



CLEAN WATER COMMISSION

For the Department of Environmental Services

Regular Meeting Summary

Wednesday, September 4, 2013

6:30 PM – 8:30 PM

**Public Service Center, 6th Floor Training Room
1300 Franklin Street, Vancouver**

Members Present: Jim Carlson, David Morgan, Susan Rasmussen, Art Stubbs, Virginia van Breemen

Members Absent: Troy Maxcy, Don Moe, Nancy Olmsted, Brian Peck

Staff Present: Earl Rowell, Bobbi Trusty

Partner Agency Staff Present: None

Public Present: David Rogers and Howard Jones, Yacolt Mountain Neighborhood Association
Thom McConathy

I ROLL CALL

The July 10, 2013 meeting summary was approved as submitted

II PUBLIC COMMENT – feedback

Mr. McConathy is a citizen member with the Vancouver Lake Watershed Partnership. The Nutrient study from the USGS shows that the Salmon Creek and Lake River systems are the largest contributors of nutrients to the lake. He believes the Partnership will be asking governmental agencies who manage Salmon Creek and Burnt Bridge Creek to increase the level of best management practices that are done in those systems. Mr. McConathy mentioned the possibility about placing a dam across Lake River to improve water quality to Vancouver Lake. He was also disappointed that the meeting started late (lack of quorum of among the Clean Water Commissioners) and so few people attend the meeting.

Mr. Jones and Mr. Rogers of Yacolt, Washington, said the Yacolt Mountain Quarry is being operated by the Storedahl Properties, is polluting local groundwater and surface water in the area. They provided the commission pictures of the water coming from the quarry. They said management at Storedahl agreed to tarp every truck load of gravel that comes out of the quarry. These trucks create huge dust plumes, track dirt down the road and then the roads are not cleaned after every shift as required. Groundwater is being affected by mining in the quarry. Mr. Rogers says that the dust is laden with silica, mordenite, arsenic, and alkaline. Pollutants are also running from the quarry pond into Brickie Creek which is a tributary into the East Fork Lewis River. They are frustrated because Storedahl is not complying with its Conditional Use Permit issued by Clark County. They have asked for help from the Clark County Board of Commissioner's Office, Washington Department of Ecology, and U.S. Corp of Engineers.

The Clean Water Commissioners would like to know what they can do to help these neighbors and are going to look into it with them. In the meantime, Mr. Morgan reminded Mr. Rogers and Mr.



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CLEAN WATER COMMISSION For the Department of Environmental Services

Jones that the Department of Ecology regulates surface mining. Mr. Carlson suggested that they talk with Mr. Benton who is the Director of Environmental Services.

III Clean Water Commission – Communications with the Public
None

IV UPDATE: STORMWATER CODE/MANUAL: TECHNICAL/STAKEHOLDER ADVISORY COMMITTEES
Technical Advisory Committee – No update as Ms. Olmsted was absent
Stakeholders Advisory Committee – Mr. Stubbs said the meeting was informative, but he was disappointed that the room was not packed as people should be informed about the NPDES permit requirements.

V GENERAL BUSINESS

Mr. Rowell notified the commission that nominations and elections for the chair and vice chair will be held at the November meeting. The Roberts Rules of Order will be followed.

VI PRESENTATION/DISCUSSION

Clean Water Commissioners reviewed the *concept of Multiuse Regional Stormwater Facilities*. In a work session, the Board of County Commissioners requested that the Clean Water Commission:

- Design a pilot multiuse regional stormwater facility in one area of the county (i.e., build, test, and learn)
- Obtain Washington Department of Ecology grant funding to implement the project

The commission is seeking to develop and implement a process by December 31, 2013, and in 2014, obtain funding, get community buy-in, design the project, and initiate construction.

Commissioners want these multiuse stormwater facilities to have no fences around the ponds and other stormwater features, and have parks, trails, and educational opportunities for students from local schools, and the general public to learn about the stormwater facility and aesthetics of the area. The commission wants input to identify potential stakeholders (i.e., Clark County Arts Commission, neighborhood associations, school districts, and Clark County Parks Department).

Mr. Carlson talked about the Greyhawk Estates as being a *potential* location for a regional multiuse stormwater facility. Mr. Rowell said located in this area is *Harding Farms Stormwater Facility* (in the vicinity of NE 126th Street and NE 40th Avenue). This stormwater facility will be potentially retrofitted in 2015 (Clean Water Program's Stormwater Capital Program: 2013-2018). The project should provide open spaces, however it has limited public access and is subject to BPA right-of-way restrictions (i.e., Clark County cannot fully develop this property).

Mr. Rowell suggested that the commission *might* consider *Thomas Wetland East* (NE 55th Street and NE 53rd Avenue) as a multiuse stormwater facility. This project is potentially scheduled for completion in 2014. When completed it should:

- Offer walking paths for several neighborhoods
- Allow people (i.e., school children) an opportunity to view and learn about wetlands, open spaces, and waterfowl



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CLEAN WATER COMMISSION

For the Department of Environmental Services

- Connect to an existing neighborhood park
- Not have fences around stormwater features
- Improve stormwater management

Motion 2013-07

Ms. Rasmussen moved that they use the Thomas Wetland East as a *pilot* project for the multiuse facility. It was seconded by Mr. Stubbs. All were in favor. Motion passed.

At the July 10, 2013, Mr. Stubbs asked staff to provide a “list of the best Clean Water capital projects with talking points to help the commissioners educate the public about them”. Mr. Rowell provided the commissioners information on four stormwater facilities:

- Parkside Manor Stormwater Facilities Retrofit (NE 146th Street and NE 4th Avenue) along Whipple Creek (2013)
- Mount Vista Subdivision Low Impact Development Retrofit (NE 163rd Street and NE 36th Avenue) along an unnamed tributary of Mill Creek (2012)
- Padden Parkway Stormwater Facilities (northeast corner of Padden Parkway and Andresen Road) allows for infiltration of stormwater (2012))
- Encore Stormwater Facility Project Retrofit (NE 152nd Street and NE 20th Avenue) along an unnamed tributary of Upper Whipple Creek (2009)

Mr. Rowell also provided the commissioners a worksheet for when they do outreach events.

VII PUBLIC COMMENT – feedback
None

VIII ADJOURN – 08:30 PM

Summary provided by: Bobbi Trusty / 360-397-2121 x 5268

Encore Stormwater Facility Project

at NE 152nd Street & NE 20th Avenue

August 2009

Crews are breaking ground this summer on a project to reconstruct an aging residential stormwater facility, known as *Encore*, near NE 152nd Street and NE 20th Avenue in the Whipple Creek Watershed.

Why is Clark County doing this project?

The Encore site was designated as a stormwater facility in the 1980s when development of the surrounding area began. Two existing ponds on the site currently receive stormwater from the surrounding neighborhoods. Analysis of existing conditions, however, shows that the site provides a negligible amount of stormwater control insufficient to meet the present-day requirements for new development. In fact, only the flows from very large storms are controlled by the existing ponds. Reconstructing or 'retrofitting' the ponds will provide better stormwater management for this area, helping to curb stream erosion and habitat degradation observed downstream of the site.

What is the scope of the project?

The project will excavate a large pond and redesign the control structures on the site to detain and slowly release runoff from storm events. Additional work will enhance on-site wetlands with native plants to provide for more effective treatment to remove pollutants.

What are the benefits?

The reconstructed ponds are expected to provide nearly 10 acre-feet of detention and reduce peak flows by greater than 50% for a wide range of storms, reducing downstream erosion and habitat degradation. Additionally, over 1,000 native trees and shrubs will be planted on the site for water quality and habitat improvements.



Existing pipe discharging into the Encore facility.



Excavation of the new pond where water will flow from the top of photo to the right.



Staging for construction of the pond outlet that controls the rate of stormwater released.



Encore Facility Location Map



The Encore facility, highlighted in yellow above, drains runoff from the surrounding neighborhood streets, roofs, and yards. Red lines indicate underground stormwater pipes leading from storm drains to the facility.

Location:	NE 152nd Street and NE 20th Avenue
Watershed:	Whipple Creek
Budget:	\$1,000,000
Funding:	Clean Water Fee
Construction:	July to October 2009

For more information on this Clean Water project contact Scott Fakler Clark County Public Works at (360) 397-6118 ext. 4264 or E-mail scott.fakler@clark.wa.gov



For other formats, contact the Clark County ADA Office: **Voice** (360) 397-2000; **Relay** 711 or (800) 833-6388; **Fax** (360) 397-6165; **E-mail** ADA@clark.wa.gov.

Mount Vista Rain Garden Project



December 2012



One of 15 newly planted rain gardens in the Mt. Vista neighborhood

In the summer of 2012, Clark County constructed 15 curbside rain gardens in the Mt. Vista neighborhood to improve treatment of polluted storm runoff and better protect nearby Mill Creek.

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 needs. Adding rain gardens will ease the pressure on this facility and decrease chances of a future failure and costly repairs.

Watershed assessments in Mill Creek, specifically the small tributary near the Mt. Vista neighborhood, have identified damage to water quality and habitat. Although degraded, Mill Creek continues to support threatened salmon and steelhead populations. This project helps improve water quality and fish habitat in the stream.

About rain gardens

A rain garden is a shallow, landscaped depression that provides a natural way to collect, slow, filter and clean polluted storm runoff from hard surfaces, such as streets, driveways and roofs. Without proper management, storm 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 storm 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 storm runoff close to where rain hits the ground. Stormwater 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 conventional storm drains when they reach capacity.

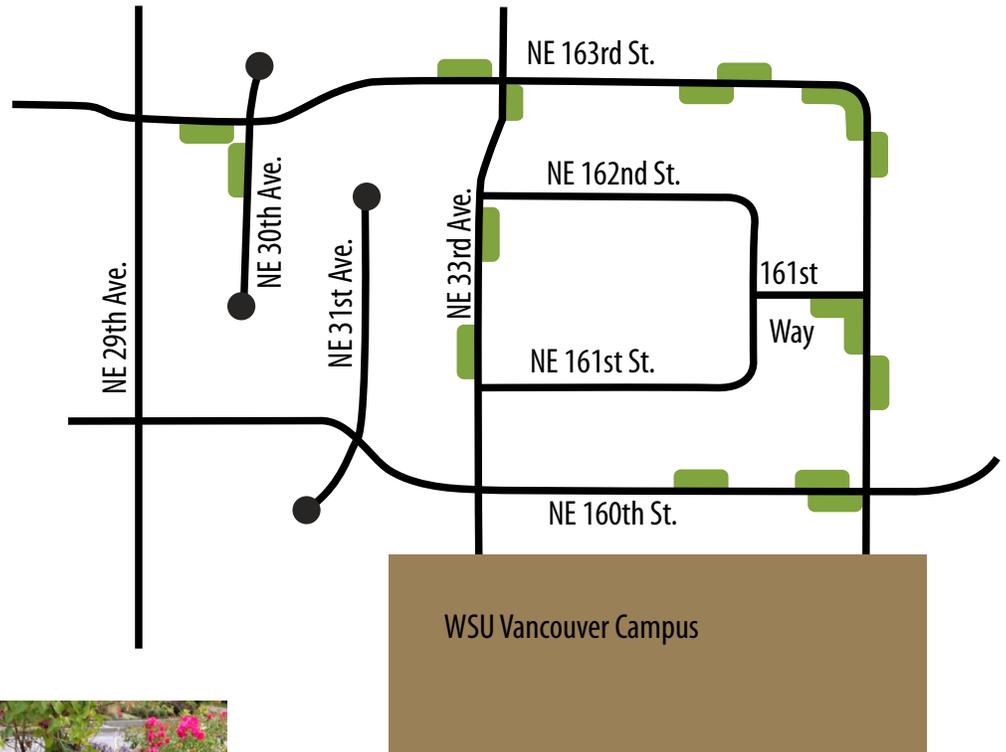
Benefits of Mt. Vista rain gardens

The Washington State Department of Ecology has identified stormwater as the primary source of water pollution in urban areas. Rain gardens in Mt. Vista slow and treat storm 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, help slow traffic and discourage speeding.

Rain garden plants

The Mt. Vista rain gardens are filled with 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. Plants include a variety of grasses, rushes and sedges, as well as red osier dogwood and spirea. Flower bulbs also add color and improve the overall aesthetics of the project.

Rain garden locations in Mt. Vista



Funding

The Mt. Vista project was paid for using a grant from the Washington State Department of Ecology and a contribution from the county's Clean Water Fund.

Maintenance

Clark County Public Works maintains the Mt. Vista rain gardens. County crews 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.

Reporting 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.

Other rain garden projects

In 2010, the county improved a section of NE 99th Street east of SR 503 and built rain gardens along both sides of the street to collect and treat the polluted storm runoff. Rain gardens also were built as part of Luke Jensen Sports Park, 4000 NE 78th St., and in private development projects.

Clark County is committed to using rain gardens wherever technically feasible and financially prudent. In some areas, soil with heavy concentrations of clay may make rain gardens impractical.

Rain gardens are a critical piece of low impact development, a relatively new approach to collecting and treating polluted storm runoff that mimics natural processes.

Communities across the United State are using rain gardens with increasing frequency, even in residential landscaping. In 2006, a “10,000 Rain Gardens” initiative was enacted in Kansas City, Missouri, to encourage citizens to build rain gardens as a way to reduce polluted storm runoff and improve water quality.

Besides rain gardens, local impact development also includes permeable pavement, vegetated rooftops and rain barrels.

Rain gardens are changing the way we view storm runoff, moving away from seeing it only as a waste to channel away from property and toward considering it an asset that can be used to improve community aesthetics.

Rain garden along NE 99th Street, east of SR 503.



Online resources

Clark County, www.clark.wa.gov/publicworks/roads/green_streets.html

Municipal Research and Services Center of Washington, www.mrsc.org/subjects/environment/water/sw-lid.aspx

Environmental Protection Agency, cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=72

Metro, www.oregonmetro.gov/index.cfm and search for “rain gardens”.

Washington State University Extension, http://county.wsu.edu/mason/nrs/water/Documents/Raingarden_handbook.pdf

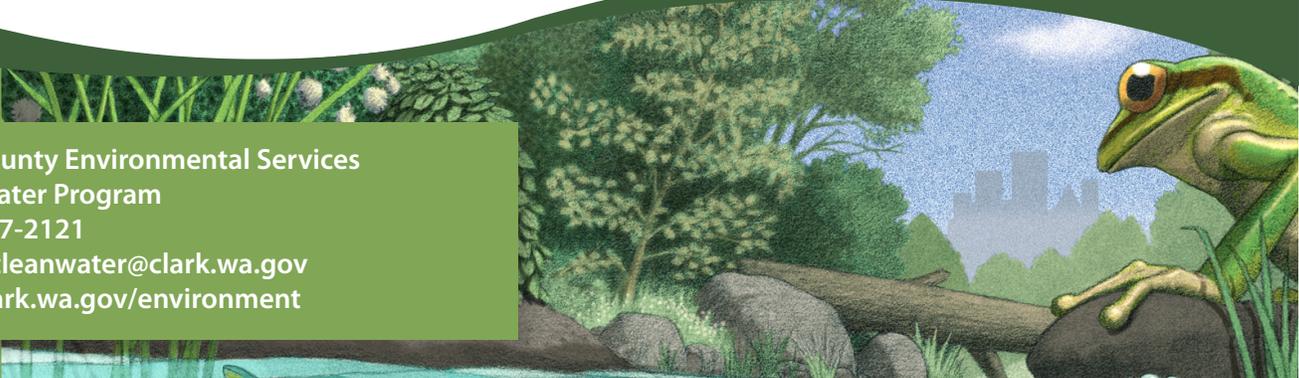
Low Impact Development Center, www.lowimpactdevelopment.org



A joint project of Clark County Environmental Services & Public Works with funding from the Washington State Department of Ecology and the Clark County Clean Water Program.



December 2012



Clark County Environmental Services
Clean Water Program
(360) 397-2121
E-mail: cleanwater@clark.wa.gov
www.clark.wa.gov/environment

Clark County

Padden Parkway at Andresen Road Stormwater Facility

Clean Water Program

October 2012



The Clean Water Program has recently partnered with Clark County Public Works to construct a new stormwater pond in the Curtin Creek watershed. The project created a 4.0 acre stormwater pond that will hold 2.3 million gallons of runoff or enough to fill a football field 5 feet deep! The pond will collect and treat runoff near the intersection of the Padden Parkway and Andresen Road (from current pavement, as well as future anticipated expansion of the intersection).

The benefits of this project include:

- Reduces peak runoff by 53%
- Allows clean water to infiltrate into ground
- Removes over a ton of sediment from runoff each year
- Provides bird and other wildlife habitat
- Creates an aesthetically pleasing natural area
- Uses gentle side slopes to limit the need for fencing

Project Facts:

Location:	NE corner of Padden Parkway & Andresen Road
Watershed:	Salmon Creek (Curtin Creek subwatershed)
Budget:	\$1.6 million
Funding:	Clark County Clean Water Program
Construction:	Grading - summer / fall 2012
	Planting - late 2012 / early 2013

For more information about
the Clean Water Program:

Ron Wierenga,
Division Manager

(360) 397-2121 ext 4264

E-mail: Ron.Wierenga@clark.wa.gov

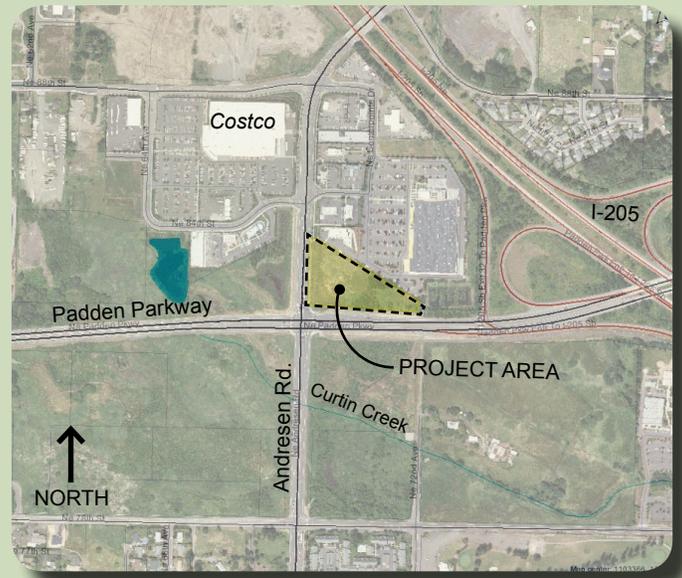
Stream Health Fact: According to the 2010 Clark County Stream Health Report, Curtin Creek has "poor" water quality & biological health and "good" flow.



Why a basin here and what is it?

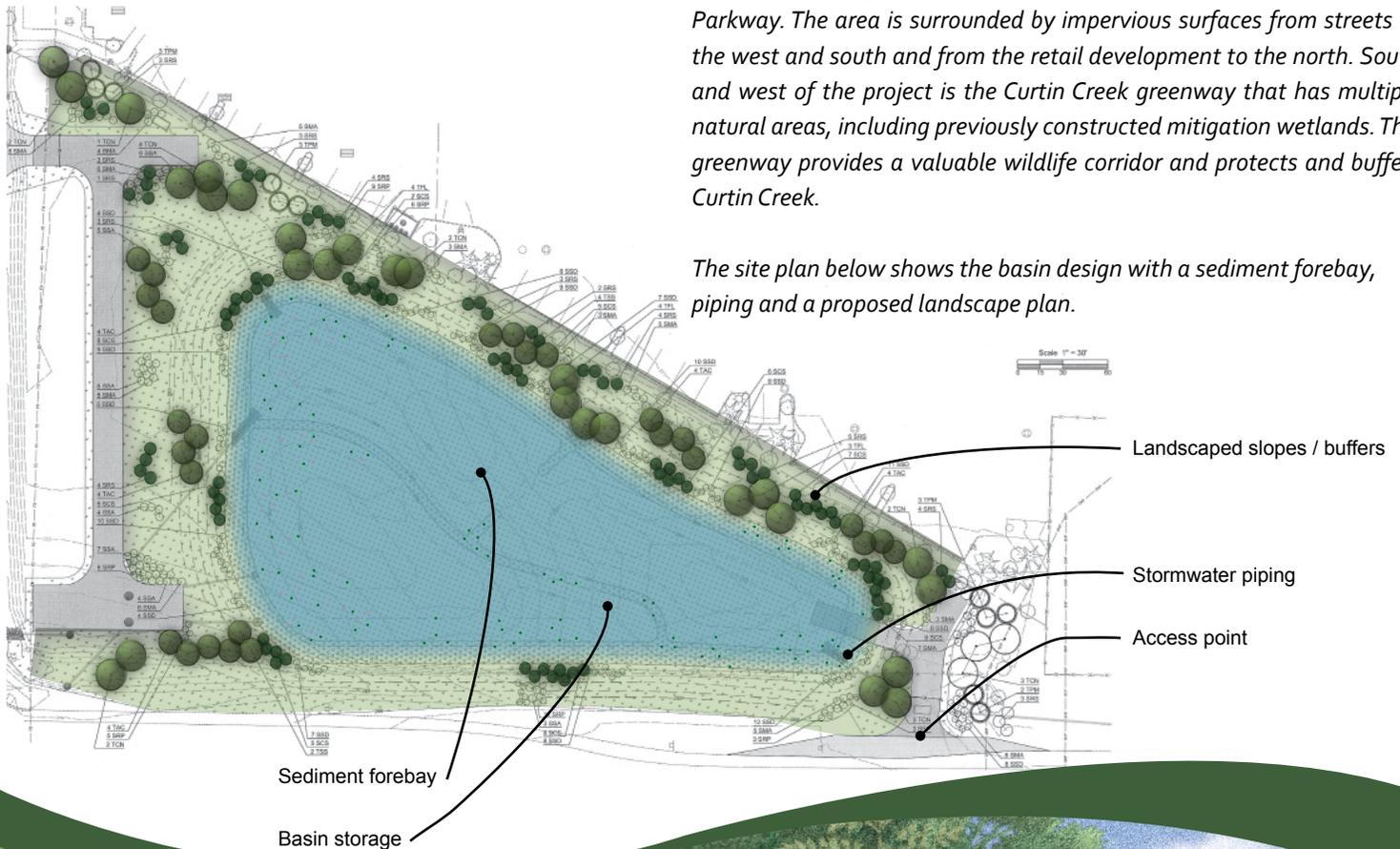
Federal, state and local laws require the county to manage polluted storm runoff by treating the water and controlling peak flows. Without proper stormwater management, runoff picks up oil, fertilizers, pesticides and pet waste and carries the pollutants into streams and waterways, which can harm fish and other aquatic life as well as cause erosion to the creek.

The project involves installing storm pipes, grading and excavation of the area, including the removal of existing soil and vegetation. The project will include extensive plantings for polluted runoff treatment and beautification.



The aerial photograph above shows the project area north of Padden Parkway. The area is surrounded by impervious surfaces from streets to the west and south and from the retail development to the north. South and west of the project is the Curtin Creek greenway that has multiple natural areas, including previously constructed mitigation wetlands. This greenway provides a valuable wildlife corridor and protects and buffers Curtin Creek.

The site plan below shows the basin design with a sediment forebay, piping and a proposed landscape plan.



Clark County Environmental Services
P.O. Box 9810
Vancouver, WA 98660

(360) 397-2121
www.clark.wa.gov/environment



Clark County Clean Water Commission

Public Outreach

Questions/Answers Form

Date: _____
Month /Date /Year

Group Name: _____

Location: _____

**Number of
Participants:** _____

Public questions and comments

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