

Summary: 11/18/09 Public Meeting

Water Quality Facilities Plan (WQFP): Natural Drainage Projects in the Silver Creek Study Area

The purpose of this meeting was to discuss and gather input from residents on Natural Drainage pilot projects (e.g., rain gardens) in the Silver Creek watershed. County staff prepared handout materials, display boards, and a PowerPoint presentation in order to summarize the goals of the WQFP and to present some of the pilot project ideas. Attendees were encouraged to provide verbal feedback during a question-and-answer session, and to fill out comment forms that were provided.

Number of residents in attendance = 16

At least one resident from each of the six Focus Areas (A – F) attended the meeting.

Questions and Answers

The main questions County staff received concerned maintenance of the projects:

- **Question:** Who will be responsible for maintaining the rain gardens once they go in?
Answer: *Because the rain gardens are water quality facilities that will be installed in County rights-of-way, the County will be responsible for basic maintenance to preserve water quality functions. The design goal is for amended soils, appropriate plant selection, and adequate mulching to result in water quality facilities that will not require a lot of maintenance. However, County resources are limited, so the County is hoping that local residents or groups, such as HOA's, schools, or scouts, will be willing to "adopt" the rain gardens and help with enhanced watering and weeding.*
- **Question:** How often will maintenance be done by the County?
Answer: *The design for each water quality facility will include the development of a maintenance plan and schedule. After the plants are established, maintenance work will primarily take place on a site specific, as-needed basis, and will largely depend on County funding priorities.*

Other Questions:

- **Question:** Do the citizen comments really matter, since the County is already surveying and planning utility locations? Do citizens really have a choice when it comes to the pilot projects?
Answer: *To comply with new state and federal regulations, the County must take action to improve water quality in its drainage systems. For the Silver Creek watershed, the County has decided to focus on the use of Natural Drainage features such as rain gardens and pervious pavement. In the near future, the County plans to install Natural*

Drainage projects in County rights-of-way in various locations throughout the watershed. That part is certain. However, if someone is strongly opposed to a project in front of their house, and can suggest an alternative location, the County would be willing to consider moving the project. In addition, if someone strongly prefers the use of certain types of plants, etc., in a project, the County would be willing to consider slight adjustments to the project.

Update: Based on feedback from one of the HOA's, the County has changed its plans for which proposed project will be constructed in 2010.

- **Question:** Is the County going to require citizens to do more for water quality in the future?
Answer: *In order to comply with new state and federal mandates, the County will be asking citizens to do more to protect water quality in the future.*
- **Question:** Our HOA is “in the red” and doesn’t want to do anything that would increase maintenance beyond the mowing we’re already doing. Can the swales be covered with grass so that we can just mow them? Will grassy swales still improve water quality?
Answer: *Over time the County has learned that short grass is not very good at slowing, filtering, and infiltrating water. To maximize water quality benefits, the swales should be covered with different kinds of plants. However, if maintenance costs are a concern, the County may be able to use grass-like sedges and other plants that require minimal care once they’re established.*
- **Question:** Will the County fix the missing sidewalk between 180th and the Brook Blvd. walkway as part of Project 1?
Answer: *The County does not have plans to install additional sidewalk in that location at this time, but adjustments to the project (for example, the addition of a pervious walkway) could be considered.*
- **Question:** We maintain the detention pond next to our house. Can we be reimbursed for the cost of water we use in the summer? It’s getting expensive.
Answer: *The County cannot reimburse you for the cost of water. However, selecting plants that are drought tolerant, in addition to mulching, can reduce the need for watering.*
- **Question:** How will Project 5A affect me? My crawl space gets flooded in big storms. Anything that reduces flows into the culvert nearby would help prevent flooding.
Answer: *The drainage alterations proposed for Project 5A will help reduce stormwater runoff and improve the function of the existing detention pond. However, it’s difficult to predict whether the project will help prevent flooding on your property. A neighborhood drainage problem can take a combination of actions to resolve since it is caused by runoff coming from many locations.*

- **Question:** Will Project 4 include the gravel area between the driveways? I really like the idea of pervious driveways and parking strips.

Answer: *Project 4 does include the area between the driveways, but only within the County right-of-way. If you're interested in extending pervious pavement beyond the right-of-way, the County may be able to work with you on that.*

Summary of Verbal Comments

- **Comment:** I would be very supportive of Project 7A if it would not damage my Dawn Redwood tree. I talked to the consultant when he was selecting the project site and told him I didn't want the County to hurt the tree.

County Response: *The tree has roots that are growing right under the pavement and are lifting up the pavement, causing damage. When we have removed pavement for the rain garden and have amended the surrounding soils deeply, the tree roots will have a better environment to grow in. At some point the pavement will have to be replaced anyway, and without a rain garden the tree roots would be impacted without the addition of soil amendments to make things better for the tree.*

Update: *In this case, the County arranged for an arborist to go out and look at the tree, and the arborist reported that the rain garden would be beneficial to the tree if it was properly constructed.*

- **Comment:** Water ponds near Project 7A when it rains. It would be great if the whole street stub next to my house was removed or replaced with pervious pavement or rain gardens.

County Response: *Once Project 7A is complete, the water that is now ponding on the street will flow into the rain garden, and soak into the ground. The County can definitely look at alternatives to full impervious pavement for the existing dead-end street stub that runs past the house, especially when the rest of the street is resurfaced in years to come.*

- **Comment:** Catch basins in the street always clog with leaves. Curb cuts leading into rain gardens will clog the same way. The County should just sweep streets more often. Homeowners should sweep the streets in front of their houses like they do in Europe.

County Response: *We believe that rain gardens will trap leaves and help prevent them from clogging catch basins in the street. Curb cuts are less likely to clog than catch basins, because they provide a much wider vertical opening, and allow leaves to be carried into the rain garden by the volume of runoff from the curb. Catch basins have narrow horizontal grates that can trap large leaves and debris. Homeowners can definitely help keep catch basins from clogging by raking their yards and removing leaves from gutters and streets in front of their homes. The European model of neighborhood participation in the maintenance of streets is a good one!*

- **Comment:** Rain gardens will collect leaves and prevent them from clogging catch basins. The leaves will decompose and fertilize the plants.

County Response: *Rain gardens can indeed be good at collecting leaves and keeping them out of catch basins.*
- **Comment:** I live next to the walled detention pond at the Project 8 site. I own the land and the County has an easement for the pond, but I maintain the pond. I would love to give it to the County and have the County maintain it.

County Response: *The County does have a maintenance easement for this pond and has performed maintenance on the pond in the past. The last time the County maintained the pond was in 2005, though a new fence was installed around the perimeter of the pond in 2006. Unfortunately, the County does not have sufficient funds to maintain this pond every year, but the County plans to perform periodic maintenance as funding allows.*
- **Comment:** The juniper trees at the Project 8 site are getting too big. It would be okay if the County cut them down and replaced them with a rain garden, as long as long-term maintenance would not become more difficult or costly. The cypress trees that screen the pond fence should be kept in place.

County Response: *The intent of this project is not to remove any existing trees that screen the pond, but to install the rain gardens in between the sidewalk and the cypress trees. This may involve moving or removing some of the existing shrubs or bushes behind the sidewalk.*
- **Comment:** The County tends to neglect projects after they are built. For example, the Silver Creek stream rehab project got overgrown with blackberries and the HOA had to go in and clear them out.

County Response: *The Silver Creek stream rehabilitation project was done in 1990, and since then the county has learned a lot about amending soils, plant selection, and mulching projects to reduce maintenance.*
- **Comment:** Detention ponds are not maintained anymore. The County says they are not responsible for them now, but they used to do some work on them.

County Response: *There are a variety of pond ownerships in Snohomish County. Some ponds are owned and maintained by the County, while others are owned and maintained by property owners and / or HOA's. For ponds maintained by the County, some types are maintained annually to comply with federal regulations, and others are maintained periodically as funding allows.*
- **Comment:** Neighborhood work parties could be a good way to maintain projects.

County Response: *That's a great idea.*
- **Comment:** It's difficult to get more than a few people to show up for work parties.

County Response: *Maintenance does tend to be easier when a lot of people get involved, but it only takes a few dedicated people to make a big difference.*

- **Comment:** Grassy swales are much easier for our HOA to maintain than rain gardens.
County Response: *Over time the County has learned that rain gardens provide more water quality benefits than grassy swales. However, if maintenance is a concern, the County may be able to install rain gardens that contain grass-like sedges and other plants that require minimal care once they're established.*
- **Comment:** I live across the street from Project 1, and I get too much runoff from uphill neighbors.
County Response: *Unfortunately, Project 1 will not affect stormwater runoff on your side of the street. It will help reduce the amount of runoff flowing off the slope across from you. However, natural drainage techniques such as amended soils and rain gardens can be used by private landowners on their private property to solve such drainage problems.*
- **Comment:** The traffic on Brooks Blvd. goes too fast and threatens pedestrian safety. It seems that rain gardens might help, but it's unclear whether there would still be enough room for buses once the gardens go in.
County Response: *Rain garden "bulbs" are designed to slow traffic down, so they will help improve pedestrian safety. Bus clearance should not be an issue. Before the pilot projects go in, traffic engineers will review them to ensure that sight-distance, vehicle access, and pedestrian safety are not compromised. There are already traffic calming bulbs in front of the elementary school next to a bus stop, and the rain garden bulbs would provide the same clearance for buses.*
- **Comment:** The speed bumps on Brooks Blvd. are too high; water ponds behind them. The County should lower the speed bumps as part of the pilot study.
County Response: *Unfortunately the scope of the pilot study is limited, so the County probably won't be able to lower speed bumps as part of the pilot study unless a future project site is selected adjacent to the speed bump. However, we will forward your comments to the County's Road Maintenance Division.*
- **Comment:** More sidewalks and crosswalks are needed in the Silver Creek area.
County Response: *Unfortunately, the scope of the pilot study is limited, and does not include the installation of new sidewalks or crosswalks. However, we will forward your suggestion to the County department responsible for sidewalk construction. There is always the potential for green road project ideas to be incorporated into new projects initiated by other County departments. Crosswalks could be great locations for traffic-calming rain gardens, such as at the Project 6A site.*
- **Comment:** Project 10 seems to conflict with the proposed North Creek walkway. SWM should coordinate with other County departments before going ahead with the project.

County Response: *That is a very good suggestion. Thank you for bringing the proposed walkway to our attention at the meeting, and also in your previous e-mail. We will definitely coordinate with the County departments working on the North creek walkway.*

- **Comment:** Pervious driveways and parking strips are a good idea for the Project 4 site.
County Response: *We're glad you support Project 4. We believe pervious pavement is a good choice for that site.*
- **Comment:** The water spigot by site 2F does not work.
County Response: *County crews may be able to check that spigot and determine why it's not working, and repair it if possible to facilitate project watering.*
- **Comment:** Many of the proposed projects are near rental homes, and renters often don't do maintenance work. The photo of the rain terrace used in the presentation is located on a rental property. Renters won't maintain projects. Property values could go down if land and projects are not maintained.
County Response: *We don't expect different outcomes for projects located next to rental properties, because the County will be responsible for maintaining the projects, not tenants.*

Summary of Written Comments

(1) Major concerns with the proposed Natural Drainage projects:

- **Comment:** They're not big enough!
County Response: *In some places, we would prefer to install larger projects, but the size of the projects is limited by cost and other practical considerations. The ultimate goal of the green streets program is to provide as much natural treatment of road runoff as possible in as many neighborhoods as possible, but the program is limited by available funding. We are always looking for grants and other funding sources.*
- **Comment:** I'd hope that planned work at 2C and 2D would minimize the amount of water running down the street into the drain in front of my home.
County Response: *If you live close to those projects, you might notice a decrease in stormwater runoff. It is also possible for adjacent and nearby homeowners to voluntarily put in rain gardens and amend the soils in their yards. In combination with County projects in the right-of-way, significant improvement to neighborhood drainage can be achieved with such coordinated efforts.*
- **Comment:** Even with a rain garden on only one side of the street, Project 6B could present a potential safety hazard due to the lack of a sidewalk.
County Response: *The existing sidewalk will not be affected by the proposed rain garden. Since the rain garden should slow traffic at this crosswalk, pedestrian safety*

should be improved. However, before any pilot project is installed, traffic engineers will review it to ensure that sight-distance, vehicle access, and pedestrian safety are not compromised.

- **Comment:** How will the resulting gardens be maintained? Will they get weedy and unruly-looking?

County Response: *Because the rain gardens are water quality facilities that will be installed in County rights-of-way, the County will be responsible for basic maintenance to preserve water quality functions. The design goal is for amended soils, appropriate plant selection, and adequate mulching to result in water quality facilities that will not require a lot of maintenance. However, County resources are limited, so the County is hoping that local residents or groups, such as HOA's, schools, or scouts, will be willing to "adopt" the rain gardens and help with enhanced watering and weeding.*

- **Comment:** No concerns about approach, but need clear documentation of responsibilities of property owners / County. Establish cooperative relationships to clarify roles.

County Response: *Residents will not be responsible for maintaining the projects. However, if a landowner or HOA would like to establish some sort of cooperative maintenance agreement with the County to volunteer enhanced or customized maintenance beyond what the County provides, the County would be interested in that. There are a variety of ways that citizens can voluntarily help supplement the County's basic maintenance.*

- **Comment:** No concerns – love this idea!

County Response: *Thank you for your interest and support.*

(2) Other ideas or areas for Natural Drainage projects:

- **Comment:** The Project 7A area (25th Ave. SE) floods quite often, sometimes close to my driveway. It would be great to get LID pavement and a large rain garden there. My neighbors and I get together every year and have a block party and clean up the green belt across the street. We would take care of the garden at that time!

County Response: *Thank you for the suggestion. This site is a good alternative location for a pilot project.*

Update: *After further analysis, we have decided to go ahead with design and construction of Project 7A in 2010.*

- **Comment:** The objectives supporting these projects are fantastic and I fully support them. However, Focus Area F might benefit more from a pedestrian right-of-way between SR-527 and North Creek Regional Park. High traffic speeds and volumes make this road very dangerous for pedestrians visiting the park.

County Response: *Unfortunately, the scope of the pilot study is limited, and does not include the creation of new pedestrian rights-of-way. However, a major goal of green street infrastructure is to have multiple uses of our transportation corridors. It would be very appropriate to have road runoff treated in rain gardens or swales alongside the road, and then have a pedestrian trail on the other side of the swale. Eventually, 183rd between SR-527 and the park may be improved, and there is the potential for green road project ideas to be incorporated into new projects initiated by other County departments. We will also be coordinating with County efforts to create a pedestrian trail from Bothell to the park since one of the possible routes runs alongside 183rd.*

- **Comment:** The wetland on the east side of Cedar Wood Elementary School is “begging” to be used as a teaching tool.

County Response: *We will forward this information to our outreach and education Watershed Steward. Since Project 6A is adjacent to the school, it could be used as part of “bigger picture” outreach efforts to link road runoff and water quality with the health of nearby streams and wetlands. Our pilot projects are intended to include educational signs, and we can coordinate on those with our Watershed Stewards.*

- **Comment:** We feel that this project (Project 8) is wonderful. I would like to see the improvements, but maintaining the area could become a very large burden. If the maintenance issues can be addressed, we would really support the project strongly.

County Response: *The County will be responsible for basic maintenance of the rain gardens to preserve their water quality functions. The design goal is for amended soils, appropriate plant selection, and adequate mulching to result in water quality facilities that will not require a lot of maintenance. However, County resources are limited, so the County is hoping that local residents or groups, such as HOA’s, schools, or scouts, will be willing to “adopt” the rain gardens and help with enhanced watering and weeding.*

- **Comment:** For Project 8, remove the large tree and all other greenery on the corner of 169th and 23rd and replace it with the proposed rain garden.

Comment: The expansion of Project 8 to include the entire area around the corner would be a great addition to our street and neighborhood.

County Response: *The intent of this project is not to remove any existing trees at the site. Expanding the proposed rain gardens would be challenging since that would increase the cost of the project.*

- **Comment:** For Project 8, is there any way to improve the actual drainage under the detention pond itself? It has a dirt floor now.

County Response: *Yes, it is possible to amend the soils in detention ponds to improve infiltration into the soil. Amended soils can provide improved water quality treatment as well. Unfortunately, County funds are very limited.*

- **Comment:** A sidewalk combined with a rain garden on the east side of Brooks Blvd. would work better than Project 1, given the volume of traffic and pedestrian service.

County Response: *Pervious sidewalks and rain gardens adjacent to the road are good green road projects. Unfortunately, the scope of the pilot study is limited, and does not include the creation of new sidewalks. There is not an existing sidewalk on the east side of Brooks Blvd., (except a short section right next to 180th Street). The east side of Brooks Blvd. depends primarily on a walkway delineated by a white painted stripe in the roadway, so the width of the right-of-way may not be sufficient for both a sidewalk and a rain garden. We will forward your suggestion to the County staff responsible for sidewalk construction. There is always the potential for green road project ideas to be incorporated into new projects initiated by other County departments.*

- **Comment:** There is a desperate need for a sidewalk on a 100-yard stretch of Seattle Hill Road, just east of the Bothell-Everett Highway. The rest of Seattle Hill Road has a sidewalk.

County Response: *Unfortunately, the scope of the pilot study is limited, and does not include the creation of new sidewalks. However, we will forward your information to County staff responsible for sidewalk construction. There is always the potential for green road project ideas to be incorporated into new projects initiated by other County departments.*

- **Comment:** My property is on Thompson Creek and is subject to flooding. The pavement right in front of the property is water influenced and is beginning to rise! Can you suggest what to do with this water influenced pavement?

County Response: *We have forwarded you information to our Drainage Investigation group so they can send someone out to assess the flooding and pavement damage. Green road projects can sometimes solve local flooding problems, so this could be a good area for future projects.*

- **Comment:** Contour the sidewalk from 180th with a rain garden adjacent to the roadway.

County Response: *Thank you for the suggestion. Contoured, pervious sidewalks and rain gardens adjacent to the roadway are the types of green road projects that we are looking for. This site could be a good location for a future project.*

- **Comment:** There is “big” flooding at the end of 25th Drive SE and 180th. A rain garden would ideally solve this, and there is wetland there, ready to be adopted. I would weed it!

County Response: *This site could be a good alternative location for a future pilot project. Thank you for the suggestion. In the meantime, we have forwarded your information to our Drainage Investigation group so they can send someone out to assess the flooding.*

(3) Additional comments or suggestions:

- **Comment:** Public Works is also proposing an interurban trail alternative for 183rd Street SE, which should be considered in conjunction with the Focus Area F projects.

County Response: *We appreciate your input, both before the meeting by e-mail, in our follow-up phone conversations, and at the meeting. We have contacted our County colleagues on Projects 9 and 10, and will coordinate with them to make sure our joint efforts are compatible and cost effective.*

- **Comment:** The meeting could have been longer.

County Response: *The meeting time and length were set with the goals of maximizing attendance and minimizing disruption to residents' weeknight schedules. We also have information on our web site, and project representatives are available by phone or e-mail.*

- **Comment:** Projects 2C and 2D are supported by me!

County Response: *Thank you for your interest and support.*