Mt. Vista?

Earlier this year, the Washington State Department of Ecology agreed to provide a \$184,300 grant for this project, which is expected to cover 75 percent of the cost. The county will use the Clean Water Fund to pay for the remaining 25 percent.

How many rain gardens will be built in Mt. Vista?

Clark County plans on building approximately 18 rain gardens in different parts of the neighborhood.

Will Clark County need private property for rain gardens?

No. Rain gardens will be built as curb extensions that "bulb out" into the street or in existing planter strips between the street and sidewalk. Although some residents might mow the planter strip and believe it is part of their property, they are all publicly owned.



New rain gardens treat stormwater runoff on NE 99th Street, east of NE 117th Avenue.

How big are rain gardens?

The average rain garden is 40 feet long and extends 5 feet from the curb into the street. Some may be as long as 50 feet while others are only 30 feet, depending on location.

Where will rain gardens be located in Mt. Vista?

The county has determined where to locate rain gardens based on drainage needs.

Will rain gardens remove parking?

Rain gardens will remove a small amount of street parking, but they also will slow down traffic, discourage speeding and create a safer neighborhood for residents.

Where has Clark County previously built rain gardens?

In 2010, the county installed rain gardens as part of the NE 99th Street improvement project, east of NE 117th Avenue/ SR 503. The county planted thousands of trees, shrubs and grasses along a 20-block section of NE 99th Street.

Who maintains rain gardens?

Clark County Public Works will maintain the Mt. Vista rain gardens. County crews will visit the facilities at least twice a year to weed, prune, clean out sediment and replace plants. Residents can remove leaves and other debris, but they should not mow, trim or remove vegetation that is needed for effective stormwater treatment.

Do rain gardens breed mosquitoes?

Mosquitoes lay eggs in standing water. Rain gardens are designed to drain in less than 48 hours. It takes much longer for mosquito eggs to hatch and go through the larvae and pupa stages. Mosquito larvae, often called “wigglers,” must live in water for 7 to 14 days before they can continue their life cycle and emerge as adult mosquitoes. Residents can deter mosquito breeding by removing standing water from buckets, barrels, old tires, wading pools, trash cans and tree cavities.

Curb-side rain gardens handle street runoff closer to the source, reducing the need for more costly stormwater facilities.

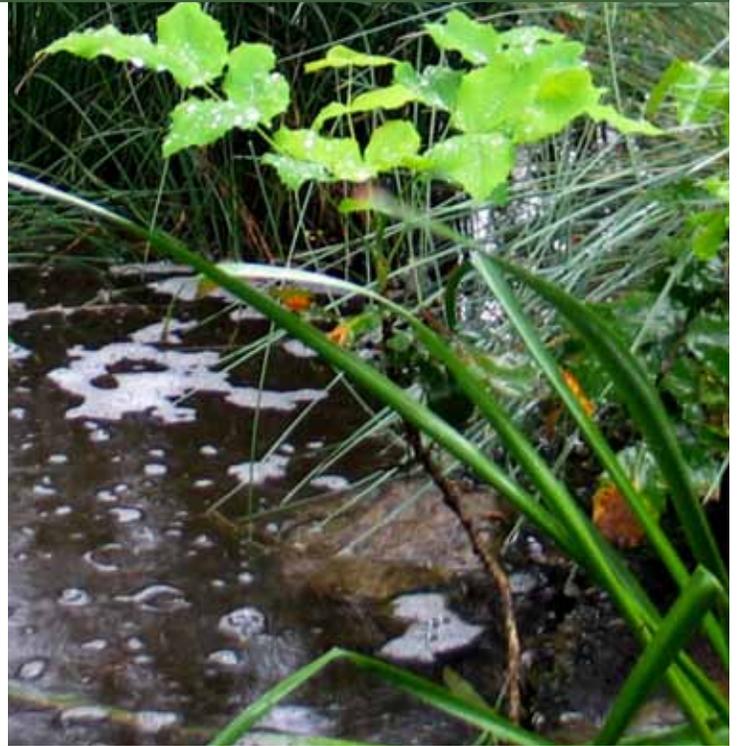


What kinds of vegetation will be planted in the rain gardens?

Clark County Environmental Services will select plants that can tolerate wet soil in the winter and dry conditions in the summer. They typically are evergreens and a mix of native and non-native plants that grow 2 to 3 feet high. Rushes and sedges are commonly used. Flower bulbs can add color and improve the overall aesthetics of the project.

How can I report a problem?

The county regularly monitors and maintains its facilities. If you see a problem, please report it to Clark County Public Works at (360) 397-2446.



How can I get more information?

Call the contacts listed below if you have questions. In addition, county staff can be available to go out into the neighborhood and roll out a full-sized mat to give residents a better idea of what a rain garden will look like at specific locations.

Project Web site

www.clark.wa.gov/publicworks/roads/green_streets.html

Staff contacts

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Clark County Clean Water Program
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