



Willamette River south of Newberg

Photo Credit: Lawrence Fain,  
City of Newberg Public Works

TDML Implementation Plan  
City of Newberg  
Year 1 Annual Report January 2010 to December 2010

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## INTRODUCTION

As part of the plan to manage the Willamette River TMDLs, Newberg was asked by the Oregon Department of Environmental Quality (DEQ) to compile a list of best management practices for managing levels of bacteria, mercury, and temperatures in the urban stormwater and streams that flow within the boundaries of the city and ultimately discharge to the Willamette River. In March 2008, the City submitted a management plan to DEQ and a final plan was approved in October 2008. This report encompasses the activities by the City in 2010 to achieve the goals outlined in its Willamette TMDL Implementation Plan. A matrix of benchmarks is included as Appendix A.

The watershed of Springbrook Creek, Hess Creek, and the lower watershed of Chehalem Creek may be affected by activities within Newberg. The lower 3 miles of Chehalem Creek fall within or below the urban area however most of the watershed lies in an agricultural area. Hess Creek lies mostly within the city with the upper reaches either outside of the city limits or in undeveloped land within the city. Only 3 river miles of Springbrook Creek lie within the city limits.



## SUMMARY OF 2009 ACTIVITIES

The City educated the public about stormwater from Nov 2008 to Dec 2009 through a presentation to the Greater Yamhill Watershed Council (formerly the Yamhill Basin Council), a booth at Public Works Day, a utility bill insert, and a webpage on the City's website. The public was invited to participate in the stormwater rate discussion held at meetings of the Citizen's Rate Review Committee in December 2009. Publicity for the meetings included utility bill inserts, newspaper notices and advertisements, letters to every Newberg resident, and a webpage on the City website. The public was asked to call or send an email to the City if they had stormwater concerns and to call 911 if an issue was an emergency. Staff was trained to respond to stormwater complaints by contacting, listening to, and answering any questions from citizens when they arrive on the scene. The public was invited to participate in the hazardous waste collection events provided by Yamhill County Solid Waste; the 2009 events collected 48,000 pounds of paint and 39 tons of household hazardous waste.

There were no reportable spills and only 4 Code Enforcement actions related to illegal discharges or disposals; these were resolved through public education. The City used its Design Standards and public education to reduce erosion in 2009 and there were no erosion complaints or citations filed for the year. City staff located and mapped 150 stormwater outfalls in 2009 in addition to inspecting, cleaning, repairing, or installing catch basins, stormwater lines, and detention basins. Street sweeping occurred on a regular basis in 2009 to minimize debris in the City's stormwater system from street litter.

## TMDL ANNUAL REPORT FOR JANUARY 2010 TO DECEMBER 2010



### MEASURE #1 - PUBLIC EDUCATION

#### **PE-1 Implement Stormwater Educational Activities**

##### ➤ *PE-1(a) Ongoing Public Education Activities*

During the summer, Newberg hosted or presented several booths at the local Farmer's Market that provided stormwater-related information to the public (see Appendix B-1). The City hosted the booth for Waste Management and Yamhill County Solid Waste in addition to various city departments. City booths included information on (1) the common causes of stormwater pollution, (2) how trees affect stormwater, (3) how urbanization affects stormwater, (4) the effect of pet waste on stormwater, (5) the Drug Take-Back Event, (6) techniques for citizens to use to decrease stormwater volume, (7) reducing runoff from irrigation, and (8) changing everyday habits to increase the quality of stormwater and our streams. The City gave away brochures, the Rain Garden Guide, the Guide to Water-Efficient Plants for the Willamette Valley, pet waste disposal bags, hose shut-off nozzles, and posters at its booths. Attendance at the Farmer's Market ranged from 200 in the beginning to more than 600 during the late summer.

Staff created a Sustainability Trail brochure to highlight sustainable private and public projects in the city. Many of the projects included stormwater reduction techniques such as concrete pavers, bioswales, and porous pavement and sidewalks.

Through the Bureau of Land Management's (BLM) Native Plant Cooperative, the City was able to offer free trees for riparian planting to its citizens. Using GIS, the City identified over 200 properties within the Urban Growth Boundary that had single-family homes and the ability to directly affect the City's streams. In December, owners of the properties were sent an application for 2 free trees through

the BLM-Newberg partnership. In addition, a webpage was created for the program which was accessed 60 times during December. The trees will be delivered in the Spring of 2011. The City was instrumental in introducing the managers of the BLM's Native Plant Cooperative program to Newberg High School's horticulture program. The BLM helped the high school expand its capacity for stream restoration projects in the city.

➤ ***PE-1(b) Prepare an annual educational insert for inclusion in bills***

An educational newsletter was included in the October 2010 utility bills (see Appendix B-2). It contained general stormwater information such as why stormwater volume increases as urbanization increases, stormwater composition, and the lack of treatment before stormwater goes into streams. The flyer also provided tips for citizens to decrease stormwater volume and increase our streams' water quality. In addition, the City worked with the Yamhill Community Action Partnership to use its flyer as a basis for a Yamhill County flyer.

➤ ***PE-1(c) Use City website to include stormwater quality tips and information***

The City continued to use its website to provide seasonal stormwater ideas and information in 2010 (see Appendix B-3). One webpage provided varying tips on increasing stormwater water quality or decreasing volume with the public accessing it approximately 600 times during the year. It was updated 14 times during the year. Another page provided a convenient way for the public to download the TMDL Implementation Plan while also offering more information on stormwater and it was accessed close to 700 times. It was updated 10 times during the year.

A new webpage highlighting local classes and events was created for the public that included diverse topics such as rain garden workshops, stream restoration activities, and a city litter pickup day. The webpage was updated 9 times during the year and accessed almost 700 times.

➤ ***PE-1(d) Educate citizen groups***

In May 2010, Newberg assisted the Greater Yamhill Basin Council with a Rain Garden presentation by providing a Rain Garden Guide given to the public after the presentation. The Rain Garden Guide is an instruction manual created by the Oregon Sea Grant Extension, OSU Extension Service, Oregon Environmental Council, Jackson SWCD, East Multnomah SWCD, and NOAA to assist people who want to create a rain garden. The Guide is available at City Hall and continues to be popular with the public. It was also available in city booths at the Newberg Farmer's Market.

### **PE-2 Participate in the Greater Yamhill Watershed Council**

#### ➤ ***PE-2(a) Ensure representation at Greater Yamhill Watershed Council meetings***

The Yamhill Basin Council (YBC) underwent many changes in 2010. Changes include: (1) a name change from YBC to the Greater Yamhill Watershed Council (GYWC), (2) a mid-year change in personnel for the Chairperson and Watershed Coordinator, (3) a boundary change to include Grand Island, (4) the formation of a steering committee, and (4) an organizational change toward becoming a nonprofit with a 501(c)(3) status. Newberg attended 8 of the 11 GYWC meetings in 2010 and 5 of the 11 GYWC Steering Committee meetings.

Newberg was able to offer in-kind contributions to the GYWC throughout the year. In March 2010, we provided background information to the GYWC, maps, property owner information, and a meeting venue to discuss a grant from Portland General Electric (PGE) to conduct a reconnaissance survey of lower Hess Creek. The stakeholders included PGE, Pacific Habitat Services (PGE's consultant), the City of Newberg, and GYWC members.

In March and April of 2010, the City helped transport and store 6-ft cedar trees from the BLM's Native Plant Cooperative for GYWC projects and provided the BLM with several days of volunteer work as part of our partnership with the GYWC.

When requested by the GYWC in May, we provided a description of the restoration needs for Hess Creek that could be used for mitigation by the Oregon Department of Transportation during the construction of the Newberg-Dundee Bypass.

From May to November, we provided laboratory services to the GYWC for a monitoring effort in the upper Chehalem Creek watershed. Samples were collected 6 times at 6 sites in the watershed with a duplicate added for quality assurance. The samples were analyzed by our WWTP laboratory for turbidity, dissolved oxygen, ammonia, and pH.

#### ➤ ***PE-2 (b) Contribute \$1,000 to the Greater Yamhill Watershed Council annually as funds are available.***

Newberg donated \$1,000 to the GYWC in July 2010 (see Appendix B-4).

### **PE-3 Provide Environmental Marking for Storm Drains**

There were 91 catch basins and manholes that were marked with heat tape or fish lids to educate the public about the lack of treatment for stormwater before it enters our streams (see Appendix B-5). Catch basins were marked throughout the city to educate as many citizens as possible and many of the catch basins were in residential and industrial areas near receiving streams such as the Chehalem Glenn Golf Course in southeast Newberg.



## MEASURE #2 - PUBLIC INVOLVEMENT

### **PI-1 Continue with Public Participation in Reviewing the Stormwater Utility Fee**

The Citizen's Rate Review Committee reviews and recommends rates for the stormwater fee every 2 years. The Committee met with the Public Works Director, Finance Director, Mayor, and interested citizens in December 2009 and January 2010 to review the stormwater utility rate and discuss the implementation of a stormwater credit for residents. The meetings were publicized in the Newberg Graphic, a utility bill insert, on the city website and through a letter sent to all Newberg residents (see Appendix C-1).

An increase of 18% in stormwater rates was recommended by the Rate Review Committee after public comment and presentation by city staff on the cost of future program changes and infrastructure projects. The City Council approved the new rates in April 2010 but also passed an ordinance in June 2010 (#2010-2727) directing staff to provide a stormwater credit program for single family homes in addition to the non-single family stormwater credit program already in place. The single family home stormwater credit program created by staff provides incentives for decreasing the volume and velocity of stormwater entering the public system (see Appendix C-2).

### **PI-2 Public Participation in Ordinance and Program Development**

Erosion control and stormwater management were addressed in an ordinance created in 2010 with the City Council referring it to the Planning Commission for their recommendation. The ordinance was available for download on the City's website in September 2010 (see Appendix C-3) with notices of the Planning Commission's public hearing placed in the newspaper and on the City's website. After public comment and a discussion of the technical nature of the ordinances, staff withdrew the proposed code. Staff will be providing a technical workshop for the Planning Commission at a public hearing and will be working closely with a citizen advisory committee in 2011 prior to adoption of the ordinances.

### **PI-3 Use the City's Website for Education and Reporting of Stormwater Concerns**

For 2010, the City provided a webpage directing citizens to either call or email Public Works with their concerns. Internally, however, the City started working with SeeClickFix, a company which provides a website and a smartphone application that citizens can use to report a stormwater concern 24 hours a day. When citizens report a stormwater issue, it is sent to the appropriate Division. When the problem is resolved, the solution is posted to the SeeClickFix website providing immediate feedback to citizens. The website will be active in 2011 with a City webpage directing citizens to use the SeeClickFix website.

**PI-4 Establish Hotline to Receive Complaints from the Public.**

The public is instructed to call or email the Public Works Maintenance Division for stormwater issues except in the event of an emergency when they are instructed to call 911. In 2011, citizens will be able to use the SeeClickFix website and smart phone application.

**MEASURE #3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)****ID-1 Develop Illicit Discharge Detection and Elimination (IDDE) Plan**➤ ***ID-1(a) Respond to spills and illegal dumps***

The Maintenance Division, Code Enforcement, and the Fire Department respond to spills and illegal discharges. The Fire Department did not respond to any reportable spills during 2010. Code Enforcement investigated 2 complaints related to illegal discharge or disposal. One was resolved through homeowner education and one could not be confirmed by Code Enforcement.

➤ ***ID-1(b) Develop ordinance and plan to detect illicit discharges***

Staff drafted an illicit discharge detection and elimination ordinance in 2010. The ordinance will be provided to a citizen advisory committee in 2011 for their comment and then placed on the website for public comment before being brought before the Planning Commission and City Council. Once an ordinance is in place, staff will develop an implementation plan.

**ID-2 Train City Employees to Implement IDDE**

Staff is taught how to look for and remedy illicit discharges and connections through an annual training that focuses on best management practices.

**ID-3 Implement IDDE Plan**

Staff will create an IDDE Implementation Plan when the public has had adequate time to comment on the proposed ordinance and the City Council adopts it.

**ID-4 Hazardous Waste Collection Program**

Yamhill County Solid Waste offers a hazardous waste roundup every May and October. Roundups are held in Newberg in May and in McMinnville in October. Residents of the entire county are allowed to participate in either or both roundups. Based on the amount of hazardous waste collected at the events and the 494 cars participating at the May event in Newberg, it continues to be a popular event with our citizens.

Marion County partners with Yamhill County Solid Waste to promote the re-use of paint. After the county sends its used paint to Marion County, they re-mix it and send

it back to be used by Yamhill County residents. Forty-nine tons of paint was collected at the May and November events. Subtracting the recycled paint from the total hazardous waste received at the events, 22 tons of hazardous waste was collected during 2010 including 6,300 linear feet of fluorescent lights (see Appendix D).

While not required by the TMDL Implementation Plan, the City has a partnership with Waste Management and 4 adult care facilities to pick up medications which are taken to the hazardous waste facility in Oregon City or the Covanta incinerator in Brooks to keep them from being flushed and sent to the Willamette River. In 2010, Newberg started a public Drug Take-Back event in cooperation with Newberg police and the US Drug Enforcement Agency. The City held 2 events in 2010 to collect medications from citizens. In the spring, Newberg collected 100 pounds of medications. It is becoming a popular event as word of mouth and advertising increased the amount collected in the fall to 306 pounds.



#### **MEASURE #4 - CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

##### **CS-1 Develop Ordinance to Control Construction Site Runoff for less than one acre**

- ***CS-1(a) Use biobags, wattles, hay bales, and other construction practices on construction sites***

The City continues to require biobags, wattles, and bales of hay or straw to reduce erosion on construction sites. There were 4 projects in the City with erosion controls in place; all sites protected inlets with biobags, wattles, and bales of hay or straw. Unvegetated slopes were covered with mulch or plastic sheeting and soil stockpiles were contained with silt fencing to keep soil on site.

- ***CS-1(b) Develop an erosion control ordinance***

A proposed erosion control ordinance was placed on the City website for public comment and presented to the Planning Commission in the Fall of 2010. Due to public comment and the technical nature of the ordinance, staff will provide a workshop at a Planning Commission public hearing and work closely with a citizen advisory committee before proposing it for adoption by the City Council in 2011.

##### **CS-2 Train City Employees Regarding Construction Site Controls**

Engineering Staff have extensive experience with erosion control on construction sites and have an excellent working relationship with local developers. Maintenance Staff are trained to use best management practices for all city-related construction projects. Procedures were discussed so that Building Staff will inspect private development sites for erosion control.

**CS-3 Conduct Plan Reviews, Inspections, and Enforcement for Construction Sites**

There were 3 complaints of erosion in 2010 with the improper installation of a silt fence occurring in 2 of the incidents. All complaints were resolved using public education.

**MEASURE #5 - POST-CONSTRUCTION STORMWATER RUNOFF CONTROL****DS-1 Develop Ordinance to Control Runoff from New and Redevelopment**

A proposed stormwater management ordinance was placed on the City website for public comment and presented to the Planning Commission in the Fall of 2010. Due to public comment and the technical nature of the ordinance, staff will provide a workshop at a Planning Commission public hearing and work closely with a citizen advisory committee before proposing it for adoption by the City Council in 2011.

A city street requiring new sidewalks was constructed in 2010 to include rain gardens and flow-through planters to reduce stormwater volume and increase the water quality of Springbrook Creek. In addition, a new wastewater pump station was installed with a porous concrete parking pad to reduce the volume of stormwater entering Chehalem Creek. A bioswale installed in 2009 at the Animal Shelter site continues to work as designed to reduce stormwater volume to Hess Creek.

**DS-2 Train City Employees Regarding New Development Standards**

Public Works Staff attended training at conferences and workshops held by Association of Clean Water Agencies (ACWA), American Society of Civil Engineers (ASCE), and the Association of Public Works Agencies (APWA).

**DS-3 Conduct Plan Reviews, Inspections, Enforcement for New Development**

Plan reviews were completed for a sports complex and a community college satellite location. The community college project will include bioswales and filtration basins.

One small residential development was completed in 2010; a Habitat for Humanity project which included rain gardens and pervious driveways to reduce stormwater volume. Stormwater from the site normally would have entered the City's stormwater system and discharged to Chehalem Creek.



## MEASURE #6 - POLLUTION PREVENTION IN MUNICIPAL OPERATIONS

### **OM-1 Develop a Water Quality Sensitive Operations and Maintenance Manual**

Maintenance Staff continued to use the Oregon Municipal Stormwater Toolbox for Maintenance Practices as their Operations and Maintenance manual in 2010. Due to the City's maintenance workload, Maintenance Division staff spends almost all of their time in the field either maintaining or renovating the current stormwater system.

### **OM-2 Train City Employees Regarding Revised O&M Practices**

Staff is provided internal annual training using software that focuses on best management practices for stormwater pollution prevention. They are given additional training opportunities through classes with the APWA.

### **OM-3 Conduct Catch Basin and Storm Drain Cleaning**

#### ➤ *OM-3(a) Catch basin cleaning*

Catch basins are cleaned using a truck that is shared among the water, sanitary, and stormwater sections of the Maintenance Division. There were 374 catch basins cleaned, 3 installed, and 3 repaired or refurbished. Staff was able to inspect a total of 1,919 catch basins during 2010 (see Appendix E).

#### ➤ *OM-3(b) TV, inspect, and clean storm drains*

The Maintenance Division uses tele-video and jet trucks that are shared among the water, sanitary, and stormwater sections to inspect and tele-video 1,844 feet of storm lines. The jet truck was used to clean 6,331 feet of storm lines; in addition, staff installed 64 feet of new stormwater line. Fifteen stormwater manholes were repaired or refurbished.

#### ➤ *OM-3(c) Repair pipe and culverts*

There are several ditches that convey stormwater throughout the city and most are maintained and owned by citizens or private associations. Maintenance Staff removed brush and litter from 2,668 feet of public stormwater ditches.

Newberg keeps litter and other trash out of the stormwater system by installing trash racks in priority areas. The City inspected and cleaned 200 grates and inlets to prevent flooding caused by debris clogging the stormwater system.

#### ➤ *OM-3(d) Optimize catch basin maintenance practices for water quality*

In 2010, the City began entering catch basin and manhole data into its GIS database including the type of catch basin and whether it was marked with the "Drains to Stream" warning or had a "Drains to Stream" lid. The City is working toward an integration of the Engineering Division's GIS with the Maintenance Division's

Computerized Maintenance Management System (CMMS) to more efficiently use employee time. Until then, known areas of concern are checked frequently, especially during storm events, and employees utilize a checklist and maps to track the inspection and cleaning of the remaining catch basins.

#### **OM-4 Conduct Street Sweeping**

##### ➤ *OM-4(a) Street sweeping*

During 2010, the City used its street sweeper to sweep 3,831 curb miles. There were 814 cubic yards of debris removed from our streets creating an average of 0.2 cubic yards of debris removed for every curb mile swept by the City.

Citizens are encouraged to use the yard waste container provided by Waste Management to dispose of their leaves. Leaves in the street continue to be collected by the City's street sweeper to prevent blockages of the stormwater system.

##### ➤ *OM-4(b) Optimize street sweeping practices for water quality*

Maintenance Staff have mapped 18 sections in the city and placed the sections into a schedule to ensure the streets are swept every 6 weeks (see Appendix E). By sweeping streets on a systematic basis, the City minimizes debris entering its stormwater system.



## **ADAPTIVE MANAGEMENT**

### **Measure 1: Public Education**

The City was able to meet the benchmarks in this requirement and will continue to look for ways to reach different segments of its population. There are no changes requested for this section.

### **Measure 2: Public Involvement**

Because of the impending rate increase for the stormwater fee, the City used utility bill stuffers, the website, and newspaper advertisements and stories to increase public participation. The public was also invited to discuss a proposed erosion control and stormwater management ordinance through the use of newspaper notices and the website.

A telephone number and email were provided to the public for notifying the City of stormwater problems. When there was an emergency, the public was directed to call 911. The City requests that the SeeClickFix website available to the public in 2011 and

the public's instruction to call 911 in the event of an emergency be substituted for the 24-hour hotline required by this section.

### **Measure 3: Illicit Discharge Detection and Elimination**

The City is continuing to make progress towards the requirements for this section. In order to increase public participation, the City is convening a citizen's advisory committee to review the ordinance prior to the Planning Commission's and City Council's public hearing. The City currently uses public education to prevent illicit discharges.

### **Measure 4: Construction Site Stormwater Runoff Control**

The City is continuing to make progress towards the requirements for this section. In order to increase public participation, the City is convening a citizen's advisory committee to review the ordinance prior to the Planning Commission's and City Council's public hearing. The City currently uses its Design Standards and public education to control erosion from construction sites.

### **Measure 5: Post-Construction Stormwater Control**

The City is continuing to make progress towards the requirements for this section. In order to increase public participation, the City is convening a citizen's advisory committee to review the ordinance prior to the Planning Commission's and City Council's public hearing. The City continues to encourage developers and citizens to incorporate stormwater infiltration techniques and water-efficient landscaping whenever feasible.

### **Measure 6: Pollution Prevention in Municipal Operations**

The City proposes to inspect 25% of its catch basins per year with a minimum threshold of cleaning at least 10% of its catch basins until they are able to hire additional stormwater staff. The City continues to incorporate stormwater infiltration techniques and create water-efficient landscaping in public projects whenever feasible to reduce stormwater volume.



## **SUMMARY**

The City met many of the 2010 benchmarks in the TMDL Implementation Plan. A notable exception is the passage of ordinances required for erosion control, stormwater management, and illegal discharge detection and elimination. Due to the technical nature of the ordinances, staff will provide a workshop at Planning Commission public hearings and work closely with a citizen advisory committee before proposing the ordinances for adoption by the City Council in 2011.

The City increased its public education component in 2010 with Farmer's Markets booths, the creation of a Sustainability Trail brochure highlighting stormwater facilities, and the implementation of the Trees for Streams program. The City also increased its participation with the Greater Yamhill Watershed Council by providing technical information, meeting venues, and plant material storage in addition to attending meetings.

Stormwater rates were increased by the City Council based on public input and a recommendation by the Citizen's Rate Review Committee. To provide additional citizen control over their stormwater fee, the City Council and staff worked together to provide a stormwater credit program for citizens with single family homes. In addition, citizens will soon be able to use the SeeClickFix website and smartphone application to report stormwater issues.

Yamhill County Solid Waste held 2 hazardous waste collection events in the county and collected 22 tons of waste not including paint destined for recycling. The City participated in Drug Take-Back events in the spring and fall which collected a total of 460 pounds of medication.

The City continues to encourage and demonstrate stormwater volume reduction through City projects and educational material. A city street was constructed to include rain gardens and infiltration basins and porous concrete was used for the parking area of a new City wastewater pump station. A Habitat for Humanity project included rain gardens and pervious driveways while a community college project was approved that will include filtration basins and bioswales. Newberg continues to look to the future when reviewing projects, creating ordinances, and looking for ways to retrofit existing infrastructure to decrease stormwater volume and increase the water quality of its streams.

# **Appendix A**

## **TMDL Implementation Plan Matrix**

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
<b>Measure No. 1 - Public Education</b>											
PE-1 Implement Stormwater Educational Activities	All	Ongoing Public Education Activities	Stormwater booth at public venues.	Track number of events.	Annually		X	X	X	X	X
		Put an educational insert in utility bills	Annual mailing starting in 2009.	Track how many inserts were mailed.	June 2009, then ongoing		X	X	X	X	X
		Use City website to include stormwater quality tips and information.	Place materials on website	Track updates to website and number of hits to website.	June 2009, then ongoing		X	X	X	X	X
		Educate citizen groups	Present stormwater information to interested citizen groups	Track number of presentations	Annually						
PE-2 Participate in the Yamhill Basin Council	Urban Activities	Assure representation at Yamhill Basin Council Meetings	Attend meetings, exchange information between City and Council	Track number of meetings attended and meeting notes.	Existing Practice; Ongoing		X	X	X	X	X
	Urban Activities	Contribute \$1,000 to the Yamhill Basin Council annually, as funds are available.	Keep receipts for donations on file	Track funds donated.	January 2009, then ongoing		X	X	X	X	X
PE-3 Provide Environmental Marking for Storm Drains	Spills, illicit discharges	Mark storm drains in high profile areas	Mark 50 catch basins a year until all are marked	Track number of catch basins marked per year.	Existing Practice; Ongoing		X	X	X	X	
<b>Measure No. 2 - Public Involvement</b>											
PI-1 Continue with Public Participation in Reviewing the Stormwater Utility Fee	All	Solicit public input for establishing appropriate stormwater rate structure	Develop ongoing Citizens' Rate Review Committee	Track meeting attendance.	Existing Practice; Ongoing		X	X	X	X	X
		Meet with existing rate committee to review funding levels	Present funding needs to rate committee	Track progress and amount agreed upon and date it is effective.	March, 2008		X	X	X	X	X
PI-2 Public Participation in Ordinance and Program Development	Construction site runoff, post construction controls	Solicit public input for development of new ordinances	Develop list of new ordinances needed per goals of SWMP	•Track number of ordinances needed. •Track public input received.	March, 2009		X	X	X	X	X

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
			Develop construction site runoff control program ordinance for public review	Track progress.	September, 2009		X	X	X	X	
			Place document on City website for 30 days.	Track comments and incorporate as appropriate.	March, 2008; Complete						
PI-3 Use the City's Website for Education and Reporting of Stormwater Concerns	All	Update website with stormwater information and requesting information from public	Provide a method for citizens to report stormwater concerns on City website.	Track number of comments received from website feedback mechanism.	May 2009, then ongoing		X	X	X	X	X
PI-4 Establish Hotline to Receive Complaints from the Public	Spills, illicit discharges	Provide 24-hour telephone line that receives citizen complaints	Identify and train staff to respond to incoming calls	Track number of stormwater work orders resulting from calls received on the 24-hour telephone line.	December 2009, then ongoing	The City of Newberg requests that this requirement be changed to require a mechanism whereby citizens can report stormwater issues 24 hours/day.	X	X	X	X	X
			Advertise hotline on website and by placing phone number on utility bills.	Track progress.	December 2009	The City of Newberg requests that this requirement be changed to advertise the mechanism whereby citizens can report stormwater issues 24 hours/day.					
<b>Measure No. 3 - Illicit Discharge Detection and Elimination (IDDE)</b>											
ID-1 Develop IDDE Plan	Spills, illicit discharges	Respond to spills and illegal dumps	Clean up illicit dumps and implement enforcement by citing violators	Track number of citations issued.	Existing Practice; Ongoing		X	X	X	X	
			Implement spill containment; respond to spills with fire department	<ul style="list-style-type: none"> <li>Track number of spills responded to by fire department.</li> <li>Track sources, causes, and resulting water quality problems resulting from spills.</li> </ul>	Existing Practice; Ongoing		X	X	X	X	
		Develop plan to detect illicit discharges	Develop Draft Illicit Discharge Ordinance	Track progress.	April, 2009		X	X	X	X	
			Ordinance Approved by City Council	Track progress.	August, 2009		X	X	X	X	
			Map existing outfalls	Track progress.	Existing Practice; Ongoing		X	X	X	X	

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
			Prepare inventory	Track progress.	December, 2009		X	X	X	X	
			Develop monitoring plan including plan to follow up on discharges identified	Track progress.	June, 2010		X	X	X	X	
			Develop plan to address non-stormwater discharges	Track progress.	June, 2010		X	X	X	X	
			Develop worksheets for inspections	Track progress.	July, 2010		X	X	X	X	
<b>ID-2</b> Train City Employees to Implement IDDE	Spills, illicit discharges	Inform staff, public employees, businesses and general public of hazards, new regulations, and proper disposal of waste	Develop training material and program	Track progress.	August, 2010		X	X	X	X	
			Use public education measures to inform businesses and general public	Track educational materials	October, 2010		X	X	X	X	
			Train employees in illicit discharge investigation	Track training events.	January 2009; then ongoing		X	X	X	X	
<b>ID-3</b> Implement IDDE plan	Spills, illicit discharges	Conduct illicit discharge inspections	Conduct field screening of outfalls and other elements of plan developed in ID-1	Track number of field screenings performed, results of field screenings, and any follow up actions taken.	October 2010; then ongoing		X	X	X	X	
			Follow up on reports of spills and illicit discharges	<ul style="list-style-type: none"> <li>•Track number of reports received for spills or illicit discharges.</li> <li>•Track follow up actions taken.</li> </ul>	October 2010; then ongoing		X	X	X	X	
		Current Practices	Clean up illicit dumps and implement enforcement by citing violators	Track number of citations issued.	Existing Practice; Ongoing						

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
		Current Practices	Implement spill containment; respond to spills with fire department	<ul style="list-style-type: none"> <li>Track number of spills responded to by fire department.</li> <li>Track sources, causes, and resulting water quality problems resulting from spills.</li> </ul>	Existing Practice; Ongoing						
ID-4 Hazardous Waste Collection Program	Illicit discharges	Provide opportunity for residents to dispose of hazardous waste	Offer free hazardous waste collection service twice per year to City residents.	Track volume of waste received during collection events.	Existing practice; Ongoing						
<b>Measure No. 4 - Construction site stormwater runoff control</b>											
CS-1 Develop Ordinance to Control Construction Site Runoff for less than one acre	Construction Site Runoff	Erosion control on public works projects	Use of biobags, haybales, wattles, and other construction practices on construction sites	Track number of construction projects with erosion control measures.	Existing Practice; Ongoing		X	X	X	X	
		Develop erosion control ordinance.	Prepare draft ordinance.	Track progress.	February, 2009		X	X	X	X	
			Ordinance approved by City Council	Track progress.	September, 2009		X	X	X	X	
			Select guidance manuals for program implementation	Track progress.	July, 2009		X	X	X	X	
CS-2 Train City Employees Regarding Construction Site Controls	Construction Site Runoff	Identify and train employees for plan review, inspection and enforcement of erosion control ordinance	Develop training materials	Track progress.	December, 2010		X	X	X	X	
			Conduct training for staff	Track progress.	January, 2011		X	X	X	X	
			Train staff in erosion and sediment control techniques.	Track training events.	January 2009; then ongoing		X	X	X	X	
CS-3 Conduct Plan Reviews, Inspections, and Enforcement for Construction Sites	Construction Site Runoff	Implement erosion control program	City responds to erosion control complaints	<ul style="list-style-type: none"> <li>Track number of complaints received and follow up actions taken by City.</li> <li>Track number of notices of non-compliance per year .</li> </ul>	Existing Practice; Ongoing		X	X	X	X	
			Conduct plan review	Track number of plans reviewed per year.	February 2011; then ongoing		X	X	X	X	

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
			Conduct site inspections, enforcement, as necessary	<ul style="list-style-type: none"> <li>Track number of erosion control inspections conducted per year.</li> <li>Track number of notices of non-compliance per year.</li> </ul>	February 2011; then ongoing		X	X	X	X	
<b>Measure No. 5 - Post-Construction Stormwater Runoff Control</b>											
<b>DS-1</b> Develop Ordinance to Control Runoff from New and Redevelopment	New Development	Develop ordinance for on-site facilities to prevent or minimize pollutants from new development	Prepare draft ordinance	Track progress.	August, 2010		X	X	X	X	
			Ordinance approved by City Council	Track progress.	December, 2010		X	X	X	X	
			Develop standards and guidelines for on-site facilities	Track progress.	November, 2010		X	X	X	X	
			Evaluate Retrofit Opportunities	Track number of sites reviewed and result of evaluation.	February 2011; then ongoing		X	X	X	X	
			Evaluate Opportunities for Implementing Regional Facilities for Existing and New Development	Track number of sites reviewed and result of evaluation.	August 2010; then ongoing		X	X	X	X	
<b>DS-2</b> Train City Employees Regarding New Development Standards	New Development	Identify staff and train staff on standards, guidelines, plan review, and inspections	Develop training materials	Track progress.	December, 2010		X	X	X	X	
			Implement training	Track when training occurred and attendees.	December 2010; then ongoing		X	X	X	X	
			Notification to development community of new requirements	Track progress.	December, 2010		X	X	X	X	
			Train staff in erosion and sediment control techniques and investigations.	Track training events.	December 2010; then ongoing		X	X	X	X	
<b>DS-3</b> Conduct Plan Reviews, Inspections, Enforcement for New Development	New Development	Implement program for on-site requirements to address stormwater quality	Conduct pre-construction conference	Track number of pre-construction conferences per year.	Existing practice; Ongoing		X	X	X	X	

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
			Encourage use of water quality facilities for new development	Track number of water quality facilities installed for new development.	Existing practice; Ongoing		X	X	X	X	
			Require plan submittals, conduct plan reviews	Track number of plan submittals and reviews conducted per year.	Existing practice and March 2011; Ongoing		X	X	X	X	
			Start inspection of new facilities	<ul style="list-style-type: none"> <li>Track number of inspections done per year.</li> <li>Track inspection results.</li> </ul>	March 2011, then ongoing		X	X	X	X	
<b>Measure No. 6 - Pollution prevention in Municipal Operations</b>											
OM-1 Develop a Water Quality Sensitive Operations and Maintenance Manual	Public Operations and Maintenance Practices	Develop water quality friendly practices	Place trash racks over major inlets	Track inlets installed with trash racks.	Existing Practices; Ongoing		X	X	X	X	X
			Review existing operation and maintenance practices	Track progress.	Existing Practices						
			Develop manual of existing practices, modifications, and new practices from other programs	Track modifications to manual.	September, 2009		X	X	X	X	X
OM-2 Train City Employees Regarding Revised O&M Practices	Public Operations and Maintenance Practices	Implementation of water quality friendly O&M practices	Review practices with staff	Track progress.	December, 2009		X	X	X	X	X
			Review new manual with staff	Track progress.	January, 2010		X	X	X	X	X
			Train staff in stream-friendly O&M practices	Track training events.	January 2009; then ongoing		X	X	X	X	X
OM-3 Conduct Catch Basin and Storm Drain Cleaning	Stormwater Runoff	Catch Basin Cleaning	Catch Basins cleaned on an as needed basis	Track number of catch basins cleaned per year.	Existing Practice; Ongoing		X	X	X	X	
		TV, inspect, and clean stormdrains	TV, inspect and clean storm drains as needed	Track length of storm drain cleaned and number of inspections.	Existing Practice; Ongoing		X	X	X	X	
		Repair pipe and culverts	Repair pipe and culverts as needed	<ul style="list-style-type: none"> <li>Track amount of pipe repaired per year and culvert repairs.</li> <li>Track number of culverts repaired per year.</li> </ul>	Existing Practice; Ongoing		X	X	X	X	

Best Management Practice or Activity	Source	Strategy	Measurable Goal	Performance Measure	Expected Implementation Timeline	Explanation of Proposed Change	Pollutant				
							Nutrients	Bacteria	Total Suspended Solids	Mercury	Temperature**
		Optimize catch basin maintenance practices for water quality	Develop routine catch basin cleaning program	Track progress.	December, 2009		X	X	X	X	
			Implement catch basin cleaning program	Track progress.	January 2010; then ongoing		X	X	X	X	
OM-4 Conduct Street Sweeping	Street Debris	Street sweeping	Street sweeping occurs on select streets every 4 to 6 weeks	Track miles swept per year.	Existing Practice; Ongoing		X	X	X	X	
		Optimize street sweeping practices for water quality	Evaluate street sweeping program and develop routine street sweeping program to optimize water quality benefits	Track modifications done to street sweeping program.	March, 2009		X	X	X	X	
			Implement street sweeping program	Track progress.	April 2009; then ongoing		X	X	X	X	
<p>*Timeline represents target completion or goal implementation date. Some goals that are being implemented are not currently being tracked. Tracking measures for these goals will be implemented upon acceptance of this TMDL plan by ODEQ.</p> <p>** See separate Temperature Implementation Plan in Section 3.0 of this plan</p>											

# **Appendix B-1**

## **Stormwater Educational Activities**



Newberg Farmer's Market Booth

Summer 2010



Newberg Farmer's Market

Summer 2010



Newberg Farmers Market

Fall 2010



Newberg Farmer's Market

Fall 2010

## Why not take a stroll down the Newberg Sustainability Trail? Environment — City maps sustainable features around town

- By: [Amanda Newman](#)
- Published: 11/10/2010 12:43:19 PM



Photo By: Laurent BonczijkTrail —  
The water-wise garden still has a plethora of flowering plants this late in the season, thanks to careful design.

Taking a walk around town? Try the Newberg Sustainability Trail.

The city engineering department created last summer a map, complete with colorful photos, highlighting sustainability-oriented features around town. The map is less than five months old, but already the city thinks it may need to be updated.

It currently shows 12 features, but city environmental specialist Sonja Johnson said she could probably add about 10 more.

“In essence, it’s to let people know that there are (sustainable) things out there,” she said. “We don’t intend to crow about it,” she continued, but added that if people want to see sustainable projects around town, the map will make it easy.

The “trail” starts at the Water Wise Garden, a city project, in the public parking lot at the corner of Hancock and Howard streets. Next it goes to George Fox University, featuring the foot bridge over Hess Creek, porous pavement

at a fire lane, and the community garden.

Over at The Allison Inn and Spa, the map points out a vegetated porous sidewalk and solar panels on the building. Then there is the Springbrook-Crestview roundabout and, at Providence Newberg Medical Center, a water quality swale.

Chehalem Glenn Golf Course is noted for its reuse water system, and then it’s back to three more city projects. At the site of the future animal shelter, on Sandoz Road, there is a bioswale; at the nearby wastewater treatment plant the innovative treatment process turns out Newgrow Compost; and at Memorial Park the concrete grid paver marks the final stop on the trail.

“We tried to use only public or quasi-public properties, where it would not be a big deal for people to go see those if they want,” Johnson explained.

The city posted the map on its website, at [www.newbergoregon.gov/engineering/city-newberg-sustainability-trail-map](http://www.newbergoregon.gov/engineering/city-newberg-sustainability-trail-map), and made it available on the water conservation table in city hall.

“We didn’t want to print very many, knowing we would update it,” Johnson said.

Among other things, she cited the city’s numerous Leadership in Energy and Environmental Design (LEED)-certified buildings: The Allison, the medical center, GFU’s Le Shana Residence Hall, and the new Portland Community College campus, currently under construction.

“That’s big for a community this size,” Johnson said.



**7. Springbrook-Crestview Roundabout - City of Newberg**



**8. Water Quality Swale - Providence Newberg Medical Center**



**9. Reuse Water - Chehalem Glenn Golf Course**



**10. Animal Shelter Bioswale at San-do Road - City of Newberg**



**11. Newgrow Compost - City of Newberg**



**12. Concrete Grid Paver at Memorial Park - City of Newberg**

**Sustainability**

We hope you have enjoyed the Sustainability Trail and it has inspired you to embrace sustainability.

For more details, visit City of Newberg's Sustainability Trail webpage at: [www.newbergoregon.gov/engineering/city-newberg-sustainability-trail-map](http://www.newbergoregon.gov/engineering/city-newberg-sustainability-trail-map)

For park locations, visit Chehalem Park & Recreation District's website at: [www.cprdnwberg.org](http://www.cprdnwberg.org).

**Photo Credits**

Photos provided by the following:

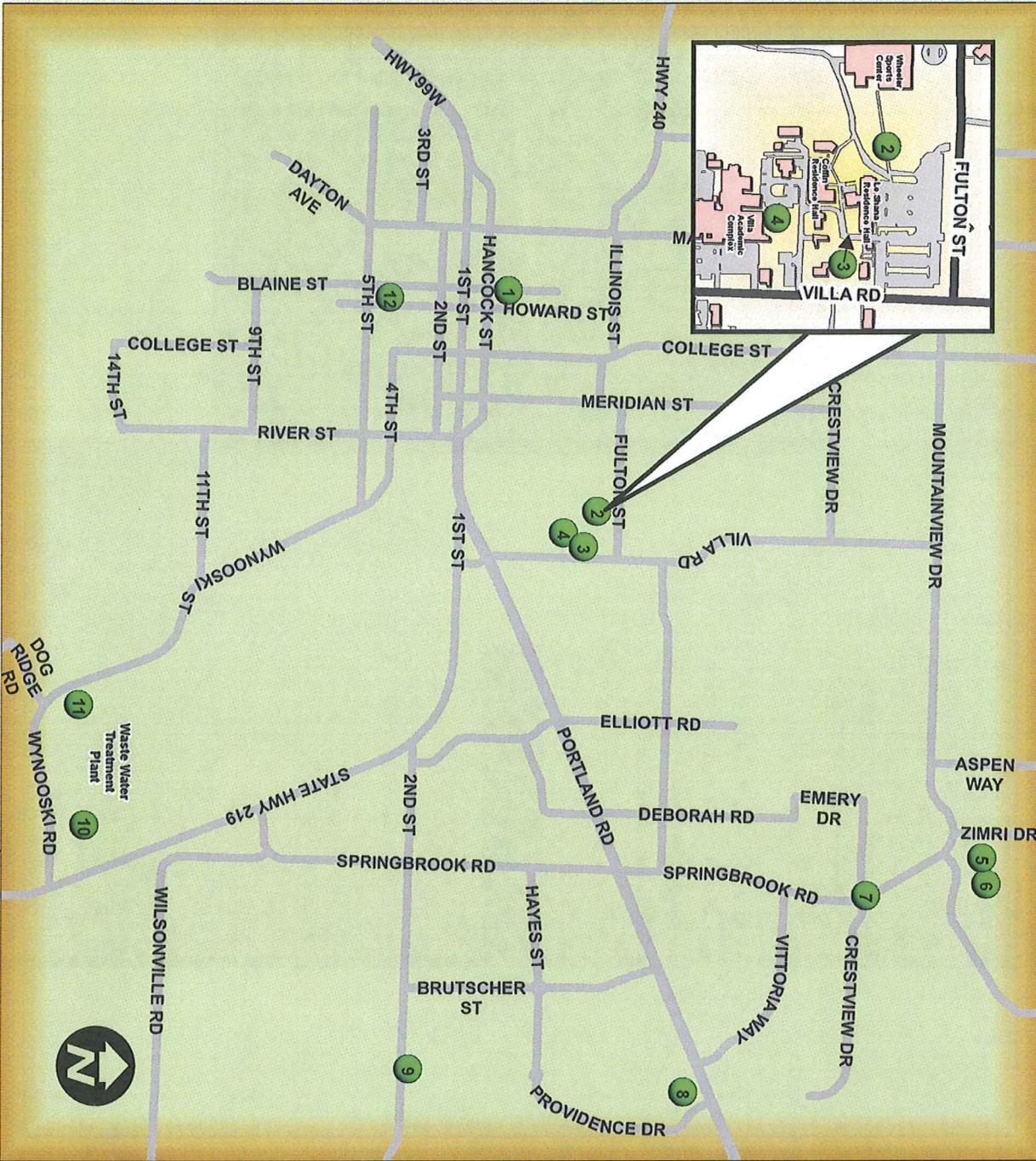
- Cover - Karen Tarmichael
- Map - Jan Wolf
- Brian Kershaw
- Karen Tarmichael
- Paul Chiu
- Corey Beals
- Brian Kershaw
- Brian Kershaw
- Paul Chiu
- Sonja Johnson
- Karen Tarmichael
- Brian Kershaw
- Karen Tarmichael
- Michele Faber

**Sustainability Trail**

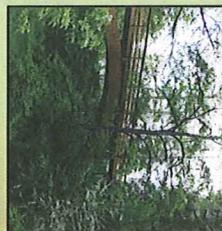


City of Newberg

# SUSTAINABILITY TRAIL



1. Water Wise Garden - City of Newberg



2. Foot Bridge - George Fox University



3. Porous Pavement (Fire Lane) - George Fox University



4. Community Garden - George Fox University



5. Porous Sidewalk (Vegetated) - The Allison



6. Solar Panels - The Allison

## Trees for Streams Webpage



Trees for Streams is a pilot program providing trees to Newberg residents who live next to streams in an effort to decrease erosion and keep our streams cool, clean, and clear. Trees must be planted within 10 to 20 feet of a stream bank and within the Newberg City Limits or Urban Growth Boundary.

To qualify for the program, you must:

- (1) Live within the City Limits or Newberg's Urban Growth Boundary
- (2) Have property adjacent to a stream or wetland
- (3) Reside in a single family home or duplex

If you qualify for the program, you can complete an application and mail it to Sonja Johnson, Public Works - Engineering, PO Box 97132, Newberg, OR 97132. If you have any questions about the program or whether you qualify, please contact us at 503-537-1282.

We will have Big Leaf Maple, Pacific Dogwood, Grand Fir, Red Flowering Currant, Western Red Cedar, or Red Osier Dogwood available next spring.

### Determining Which Tree is Best for Your Property

- (1) Will the location allow the tree to shade the stream when it is fully grown?
- (2) Can you provide supplemental water to the tree until it has an established root system?
- (3) Will the location provide adequate sun for the tree?
- (4) Will the tree require extensive pruning to clear overhead power lines when it is mature?
- (5) Does the tree attract the type of wildlife or birds that you want in your yard?
- (6) Is the tree's leaf color or flowers an asset to your current yard?

This program is being provided through a partnership with the Bureau of Land Management's Native Plant Material Cooperative. If you are interested in volunteering with the Native Plant Material Cooperative in Colton, please call 503-824-2151. If you are interested in volunteering with our local watershed council, please contact Jeff at 503-474-1047.

### Downloads

 [Trees for Streams Application](#)

## CHOOSING A TREE

- The primary reason for planting a tree in this program is for streamside restoration. Will the location allow the tree to shade the stream when the tree is fully grown? If not, please choose another location that will allow the tree to shade the stream.
- Evergreen trees provide shade all year long. While deciduous trees lose their leaves in the winter, they provide shade during the summer when our streams are warmest and most in need of shade.
- Can you provide supplemental water to the tree's location until it has an established root system?
- Beyond the shade requirement, determine why you want the tree on your property. Trees can provide beauty, wildlife habitat or reduce noise.
- Will the location provide adequate sun and is it large enough to accommodate the tree at maturity?
- Will the tree need to be pruned because of its proximity to power lines? If so, you may want to change the location.
- Does the tree provide fruit? Will it be dropping fruit in your neighbor's yard when it is mature? If so, please find another location. Find out what type of wildlife or birds are attracted to the fruit. Do you want them in your yard? If not, choose another tree.
- Does the tree provide flowers or leaf color? If so, does it complement the rest of your landscaping?

Trees for Streams is a pilot program providing free trees to residential property owners with streams in an effort to decrease stormwater volume and provide optimal temperatures for aquatic life in Hess Creek, Chehallem Creek, and Springbrook Creek. Trees must be planted within 10 to 20 feet of a stream bank and within the Newberg City Limits or Urban Growth Boundary. The trees will:

- Catch sediment and absorb stormwater.
- Provide shade which creates pools of cooler water for fish and other aquatic species to live.
- Provide nutrients to aquatic life.
- Prevent erosion and stabilize stream banks.



Red Flowering Currant

This program is a partnership between the Bureau of Land Management's (BLM) Native Plant Material Cooperative and the City. Please call Sonja at 503-537-1282 if you have any questions about Trees for Streams. If you are interested in volunteering with the BLM's Native Plant Cooperative, you can call Kurt at 503-815-1132 or Denise at 503-322-0002 for opportunities in Tillamook or 503-824-2151 for opportunities in Colton, OR.

## CITY OF NEWBERG

### TREES FOR STREAMS



Grand Fir



Pacific Dogwood



Big Leaf Maple



Western Red Cedar



Red Osier Dogwood

A Great Place to Grow

## PROGRAM RULES

- Eligible property owners are those (a) with streams bounding or running through their property and (b) are duplex or single family residences within the Newberg City Limits or classified as Low Density Residential within the Urban Growth Boundary.
- Trees must be planted within 10 to 20 feet of a streambank by April 30, 2011.
- The deadline for reserving a free tree is 5pm on Friday, December 31, 2010. Applicants may reserve a tree by:
  - Completing this Application Form or downloading a form from [www.newbergoregon.gov/Environment/Stormwater-Management](http://www.newbergoregon.gov/Environment/Stormwater-Management) and mail it to Sonja Johnson, Public Works—Engineering, PO Box 970, Newberg OR 97132 or
  - Bringing a completed form to Sonja Johnson in Public Works—Engineering Division in City Hall at 414 E First Street, Newberg OR
- Trees will be available for pick up in February or March 2011. Applicants who reserve a tree will be notified via email (if provided) or postal mail of the place and time for picking up their trees.
- Applicants must provide a current driver's license when they pick up their free tree(s).
- The Applicant agrees to provide adequate water and care for the tree(s) for at least 2 years.
- The Applicant agrees to accommodate a request by the City to verify the planting and proper care of the tree and also authorizes the City to include the tree(s) in public database systems.
- The City reserves the right to terminate or expand the program at any time for any reason.
- The City shall not be held liable for any current or future expenses incurred by the property owner in regard to the tree.

## APPLICATION FOR FREE TREES

### Requested Tree(s) (maximum of 2):

- Big Leaf Maple     Red Flowering Currant  
 Pacific Dogwood     Western Red Cedar  
 Grand Fir     Red Osier Dogwood

Name: \_\_\_\_\_

Property Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email (optional—for notification purposes only): \_\_\_\_\_

Stream Name on Property: \_\_\_\_\_

Chehalem    Hess    Springbrook    Tributary

If a Tributary, what stream does it flow into?

Chehalem    Hess    Springbrook

**Tree Care Pledge and Permission to Post Online:**

I agree to care for this tree and provide supplemental water until it has an established root system. The City may verify that the tree is being properly maintained and was correctly planted on the property. In addition, the City may include the tree(s) in public databases.

Print Name \_\_\_\_\_

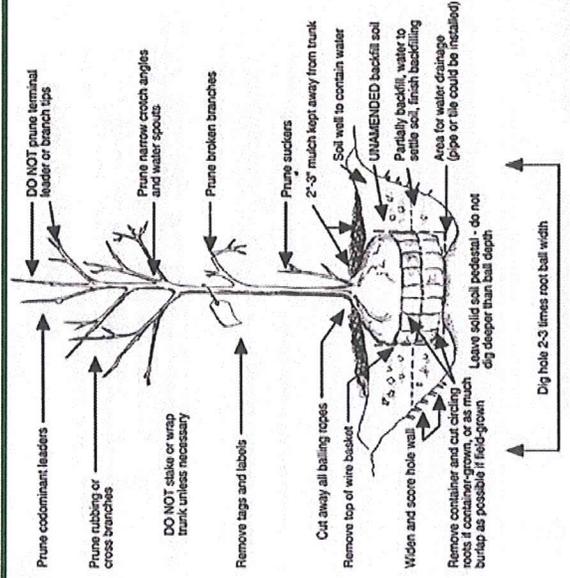
Signature \_\_\_\_\_

Date \_\_\_\_\_

If you have any questions or comments about this program, please call Sonja Johnson at 503-537-1282 or send an email to [sonja.johnson@newbergoregon.gov](mailto:sonja.johnson@newbergoregon.gov).

## PLANTING TIPS

- Dig a hole twice as wide and slightly shallower than the root ball. Roughen the sides and bottom of the hole with a shovel so that roots can penetrate the soil.
- If the roots are growing in a circular pattern around the root ball, slice through the roots on a couple of sides. Root tips die quickly when exposed to light and air.
- Place the root ball in the hole. Leave the top of the root ball 0.5 to 1 inch above the surrounding soil. For bare root plants, make a mound of soil in the middle of the hole and spread plant roots out evenly over mound.
- Backfill with the original soil. When the hole is halfway filled, add water to the hole.
- Form a temporary water basin around the base of the tree to encourage water penetration, and water thoroughly after planting. If the root ball is extremely dry, allow water to trickle into the soil by placing the hose at the trunk of the tree.
- Provide 4-6" of mulch around the tree being careful not to let the mulch touch the tree's trunk.



# **Appendix B-2**

## **Utility Bill Insert**

# Stormwater

## City of Newberg



### Isn't Stormwater Just Rain?

Stormwater is more than just rain. Rain picks up oil, antifreeze, grease, and brake lining dust when it falls on impervious surfaces such as asphalt driveways, streets, or parking lots.

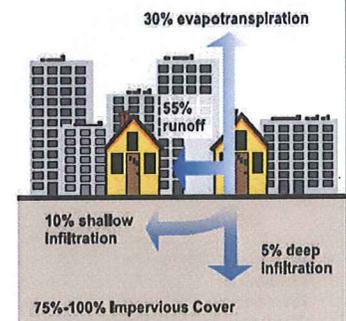
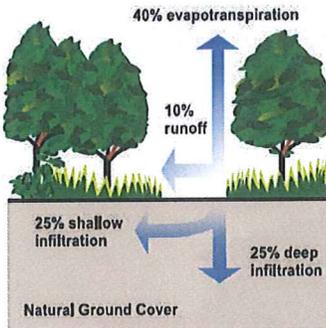
Rain flowing off of your landscape picks up fertilizer and pesticides. It dissolves pet waste and carries it to streams where it can cause disease. It moves soil from your yard to streams where it decreases visibility in the water and covers food sources for fish and other aquatic life.

Stormwater moves oil from the street straight to the stream.



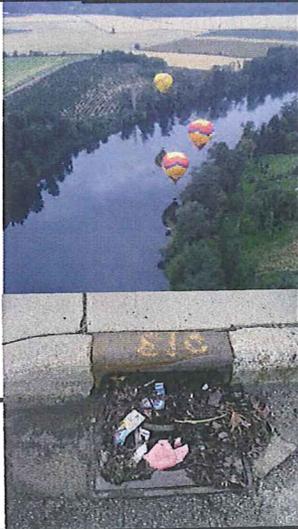
### Why is there more runoff now?

Pavement and roofs can create 5.5 times more runoff than plants and trees. More runoff creates eroded stream banks and loss of YOUR soil and property. For example, Newberg receives 42 inches of rain per year. When Newberg was a very young city, it only had 4.2 inches or 7,500 gallons of rain becoming stormwater each year and running into our streams. As Newberg grows, it will have up to 23 inches or 41,000 gallons of rain becoming stormwater each year. That's a BIG difference!



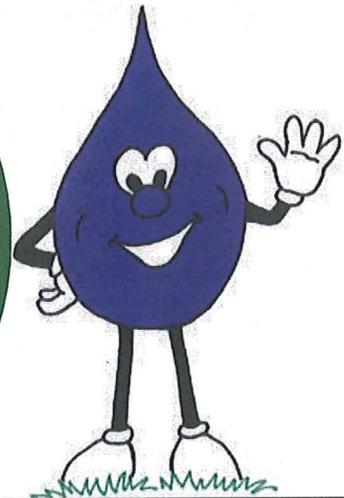
### Where does stormwater go?

In Newberg, all stormwater is discharged straight to streams. Oil, pesticides, fertilizers, litter, and other wastes that are dumped into the storm drain or picked up by stormwater are discharged straight to our streams and the Willamette River.

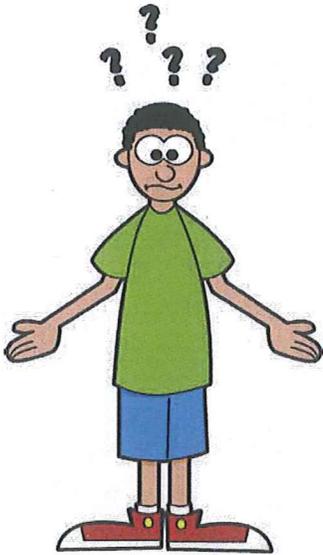


Trash in the catch basins ends up in our streams and the Willamette River.

Remember, only RAIN down the drain!



# What can I do?



- Pick up litter. Every Fall, Maintenance crews have to unclog culverts and pipes that have been filled by plastic bottles and trash. Pick up around your street or get to know your neighbors by organizing a neighborhood clean-up each Fall.
- Put yard waste and tree trimmings in the yard waste bin or compost it. Throwing it in the ditch or sweeping it into the street will clog pipes and culverts when winter rains come and cause flooding.
- Don't dump ANYTHING down the storm drain including cleaning fluids. All storm drains in Newberg drain straight to the stream without ANY treatment. If you see someone dumping into a storm drain, call us at 503.554.7709.



## Keep It Clean



- Wash your vehicle in a carwash or area that will absorb the rinse water. Fish don't need soap to stay clean. Most car washes recycle and filter their water. Reduce the water required to wash your vehicle at home by using a hose nozzle which is available for free at the Water Conservation Table in City Hall.
- Pick up after your pet even if you can't see any water nearby. It only takes one teaspoon of pet waste to contaminate enough water to fill an Olympic-sized pool. Nitrogen in the waste creates algae blooms and reduces oxygen in the streams. Fish don't like to get sick anymore than you do.
- Don't lose your property to erosion. Plant a groundcover or apply compost and mulch to help your soil absorb the rain. The booklet, **Water Efficient Plants for the Willamette Valley**, available at the Water Conservation Table in City Hall, can provide ideas.
- Test your soil before fertilizing and apply minimum pesticides to your plants. The excess fertilizer creates algae blooms in the streams.

- Plant a tree. A single mature tree can stop 700 gallons of rain each year from becoming stormwater. Their roots loosen the soil so more rain can soak into the ground.
- Let the rain soak into the ground by creating a rain garden. Instructions are in OSU's Rain Garden Guide, available for free at the Water Conservation Table, in City Hall.
- Use flagstone or pavers to create walkways in your yard. The rain soaks into the ground between them.
- Join groups like the Greater Yamhill Watershed Council and SOLV and help restore streams.



Decreasing runoff means my home stays cleaner!

## **Appendix B-3**

# **Website Stormwater Education**

## Stormwater Solutions Webpage

(each picture is a different post)



1) Follow your car manufacturer's maintenance recommendations. Oil leaks may look like beautiful asphalt rainbows but it ends up in the stormwater and streams.

- 2) Pick up after your pet. Bacteria from pet feces is a serious problem in stormwater.
- 3) Don't litter. While this is obvious, it still happens as shown by the numerous trash bags filled when people clean up streets or highways.
- 4) Drink from a re-useable water bottle. Storm drains seem to attract plastic water bottles and it only takes a couple to clog a grate and cause flooding.
- 5) Don't top off at the gas station. It's been illegal since July 2009 and it increases the chance of spilling gasoline, creates asphalt rainbows, and poisons aquatic life.



1) Plant a tree. Their leaves and branches intercept rainwater and provide shade in the summer for your other plants.

- 2) Take pictures of where your water naturally drains. Create a rain garden this spring in the natural drainages to decrease runoff next winter.
- 3) Volunteer for a local watershed project. Check out [SOLV](#) or the [Yamhill Basin Council](#) for volunteer opportunities near your home.
- 4) Create a [backyard wildlife habitat](#) and you'll use fewer pesticides.
- 5) [Test your soil](#) before applying fertilizer this spring.



- 1) Wash your car in an automatic car wash, on gravel, or on your lawn.
- 2) If you are changing your walkway or putting in a patio, think about using alternative materials such as pervious concrete or pavers.

- 3) Think before you buy something. Everything that is manufactured has an effect on a stream somewhere in the world.
- 4) Limit the amount of sediment leaving your yard by keeping mulch on bare areas or planting a ground cover.

5) Help us keep our streams clean. Call the Maintenance Department (503.537.1234) right away if you see a problem with flooding or erosion.



Keep stormwater from ever reaching the street by reducing the size of your lawn:

- 1) Plant some plants that don't require a lot of water this summer.
- 2) Plant a tree or two or three.
- 3) Put your feet up and take a nap in the hammock or have some family time.



Pet waste -- a delicate problem with a not so delicate solution. Be a responsible pet owner and pick up your pet's waste.

### **If wildlife doesn't pick up their waste, why should I pick up my pet's waste?**

There is nothing natural about the amount of pet waste in an urban setting. Wildlife doo-doo is spread out over a wider area and the daily volume is less than a pet's.

### **But it burns my lawn!**

The reason it burns your lawn is the amount of nitrogen present in the waste. If your pet's waste is left on the ground, the rain sweeps it into our creeks and rivers either directly or through the stormwater system. All that nitrogen is utilized by algae to create the green slime that you see in the river as you are playing in it. Think about it.

### **Ewww - there's too much of it to pick up.**

An average dog will create 0.5 pounds per day of waste. That IS a lot. However, dogs are like us; if you feed them junk food then they create more waste. Better food means less waste because they eat less and use more of the food's nutrition.

### **What do I do with it after I've picked it up?**

Use a bag to pick it up and put it in the trash or you can flush the waste down the toilet where it will be treated by the wastewater treatment plant. Flush **ONLY** the waste; if you flush the bag, it will clog the pipes and then you'll really have a mess!



You know about the beach cleanup that SOLV sponsors every spring and fall but did you know that they are sponsoring local stream and river cleanups from September 20 through October 2? They will provide advertising materials, litter pickup supplies, and first aid kits.

Are you part of a group that may be interested in cleaning up our local stream or the Willamette River? If so, **contact SOLV by July 14** to [register your group](#) or find someone who is already registered.



July is [Smart Irrigation Month](#) and we are heading into the time of year when we start watering lawns and gardens in earnest. Because this is a dry time of the year, we don't usually think about runoff but it happens if we are overwatering our lawns and gardens. How can you minimize the amount of runoff?

- 1) Check your sprinklers and irrigation system to make sure you are watering only landscape instead of sidewalks, streets, and driveways.
- 2) Install soaker hoses in your gardens
- 3) Use a technique called cycle and soak to deeply water your landscape and reduce runoff. Our clay soils will only absorb a certain amount of water at a time before it runs into the stormdrain. Cycle and soak means you water an area for a shorter time but more often, ie watering for 10-minutes every hour for 3 hours rather than for 30 consecutive minutes during the morning or evening.

Even if you have an automatic irrigation system, take the time to stroll through your landscape every week. You'll notice problems earlier and be able to minimize the amount of pesticides and fertilizers that you use in your gardens and lawns. By minimizing pesticide and fertilizer use, you'll keep our streams cleaner.



August is National Water-Quality Month. Here are a few simple steps for improving the water-quality of stormwater:

- 1) Stop erosion by planting groundcovers, putting down mulch, and planting trees this Fall. You'll keep your hard-earned topsoil and the streams will be clearer.
- 2) Put your tree trimmings in the yard waste bin instead of in the ditch beside your property. The stormdrains won't clog and you'll decrease the chance of flooding this winter.

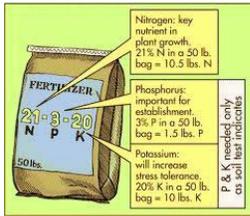
3) Test your soil to determine the correct quantity of fertilizer for your landscaping. You'll save money and the algae won't bloom in the streams and rivers.



Wash your vehicle in a carwash where the water is recycled or in an area where the rinsewater soaks into the ground instead of going into the storm drain. In addition, a hose nozzle can decrease the amount of water that you use while washing your car. You can get a hose nozzle at the Water Conservation Table in City Hall for FREE.



Every year, when the rains begin, our crews are sent out to clean culverts and grates that have become clogged with plastic bottles, tree branches, and other litter. Organize a group in your neighborhood to pick up litter and keep our creeks and culverts clean! Remember to wear orange vests and be safe.



Are you getting ready to fertilize your lawn? Please follow these tips:

- 1) Keep the fertilizer on the lawn. Fertilizer in the street or on the sidewalk has a direct route to the streams and rivers where it creates algae blooms.
- 2) Have a soil test done to find out how much fertilizer your lawn really needs. Many lawns don't need to be fertilized every year.
- 3) Don't fertilize next to a stream. The best solution is to let stream corridors grow naturally without mowing them.

For more information on lawn maintenance, read the OSU-Extension Service publication called [Fertilizing Lawns](#) or stop by the Water Conservation Table and pick up a booklet called [Planting and Maintaining Your Lawn](#).



The rains have started and we're easing from Fall into Winter. Here are some stormwater tips:

- 1) Aerate your lawn so that more rain can soak in
- 2) Keep leaves out of the street and away from storm drains.
- 3) Drain your hot tub onto a grassy area so that it doesn't run into streams or the stormwater system.
- 4) Clean your gutters so they don't clog.



With the cold weather, it's time to think about ice building up on your driveway or sidewalk. Here are some tips for minimizing the snow and ice:

1) Shovel early and often. Keep ice from building up by removing the snow off your sidewalk and driveways as soon as possible.

Roll up your sleeves and put the hot chocolate on the stove to warm you up when you are done.

2) Salt is the most common de-icing method. Use a handful of salt per square yard of surface to be de-iced and remember that more salt does not mean that you are doing a better job. Remove the slush that results with a shovel.

3) If you use calcium chloride to de-ice, use a handful for every 3 square yards (about the size of a twin bed). Remove the slush with a shovel.

4) Magnesium chloride de-ices to 5 degrees Fahrenheit but can be expensive.

5) Calcium magnesium acetate (CMA) is recommended for environmentally sensitive areas but is more expensive than salt.

6) Sand provides traction but doesn't melt ice. Use it sparingly as it can easily enter our streams as sediment in stormwater when the temperature gets warmer.

Remember, the best de-icing choice is a shovel coupled with your time and effort. Don't forget to build a snowman after you are done!



### **New Year's Resolutions for Cleaner Stormwater**

1) Join a group and plant trees or plant one yourself. Trees shade streams, slow down rain to reduce erosion, and keep the ground loose so that rain can infiltrate into the ground instead of running into the street.

2) Plant a rain garden and decrease the amount of rain that ends up in the street. You can find out how to build one by taking a local class or picking up the Rain Garden Guide available for free at the Water Conservation Table in City Hall.

3) Wash your car at a car wash. Whether it is a drive-through or a do-it-yourself, you'll save water because they recycle the washwater and our streams will be cleaner because you kept the copper, oil, grease, and dirt out of them.

4) Buy a rain barrel and use it to water your indoor plants in the winter and your

outdoor plants in the spring and fall. Rainwater is the best water for plants so they will love you for it and you'll reduce the amount of water that the streams have to hold during peak flows.

5) Pick up after your pet especially during the rainy season. It only takes a teaspoon of excrement to dirty an entire swimming pool of water.

6) Adopt "Leave No Trace" as your motto for life. Keep the trash out of the street so that it doesn't end up in the streams. We'll have cleaner streams and an even prettier town.

7) Service your car regularly. Those parking lot rainbows that you see during a rainstorm are pretty but they are deadly to fish.

8) Test your soil so that you know how much fertilizer you will really need this spring. Help us keep the algae population down in the streams before they take over the world.

## Willamette TMDL Implementation Plan Webpage (each picture is a different post)



In 2006, the City of Newberg was notified by the Oregon Department of Environmental Quality (DEQ) that the City needed to monitor the amount of total suspended solids, bacteria, and mercury being discharged to the Willamette River. The City created a Total Maximum Daily Load (TMDL) plan for the DEQ in early 2008 outlining Best Management Practices (BMPs) to reduce the loading to the Willamette River by Chehalem Creek, Hess Creek, and Springbrook Creek. In the Fall of 2008, DEQ approved the TMDL plan and the City started implementing it. A progress report will be sent to DEQ in February 2010.

You can help the City achieve its TMDL goals by keeping stormwater drains clear, conserving water, and disposing of waste properly including participating in the semi-annual [Hazardous Waste Collection Program](#) held every May and October. In addition, the [Stormwater Solution](#) is updated weekly with seasonal ideas for keeping your stormwater clean.

### Interesting Facts to Fill Your Brain (IFFY Brain):

Rain gardens can divert 90% of the stormwater coming from your house if properly planned. They reduce flooding, provide habitat for birds, and increase the water quality entering the Willamette River. They are not difficult to design and there are several [handbooks](#) on the Internet to help you.



### Interesting Facts to Fill Your Brain (IFFY Brain):

Our beaches look clean but the Spring SOLV Beach Cleanup held on March 20 collected an amazing **194 pounds of trash per mile** of coastline! Look around your neighborhood. It looks clean but how much trash could you and your neighbors keep out of the stormwater system if you had a Clean the Street party?

For more information, contact Sonja at [sonja.johnson@newbergoregon.gov](mailto:sonja.johnson@newbergoregon.gov)



### Interesting Facts to Fill Your Brain (IFFY Brain):

Ever wonder why you should take your used oil to a recycler? 1 quart of oil will contaminate 250,000 gallons of water and create an oil slick over 2 acres.

How much is 250,000 gallons of water? That's the average use per day for 1,800 people or almost our entire population of children in elementary school.

How much is a 2-acre oil slick? It's similar to covering 13 residential lots in Newberg with oil.

**Recycle your oil.**



### Interesting Facts to Fill Your Brain (IFFY Brain):

A law passed by the Oregon legislature and effective July 1 mandates the sale of only low-phosphorus detergents (0.5%) in Oregon. [Why are phosphates being targeted?](#) Algae and aquatic plants need nitrogen and phosphorus to grow.

Nitrogen is readily available from many sources so the amount of phosphate in a water will limit the size of an algae bloom or aquatic plant. What else can you do to help our streams? Minimize the amount of fertilizer you use on your lawn.



### Interesting Facts to Fill Your Brain (IFFY Brain)

If you want to reduce stormwater, plant a tree. Their roots soak up the rain and their leaves slow rain down so it can soak into the ground. One study by the Center for Urban Forest Research states that a medium-sized tree can intercept as much as 2,400 gallons of rain per year.



### Interesting Facts to Fill Your Brain (IFFY Brain)

Sediment is one of the top seven stormwater pollutants. Sediment isn't just dirt in the water; there are many pollutants such as pesticides and mercury that normally stay in one place but which are carried with the sediment down to the Willamette River and beyond. Sediment buries spawning areas and decreases oxygen in streams, and can also clog fish gills.

Look around your yard. Are there areas where you could plant a groundcover or put mulch down to stop erosion? Could you work with your local watershed or SOLV to restore a streambank? Can you plant a tree? Increase the clarity of stormwater and save your topsoil at the same time.



### Interesting Facts to Fill Your Brain (IFFY Brain)

Are you applying pesticides to get rid of an aphid problem? Did you know that ladybugs will eat as many as 50 aphids each day for free? Male aphids are born in the fall to fertilize the overwintering eggs so providing your landscape with ladybugs now means you won't have more aphids next spring. Using beneficial insects such as ladybugs is a great way to save money on pesticides while improving the water quality of our rivers and streams.



### Interesting Facts to Fill Your Brain (IFFY Brain)

What is a TMDL and why is it important? The Oregon DEQ determined the TMDLs that the Willamette River could carry without losing its beneficial uses. Through the TMDL limits, they specified the quantity of something, such as sediment, that could enter the Willamette River. It is similar to the limits placed on the discharge from a manufacturing plant or wastewater treatment plant except that it is specific to non-point sources, ie those sources that come from lawns, fields, roofs, and forests.

Why is this important? Whenever people create a city, town, cultivate fields, or change forests, the rivers and streams carry more sediment, nitrogen, phosphorus, and other chemicals than normal. The increased loading affects the aquatic life in the stream and changes the characteristics of the river or stream. Streambanks erode, stream bottoms change from gravel and sand to silt, aquatic plants grow along the banks, and algae blooms become more common. The TMDL limits set by the Oregon DEQ reduce the extra loading on the Willamette River and attempt to balance land changes with beneficial stream uses.



[LoveYourRiver.org](http://LoveYourRiver.org) is a great website that provides information about the health of your local river and ways to keep our streams clean and clear. If you promise to complete specific actions that show your love for your river, you will be entered to win a prize! They also have a [great video](#) on YouTube that focuses on the Willamette River.

## Local Classes and Events Webpage (each picture is a different post)



Yamhill Soil and Water Conservation District in McMinnville is holding their annual native plant sale on **February 11-13** at their offices on Southwest Second Street. They will also have T-Shirts, posters, and bird nesting boxes for sale. Call 503.472.6403 or [check their website](#) for more information.

Did you get a new camcorder for Christmas? Want to win up to \$2,500? The EPA is holding a contest for the best 30 to 60 second video on how to reduce, reuse, or recycle. The contest is called **Our Planet, Our Stuff, Our Choice** and there is even a category for the best student video (ages 13-18). The **deadline** for submitting your video is **Feb 16**. [Click here for the rules.](#)

If you have or know of a local event or class on stormwater, water conservation, or sustainability, please let us know and we will post it for you. For further information, call Sonja at 503.537.1282 or email her at [sonja.johnson@newbergoregon.gov](mailto:sonja.johnson@newbergoregon.gov).



### Clean Up Newberg on Saturday, June 5!

Help clean up our downtown! Meet at Frances Park located at the corner of Ist Street and College Street. Hours are from 9am to 2pm. For more information, contact Tom Tesmer (503-537-1959 or [tomt@cmstat.com](mailto:tomt@cmstat.com)) or go to the SOLV [website](#).

### Newberg Farmer's Market - Learn about WaterWise Gardening on June 8th!

Look for our booth at the Farmer's Market at the Cultural Center on June 8th. We'll have information on xeriscaping otherwise known as waterwise gardening. Learn how easy it is to create a beautiful low-maintenance yard.

The Newberg Farmer's Market is open from 1:30pm to 6pm every Tuesday from now until September 28. They are located at the Cultural Center across from the library. Beyond the produce available, the City will have a booth with rotating information on water conservation, erosion, pet waste, rain gardens, recycling, energy use, pharmaceutical disposal, and more. Come by and learn something different every week!



### Newberg Farmer's Market - Learn about Pet Waste on June 15th!

Look for our booth at the Farmer's Market at the Cultural Center on June 15th. We'll have information on how pet waste affects our local streams and how to properly dispose of it.

The Newberg Farmer's Market is open from 1:30pm to 6pm every Tuesday from now until September 28. They are located at the Cultural Center across from the library. Beyond the produce available, the City will have a booth with rotating information on water conservation, erosion, pet waste, rain gardens, recycling, energy use, pharmaceutical disposal, and more. Come by and learn something different every week!



### Miller Woods Projects

Volunteer at Miller Woods northwest of McMinnville from 10am to 2pm every 2nd and 4th Saturday (**August 14th and 28th**). For more information, call 503.472.8222 or email [info@millerwoods.org](mailto:info@millerwoods.org)

### Upper Nestucca OHV Trail Cleanup & Maintenance (15 miles NW of Willamina)

On **September 25** from 10am to 1pm, you can volunteer near Willamina. Activities include litter pickup, trail closure, trail blocking, and off highway vehicle trail maintenance. There will be a BBQ afterwards with T-shirts while they last! For more information or to volunteer, contact Debra Drake at [debra\\_drake@blm.gov](mailto:debra_drake@blm.gov) or 503-815-1134. You can also register for the event at [solv.org](http://solv.org)

### Newberg Farmer's Market

Look for our booth at the Farmer's Market at the Cultural Center. The Newberg Farmer's Market is open from 1:30pm to 6pm every Tuesday from now until September 28. It is located at the Cultural Center across from the library. In addition to the produce and crafts available, the City will have a booth with rotating information on water conservation, erosion, pet waste, rain gardens, recycling, energy use, pharmaceutical disposal, and more.



### Water Conservation Project Tour

The Yamhill Soil and Water Conservation District is offering a water conservation tour from 9am to 2pm on **September 10** that is free with lunch provided by the district. Please email [vicksta@or.nacdnet.net](mailto:vicksta@or.nacdnet.net) or call 503.472.1474 if you have any questions or want to register for the tour.

### September Rain Garden Workshops and Barrel Sales

The following workshops focus on the fundamentals of harvesting your rain water and designing a rain garden. They are free but reservations are recommended; call 503.655.3144 or email [clackamas.swcd@oacd.org](mailto:clackamas.swcd@oacd.org) for more information.

**Sept 15 - 6:30 to 8:30pm** - Oak Lodge Fire Station at 2930 SE Oak Grove Blvd, Milwaukie

**Sept 23 - 6:30 to 8:30pm** - Wilsonville Library at 8200 SW Wilsonville Road, Wilsonville

A rain barrel sale will be held on **Sept 25 from 9am to 4pm** at Clackamas County's Red Soils Complex in Oregon City. The crossroads are Beaver Creek Road and Library Court. It is a first-come first-served event. Contact 503.655.3144 for more information.

### **Greater Yamhill Watershed Council (formerly YBC) Project Tours**

Tour local restoration projects that are being completed by the Greater Yamhill Watershed Council. Learn about watershed restoration, partnerships and community involvement. You can attend the tour on either **Saturday, Sept 18 or Wednesday September 22 from 9am to 4pm**. Space is limited so contact Jeff Sanders at 503.474.1047 or [gywc\\_coordinator@co.yamhill.or.us](mailto:gywc_coordinator@co.yamhill.or.us).

### **Miller Woods Projects**

Volunteer at Miller Woods, located northwest of McMinnville, from 10am to 2pm every 2nd and 4th Saturday (**Sept 11th and 25th**). For more information, call 503.472.8222 or email [info@millerwoods.org](mailto:info@millerwoods.org)

### **Upper Nestucca OHV Trail Cleanup & Maintenance (15 miles NW of Willamina)**

On **September 25** from 10am to 1pm, you can volunteer near Willamina. Activities include litter pickup, trail closure, trail blocking, and off-highway vehicle trail maintenance. There will be a BBQ afterwards with T-shirts while they last. For more information or to volunteer, contact Debra Drake at [debra\\_drake@blm.gov](mailto:debra_drake@blm.gov) or 503-815-1134. You can also register for the event at [solv.org](http://solv.org)

### **October Rain Garden Workshops and Rain Barrel Sales**

The following workshops focus on the fundamentals of harvesting your rain water and designing a rain garden. They are free but reservations are recommended; call 503.655.3144 or email [clackamas.swcd@oacd.org](mailto:clackamas.swcd@oacd.org) for more information.

**October 9 - 9am to 11am (workshop) 11am to 1pm (barrel sale)** - Estacada Library at 825 NW Wade, Estacada

**October 20 - 6:30pm to 8:30pm** - Molalla Grange at 127 Grange St., Molalla

### **Newberg Farmer's Market**

Look for our booth at the Farmer's Market at the Cultural Center. The Newberg Farmer's Market is open from 1:30pm to 6pm every Tuesday from now until September 28. It is located at the Cultural Center across from the library. In addition to the produce and crafts available, the City will have a booth with rotating information on water conservation, erosion, pet waste, rain gardens, recycling, energy use,

pharmaceutical disposal, and more.



### **October Rain Garden Workshops and Rain Barrel Sales**

The following workshops focus on the fundamentals of harvesting your rain water and designing a rain garden. While reservations are recommended, the classes are free. For more information, call 503.655.3144 or email [clackamas.swcd@oacd.org](mailto:clackamas.swcd@oacd.org).

**October 9 - 9am to 11am (workshop) 11am to 1pm (barrel sale)** - Estacada Library at 825 NW Wade, Estacada

**October 20 - 6:30pm to 8:30pm** - Molalla Grange at 127 Grange St., Molalla

### **Forest Grove Invasive Plant Removal and Native Planting**

Volunteers will be planting native plants and removing invasive species along Gales Creek riverbank on Saturday, **October 16 from 10 am to 4 pm**. Light refreshments will be provided and participants can bring a dish for the potluck lunch. For more information, please contact Anne Morse at 503-992-2041 or [amorse@adelantemujeres](mailto:amorse@adelantemujeres). You may also sign up at [SOLV.org](http://SOLV.org).

### **First Federal Community Shred Day**

Bring your documents to First Federal in McMinnville at 118 NE 3rd Street on **October 16th from 9 am to 1 pm** and they will shred them for you using Iron Mountain's free confidential cross-shredding services. There is no need to remove staples, paper clips or binding and, for your peace of mind, you can watch while they shred your papers. For more information, contact Erin Stephenson at 503.472.6171 or [estephenon@firstfedweb.com](mailto:estephenon@firstfedweb.com)

### **Cornelius Native Tree Planting**

Volunteers will be planting trees and shrubs to restore Council Creek on Saturday, **October 23 from 9 am to 1 pm**. SOLV will provide all tools and gloves. Participants will be meeting at 285 N 31st Ave in Cornelius. For more information, contact Brett Lyon at 503-844-9571 x332 or [brett@solv.org](mailto:brett@solv.org). You may also register for the event at [SOLV.org](http://SOLV.org).

### **Salem Tree Planting**

On Saturday, **October 23 from 9 am to 12:00 pm**, volunteers will be planting 12 trees and raking the leaves at East Gate Basin Park in Salem. Participants will be meeting at Glendale St NE & Alameda St near the park. There will be food and drink available for the volunteers. For more information, please contact Patty Tipton at [Patty.J.Tipton@state.or.us](mailto:Patty.J.Tipton@state.or.us) or 503-947-1413. You may also register for the event at [SOLV.org](http://SOLV.org).

**Miller Woods Projects**

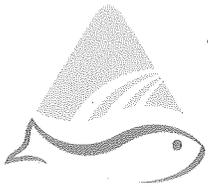
Volunteer at Miller Woods, located northwest of McMinnville, from 10am to 2pm every 2nd and 4th Saturday (**Oct 9th and 23rd**). For more information, call 503.472.8222 or email [info@millerwoods.org](mailto:info@millerwoods.org)

**Banks Tree Planting**

Volunteers will be planting native trees and shrubs to restore Dairy Creek from 9 am to 12:00 pm on Saturday, **November 6**. SOLV will provide all tools and gloves for this project. Participants will be meeting at NW Arborpark Loop and NW Elmhurst Ct (please walk down NW Elmhurst Ct and meet on the path). For more information, contact Brett Lyon at 503-844-9571 x332 or [brett@solv.org](mailto:brett@solv.org). You may also register for the event at [SOLV.org](http://SOLV.org).

## **Appendix B-4**

# **Greater Yamhill Watershed Council Contribution**



**GREATER  
YAMHILL  
WATERSHED  
COUNCIL**

800 NE 2nd Street  
P.O. Box 1517  
McMinnville, OR 97128  
Phone: 503.474.1047  
Fax: 503.472.2459  
www.co.yamhill.or.us/ybc

Annette W. Frank, Chair  
Watershed Resident

Kimberlee Aldrich  
Watershed Resident

Terry Anthony  
Student (PSU)

Eric Berry  
Polk County

Stan Christensen  
Watershed Resident/Agriculture

Paul Chiu  
City of Newberg

Paige Copenhaver  
Student (George Fox)

Peter Deranja  
Watershed Resident

Rand Eads  
Watershed Resident

Ron Gillenardo  
City of McMinnville

Dave Hanson  
Native Plant Society of Oregon

Brandy Humphreys  
Confed. Tribes of Grand Ronde

Sonja Johnson  
City of Newberg

Jim LaTourneux  
Yamhill County SWCD

Leslie Lewis  
Yamhill County Commissioner

David Riedman  
Watershed Resident

Leonard A. Rydell  
Yamhill Co. Small Woodlands  
Assoc.

Bruce Sigloh  
Watershed Resident

Chuck Simpson  
City of Dundee

Tom Thompson  
Polk County SWCD

Mark Vroman  
Hampton Tree Farms

Steven Wegner  
Bureau of Land Management

Steve Wendell  
McMinnville Water & Light

Staff:  
Bernadette Hansen  
Council Administrator

Jeff Sanders  
Watershed Coordinator

Denise Schmit  
Water Quality Monitoring Tech.

Corissa Kunze  
Water Quality Assistant

August 9, 2010

Howard Hamilton, Public Works Director  
City of Newberg  
P.O. Box 970  
Newberg, OR 97132

Dear Mr. Hamilton,

Thank you and the City of Newberg for supporting the Greater Yamhill Watershed Council (GYWC) by providing \$1000 for operational support for the 2010-2011 fiscal year. Your support, especially during these difficult economic times, provides valuable match to grants from the Oregon Watershed Enhancement Board, the Polk SWCD, and other local agencies. The funds will be used to pay for essential operational costs such as copies, computer service, meeting and office supplies, and training for staff and Council members, enabling us to apply for additional grants to develop and implement projects and events.

The GYWC is focused on conducting activities that will improve water quality and watershed stewardship in the Yamhill River and Chehalem Creek watersheds. In 2010-2011, the Council will be undertaking a number of projects, including stream clean-ups, streamside plantings, fish habitat enhancement, water quality monitoring, and education and outreach for children and adults throughout the basin.

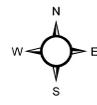
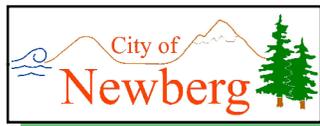
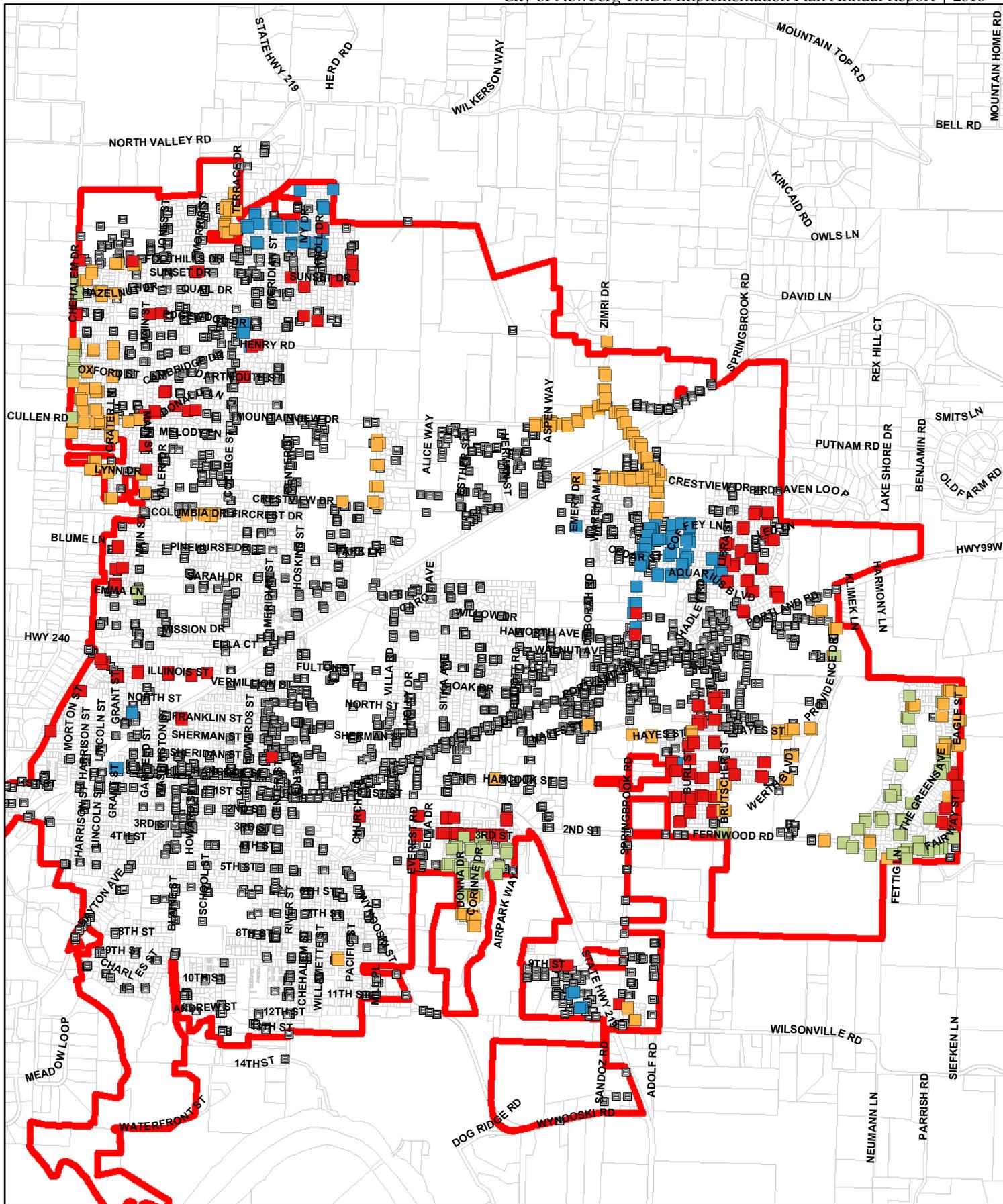
We would love the opportunity to either meet with you or the City Council to discuss ways in which we can work together on projects that enhance the City of Newberg and support the local economy. Please contact me at 503.474.1047 if you would like to meet or have the GYWC make a presentation at a City Council meeting. We thank you for your continued support.

Sincerely,

Bernadette Hansen  
Council Administrator

## **Appendix B-5**

# **Environmental Marking for Storm Drains**

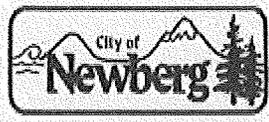


**Legend**

- 2009, heat tape (Total: 93)
- fish lid and heat tape (Total: 117)
- fish lid (Total: 222)
- heat tape (Total: 174)
- Newberg City Limits
- catchbasin (Total: 2882, some of these may be private)

# **Appendix C-1**

## **Citizen Rate Review Committee**



Published on *City of Newberg Oregon* (<http://www.newbergoregon.gov>)

[Home](#) > City of Newberg Invites you to participate

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## City of Newberg Invites you to participate

 [handshake.gif](#)

The Newberg Citizens' Rate Review Committee (CRRC) will reconvene in late September 2009. The Citizens' Rate Review Committee consists of seven City residents plus the Mayor who serves as a non-voting member. The members are volunteers who are formally appointed by the City Council and each serve a three year term. This Committee is charged with establishing a process for reviewing the water rates, wastewater rates, storm water maintenance fees and other fees as assigned by the City Council, including system development charges (SDCs). These rates, fees and SDCs are used to provide City services and to maintain and upgrade the City's infrastructure.

Each meeting is open to the public and **we would like your involvement**. Please attend to become better informed about how your money is being used, as well as learn about how and why the rates are set. This year the Committee will be reviewing the water, stormwater and wastewater rates. They will potentially be recommending rate adjustments to the City Council for approval for the 2010/2011 and 2011/2012 fiscal years. The Committee will also be discussing a water conservation plan and a stormwater credit program. For this rate review process to work properly, it requires public participation. **Don't wait until after the new rates are set; become involved now!**

[finance](#)

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**Source URL (retrieved on 02/05/2010 - 9:50am):** <http://www.newbergoregon.gov/finance/city-newberg-invites-you-participate>

## ***MAYOR'S MUSINGS***

### ***December 20, 2009***

I hope this Musings finds each of you having had a joyous holiday season and looking forward to the new year of 2010.

**2-1-1 CALL CENTER:** Need Help Finding Help? The Yamhill Commission on Children and Families has partnered with the United Way of the Mid-Willamette Valley to bring *2-1-1 call center service* to Yamhill County. This call center is **NOT** for emergency services.

2-1-1 is an easy-to-remember telephone number that people can dial when they need help but don't know where to begin looking. 2-1-1 is for everyone, but is most often used by those who need help with basic living resources. This easy to remember telephone number can connect people in need to community resources. 2-1-1 can help find: food resources, health care, public agencies, legal service, employment resources, counseling/support groups, housing/emergency shelter and much more. 2-1-1 call center's trained, certified information and referral specialists answer nearly 100,000 calls every year, directing each caller to the community resources best suited for their particular needs. Calls are answered live, and callers who don't speak English have the same access to help through bilingual staff and contract interpreter services. Some cell phone providers do not access 2-1-1. A person may also dial: 1.866.698.6153 or use the internet at: [www.yamhill211.org](http://www.yamhill211.org).

**CITIZENS RATE REVIEW COMMITTEE:** The Newberg's Citizens Rate Review Committee (CRRC) is charged with the responsibility to review the rate structure of the city sewer, potable water and storm water systems and other rates and/or fees as requested by the City Council. The CRRC consists of seven city residents plus the Mayor who serves as a non-voting member. Upon review and deliberation, the CRRC makes recommendations to the City Council regarding maintenance and operations of these systems. Currently, the CRRC is actively reviewing the water, wastewater and storm water rates/fees to assure that these systems continue to support the needs and demands of our city.

The CRRC will be hosting a **Town Hall Meeting** Wednesday, January 13, 2010, at the Public Safety Building, 401 E. Third St., at 7:00 pm. The **Town Hall Meeting** will be an open forum opportunity for the citizens of Newberg and the CRRC to discuss the rate review process which has been going on since September 2009. Please attend to become better educated about the rate setting process, revenues and revenue forecasts, the capital improvement plans and proposed rate increases. This is your opportunity to be involved in the rate setting process; it is your opportunity to be heard.

The CRRC will hold a **Public Hearing** on January 27, 2010, at the Public Safety Building, 401 E. Third St., at 7:00 pm. The **Public Hearing** is a formal meeting for the deliberation on the rate review findings and public comments and the adoption a formal rate recommendation that will be presented to the City Council on Tues. February 16, 2010.

Please see the City's website at [www.newbergoregon.gov](http://www.newbergoregon.gov) for additional information. For any other questions about the committee, please call 503.537.1273. We encourage and look forward to your participation.

**PORTLAND COMMUNITY COLLEGE TO BE IN NEWBERG:** Through a purchase by Portland Community College (PCC) and a donation by the Werth Family LLC, the college anticipates acquiring an approximately 15-acre plot behind Providence Newberg Medical Center and south of Hwy. 99, bordering on Fernwood Road and Brutscher Street. The college is now in the "due diligence" phase to assess the property, with the hope that the transaction will be finalized by Dec. 31 if not before. The property to be acquired will enable Portland Community College to better serve the community, with "room to grow" as the Newberg and Dundee areas continue to expand.

Early in 2010, PCC plans to assemble its architects, its contractors and the PCC Newberg Advisory Committee to assess design needs, permit needs and weather factors. With that information, the college will create an estimated construction timeline that also will include a ground-breaking event. The anticipated opening date of the permanent facility is fall 2011. However, after the November 2008 bond measure passed, PCC made a promise to the community that the college would begin offering classes in fall 2010. The college plans to honor that promise by operating out of the Chehalem Valley Cultural Center as an interim site for the 2010-2011 academic year, until it moves into the permanent facility.

In terms of courses to be offered, PCC is in the process of refining that right now and will have a finalized slate by mid-January 2010. The college undertook a phone survey with Newberg and Dundee residents in October 2009 to assess the kinds of courses the community would like to see PCC offer, ones that don't duplicate what is currently being offered through the Park and Recreation District (Community Education), or from George Fox University or Chemeketa Community College (and its McMinnville health care campus).

The college anticipates offering much in the way of lower-division transfer courses in 2010. Barb VanAmerongen, program manager for PCC's Newberg facility, is working with PCC division deans to determine which courses will be feasible to offer at the interim site starting next fall – those that make sense for the short- and long-terms, and that offer students in the area the same high quality education that PCC is known for throughout the Portland Metro Area.

In the meantime, the college is working with Newberg Public Schools to retrofit the high school's welding lab so that PCC can offer welding classes in the area. It also intends to expand educational opportunities in Machine Manufacturing. So, in addition to lower-division transfer courses, the college will soon be able to serve more students in career technical fields in the Newberg and Dundee communities.

PCC will host a part-time faculty hiring fair in Newberg on March 3, 2010. The college would welcome hiring those with appropriate qualifications to teach beginning the fall 2010 academic year.

For more information about PCC's Newberg center, please contact Kate Chester, Community Relations/Public Relations manager, PCC Sylvania, at 503-977-8233 or at [kate.chester@pcc.edu](mailto:kate.chester@pcc.edu).

**ECONOMIC OPPORTUNITY ANALYSIS:** The Planning Division is currently in the process of the updating the City's *Economic Opportunity Analysis* (EOA). The EOA is one component of the City of Newberg Comprehensive Plan. The purpose of the EOA is to identify Newberg's comparative advantages and to identify potential economic development strategies. The update incorporates the new economic data into the plan.

Based on the analysis, the City of Newberg has several potential economic opportunities that include:

- Growth of Newberg's dental equipment cluster,
- Increase in medical services and related activities,
- Development of alternative energy related industry,
- Expansion of an industrial area located south of Newberg,
- Creation of small aircraft and aviation related industry near Sportsman Airpark,
- Support for nursery and other specialized agriculture,
- Growth of wine/tourism industry.

The City's regional comparative advantages make numerous opportunities possible which include: small town quality of life, access to quality education and skills training, strong established and growing industry clusters, strong local support for business and employment opportunities, proximity to the Portland metro area, access to Interstate 5, and the future Newberg-Dundee bypass. For additional information contact Jessica Nunley at (503) 554-7744 or [jessica.nunley@ci.newberg.or.us](mailto:jessica.nunley@ci.newberg.or.us).

**AFFORDABLE HOUSING ACTION PLAN:** In 2009 the City Council adopted the *City of Newberg Affordable Housing Action Plan*. The plan seeks to find ways where those who work in Newberg, who completed their schooling in Newberg, or have other ties to the community, can afford to live here.

The plan includes seven categories of actions:

- Amend the Newberg Comprehensive Plan goals and policies,
- Retain the existing supply of affordable housing,
- Insure an adequate land supply for affordable housing,
- Change Development Code standards,
- Amend the development fee schedule,
- Develop and support public and private housing programs
- Strengthen economic development efforts.

The Planning Commission has been charged with reviewing potential changes to the Comprehensive Plan and the Development Code. An Affordable Housing Action Committee has been appointed to identify methods to implement the other actions and report to the Planning Commission. The Planning Commission will consider Plan and Code amendments at their January 14, 2009 meeting and make a recommendation to the City Council. A hearing date for Council adoption is to be determined.

For additional information contact David Beam at (503) 537-1213 or [david.beam@ci.newberg.or.us](mailto:david.beam@ci.newberg.or.us).

**Bob Andrews**, Mayor  
503.537.1276  
[bob.andrews@ci.newberg.or.us](mailto:bob.andrews@ci.newberg.or.us)

## Utility rate hike topic of meeting

### City government — Town hall will allow the city, public to discuss proposed increases

- By: [Amanda Newman](#)
- Published: 1/5/2010 2:00:11 PM

The city of Newberg is trying to increase utility rates ... in the most transparent way possible. The final stages of the change process will get underway with a Jan. 13 public town hall. The city last increased utility rates in spring 2008 — a situation that highlighted the need for increased communication with the public. A scant three people attended the public hearing on the matter, at which the city council expressed its dismay. The increases were met by public outcry after the fact, and when constituents came out to speak their mind at the following council meeting, the council voted to lower the amount of the increases.

Public works director Howard Hamilton affirmed that this year's process was largely due to what transpired in 2008.

"The idea is to keep the whole thing transparent," he said. And it wasn't a last-minute move — the city notified utility customers in September of upcoming meetings of the Citizens' Rate Review Committee, so the whole process would be open to public input.

At the Jan. 13 meeting, beginning at 7 p.m. in the Public Safety Building, there will be presentations on proposed changes to water, wastewater and stormwater rates, with periods of discussion in between. Mayor Bob Andrews will facilitate the event and members of the CRRC and city council will attend.

"The public has the opportunity to come and see a presentation and look at materials the rate review committee has seen and based their decision on," Hamilton said.

For single-family residential units, the CRRC is proposing a 68-cent increase for stormwater and average increases of \$2.83 for water and \$6.47 for wastewater, Hamilton explained. The increases will be reflected in the monthly bills.

Hamilton said Monday his department hadn't yet calculated increases for non-residential customers, but would prepare that information before the town hall. Public works and the CRRC have not released proposed increase rates other than the average household financial impact. Anyway, Hamilton stressed, the numbers aren't set in stone.

"They've discussed some options," he said, concerning the CRRC's increase proposals. The committee will take the public's input into consideration before making final recommendations to the city council for adoption at its Feb. 15 meeting.

<http://newberggraphic.com/news/2010/January/05/Local.News/utility.rate.hike.topic.of.meeting/news.aspx>

# Town Hall Meeting



*January 13th at 7:00pm*

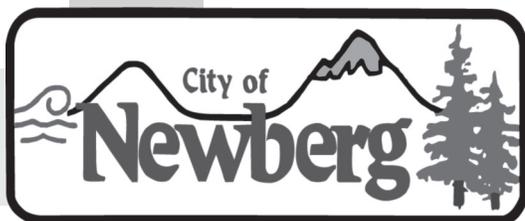
## Proposed Utility Rate Increases

The **Town Hall Meeting** is an opportunity for the citizens of Newberg and the Citizens' Rate Review Committee to discuss the rate review process. This is your chance to be involved in the rate setting process, and your chance to be heard!

- Facilitated by Newberg's Mayor
- City Council Members On Hand
- Citizens' Rate Review Committee (CRRC)
- **Speak Up and Be Heard!**

There will be a **Public Hearing** on January 27, 2010 at 7:00 p.m. for the CRRC to deliberate the issues and make a utility rate proposal for City Council to adopt at their February 16, 2010 meeting.

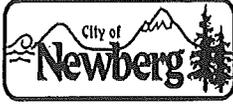
Meetings are held at 7:00 p.m. at the Newberg Public Safety Building, 401 E. Third Street.



For more information go to [www.newbergoregon.gov](http://www.newbergoregon.gov) or call Tabrina at **503.537.1273**.  
*We look forward to your participation!*

# **Appendix C-2**

## **Stormwater Credit Programs**



# ORDINANCE No. 2010-2727

## AN ORDINANCE AMENDING THE NEWBERG MUNICIPAL CODE CHAPTER 53 SECTION 53.13, ALLOWING FOR SINGLE FAMILY RESIDENTIAL STORMWATER MANAGEMENT FEE CREDITS

### RECITALS:

1. On April 19, 2010, the Newberg City Council directed staff to add the single family residential class to the City stormwater credit program.
2. The City currently has a commercial stormwater credit program established through Ordinance No. 2004-2606 and reflected in Newberg Municipal Code Chapter 53 Section 53.13.
3. The task was to develop a methodology for residential property owners to receive credits for mitigating their own stormwater system quantity and quality impacts.
4. The final recommendation is presented here as an amendment to City Municipal Code Section 53.13.

### THE CITY OF NEWBERG ORDAINS AS FOLLOWS:

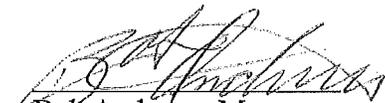
The Newberg City Code Chapter 53, Credits is amended as shown in the attached Exhibit "A", which is attached. Exhibit "A" is hereby incorporated and attached.

➤ **EFFECTIVE DATE** of this ordinance is 30 days after the adoption date, which is: July 7, 2010.

**ADOPTED** by the City Council of the City of Newberg, Oregon, this 7<sup>th</sup> day of June 2010, by the following votes: **AYE: 5 NAY: 0 ABSENT: 1 [SHELTON] ABSTAIN: 0 VACANT: 1**

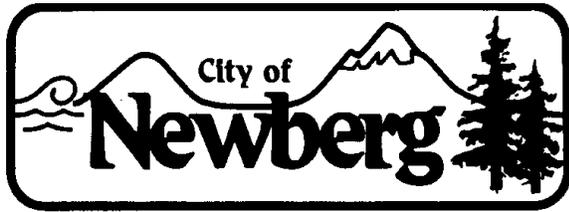
  
Daniel Danicic, City Recorder

**ATTEST** by the Mayor this 10<sup>th</sup> day of June 2010.

  
Bob Andrews, Mayor

### LEGISLATIVE HISTORY

By and through \_\_\_\_\_ Committee at \_\_\_/\_\_\_/\_\_\_ meeting. Or,  X  None.  
(committee name) (date) (check if applicable)



**PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION**

# **Stormwater Management Fee Credit Manual For Single Family Homes**

**A Process for Owners of Developed Single Family Residential Properties to Receive Credits  
for Mitigating Stormwater System Impacts**

**= EFFECTIVE JULY 1, 2010 AND AS REVISED NOVEMBER 24, 2010 =**

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## **CHAPTER 1 – INTRODUCTION**

On May 5, 2003, the City Council of the City of Newberg passed **Ordinance 2003-2571**, amending the Newberg Municipal Code to add a new chapter (Chapter 53) regulating the City stormwater system.

On August 2, 2004, the City Council adopted **Ordinance 2004-2606**, amending City Municipal Code Section 53.13 allowing for stormwater management fee credits upon applications by owners of developed non-single family residential properties. On June 7, 2010, the City Council amended Municipal Code Section 53.13 by adopting **Ordinance 2010-2727** that allows owners of single family residential properties to apply for stormwater management fee credits. The City is responsible for planning, administration, design, construction, maintenance, and operation of stormwater system citywide. The City promotes stormwater education, provides design standards and manages Stormwater Capital Improvement Program.

This manual is created to provide a process for owners of developed single-family residential properties to receive credits for mitigating their stormwater system impacts. The monthly fees are established on the basis of the amount of impervious surface areas<sup>11</sup> such as roof tops and driveways on properties within the City. Any credits on the stormwater fees shall be administered in accordance with the guidelines adopted by the City Council. Rates for the monthly stormwater fees are subject to change, as approved by the City Council, based on review and recommendation by the Citizens' Rate Review Committee every two years. Please read the entire manual and use the standard application form on page 6 of this manual.

Footnote:

<sup>11</sup> One Equivalent Dwelling Unit (EDU) is defined as 2,877 square feet of impervious area, the typical amount for an average duplex unit or single-family dwelling. For multi-family and non-residential properties, the impervious areas are translated into whole numbers of EDU's.

## **CHAPTER 2 – APPLICATION & APPEAL PROCESS**

### **APPLICATION PROCESS**

A property owner who has provided an acceptable improvement on-site that exceeds the City of Newberg design standards and permitted conditions for single family residential development may apply for a credit on the stormwater service charge applied to the same property. The resulting credit shall be commensurate with the mitigating effects of the improvement on stormwater runoff. The City shall consider an adjustment or reduction of the monthly fee upon application by the property owner or his/her legal representative to the City (See [Appendix A](#)).

The applicant must use the standard form and follow the instructions in **Chapter 3** of this manual. Once a completed application is received by the City, it will be reviewed in two to four weeks. If approved, the applicant will be notified by mail and a rate adjustment will be made retroactive to the date that the application was received. The applicant will also be informed by mail if the application is incomplete, or requires correction or clarification by the applicant.

The rate adjustment shall remain in effect provided that:

- (a) The conditions for fee adjustment as noted in the application are properly maintained;
- (b) The property owner maintains financial responsibility for the maintenance of on-site improvements;
- (c) The City shall have full access to the on-site improvements for the purpose of inspecting its compliance with the design, maintenance and operating standards; and
- (d) The renewal of the adjustment is granted upon re-application for the upcoming year on or before December 31 of each year.

### **APPEAL PROCESS**

The applicant who disagrees with the City staff decision on the stormwater rate adjustment may appeal said decision within thirty (30) days of receipt of notification of the decision. The appeal shall be in writing, addressed to the Public Works Director or designee, and provide a brief explanation of the disagreement. The appeal should list the date of the original decision and location of the facility and property. The appeal should also list any actions leading up to the City’s decision (such as any discussion between the City and the applicant prior to the appeal) and the specific grounds on which the appeal is being filed. The appeal will not waive the monthly stormwater fee or extend its payment deadline. The Public Works Director or designee shall review the appeal and provide a response in writing within sixty (60) days of the receipt of the appeal.

If still unresolved, the applicant may further appeal the decision of the Public Works Director or designee within fourteen (14) days of the date of receipt of the decision. The appeal shall be in writing, addressed to the City Manager, and provide a brief explanation of the disagreement. The City Manager shall review the appeal and respond with a decision in writing within fourteen (14) days of the receipt of that appeal. The City Manager’s decision shall be final and appealable only by way of writ of review in Circuit Court (See [Appendix A](#)).

## **CHAPTER 3 – APPLICATION**

The owner of a developed single-family residential property, who has provided an acceptable on-site improvement that exceeds the City of Newberg design standards and permitted conditions for single family residential development, may apply for the stormwater management fee credit toward the same property. The applicant shall complete an application form and send it with all the necessary supporting documents to the following mailing address:

City of Newberg  
Public Works Department – Engineering Division  
Attention: SWM Credit  
414 E. First Street  
P.O. Box 970  
Newberg, OR 97132

The applicant shall review the conditions for the fee adjustment (see back of application form) and satisfy any of the five conditions or any combination of the five conditions. The applicant is encouraged to read and understand the **City of Newberg Municipal Code Chapter 53**, which regulates the City stormwater system.

Payment of an application fee is not required at this time. Filing this application is an acknowledgement of the right-of-entry of the City of Newberg to inspect and verify the information contained in said application.

### **Supporting documents are required to evaluate each credit application.**

For conditions #(1) and (2), submit the following:

- (a) Measured dimension or area of pervious portion of patio/walkway and/or driveway.
- (b) Square footage of building footprint.
- (c) A completed application form with applicant’s signature that certifies the accuracy of the credit application material.

For condition #(3), submit the following:

- (a) Identify number of trees, not including trees planted in the public right-of-way (minimum two for existing or at least one for new planting).
- (b) Caliper (or diameter) of existing tree(s), if applicable, measured 6 inches above the ground for up to a 4 inch caliper size, and measured 12 inches above the ground for larger sizes, and a photograph in lieu of measuring the height of existing tree(s).
- (c) Caliper and height of new tree(s), if applicable.
- (d) A completed application form with applicant’s signature that certifies the accuracy of the credit application material.
- (e) Note that measuring the circumference of a tree is acceptable in lieu of its caliper.

For conditions #(4) and (5), submit the following:

- (a) A photograph of the vegetated swale or infiltration planter, if applicable.
- (b) Two photographs of the rain garden, if applicable, with one showing the overflow.
- (c) A completed application form with applicant's signature that certifies the accuracy of the credit application material.
- (d) Note that movable planters will not be considered.
- (e) Note that any alteration of drainage must follow the [Oregon Drainage Law](#).

For any questions regarding the Stormwater Management Credit Application, please contact:

Paul Chiu, P.E., Senior Engineer  
City of Newberg – Public Works Department/Engineering Division  
Phone: 503.554.1751  
Fax: 503.537.1277  
Email: [paul.chiu@newbergoregon.gov](mailto:paul.chiu@newbergoregon.gov)

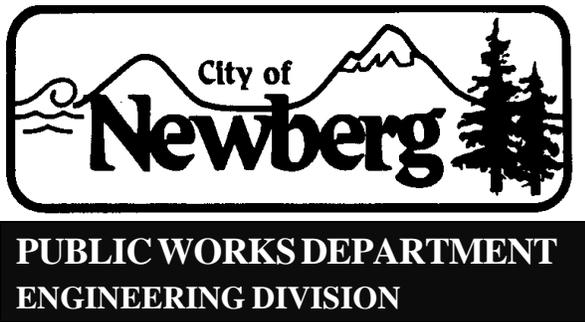


SECTION G – CONDITIONS FOR FEE ADJUSTMENT	MAXIMUM REDUCTION IN FEE UPON APPROVAL	LICENSED ENGINEER CERTIFICATION
<b>PERVIOUS IMPROVEMENTS PROVIDED ON-SITE (NOT IN PUBLIC RIGHT-OF-WAY) FOR:</b>		
(1) PATIO/WALKWAY (PERVIOUS PORTION MUST BE AT MINIMUM 10% OF DWELLING FOOTPRINT AREA OR 200 SQ FT, WHICHEVER IS LARGER)	10%	Not Required
(2) DRIVEWAY (MUST BE ALL PERVIOUS)	25%	Desirable
<b>QUALIFIED TREES PROVIDED ON-SITE (NOT IN PUBLIC RIGHT-OF-WAY) FOR:</b>		
(3) SHADING (SHADE TREES, NEW OR EXISTING, MUST BE AT MINIMUM 1” CALIPER OR 6” CIRCUMFERENCE AND AT LEAST 8’ TALL. SHRUBS AND BUSHES ARE NOT ELIGIBLE.)	10%	Not Required
<b>STORMWATER MANAGEMENT PROVIDED ON-SITE (NOT IN PUBLIC RIGHT-OF-WAY) BY:</b>		
(4) VEGETATED SWALE OR INFILTRATION PLANTER	10%	Not Required
(5) RAIN GARDEN (RAIN GARDEN MUST BE “ON THE GROUND” TYPE WITH AN OVERFLOW FEATURE. RAIN BARRELS ARE NOT ACCEPTABLE. SEE <a href="#">RAIN GARDEN GUIDE</a> . BE AWARE OF <a href="#">OREGON DRAINAGE LAW</a> WHEN WORKING ON BACKYARD GARDENS OR SITES WITHOUT STREET CURBS)	25%	Not Required
OR ANY COMBINATION OF THE ABOVE FIVE (5) CONDITIONS SUCH THAT THE MAXIMUM DOES NOT EXCEED 35%		

**APPENDIX A –  
CITY MUNICIPAL CODE CHAPTER 53 (AS AMENDED)**

Log onto City of Newberg website at:

<http://www.newbergoregon.gov/citymanager/city-newberg-municipal-code>



# **Stormwater Management Fee Credit Manual For Developed Properties Except Single Family Homes**

**A Process for Owners of Developed Properties (except Single Family Residential Properties) to Receive Credits for Mitigating Stormwater System Impacts**

**= EFFECTIVE JUNE 20, 2005 AND AS REVISED NOVEMBER 24, 2010 =**

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## **CHAPTER 1 – INTRODUCTION**

On May 5, 2003, the City Council of the City of Newberg passed **Ordinance 2003-2571**, amending the Newberg Municipal Code to add a new chapter (Chapter 53) regulating the City stormwater system.

On August 2, 2004, the City Council adopted **Ordinance 2004-2606**, amending City Municipal Code Section 53.13 allowing for stormwater management fee credits upon applications by owners of developed properties except single family homes. The City Council also passed **Resolution 2004-2525**, adopting the stormwater system design standards, a stormwater education program, and the stormwater capital improvement program, and continuing the monthly fee. The amount of credit was further amended by the adoption of **Ordinance 2004-2609** on October 18, 2004. The City is responsible for planning, administration, design, construction, maintenance, and operation of stormwater system citywide. The City promotes stormwater education, provides design standards and manages Stormwater Capital Improvement Program.

This manual is created to provide a process for owners of developed properties except single-family residential properties<sup>11</sup> to receive credits for mitigating their stormwater system impacts. The monthly fees are established on the basis of the amount of impervious surface areas<sup>12</sup> such as roof tops, parking lots, and driveways on properties within the City. Any credits on the stormwater fees shall be administered in accordance with the guidelines adopted by the City Council. Rates for the monthly stormwater fees are subject to change, as approved by the City Council, based on review and recommendation by the Citizens' Rate Review Committee every two years. Please read the entire manual and use the standard application form on page 7 of this manual.

### Footnotes:

<sup>11</sup> Use a separate and different storm credit application for single-family residential properties.

<sup>12</sup> One Equivalent Dwelling Unit (EDU) is defined as 2,877 square feet of impervious area, the typical amount for an average duplex unit or single-family dwelling. For multi-family and non-residential properties, the impervious areas are translated into whole numbers of EDU's.

## **CHAPTER 2 – APPLICATION & APPEAL PROCESS**

### **APPLICATION PROCESS**

A property owner who has provided an acceptable stormwater management (SWM) improvement on-site that exceeds the City of Newberg design standards for development other than single family homes, or maintained quality care on drainage may apply for a credit on the stormwater service charge applied to the same property. The resulting credit shall be commensurate with the mitigating effects of the improvement on stormwater runoff. The City shall consider an adjustment or reduction of the monthly fee upon application by the property owner or his/her legal representative to the City (See Appendix A).

The applicant must use the standard form and follow the instructions in **Chapter 3** of this manual. Once a completed application is received by the City, it will be reviewed in two to four weeks. If approved, the applicant will be notified by mail and a rate adjustment will be made retroactive to the date that the application was received. The applicant will also be informed by mail if the application is incomplete, or requires correction or clarification by the applicant.

The rate adjustment shall remain in effect provided that:

- (a) The responsible person has secured a City permit and the on-site stormwater facility has been constructed in accordance with all approved plans and design criteria;
- (b) The conditions for fee adjustment as noted in the application are properly maintained;
- (c) The property owner maintains financial responsibility for the operation and maintenance of on-site improvements;
- (d) The City shall have full access to the on-site improvements for the purpose of inspecting its compliance with the design, maintenance and operating standards; and
- (e) The renewal of the adjustment is granted upon re-application for the upcoming year on or before December 31 of each year.

### **APPEAL PROCESS**

The applicant who disagrees with the City staff decision on the stormwater rate adjustment may appeal said decision within thirty (30) days of receipt of notification of the decision. The appeal shall be in writing, addressed to the Public Works Director or designee, and provide a brief explanation of the disagreement. The appeal should list the date of the original decision and location of the facility and property. The appeal should also list any actions leading up to the City's decision (such as any discussion between the City and the applicant prior to the appeal) and the specific grounds on which the appeal is being filed. The appeal will not waive the monthly stormwater fee or extend its payment deadline. The Public Works Director or designee shall review the appeal and provide a response in writing within sixty (60) days of the receipt of the appeal.

If still unresolved, the applicant may further appeal the decision of the Public Works Director or designee within fourteen (14) days of the date of receipt of the decision. The appeal shall be in writing, addressed to the City Manager, and provide the same level of detail as the original appeal. The City Manager shall review the appeal and respond with a decision in writing within fourteen

(14) days of the receipt of that appeal. The City Manager’s decision shall be final and appealable only by way of writ of review in Circuit Court (See Appendix A).

## **CHAPTER 3 – APPLICATION**

The owner of a developed property, except single-family residential property, who has provided an acceptable on-site improvement that exceeds the City of Newberg design standards and permitted conditions for that type of development, may apply for the stormwater management fee credit toward the same property. The applicant shall complete an application form and send it with all the necessary supporting documents to the following mailing address:

City of Newberg  
Public Works Department – Engineering Division  
Attention: SWM Credit  
414 E. First Street  
P.O. Box 970  
Newberg, OR 97132

The applicant shall review the conditions for the fee adjustment (see back of application form) and satisfy any single of the seven conditions or any combination of the seven conditions. The applicant is encouraged to read and understand the **City of Newberg Municipal Code Chapter 53**, which regulates the City stormwater system.

Payment of an application fee is not required at this time. Filing this application is an acknowledgement of the right-of-entry of the City of Newberg to inspect and verify the information contained in said application.

### **Supporting documents are required to evaluate each credit application.**

For conditions #(1) through #(4), submit the following:

- (a) A storm drainage plan at pre-development and post-development levels.
- (b) Engineering calculations indicating that the constructed on-site stormwater facility shall mitigate the relevant storm events.  
For example, the site has a storm detention facility designed to meet the 10-year storm such that the post-development runoff from the site shall not exceed the pre-development runoff for the same 10-year storm event.
- (c) A completed application form with applicant’s signature and engineer’s certification of the accuracy of the credit application material.

For condition #(5), submit the following:

- (a) A storm drainage plan at post-development level.
- (b) Describe what kind of best management practices that have been implemented for the paved surfaces on site to protect water quality of the storm runoff.  
For example, the site has water quality manhole(s) or oil/grit separator(s) to collect storm runoff from all paved surfaces. In this case, show the location of water quality manhole(s) on the storm drainage plan.

- (c) A verifiable maintenance schedule to clean and maintain the water quality facility. Provide cleaning or maintenance invoices/receipts or maintenance records for verification.
- (d) A completed application form with applicant's signature certifying the accuracy of the credit application material.

For condition #(6), submit the following:

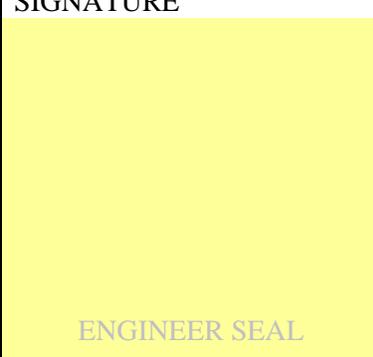
- (a) A storm drainage plan at post-development level (show water quality facility).
- (b) Engineering calculations indicating that the constructed on-site stormwater quality facility shall improve the water quality of the storm runoff.  
For example, the site has one or more vegetated swales to slow the flow, and allow pollutant removal prior to discharge into the creek.
- (c) A verifiable maintenance schedule to clean and maintain the water quality facility. Provide cleaning or maintenance invoices/receipts or maintenance records for verification.
- (d) A completed application form with applicant's signature and engineer's certification of the accuracy of the credit application material.

For condition #(7), submit the following:

- (a) An implementation plan (to increase employee and/or public awareness of the impact of stormwater discharge on water bodies and the small steps they can do to minimize erosion, control sediments, reduce storm runoff and the pollutants in storm runoff).  
For example, the owner can sponsor an awareness program and distribute brochures or fact sheets targeted at employees, residents, and/or students; and/or conduct community-based projects such as storm drain stenciling on private facilities and watershed cleanups; and/or provide information on the impact of illegal discharges into storm drains.
- (b) A completed application form with applicant's signature certifying the accuracy of the credit application material.

For any questions regarding the Stormwater Management Credit Application, please contact:

Paul Chiu, P.E., Senior Engineer  
City of Newberg – Public Works Department/Engineering Division  
Phone: 503.554.1751  
Fax: 503.537.1277  
Email: [paul.chiu@newbergoregon.gov](mailto:paul.chiu@newbergoregon.gov)

CITY OF NEWBERG – PUBLIC WORKS DEPARTMENT STORMWATER MANAGEMENT FEE CREDIT APPLICATION FORM			
SECTION A – APPLICANT			
NAME (OWNER OR LEGAL REP): _____			
MAILING ADDRESS:			
CITY: _____	STATE: _____	ZIP: _____	
PHONE: (____) _____	FAX: (____) _____		
EMAIL: _____			
SECTION B – SITE INFORMATION			
NAME (BUSINESS/INSTITUTION/MULTI-FAMILY): _____			
SITE ADDRESS OR TAX LOT: _____			
IMPERVIOUS AREA: _____	SQUARE	EDU'S:	
SECTION C – ENGINEER OF RECORD (If REQUIRED, SEE SECTION H)			
NAME: _____		REGISTRATION NO: _____	
COMPANY: _____			
MAILING ADDRESS:			
CITY: _____	STATE: _____	ZIP: _____	
PHONE: (____) _____	FAX: (____) _____		
EMAIL: _____			
SECTION D – ADJUSTMENTS	SECTION F – ENGINEER		
CIRCLE APPLICABLE CONDITION(S): 1    2    3    4    5    6    7	SIGNATURE _____		
SECTION E – OWNER			
NAME (OWNER OR LEGAL REP) _____			
SIGNATURE _____			
DATE _____			
SECTION G – CITY REVIEW (office use only)			
RECEIVED: _____	REVIEWED (1 <sup>ST</sup> ): _____	APPROVED: _____	DENIED: _____
RESUBMITTED: _____	REVIEWED (2 <sup>ND</sup> ): _____	APPROVED: _____	DENIED: _____
APPEALED: _____	REVIEWED (3 <sup>RD</sup> ): _____	APPROVED: _____	DENIED: _____
APPEALED: _____	REVIEWED (4 <sup>TH</sup> ): _____	APPROVED: _____	DENIED: _____

SECTION H – CONDITIONS FOR FEE ADJUSTMENT	MAXIMUM REDUCTION IN FEE UPON APPROVAL	LICENSED ENGINEER CERTIFICATION REQUIRED
<b>ON-SITE STORMWATER MANAGEMENT PROVIDED FOR:</b>		
(1) 2-YEAR 24-HOUR FLOOD	10%	YES
(2) 10-YEAR 24-HOUR FLOOD	10%	YES
(3) 25-YEAR 24-HOUR FLOOD	10%	YES
(4) 100-YEAR 24-HOUR FLOOD	10%	YES
<b>BEST MANAGEMENT PRACTICES PROVIDED FOR:</b>		
(5) PAVED SURFACES FOR WATER QUALITY PROTECTION	10%	NO
(6) STORMWATER RUNOFF FOR WATER QUALITY IMPROVEMENT	20%	YES
<b>ONGOING EDUCATIONAL PROGRAM PROVIDED FOR:</b>		
(7) WATER QUALITY & QUANTITY PROTECTION	10%	NO
OR ANY COMBINATION OF THE ABOVE SEVEN (7) CONDITIONS SUCH THAT THE MAXIMUM DOES NOT EXCEED 50%		

**APPENDIX A –  
CITY MUNICIPAL CODE CHAPTER 53 (AS AMENDED)**

Log onto City of Newberg website at:

<http://www.newbergoregon.gov/citymanager/city-newberg-municipal-code>

## **Appendix C-3**

# **Public Participation in Ordinance and Program Development**

## Stormwater Management Webpage



### Latest News

The City is working with the Bureau of Land Management to restore streams. Through the Trees for Streams pilot program, qualified property owners can receive free trees next spring for planting along our streams. To qualify for the program, you must reside within the City Limits or Urban Growth Boundary, have property adjacent to a stream, and reside in a single family home or duplex. [Download the application](#) and send it to Sonja Johnson, Public Works - Engineering, PO Box 970, Newberg OR 97132. If you have any questions about the application or whether you qualify for the program, please contact Sonja at [sonja.johnson@newbergoregon.gov](mailto:sonja.johnson@newbergoregon.gov) or 503-537-1282.

### Stormwater Management Fee Credit Program

The City will adjust your stormwater fee if you help us decrease the amount of runoff and soil entering our streams. Business owners can receive an additional adjustment if they provide an educational program on stormwater to their employees. Read the [Stormwater Management Fee Manual](#) to find out if you qualify for the adjustment. If you have any questions about the application or whether you qualify for the program, please contact Paul at 503-554-1751 or [paul.chiu@newbergoregon.gov](mailto:paul.chiu@newbergoregon.gov)

### Stormwater Management and Erosion Control

The City is required to implement rules on illegal discharges into stormwater systems, management of stormwater facilities, and erosion control on construction sites as part of our [TMDL Implementation Plan](#). Please read the proposed [Stormwater Management and Erosion Control Ordinance](#) and provide your comments to [sonja.johnson@newbergoregon.gov](mailto:sonja.johnson@newbergoregon.gov).

### What is Stormwater?

Stormwater is more than just rain. As rain falls on an impervious surface such as an asphalt driveway or parking lot, it picks up any oil, antifreeze, grease, and brake lining dust that has been deposited by cars and trucks.

Rain that flows from your yard to the streets can have fertilizers, pesticides, pet waste, leaves, and soil as it enters our stormwater system. Fertilizers promote algae growth which can be toxic to animals and people. Pesticides and pet waste can cause deformities and disease in fish. Soil causes cloudy water that hides or kills food sources for fish. Leaves clog storm drains and can cause flooding in your street.

### Where Does Stormwater Go?

In Newberg, all stormwater enters our streams without any treatment. Oil, pesticides, fertilizers, litter, and other wastes that are dumped into the storm drain or picked up by stormwater are discharged straight to our streams and the Willamette River.

### **What Can You Do?**

- (1) Call 503-537-7709 or 503-537-1273 if you see anyone dumping **anything** in our storm drains.
- (2) Read the [Stormwater Solution](#) for seasonal information on decreasing runoff and keeping our streams clear, clean, and healthy.
- (3) Download **Stormwater - What Can I Do?** for additional information on stormwater.

## HEARING NOTICE

The **Newberg Planning Commission** will hold a public hearing on October 14, 2010 at 7 p.m. at the Newberg Public Safety Building, 401 E. Third Street, Newberg, OR, to evaluate the following proposals:

- 1) **Comprehensive Plan Map Amendment & Zoning Amendment.** Request: Change the Comprehensive Plan designation from LDR (Low Density Residential) to HDR (High Density Residential) and change the zoning designation from R-1 (Low Density Residential) to R-3 (High Density Residential) for a property located at 1103 N Meridian St. – Tax Lot 3218DA-2100. Location: 1103 N Meridian Street. File # CPA-10-001/ZMA-10-001.
  
- 2) **Stormwater Management and Erosion Control Ordinance.** Request: Approve an Ordinance managing stormwater and establishing erosion control requirements. The Ordinance will fulfill requirements in the Willamette TMDL Implementation Plan (approved by DEQ) for controlling sediment in stormwater discharges to the Willamette River from construction sites and developed properties.

You may examine information regarding these proposals at the Newberg Planning and Building Department, 414 E. First Street, Newberg, OR 97132, or on the city website at [www.newbergoregon.gov](http://www.newbergoregon.gov). The staff recommendation regarding this proposal will be available one week before the public hearing. If you have any questions, please call the Newberg Planning Division at 503-537-1240. All interested persons may appear and provide testimony. Any written testimony must be submitted by October 7, 2010. Written testimony received after this date or at the hearing will be considered late, and will be accepted only by motion of the Planning Commission. Only those persons who participate either orally or in writing in the hearing proceedings leading to the adoption of the action may appeal the decision.

# Appendix D

## Household Hazardous Waste Collection

**2010 Household Hazardous Waste Collection Events**

<b>Waste</b>	<b>Pounds Collected</b>			<b>Tons</b>
	<b>May</b>	<b>October</b>	<b>Total</b>	<b>Total</b>
Aerosols	1,000	1,200	2,200	1.1
Alkaline Batteries	650	900	1,550	0.775
Antifreeze	420	550	970	0.485
Caustic Liquids	415	900	1,315	0.6575
Compressed Gas	40	150	190	0.095
Corrosive Liquids	-	850	850	0.425
Flammable Liquids	8,755	7,950	16,705	8.3525
Flammable Solids	-	5	5	0.0025
Light Bulbs and Ballasts	345	514	859	0.4295
Mercury	80	8	88	0.044
Motor Oil	420		420	0.21
Paint-related Waste	1,800	11,700	13,500	6.75
Pesticides	825	-	825	0.4125
Toxic Solids	3,000	2,400	5,400	2.7
<b>Total Hazardous Waste excluding Paint</b>	<b>17,750</b>	<b>27,127</b>	<b>44,877</b>	<b>22.4385</b>
Paint, Oil-Based and Latex	80,150	17,500	97,650	48.825
Fluorescent Light Tubes, feet	2,926	3432	6,358	

# **Appendix E**

## **Operations and Maintenance Stormwater Activities**

**2010 PUBLIC WORKS OPERATIONS AND MAINTENANCE**

<b>TASK</b>	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>APR</b>	<b>MAY</b>	<b>JUNE</b>	<b>JULY</b>	<b>AUG</b>	<b>SEPT</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>TOTALS</b>
CATCH BASIN INSPECTED								1376	508		35		1919
CATCH BASIN R\R #			1	1		1							3
CATCH BASIN NEW #		1	1	1									3
CATCH BASIN MARKING/RIVER FISH							76	15					91
CATCH BASIN CLEANED #	58	22	10	11	14					55	200	4	374
DETENTION PONDS INSPECTED/CLEANED								1		3	6		10
STORM LINE CLEANED FT	1511	600	227	1039	100	303				801		1750	6331
STORM LINE TV INSECT. FT	450	400		50			124		570	250			1844
DITCH MAINT. FT	1083	920		475				40			150		2668
STORM LINE REPLACED FT													0
NEW STORM LINE FT#				36				28					64
MAN HOLES NEW #													0
MAN HOLES R/R #	1							8	6				15
GRATES & INLETS #	38	83	47					12			20		200
ILLICIT DISCHARGES													0
FLOODING RESPONSES												35	35
FLOODING CALLS												19	19
DITCH CLEANING/INSPECTING.								3	1	5	3	6	18
SWEEPING HOURS	63	52	85	97	62	7	15	66	91	94	135	160	927
SWEEPING MILES	303	333	360	406	259	28	45	285	353	367	453	639	3831
SWEEPING DEBRIS (cubic yards)	55	49	53	57	30	3	13	86	67	85.5	160	155.5	814
C.Y DEBRIS PER CURB MILE SWEPT	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.4	0.2	2.4
TREES BRUSH TRIMMING (yards)	61		10			32	27					22	152

# City of Newberg Sweeper Routes

Click on any of the numbers 1-19 to find out when sweeper will be in that route.

