

# STAFF REPORT

**DATE:** October 20, 2014

**Division:** Resources Policy and Planning

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## **TOPIC: Clark County Code 13.30A.040 Clean Water Commission – Responsibilities**

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### **EXECUTIVE SUMMARY**

Chapter 13.30A.040 directs the Clark County Clean Water Commission (commission) to do an annual review and report of the Clark County Clean Water Program to the Board of Clark County Commissioners (Board).

### **BACKGROUND**

Since 2000, the commission *shall make recommendations to the board of county commissioners* each year:

- 1) Focus of the “Storm Water Management Program” (SWMP):
  - Program service levels
  - Financing
  - Policies on surface and stormwater issues
- 2) Recommendation for creating an incentive program through which service charges may be adjusted in circumstances where property owners significantly reduce the impacts of stormwater runoff.
- 3) Report annually to the Board on the *effectiveness* of the SWMP.
  - In order to make an annual report to the Board, the commission *shall establish the criteria for evaluating the effectiveness of the program* and set forth the criteria in the annual report.
  - The annual report shall include:
    - a plan for the upcoming year
    - evaluating the effectiveness of the program in the preceding year
    - a summary of revenues and expenditures

### **ISSUES**

The commission is currently determining what activities it should consider in 2015. While considering those activities, the commission will need to ensure it is complying within the requirements stated in CCC 13.30A.040. As identified in the attachments, in 2014, Clark County Department of Environmental Services has provided the commission several documents (not an all-inclusive) to address Clark County Code 13.30.040.

### **SUMMARY / RECOMMENDATION**

The commission will want to discuss their 2015 work activities at their November meeting.

- ATTACHMENTS:**
- A. Chapter 13.30A.040 Clean Water Commission
  - B. Stormwater Management Update
  - C. NPDES Municipal Stormwater Code and Design Manual Update Project Newsletters (January-August 2014)
  - D. Ordinance No. 2014-07-08, 13.30A.050 Rate Structure and Fees
  - E. August 6 and September 18, 2014 Clean Water Program Summaries
  - F. Proposed 2015-2016 Clean Water Program Biennial Budget

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**ACTION REQUESTED:** During the November 5, 2014 commission meeting, commissioners should discuss their responsibilities pursuant to Chapter 13.30A.040.

### **13.30A.040 Clean Water Commission.**

There is hereby created a Clean Water Commission composed of nine (9) citizens appointed by the Board of County Commissioners. The Clean Water Commission shall represent a balanced interest in storm and surface water treatment and regulation. The commission shall make recommendations to the board of county commissioners on such matters as the focus of the SWMP, program service levels, financing, and policies on surface and stormwater issues. The commission shall report to the board its recommendation for creating an incentive program through which service charges may be adjusted in circumstances where property owners significantly reduce the impacts of stormwater runoff. In addition, the commission shall report annually to the Board of County Commissioners on the effectiveness of the stormwater management program. In order to make an annual report to the Board of County Commissioners, the commission shall establish the criteria for evaluating the effectiveness of the program and set forth the criteria in the annual report. The annual report shall include a plan for the upcoming year in addition to evaluating the effectiveness of the program in the preceding year. Also, the report shall include a summary of revenues and expenditures by watershed, zip code or other easily identifiable geographic means. The terms of the appointees shall be staggered and be for three (3) years. Members may be reappointed to serve additional terms. (Sec. 3 of Ord. 1999-11-09)



# Clark County Clean Water Program Department of Environmental Services Stormwater Manual Update

March 26, 2014

## SUMMARY OF CHANGES - 2014

### Background

Clark County's *Stormwater Manual (CCSWM)* describes how to plan, design and implement stormwater management practices for new development and redevelopment projects. The manual is required meet conditions of Washington's National Pollutant Discharge Elimination System (NPDES) Phase 1 municipal stormwater permit effective from August 2013 through July 2018. The manual update is required to be completed and adopted by June 2015.

### Summary of proposed changes to the Clark County Stormwater Manual:

- **Stand-alone document** – The previous Clark County Stormwater Manual (2009) was a companion document that required users to also utilize several other documents to meet all requirements of stormwater management for development and redevelopment projects. The goal with this update is to create one stand-alone manual that is equivalent to the Department of Ecology's Stormwater Management Manual for Western Washington (2012) (SWMMWW). The new stormwater manual will provide users a one-stop shop for all necessary regulatory information, along with design and maintenance standards and information tailored to Clark County conditions.
- **Formatting** – The 2015 stormwater manual is designed to include four (4) books that outline all the necessary information:
  - **Book 1** – Applicability, Submittals and BMP selection
  - **Book 2** – BMP Design
  - **Book 3** – Pollution Source Control
  - **Book 4** – Operations and Maintenance
- **Content intent** – The new stormwater manual will contain the necessary technical information for the users. Much of the educational and general guidance information in the Ecology manual has been eliminated but is referenced for informational purposes where applicable. The goal is to provide all of the necessary information to have an equivalent manual to the Ecology manual without excessive verbiage.
- **Updated definition from "impervious surface" to "hard surface"** – The new thresholds have clarified the development projects that will trigger the minimum requirements based on amount of "hard surfaces," such as permeable pavement.
- **Implementation of on-site stormwater treatment utilizing Low Impact Development** – One of the most significant changes in the new stormwater manual is the requirement to utilize Low Impact Development (LID) practices where feasible. While Clark County has allowed the use of LID in the past several years, such as bioretention and permeable pavement, LID will now be required where feasible. Book 1 Chapter 3 walks the user through the use of LID practices and provides new LID BMPs.
- **Updated submittal requirements** – Book 1 Chapter 1 lays out all of the submittal requirements for the project applicants. This section has been updated to eliminate unnecessary materials and to clarify which submittals are required throughout the various project phases.
- **Updated infiltration testing requirements** – A group of local geotechnical experts have reviewed Book 1 Chapter 4 on the "Infiltration Analysis and Design" section including the testing and submittal requirements for soils reports. This chapter provides technical guidance for Clark County conditions.

## Outreach and Education

**Input from stakeholders** – Input on the update was received from numerous groups and individuals to date:

- **Clark County Stormwater Technical Advisory Committee** – a group of local engineers and technical experts working with county staff on the technical aspects of the manual.
- **Clark County Stormwater Stakeholder Advisory Committee** – a broad group of citizens representing a spectrum of interests including school districts, builders, neighborhood leaders, environmental non-profits, developers, business leaders and citizens.
- **Clark County staff** – various departments have provided review and feedback on all aspects of the manual. Departments include Public Work Design Engineers, Public Works Development Review engineers, Public Works construction and inspection leads, Public Works maintenance and operation, Community Development permit staff, Community Development building leads, Community Planning code experts and Environmental Services specialists (habitat, permitting, clean water leads, and staff support).

**Outreach to stakeholders** – Information was provided to the general public in a variety of formats throughout the update process (Fall 2013-Spring 2014):

- **Web page updates** – numerous updates were posted throughout the process to inform citizens of meetings and information.
- **Monthly e-newsletters** – short fact sheets were created to provide updates throughout the project including identifying key milestones, major topics of interest, upcoming trainings and general information.
- **Email updates** – an email list was generated from various groups, including stakeholder committees, partner agencies, and local businesses that may be impacted by this work (i.e. local engineering firms, design consultants, landscape and maintenance businesses, etc.).

## Upcoming Schedule

The input from stakeholders and citizens is key to ensuring that the final products meet the requirements of the state while creating usable tools to meet our community's needs. Additional input and feedback will be as follows:

- **April 2014 –Public Comment Period** - 4 weeks- The “Review Draft” of the municipal code and stormwater manual updates will be available for public review and comment.
- **May 2014 – Board of County Commissioners Work Session** – The BOCC will review the updates via a presentation from staff at public work session.
- **June 2014 – Draft submittal to Department of Ecology** – The DOE will conduct a 90-day review of the proposed updates.
- **Additional outreach and feedback – Fall 2014 – Winter 2015** – Clark County staff will conduct numerous outreach activities to ensure that the proposed language is applicable to our community. The county will also identify opportunities for public education on the proposed changes to the various audiences that may be affected by the changes including home builders, developers, realtors, operation and maintenance businesses, etc.
- **Spring 2015** – The final edits will be made to the Final Manual as the documents prepare to be approved and adopted for use by the BOCC.
- **July 1, 2015** – all new codes and manuals go into effect.

Clark County

# NPDES Municipal Stormwater

Code and Design Manual Update Project — 2013-2015



January-February 2014

## Newsletter Update Volume 6

Clark County is updating its municipal code and stormwater design manual to comply with Washington's **NPDES Phase 1 Municipal Stormwater Permit**. This newsletter series will give you the latest updates and progress on the project.

### WHAT'S NEW

#### Details, details, details!

Clark County staff and our consultant team have been working to update both the stormwater code and the manual to meet the Department of Ecology requirements. All of the draft updates have been written and we are now working through all of the details necessary to clarify and link users to the information they need. Here are some of the changes you can expect to see:

- **Water Quality Code 13.26A** - This code has been in place for many years to "protect the county's surface and groundwater quality by providing minimum requirements for reducing and controlling the discharge of contaminants." The chapter requires the use of pollution control practices in the Clark County Stormwater Manual. The chapter focuses primarily on post-construction source control, dumping, maintenance, etc. The current permit requires us to focus on development projects therefore changes to this section are minor, such as formatting, updating language and consistency.
- **Stormwater and Erosion Control Code 40.385** - This code is in place to apply stormwater requirements to development projects to "safeguard public health, safety and welfare by protecting the quality of surface and groundwaters...." The chapter focuses on management of construction activities. This chapter has significant changes as it has been reduced from 26 pages to about 6 pages. This chapter tells users "what" is required to protect stormwater, so most of the "how" has been removed and been placed in the updated stormwater manual (see below). The main change is to require the use of Low Impact Development (LID) in the manual.
- **Clark County Stormwater Manual** - Exciting changes are in the Clark County's manual. In past years, users had to refer to multiple documents to make sure they have met all of the requirements of the stormwater code. The new layout for the manual is a stand-alone, Clark County specific document. The manual will be in four sections: 1) The overview information about what is needed for development and redevelopment applications; 2) design BMPs and details; 3) pollution source control standards; and, 4) operations and maintenance standards. The new layout should allow each user the opportunity to download just the information that they need without having to sift through multiple sections or chapters.



Photo by: Gary Davenport

#### Important dates:

- **Technical Advisory Committee** meeting #7  
Public Service Center, 1300 Franklin St.  
• **March 5th – 3-5 pm**
- **Stakeholder Advisory Committee** meeting #4,  
Elections, 1408 Franklin St.  
• **March 13th - 4-6 pm**
- **Clean Water Commission**  
Public Service Center, 6th Floor, 1300 Franklin St.  
• **March 5th, 6:30 - 8:30 pm**
- **Planning Commission Work Session - April 2014** - date / time to be confirmed
- **PUBLIC COMMENT** - Documents will be available in mid-April for public review
- Additional public outreach will be scheduled this spring for all citizens

*All meetings are open to the public*



For other formats, contact the Clark County ADA Office: **Voice** (360) 397-2322; **Relay** 711 or (800) 833-6388; **Fax** (360) 397-6165; **E-mail** ADA@clark.wa.gov.

# PROJECT HIGHLIGHTS

**Technical updates** - Staff are refining the technical language so that you have clear guidelines to design your development project.

The new Clark County Stormwater Water Manual will be a series of four (4) books. The information in this manual will guide you through the various steps and procedures to appropriately design your development project to meet the county's stormwater regulations. *Please consider reviewing the various chapters that affect your work during the public comment review period for the Review Drafts.* Here are some key chapters that may be of interest to you:

- **Book 1, Chapter 1- Minimum Requirements and Submittal Requirements**  
- The Minimum Requirements are the set of standards required by the county stormwater permit from the state of Washington. This section has updated flow charts to help navigate which requirements may apply to a project. There are a set of submittal requirements that can be used with your design team to ensure that applications are complete prior to submittal to the county. It also includes a new requirement to use LID where feasible.
- **Book 1, Chapter 3 - On-Site Stormwater Management** - This chapter reviews the types of Best Management Practices (BMPs) that may be required or optional use for a site. The section covers topics such as when to use dispersion and infiltration techniques, such as splashblocks, rain gardens, bioretention and permeable pavements.
- **Book 1, Chapter 4 - Infiltration Analysis and Design** - This chapter walks through (step by step) the factors that need to be considered in the design of a stormwater system. The chapter considers the initial conditions of a site, design methods for infiltration and criteria to design the various facilities.
- **Book 1, Chapter 8 - Construction Site Pollution Prevention** - What happens on a site during construction also needs to be planned to minimize the risk of pollutants leaving a construction site. This chapter covers erosion control BMPs for the site. Clark County inspectors will refer to this section when they visit a construction site. The chapter should also be consistent with state erosion control requirements under the general permit.

## Updated documents will be ready with a "Review Drafts" in April, 2014

There is a lot of information that is being updated as part of the stormwater code and manual update. We will be providing several options for the public to review and comment on the "Review Drafts." The Review Drafts incorporate updates and feedback from various county departments, the Technical Advisory Committee and the Stakeholder Advisory Committee. The Review Drafts will be updated based on stakeholder feedback that is collected over the next two months. Staff will revise the draft prior to submitting to the Washington Department of Ecology by the end of June 2014 for review. We anticipate DOE's comments will be issued by fall 2014. You will be able to participate in discussions via the following formats:

### **Clark County Clean Water Commission.**

March 5, 2014, 6:30-8:30 pm,  
Public Service Center

**Clark County Planning Commission Work session.**  
mid-April, 2014, date and time TBD)

**Stormwater Code and Manual update public comment period.**  
Posted on County web page by mid-April.

## FEEDBACK

**Q.** There is a lot of information required in the application. Will every project application require that an engineer be hired to design, prepare plans and technical reports?

**A.** One of the goals of the update project for the stormwater manual is to clarify what information you may need for every step of your project and simplify the process to the greatest extent possible. Every site will need to meet the requirements of properly managing stormwater. Some projects, such as a single-family residential site in a planned subdivision have already completed the required engineering. Residential building projects on existing lots do not require an engineered design for items such as splash blocks, rain gardens and dispersion.

### **i Need more information?**

Visit our website for links to county and state information

[www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater)

(360) 397-2121 or e-mail [cleanwater@clark.wa.gov](mailto:cleanwater@clark.wa.gov)





March - April 2014

## Newsletter Update Volume 7

Clark County is updating its municipal code and stormwater design manual to comply with Washington's **NPDES Phase 1 Municipal Stormwater Permit**. This newsletter series will give you the latest updates and progress on the project.

### WHAT'S NEW

#### We want to hear from you!

Clark County has completed a "Review Draft" of the stormwater municipal code and the updated stormwater manual. We would like to hear from users, such as yourself, as to how these tools will assist your upcoming projects. Here is some key information to help guide you through the drafts.

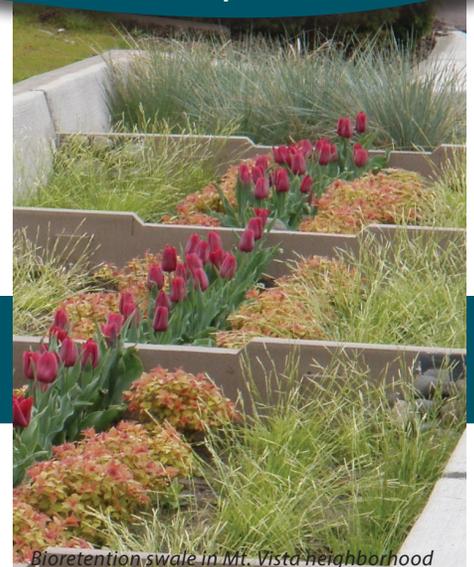
- **Water Quality Code 13.26A** - Reducing and controlling the discharge of contaminants to stormwater runoff. Changes to this chapter are minimal, such as formatting, updating language and consistency.
- **Stormwater and Erosion Control Code 40.385** - This code is in place to apply stormwater requirements to development projects to "safeguard public health, safety and welfare." This chapter has been significantly reduced and most technical information has been moved to the updated Clark County Stormwater Manual.
- **Clark County Stormwater Manual** - The updated manual will now be a stand-alone Clark County specific document to meet all of your stormwater management needs, including:
  - Book 1 - Applicability, Submittals and BMP selection (Best Management Practices)
  - Book 2 - BMP Design
  - Book 3 - Pollution Source Control
  - Book 4 - Maintenance and Operations

Read through the materials, let us know if you have questions and feel free to visit any of the meetings to the right to hear more on this important work.

#### The public comment period is open!

We can accept comment forms from **April 11 - May 5, 2014** on the Review Draft of the stormwater code and manual.

Visit [www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater) to find documents, comment forms and locations of printed copies of the materials for your review.



*Bioretention swale in Mt. Vista neighborhood*

#### Important dates:

- **Technical Advisory Committee** meeting #8  
Public Service Center, 1300 Franklin St.  
• **May 7th - 3-5 pm**
- **Stakeholder Advisory Committee** meeting #5,  
Elections, 1408 Franklin St.  
• **May 8th - 4-6 pm**
- **Clean Water Commission**  
Public Service Center, 6th Floor, 1300 Franklin St.  
• **May 7th, 6:30 - 8:30 pm**
- **Public Comment Period** -  
Documents will be available for public review  
• **April 11 - May 5, 2014**
- **BOCC Worksession**  
• **May 14, 11:15 am**
- **Draft Submittal** to  
Department of Ecology  
• **June 2014**

*All meetings are open to the public*



# PROJECT HIGHLIGHTS



Depending on your project, you may need to use only a portion of the Clark County Stormwater Manual. Refer to the section below to find out the chapters that may be of interest to you.

<b>Planner Designer Engineer Developer / Builder</b>	<b>Business owner Property manager Facility staff Operations staff</b>	<b>Homeowner's Associations</b>
<p>The main sections of interest will include:</p> <ul style="list-style-type: none"> <li>• <b>Book 1</b> "Applicability, Submittal and BMP Selection," and</li> <li>• <b>Book 2</b> "BMP Design."</li> </ul> <p><b>Book 1</b> lists the requirements to comply with the regulations for development project design of stormwater facilities. It includes:</p> <ul style="list-style-type: none"> <li>• submittal requirements</li> <li>• hydrologic analysis</li> <li>• on-site stormwater considerations</li> <li>• infiltration analysis</li> <li>• flow control design</li> <li>• construction requirements for erosion control</li> <li>• administrative considerations</li> </ul> <p><b>Book 2</b> lists the BMPs that may be used in project design, including standard details.</p>	<p>The main sections of interest will include:</p> <ul style="list-style-type: none"> <li>• <b>Book 3</b> "Pollution Source Control," and</li> <li>• <b>Book 4</b> "Operations and Maintenance."</li> </ul> <p><b>Book 3</b> lists the BMPs for managing the site features and facilities that could potentially pollute stormwater, such as fueling stations, vehicle repair, scrap yards, painting areas, etc.</p> <p><b>Book 4</b> lists the standards to maintain stormwater facilities that may be on a property, such as catch basins, swales, detention ponds, rain gardens, and bioretention facilities.</p>	<p>The main sections of interest will include:</p> <ul style="list-style-type: none"> <li>• <b>Book 4</b> "Operations and Maintenance."</li> </ul> <p><b>Book 4</b> outlines all of the resource information to maintain the various stormwater facilities that may be on a property, such as catch basins, swales, detention ponds, rain gardens, and bioretention facilities.</p>



Photo: G. Davenport

*Reducing pollutants to stormwater protects critical wildlife habitat, too.*

## FEEDBACK

**Q.** There are a lot of acronyms in these documents. What is a BMP? What is LID? Are there clear and easy to understand glossaries to help a reader understand all these terms?

**A.** Given the technical nature of these documents, yes, there are lots of acronyms! Refer to the "Introduction to the Manual" at the front of the book for a thorough Table of Contents. This should guide you to the information to best meet your needs. Many of the definitions are based on the Washington Department of Ecology stormwater manual. As for some of these common terms:

- BMP - Best Management Practice - a standard to best meet the facility needs
- LID - Low Impact Development - creating features that work with the land to minimize impact

### **i** Need more information?

Visit our website for links to county and state information

[www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater)

(360) 397-2121 or e-mail [cleanwater@clark.wa.gov](mailto:cleanwater@clark.wa.gov)

### **You can make improvements today to protect stormwater runoff on your own property?**

- **If you own a home**, there are several things you can do to keep your yard green and river friendly. Winter is a great time to plan for your yard improvements. Visit our **Green Neighbors** program website for ideas and information. [clarkgreenneighbors.org](http://clarkgreenneighbors.org)
- **Is your business interested in "green" techniques to protect stormwater?** Visit our **Green Business** program to talk to our expert staff on ideas that work best for your business. [clarkgreenbiz.org](http://clarkgreenbiz.org)
- **Does your school want to get involved?** The **Washington Green Schools** has a school grounds audit that can give your school's Green Team ideas on site improvements.

## Newsletter Update Volume 8

Clark County is updating its municipal code and stormwater design manual to comply with Washington's **NPDES Phase 1 Municipal Stormwater Permit**. This newsletter series will give you the latest updates and progress on the project.

### WHAT'S NEW

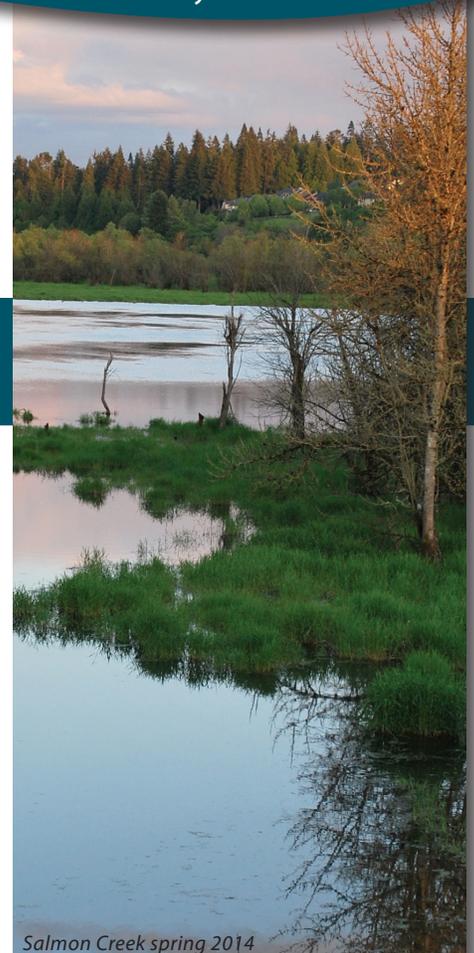
#### Thank you for your feedback!

Clark County has completed a the public comment period on the "Review Draft" of the updated stormwater code and manual. The Clean Water Program staff received comments from both internal stakeholders (other County departments that use the manual) and external stakeholders. External stakeholders included both our Technical and Stakeholder Advisory Committees, the Design and Engineering Advisory Board and citizens. Here is a brief overview of some of the comments received:

- **Clarify submittal requirements** - Several tables and flow diagrams are being adjusted to simplify and clarify for users.
- **Update business practices** - Some sections were updated to reflect current practices such as vegetation management and use of integrated pest management as part of the maintenance activities.
- **Update infiltration testing** - Low Impact Development's success relies on its ability to allow water to infiltrate into the ground. There has been numerous discussions with local experts on how best to test sites for appropriate design guidance as well as ensuring completed LID facilities will function properly.
- **Provide clarifications that could save applicants money** - There were several ideas proposed to help project applicants save money during their planning and design phases of their project. If there are options to verify soils that will (or will not) infiltrate water, then streamline the application process to reduce unneeded soil testing. Also, look into options for economic feasibility of LID features. For sites where LID may be cost prohibitive for the overall project's success.

#### There will still be opportunities to comment!

Clark County is required to submit a Draft of our proposed updates to the Department of Ecology by June 30, 2014. The final documents are targeted to be complete by March, 2015. This allows the County time to adjust and modify the documents to best suit our community's needs.



Salmon Creek spring 2014

#### Important dates:

- Draft Submittal to Department of Ecology  
• **June 30, 2014**
- Future Technical and Stakeholder Advisory Committee meetings, as well as public forums, will be scheduled as needed after Clark County receives review comments from the Department of Ecology

*All meetings are open to the public*



# PROJECT HIGHLIGHTS

## What's next for the code and manual update project?



### Policy & Process Updates

Through the process of updating the stormwater manual, there were several issues that were identified that need clarification, either with policy direction or updates to the application process.

The overall goal of the updated manual is to simplify and clarify information for all users, both those new to the process and returning users. Here are some areas that will continue to be reviewed for clarity:

- **Single-family residential stormwater design** - when do you need a licensed engineer?
- **County ownership of subdivision facilities** - should the county maintain or the HOA?
- **Updated standard details and legal documents** - create user friendly standards for all users.
- **Certainty of how new rules are applied** - create easy to understand policies and guides for all users.

### Trainings

While some of the information in the stormwater manual is similar to the past manual, there are many new requirements. LID will now be mandatory. Therefore, it may be beneficial to provide updated trainings, workshops and information to help users understand how to navigate the new manual.

Here are some ideas about new trainings. Let us know what trainings would help you and your colleagues:

- **The application process** - What is new in the submittal requirements?
- **The site planning process** - What are the new considerations for your project planning and design?
- **LID BMPs** - An overview of the various BMP techniques.
- **LID construction** - Tips and tricks to consider for a successful facility.
- **LID maintenance** - Learn some of the key techniques to maintain your new facility and minimize life-cycle costs.

### Final adoption of code and manual

The stormwater code and manual are in draft form and will soon be reviewed by the Washington Department of Ecology to verify that the manual is equivalent to state standards. Here is an anticipated timeline for the remainder of the project:

- **July - September 2014** - DOE has 90 days to review and comment on our draft manual.
- **Summer and fall 2014** - Clarify any outstanding questions, policies, processes or products related to our manual.
- **Fall - winter 2014** - Prepare trainings, outreach and workshops.
- **Winter 2014** - Prepare final versions of the code and manual.
- **March 2015** - Start the adoption process for code and manual.
- **June 2015** - BOCC to finalize the adoption of code and manual.
- **July 2015** - New regulations go into effect.

## FEEDBACK

**Q.** There are a lot of steps to complete in the application process. Do I have to hire an engineer to design stormwater facilities for a project? Do I have to hire a specialist to complete soil testing? These can add a lot of costs to a project.

**A.** There are several steps in the planning and design phases of a project that require a licensed engineer in the state of Washington. The technical aspects of designing the technical plans (with the required calculations) and various reports may require an engineer if your project requires a certain size facility. Some smaller projects that only require dispersion of runoff or a rain garden will not require an engineers. There are standard details and guidance manuals available for this level of design.

### Need more information?

Visit our website for links to county and state information

[www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater)

(360) 397-2121 or e-mail [cleanwater@clark.wa.gov](mailto:cleanwater@clark.wa.gov)

### Are you looking for more information about LID?

There are several resources you can review to learn more about planning, design, construction and maintenance of LID:

- **Department of Ecology LID Resources page** - Lists a variety of information including building, planting and maintain LID.
- **2012 Technical Guidance Manual for LID** - A great resource full of technical information to design features.
- **Tour of LID in Clark County** - Our booklet and web page point you to examples of LID in our community. Take a tour of the sites to better understand the look and feel of these facilities.

July - August 2014

## Newsletter Update Volume 9

Clark County is updating its municipal code and stormwater design manual to comply with Washington's **NPDES Phase 1 Municipal Stormwater Permit**. This newsletter series will give you the latest updates and progress on the project.

### WHAT'S NEW

#### The "Final Draft" of the code and manual are complete

Clark County has completed the edits to the draft Clark County Code and revised stormwater manual as of June 30, 2014. Per the requirements of the NPDES Phase 1 municipal stormwater permit, Clark County had to submit a draft to the Department of Ecology for review and comment. We anticipate comments from the state by early fall 2014.

What is our schedule this summer?

- **Review remaining policy questions** - Clark County will review remaining policy issues to clarify requirements related to the permit. Clark County's new manual follows the requirements of the permit and is not proposing any changes above and beyond the requirements at this time.
- **Review the project submittal process** - Clark County staff will review the development project application process and identify the tools necessary to help applicants navigate the updated submittal processes. Making the application process as easy as possible for applicants and staff is key to the success of the new code and manual.
- **Identify and organize training needs** - Identify key stakeholders, audiences and community members that would benefit from training updates to the development applications, LID design, construction requirements and maintenance considerations.

#### Trainings are coming this year!

- Learn about the new stormwater manual updates
- Brush up on your LID design and construction techniques?
- What do you have to do to maintain LID features?

Check out [www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater) for local workshops or the state's training opportunities on LID at [www.wastormwatercenter.org](http://www.wastormwatercenter.org). Workshops will run from September 2014 through early 2015.

#### Why does clean stormwater runoff matter?

- Runoff from our properties go right to our creeks, streams and rivers.....not a treatment plant to be cleaned
- The fish depend on clean water and a healthy food supply
- We play in our streams, rivers and lakes
- We enjoy the beauty of our rivers that enhance our community



# PROJECT HIGHLIGHTS



## What's next for the code and manual update project?

### Policy & Process Updates

Through the process of updating the stormwater manual, there were several issues that were identified that need clarification, either with policy direction or updates to the application process.

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- **Certainty of how new rules are applied** - create easy to understand policies and guides for all users.

### Trainings

While some of the information in the stormwater manual is similar to the past manual, there are many new requirements. LID practices will now be mandatory. Therefore, it is beneficial to provide updated trainings, workshops and information to help users understand how to navigate the new manual.

Here are some ideas about new trainings. Let us know what trainings would help you and your colleagues:

- **The application process** - What is new in the submittal requirements?
- **The site planning process** - What are the new considerations for your project planning and design?
- **LID BMPs** - An overview of the various BMP techniques.
- **LID construction** - Tips and tricks to consider for a successful facility.
- **LID maintenance** - Learn some of the key techniques to maintain your new facility and minimize life-cycle costs.

### Final adoption of code and manual

The stormwater code and manual are in draft form and will soon be reviewed by the Washington Department of Ecology to verify that the manual is equivalent to state standards. Here is an anticipated timeline for the remainder of the project:

- **July - September 2014** - DOE has 90 days to review and comment on the "Final Draft" manual.
- **Summer and fall 2014** - Clarify any outstanding questions, policies, processes or products related to our manual.
- **Fall - winter 2014** - Prepare trainings, outreach and workshops.
- **Winter 2014** - Prepare final versions of the code and manual.
- **March 2015** - Start the adoption process for code and manual.
- **June 2015** - BOCC to finalize the adoption of code and manual.
- **July 2015** - New regulations go into effect.

## FEEDBACK

**Q.** Wow.....the new "Final Draft" of the stormwater manual is a lot of pages. What are some of the key sections to read if I'm new to stormwater management in our community.

**A.** Yes, the new manual is over 1,000 pages but we are working to create a stand-alone document that will meet every users needs for understanding how to manage stormwater on their site. We suggest all users read at least the Introduction and Book 1, Chapter 1. These sections will give you a good understanding of the requirements and will direct you to the specific areas of interest based on your project. If you are just maintaining stormwater features, go to Book 4. If you have an existing business and want to minimize pollution in stormwater, go to Book 3. If you are designing features, Books 1 and 2 are a great place to start.

### Need more information?

Visit our website for links to county and state information

[www.clark.wa.gov/stormwater](http://www.clark.wa.gov/stormwater)

(360) 397-2121 or e-mail [cleanwater@clark.wa.gov](mailto:cleanwater@clark.wa.gov)

### Are you looking for more information about LID?

There are several resources you can review to learn more about planning, design, construction and maintenance of LID:

- **Department of Ecology LID Resources page** - Lists a variety of information including building, planting and maintain LID.
- **2012 Technical Guidance Manual for LID** - A great resource full of technical information to design features.
- **Tour of LID in Clark County** - Our booklet and web page point you to examples of LID in our community. Take a tour of the sites to better understand the look and feel of these facilities.

## ORDINANCE NO. 2014-07-08

AN ORDINANCE relating to stormwater service charges, amending Clark County Code Chapter 13.30A.

WHEREAS, Clark County's streams, lakes, rivers, wetlands and groundwater provide habitat and evaluable assets to all the citizens of Clark County; and

WHEREAS, it is in the interest of all Clark County citizens to protect streams, lakes, rivers and groundwater from adverse impacts of stormwater runoff; and

WHEREAS, stormwater runoff and surface water, if not regulated and controlled for excessive flow and pollutants, pose risks to the beneficial uses of streams, lakes, rivers and groundwater; and

WHEREAS, Clark County is subject to a National Pollutant Discharge Elimination System (NPDES) permit mandated by the US Clean Water Act, and managed by the State of Washington Department of Ecology; and

WHEREAS, the Clark County municipal separate storm sewer system is largely located within the urban area, as defined in Clark County Code 40.100.070; and

WHEREAS, the greatest impacts and flow of pollutants on ground water and surface water are generated within the areas defined as "urban"; and

WHEREAS, each new NPDES permit imposes additional requirements upon Clark County to regulate activities impacting stormwater quality, to operate and maintain its stormwater conveyance and discharge system, to educate and involve the public in stormwater matters, and to provide planning, design, mapping and construction of capital facilities; and

WHEREAS, the number of stormwater facilities controlled and maintained by Clark County has increased from fewer than 400 to more than 900 during the previous 12 years; and

WHEREAS, the 2013-2018 NPDES permit requires the county to conduct more inspections of businesses for pollution prevention, increased water quality stream monitoring,

27 and new watershed studies, to make significant changes to manuals and codes for  
28 development, and to implement new requirements for Low Impact Development (LID); and

29 WHEREAS, the fee charged by Clark County for implementing the state and federal  
30 mandates has remained the same for fourteen years; and

31 WHEREAS, the costs and requirements associated with maintaining compliance state  
32 and federal mandates have continued to rise; and

33 WHEREAS, the current revenue generated by fees for supporting and assuring  
34 compliance with the state and federal mandates are insufficient; and

35 WHEREAS, the Board of County Commissioners has considered this matter at a duly-  
36 advertised public work session on March 19, 2014 and a duly-advertised public hearing dated  
37 July 8, 2014, and finds that adoption will further the public health, safety and welfare; now,  
38 therefore,

39 IT IS HEREBY ORDAINED BY THE CLARK COUNTY BOARD OF COMMISSIONERS  
40 AS FOLLOWS:

41

42 **Section 1. Amendment.** Section 13.30A. of Ordinance No. 1999-11-09, and codified as Clark  
43 County Code Section 13.30A.050, are each hereby amended as follows:

44 **13.30A.050 Rate Structure and Fees.**

45 A. The service charges shall be based upon the relative contribution to increased surface and  
46 stormwater runoff from developed parcels and based upon the land use of the parcel. The  
47 service charge shall be imposed on all developed parcels within the unincorporated areas of the  
48 county with improvements having a value of ten thousand dollars (\$10,000) or more. Land uses  
49 are categorized as single-family residential lots, single-family residential large lots, multifamily  
50 residential lots, commercial, industrial and other nonresidential lots, and undeveloped lots. A  
51 base unit is used to calculate the service charge for each commercial, industrial or other

52 nonresidential lot. The service charge for single-family residential lots of 0.5 acres or less shall  
 53 be calculated as a single base unit. Larger single-family residential lots shall be charged an  
 54 amount less than the full annual service charge as set forth in this section. The annual service  
 55 charge rate for multifamily residential lots shall be thirty-five ~~three~~ dollars (~~\$35.00~~ ~~33.00~~)  
 56 multiplied times the number of residential units located on the lot. The base unit is three  
 57 thousand five hundred (3,500) square feet of impervious surface area, which is the average  
 58 impervious surface area for single-family residential lots within the urban growth area of the  
 59 county. The annual service charge imposed for each base unit of impervious surface area within  
 60 the urban growth area is forty-seven ~~thirty-three~~ dollars (\$47.00 ~~33.00~~). The annual service  
 61 charge imposed for each base unit of impervious surface outside the urban growth area is thirty-  
 62 five dollars (\$35.00 ~~33.00~~).

**B. Land Use Category**

**Annual Service Charge Rate**

No. 1 Single-family residential detached	\$33.00/single-family residence
No. 2 Single-family residential large lots:	
More than 0.5 acre to 1 acre	\$29.70
More than 1 acre to 5 acres	\$26.40
More than 5 acres to 20 acres	\$23.10
More than 20 acres	\$19.80
No. 3 Multi-Family Residential Lots	\$33.00 X number of residential units
No. 4 Retail, commercial, offices, churches, hospitals, airports, public or private utility installations, public or private schools, golf courses, government structures, other public facilities, subject to RCW 90.03.525, industrial, manufacturing and railroad right-of-way, county road and street right-of-way	\$33.00 X number of base units or portion thereof
No. 5 State highway	\$9.90 X number of base units or portion thereof subject to RCW 90.03.525

63

**B. Land Use Category**

**Annual Service Charge Rate Inside the Urban Annual Service Charge Rate Outside**

	<u>Growth Area</u>	<u>the Urban Growth Area</u>
<u>No. 1 Single-family residential detached</u>	<u>\$47.00/single-family residence</u>	<u>\$35.00/single-family residence</u>
<u>No. 2 Single-family residential large lots:</u>		
<u>More than 0.5 acre to 1 acre</u>	<u>\$43.70</u>	<u>\$31.70</u>
<u>More than 1 acre to 5 acres</u>	<u>\$40.40</u>	<u>\$28.40</u>
<u>More than 5 acres to 20 acres</u>	<u>\$37.10</u>	<u>\$25.10</u>
<u>More than 20 acres</u>	<u>\$33.80</u>	<u>\$21.80</u>
 <u>No. 3 Multi-Family Residential Lots</u>	 <u>\$47.00 X number of residential units</u>	 <u>\$47.00 X number of residential units</u>
 <u>No. 4 Retail, commercial, offices, churches, hospitals, airports, public or private utility installations, public or private schools, golf courses, government structures, other public facilities, subject to RCW 90.03.525, industrial, manufacturing and railroad right-of-way, county road and street right-of-way</u>	 <u>\$47.00 X number of base units or portion thereof</u>	 <u>\$35.00 X number of base units or portion thereof</u>
 <u>No. 5 State highway</u>	 <u>\$14.10 X number of base units or portion thereof subject to RCW 90.03.525</u>	 <u>\$10.50 X number of base units or portion thereof subject to RCW 90.03.525</u>

64

65 C. For the purpose of defining total land area of properties in land use category numbers 4 and  
66 5 above, the storm and surface water program shall use the county assessor's current records  
67 and such other records as necessary to measure the property to within one hundred (100)  
68 square feet.

69 D. The board of county commissioners further finds that many of the difficulties in managing of  
70 surface and stormwater problems result in part from the general lack of public knowledge about  
71 the relationship between human actions and surface and stormwater management. In order to  
72 achieve a comprehensive approach to surface and stormwater management, the county should  
73 provide general information to the public about land use and human activities that affect surface

74 and stormwater management. Pursuant to RCW 36.89.085, the board of county commissioners  
75 further finds that public and private schools can provide significant benefits to the county  
76 regarding surface and stormwater management through educational programs, on-site facilities,  
77 and community activities related to protection and enhancement of the surface and stormwater  
78 management system. These programs, facilities and activities can provide students with an  
79 understanding of human activities and land use practices that create surface and stormwater  
80 problems by providing students firsthand exposure to the difficulties of such problems after they  
81 occur. Public and private schools providing such programs, and complying with best  
82 management practices for their facilities and activities as set forth in the county's best  
83 management practices manual, may apply to the county director of environmental services for a  
84 reduction of the applicable service charge. The reduction shall be based on the nature and  
85 extent of the programs, facilities and activities provided, the extent to which the programs,  
86 services and facilities mitigate the impacts of surface and stormwater runoff and any other  
87 matters that are relevant to managing surface and stormwater. (Sec. 3 of Ord. 1999-11-09;  
88 amended by Sec. 1 of Ord. 2000-04-08; amended by Sec. 2 of Ord. 2001-08-20; amended by  
89 Sec. 1 (Att. A) of Ord. 2009-07-01; amended by Sec. 1 (Att. A § 2) of Ord. 2011-08-08)

90 E. For the purpose of establishing a fund and providing revenue to pay a settlement of  
91 previous non-compliance with the NPDES Phase 1 Municipal Stormwater Permit, a surcharge of  
92 five dollars (\$5.00) shall apply to each base unit during the years 2015, 2016, 2017, 2018, and  
93 2019. This charge will be removed in the year 2020 and will not apply to the 2020 clean water  
94 rate.

95 F. The Board of County Commissioners finds that it is crucial to reevaluate the current  
96 methodology of assessing the Clean Water Fee. The Department of Environmental Services  
97 shall prepare a study and report back to the Board of County Commissioners within one year of  
98 the adoption of the changes to this section, with an examination of alternative methods for

99 collecting the clean water fee. The focus of the study shall be an examination of the allocation  
100 of the fee to those whose behaviors and or conduct generate higher pollutant impacts on the  
101 surface and ground water of Clark County. The Board of County Commissioners shall  
102 acknowledge receiving the study through a public resolution and or reaffirmation of this section.  
103 If no resolution is put forward by the Board of County Commissioners within thirty days of the  
104 scheduled receipt of the fee study the changes to the fee schedule in this section shall sunset,  
105 and the previously adopted version of this section shall apply; provided, that the surcharge  
106 authorized by Section E is not subject to the sunset provisions of this clause and shall remain in  
107 effect until it expires in 2020.

108 **Section 2. Instructions to Clerk.**

109 The Clerk to the Board shall:

- 110 1. Transmit a copy of this ordinance to the Clark County Assessor and the Clark County  
111 Treasurer, the Environmental Services Department Director, and the Budget Office  
112 Director.  
113 2. Transmit a copy of this ordinance to Code Publishing, Inc. forthwith to update the  
114 electronic version of the Clark County Code.  
115 3. Record a copy of this ordinance with the Clark County Auditor.  
116

117 ADOPTED this 8<sup>th</sup> day of July, 2014.

118 Attest:  
119

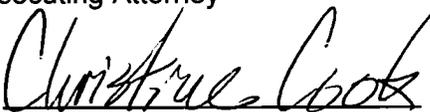
BOARD OF COUNTY COMMISSIONERS  
FOR CLARK COUNTY, WASHINGTON

120  
121  
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123 \_\_\_\_\_  
124 Clerk to the Board

By:   
\_\_\_\_\_  
Tom Mielke, Chair

125  
126  
127  
128 Approved as to Form Only:  
129 Anthony F. Golik  
130 Prosecuting Attorney

By: \_\_\_\_\_  
David Madore, Commissioner

131  
132  
133 By:   
134 Christine Cook  
135 Deputy Prosecuting Attorney

By: \_\_\_\_\_  
Edward L. Barnes, Commissioner

## CLEAN WATER PROGRAM SUMMARY

**DATE:** August 6, 2014

**Division:** Resource Policy and Planning

**Staff Name:** Earl Rowell

**Email:** [earl.rowell@clark.wa.gov](mailto:earl.rowell@clark.wa.gov)

**Phone:** (360) 397.2121 ext. 4580

### **TOPIC: Recent Clark County Clean Water Program Activities**

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*This program summary is provided to the Clean Water Commission to make members aware of ongoing program activities and accomplishments. Commissioners wishing to discuss particular items or ask questions at meetings should contact staff and the commission chair to make time on the agenda. Otherwise this program summary is provided for informational purposes.*

#### **EXECUTIVE SUMMARY**

Clark County's Clean Water Program recently met several requirements of the NPDES Phase I Municipal Stormwater Permit, including: a draft development code and stormwater manual, Whipple Creek watershed-scale stormwater plan scope and schedule, mandatory stormwater monitoring, and required private stormwater facility inspections. In addition, the program initiated construction of the Thomas Wetland stormwater facility and for the first time in 15-years increased the Clean Water Program service fee.

#### **PROGRAM ACTIVITIES AND ACCOMPLISHMENTS**

##### Draft Code and Stormwater Manual

The *Clark County Stormwater Manual* describes how to plan, design and implement stormwater management practices for new development and redevelopment projects.

##### *Policy and Process Updates*

The overall goals of updating the manual are to incorporate low impact development requirements, and to simplify and clarify information for all users, both those new to the process and returning users. The *draft manual* consists of four books. The manual's *Introduction* and *Book 1, Chapter 1*, provides a good understanding all aspects of controlling quantity and quality of stormwater runoff regulated by Clark County.

Some areas of the code will continue to be reviewed for clarity:

- Single-family residential stormwater design – when do you need a licensed engineer?
- County ownership of subdivision facilities – should the county maintain or the Homeowners Association?
- Update standard details and legal documents – create user friendly standards for all users.
- Certainty of how new rules and applied – create easy to understand policy and guides for all users

##### *Trainings*

Low Impact Development (LID) practices will be mandatory starting mid-2015. Therefore, it is beneficial to provide update training, workshops and information to help users understand how to navigate the new manual.

Some ideas about new trainings include:

- The application process - What is new in the submittal requirements?
- The site planning process - What are the new considerations for your project planning and design?
- LID BMPs - An overview of the various BMP techniques.

- LID construction - Tips and tricks to consider for a successful facility.
- LID maintenance - Learn some of the key techniques to maintain your new facility and minimize life-cycle costs.

#### *Schedule for Adopting the Code and Manual*

- July - September 2014 - Ecology has 90 days to review and comment on the "Final Draft" manual.
- Summer and fall 2014 - Clarify any outstanding questions, policies, processes or products related to our manual.
- Fall - Winter 2014 - Prepare trainings, outreach and workshops.
- Winter 2014 - Prepare final versions of the code and manual.
- March 2015 - Start the adoption process for code and manual.
- June 2015 – Board of County Commissioners to finalize the adoption of code and manual.
- July 2015 - New regulations go into effect.

#### Whipple Creek Watershed-scale Stormwater Planning

Clark County must write a stormwater plan for the Whipple Creek Watershed by October 2016. The overall objective of this work according to the NPDES stormwater permit is to identify a stormwater management strategy or strategies that would result in stream conditions (flow and water quality) that fully support existing and state-designated beneficial uses. The project involves a number of complex data collection, analytical, assessment, and modeling tasks that county staff are gearing up to accomplish. The most significant of which will be modeling current and future conditions in the watershed to estimate the impact of future growth and development. There are also public involvement activities for the development of the plan that are beginning to ramp up. On March 31, 2014, Clark County submitted to Ecology a scope and schedule for watershed-scale stormwater planning in the Whipple Creek watershed. Ecology is still deliberating the proposal and will get back to the county soon with an approval or require additional information. Regardless, in order to meet tight permit timelines county staff has started gathering water quality and flow data in the watershed.

#### Stormwater Monitoring

Clark County recently completed permit-required stormwater monitoring for water year 2014, which runs from October 2013 to September 2014. This requirement began in 2010 and continues under the current permit. Clark County collects stormwater samples at two sites using complex automated samplers that gather multiple samples throughout storm events to create one sample for lab analysis. Sample locations include a commercial area along highway 99 in Hazel Dell and a large residential area in Felida. The county must collect 11 samples from qualifying storms at each site every water year. Qualifying storms must meet a minimum rainfall depth of 0.2 inches and have a specified dry period before them. This severely limits the number of storms that meet permit standards for sampling. In order to efficiently and effectively collect qualifying storm samples, county staff rely on telemetered monitoring stations that can be remotely adjusted to match sample collection to the rate of rainfall. This allows us to have an exceptionally high success rate at sampling qualifying storms and reduces the need for hazardous and expensive field work during night time storms.

#### Private Stormwater Facility Inspections

Inspecting privately owned stormwater facilities is a requirement in the county's stormwater permit. County staff must inspect a minimum of 80% of privately stormwater facilities every calendar year (there are ~1000 private facilities). Public Works inspectors perform the inspections under a Memorandum of Agreement

with Department of Environmental Services, typically during the spring. They also provide notification to owners when facilities fail inspection, and provide limited technical assistance if requested. Problem cases are referred back to the Clean Water Program for follow-up. Private facilities have tended to be less well-maintained than public facilities – this is improving, but the defect/failed inspection rate is considerably higher than for publicly maintained facilities. There is an educational component to this work and as we help owners learn about proper maintenance we expect to see defect rates continue to decrease.

#### Thomas Wetland East Stormwater Facility Renovation

Clark County recently started construction of the Thomas Wetland Stormwater Facility in the East Minnehaha neighborhood. This effort is funded in part by a grant from the Washington Department of Ecology and Clean Water Program fee revenue. Construction began in early July 2014 and should be complete by early fall, with wetland planting during the winter. The project will expand and reconfigure existing stormwater facilities to better manage polluted storm runoff from roads, roofs and other hard surfaces in the Burnt Bridge Creek watershed. When construction is complete the expanded facility will be up to 360 feet long (east/west) and 460 feet wide (north/south), and will be able to hold 3.63 million gallons, enough water to fill more than five Olympic-size pools.

#### Explanation of Proposed New Clean Water Program Fees and Fee Increases

The Clark County Clean Water Program has submitted and received from Board of County Commissioners approval to increase the Clean Water Program service fee starting in 2015. On July 8, 2014 the BOCC adopted amendments to county code chapter 13.30A which sets the rate structure, including:

##### *Fee structure changes*

- All equivalent residential units (ERUs) will increase by \$2 to a charge of \$35
- All ERU's inside the urban growth boundary will increase an additional \$12 to a charge of \$47.
- All multi-family ERU's regardless of location will be billed at the higher, inside the urban growth boundary rate of \$47.

##### *Settlement for litigation*

- A five year, \$5 per year surcharge on each ERU in order to pay a legal settlement of \$3.6 million. By 2020 the surcharge sunsets and the fee will drop to \$35 in the rural area and \$47 in the urban area, respectively.

##### *Discounts*

- Large lot discounts for single-family remain unchanged.

# CLEAN WATER PROGRAM SUMMARY

**DATE:** September 18, 2014

**Division:** Resource Policy and Planning

**Staff Name:** Earl Rowell

**Email:** [earl.rowell@clark.wa.gov](mailto:earl.rowell@clark.wa.gov)

**Phone:** (360) 397.2121 ext. 4580

## **TOPIC: Recent Clark County Clean Water Program Activities**

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*This program summary is provided to the Clean Water Commission to make members aware of ongoing program activities and accomplishments. Commissioners wishing to discuss particular items or ask questions at meetings should contact staff and the commission chair to request time on the agenda. Otherwise this program summary is provided for informational purposes.*

### **EXECUTIVE SUMMARY**

Clark County's Clean Water Program received approval from the Washington Department of Ecology to implement Whipple Creek Watershed-scale Stormwater Planning and Stormwater Flow Reduction Monitoring of permeable pavement at McCord's Toyota site in Vancouver. In addition, the program is initiating Business Visits for stormwater pollution control. The program is also working to fix an illicit connection to the county's stormwater system.

### **PROGRAM ACTIVITIES AND ACCOMPLISHMENTS**

#### **Whipple Creek Watershed-scale Stormwater Planning**

The Washington Department of Ecology NPDES permit for Clark County requires the county to develop a watershed-scale stormwater plan for an urbanizing watershed; the county selected Whipple Creek Watershed. The permit required Clark County to submit a project scope and schedule addressing a list of required tasks. In March 2014, the Clean Water Program submitted a scope and schedule; however, Ecology asked for additional information in May. The Clean Water Program submitted a revised scope and schedule in June, which Ecology approved in August.

To date, the Clean Water Program has installed two operating stream gauges in Whipple and Packard Creeks, initiated water quality and macroinvertebrate sampling, started work to calibrate watershed hydrology and water quality computer models, completed a draft report summarizing existing water quality information and established a project web page. The plan will be completed for public comment by the summer of 2016 and submitted to Ecology in October 2016. More information about this effort is available at: [www.clark.wa.gov/environment/stormwater/Whipplecreek.html](http://www.clark.wa.gov/environment/stormwater/Whipplecreek.html)

#### **Stormwater Flow Reduction Monitoring**

The Department of Ecology has approved the county's proposal to continue monitoring the effectiveness of a permeable pavement parking area to infiltrate runoff and compare results to original design standards. The county will also examine maintenance-related characteristics such as moss growth, maintenance performed and infiltration testing results in an effort to better understand maintenance needs for this BMP in the Pacific Northwest. The work takes advantage of a unique opportunity to build upon three years of monitoring data at McCord's Toyota, which when built was the largest installation of Interlocking Concrete

Pavement Blocks in the country. As pervious paving systems come into widespread use under new low impact development requirements, knowledge of long-term performance and maintenance needs will become increasingly critical to stormwater managers.

### **Business Visits for Pollution Control**

Through August program staff performed about 75 local source control visits to businesses (with a goal of reaching 400 local source control visits by year-end) to properly keep their waste products out of Clark County's stormwater system. During each visit staff provides technical assistance on pollution prevention measures that are tailored to a specific business's activities. Businesses are required to implement appropriate pollution prevention measures; if they're not staff helps bring them back into compliance.

During these local source control visits staff has identified the following:

- Stormwater inlets that need to be cleaned
- Trash dumpsters/cans that need to be replaced and/or covered
- Materials storage areas that need to be covered
- Floor drains that need to be plugged and/or covered to keep automobile fluids and boat paint away from runoff
- Landscaping and building maintenance practices such as pressure washing that need proper implementation of pollution prevention BMPs

In addition, brochures are being developed that will provide stormwater protection information to businesses doing carpet cleaning, surface cleaning, and professional landscaping.

### **Illicit Connection Getting Fixed**

While screening stormwater systems for illicit connections and/or discharges Clean Water Program staff discovered a sewer line plumbed to storm with a direct discharge into Cougar Creek. The next day county staff along with Clark Regional Wastewater District performed a dye test of the business's bathroom that was suspected of having the cross-connection. The dye test confirmed that a sink and toilet were connected to the stormwater system. County staff informed the business of the cross connection and ordered the bathroom closed. Staff then informed the property owner of the cross connection and required additional dye tests for the rest of the businesses in the complex to make sure no other bathrooms were connected. On September 17 the property owner had the storm system cleaned so any rain that fell before the repair wouldn't wash any residual waste into Cougar Creek. The property owner turned off the water to the bathroom and removed the toilet on September 18. The work to correct the illicit connection is scheduled for September 29.

Proposed 2015-2016  
Biennial Budget

Fund	Department	Dept. description	Budget 13-14	2013 Actual	YTD - July	2014 Estimate	Estimate 13-14	15-16 Draft
4420	531	Clean Water Program	18,126,532	6,400,404	2,194,032	3,761,197	10,161,601	13,379,838