

**DATE:** June 1, 2021

**TO:** Clean Water Services Advisory Commission Members  
and Interested Parties

**FROM:** Mark Jockers, Chief of Staff

**SUBJECT: REMINDER AND INFORMATION FOR JUNE 9, 2021, CWAC MEETING**

This is a reminder that a Clean Water Services Advisory Commission (CWAC) meeting is scheduled for **Wednesday, June 9, 2021.**

In support of best practices for preventing the spread of the coronavirus, CWS has adopted the following format for the June meeting:

- The meeting will be held virtually using the Webex platform.
  - Webex offers the option to connect to video, slides and audio via a device with internet access, or an audio-only connection through any telephone line.
  - CWAC members should watch for an email containing Webex connection details.
  - Interested parties should register for this meeting by June 8 by following the instructions on the [website](#).
- The meeting will begin at 5:30 p.m. Please plan to establish your connection to the meeting 10-15 minutes before the start time to allow the meeting to begin promptly.
- Dinner will not be provided.

The CWAC meeting packet will be mailed to Commission members on Tuesday, June 1, and posted to the [CWAC section](#) of the Clean Water Services' website.

Please call or send an email to Stephanie Morrison ([morrison@cleanwaterservices.org](mailto:morrison@cleanwaterservices.org); 503.681.5143) by June 8 to advise about your attendance at this meeting.

Enclosures in this packet include:

- June 9 Meeting Agenda and Materials
- April 14 Meeting Notes



## **Clean Water Services Advisory Commission**

**June 9, 2021**

### **AGENDA**

**5:30 p.m. Welcome & Introductions**

**5:35 p.m. Review/Approval of Meeting Notes of April 14, 2021.**

**5:40 p.m. NPDES Permit Application Status and Update**

The District submitted a renewal application for its watershed-based NPDES permit, which expired on May 31, 2021. This presentation will discuss the scope of the permit renewal application, strategies the District is pursuing and key issues with the renewal of the NPDES permit. This update will be a follow-up to the October 2020 presentation to the Commission.

- Bob Baumgartner, Regulatory Affairs Director

Requested Action: *Informational*

**6:15 p.m. Invitation for public comment**

**6:25 p.m. Announcements**

**6:30 p.m. Adjourn**

**Next Meeting: August 11, 2021**



## NPDES PERMIT RENEWAL

Raj Kapur and Bob Baumgartner  
Regulatory Affairs Department  
CWAC meeting  
June 9, 2021



## AGENDA

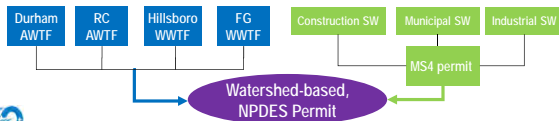
- Watershed-based NPDES permit
- Permit renewal application process
- Integrated Plan
- Strategies being pursued with permit renewal
- Key issues
- Next steps



## WATERSHED-BASED NPDES PERMIT

Includes:

- Permits for 4 WWTFs and municipal stormwater program
- Water quality trading for temperature
- Bubbled loads for TSS and phosphorus
- Flow-based limits



## PROCESS TO REISSUE PERMIT

- Current permit issued April 22, 2016 ✓
- Effective June 1, 2016 ✓
- Renewal application submitted December 1, 2020 ✓
- Permit expiration date: May 31, 2021 ✓
- DEQ initial review spring 2021 ✓
- DEQ will pose questions for clarification ✓
- DEQ public process late summer – fall 2021
- DEQ issues permit fall 2021 or latter

## COMPLEX PERMIT RENEWAL APPLICATION

Our application included nine components

### TABLE OF CONTENTS

1. Integrated Plan
2. Durham AWWTF Permit Renewal Application
3. Rock Creek AWWTF Permit Renewal Application
4. Hillsboro WWTF Permit Renewal Application
5. Forest Grove WWTF Permit Renewal Application
6. MS4 Permit Renewal Application
7. Outfall Inspection Report
8. Macroinvertebrate Report
9. Ambient Monitoring Data

## ASSOCIATED PLANS AND DOCUMENTS

- Water Reuse Plan ✓
- Biosolids Plan ✓
- Stormwater Management Plan ✓
- Thermal Load Management Plan ✓
- Mercury Minimization Plan ✓
- Nondomestic Waste Ordinance ✓
- Local Limits Evaluation ✓
- Industrial Pretreatment Manual ✓



## CWS INTEGRATED PLAN

- Specialized part of NPDES permit renewal application
- Establishes long-term permitting strategy
- Communicates goals, strategies, activities to regulators/stakeholders
- Complements other planning efforts



## CWS INTEGRATED PLAN



## PERMIT OBJECTIVES

- Holistic watershed-based approach
- Integrated Planning long-term narrative
- Operational improvements:
  - Flow-based limits
  - Strategy to reduce disinfection byproducts
  - Phosphorus and aluminum removal
  - Trading, bubble loads, flexibility
  - Forest Grove WWTF & NTS
- Expand recycled water use for environmental restoration
- Stream enhancement approach for subbasin stormwater

## KEY DEQ ISSUES

- Flow-based limits for ammonia
- Toxics, disinfection byproducts
- Temperature and thermal plumes
- Forest Grove compliance standards
- Copper and aluminum criteria
- Stormwater
  - Water quality standards
  - Retention and post construction



## STORMWATER

- DEQ: Other Phase 1 MS4 permits
  - Completed public process
  - Many competing comments; working through them
- CWS: Substantive issues
  - Water quality standards
  - Illicit discharge
  - Tracking and reporting
  - Post construction retention standard
  - Low impact development priority
- Reporting schedules and formats
- Monitoring

## POST CONSTRUCTION STORMWATER REQUIREMENTS

- Reviewing current CWS requirements
  - Low impact development
  - Water quantity and quality
- Assessing changes to permit language and/or standards





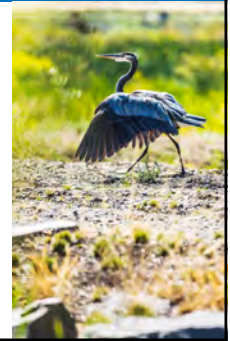
## WATER QUALITY STANDARDS

- Draft permit language:
  - "If pollutant is causing/contributing to an exceedance of water quality standard, corrective action required."
  - Permit specifies timeframe for taking correction action
  - Corrective action defined by nature of discharge
    - ◆ Illicit discharges
    - ◆ Stormwater discharges
  - Need to define scope of likely issues and approach

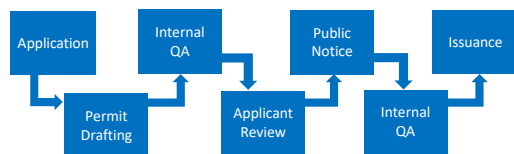


## NEXT STEPS

- Preparing materials to support permit issuance
  - Mercury minimization plan
  - Thermal load management plan
  - Water quality evaluations
  - Compliance strategies for some pollutants
  - Stormwater program requirements
  - Other materials
- Coordinating with DEQ



## DEQ PERMIT PROCESS/SCHEDULE



- Review application, draft permit: Spring/summer 2021
- Public review: Late summer 2021
- DEQ target issuance date: Fall 2021



## QUESTIONS?





# **Clean Water Services Advisory Commission Meeting Summary**

**Date:** April 14, 2021

**Location:** The meeting was conducted on Webex

## **Attendance**

Attending the meeting from CWAC:

- Tony Weller (Homebuilder-Developer 1), Commission Chair
- Mike McKillip (District 3/Rogers), Commission Vice Chair
- Alan Jesse (Agriculture 2)
- Alex Phan (District 1)
- Andy Duyck (District 4/Willey)
- Art Larrance (At-Large/Harrington)
- Jan Wilson (Environment 1)
- Molly Brown (District 2/Treece)
- Terry Song (Business 1)
- Sherilyn Lombos (Cities/nonvoting)
- Joseph Gall (alternate Cities/nonvoting)
- Diane Taniguchi-Dennis (Clean Water Services Chief Executive Officer/nonvoting)

Absent:

- John Jackson (Agriculture 1)
- Lori Hennings (Environment 2)
- Matt Wellner (Homebuilder-Developer 2)
- Stu Peterson (Business 2)

Attending the meeting from Clean Water Services:

- Mark Jockers, Chief of Staff
- Gerald Linder, General Counsel
- Bob Baumgartner, Regulatory Affairs Director
- Joy Ramirez, Environmental Services Supervisor
- Bruce Roll, Natural Systems Enhancement & Stewardship Director
- Antonia Machado, Project Manager 1
- Shannon Huggins, Public Involvement Coordinator
- Chris White, Public Involvement Coordinator
- Stephanie Morrison, Office Manager
- Jody Newcomer, Technical Editor & Communications Specialist
- Dave Cebula, IT Enterprise Architect

Attending the meeting from the public:

- Kathryn Harrington, Chair of CWS Board of Directors
- Brett Bruhn, Environmental Operations Manager, TTM



## **1. CALL TO ORDER**

Tony Weller called the meeting to order at 5:33 pm.

Stephanie Morrison announced the meeting was being recorded and recognized all attendees. Two new members joined the group — Alan Jesse, Agriculture 2 representative, and Alex Phan, District 1 representative.

Kathryn Harrington, chair of the Clean Water Services Board of Directors, thanked the employees of Clean Water Services for keeping operations going 24/7 under challenging circumstances. She thanked the commission members for serving on CWAC and said she appreciates the critical analysis and valuable feedback members provide on CWS policies and programs. She also thanked the members of CWAC who serve on the budget subcommittee. CWS is known internationally for its sanitary and surface water management and for its contributions to science. Harrington said you can't do science and cutting-edge work without making investments in people and equipment.

## **2. REVIEW/APPROVAL OF MEETING NOTES**

There were no other comments regarding the notes from the meeting on March 10, 2021. The notes were approved.

## **3. INDUSTRIAL PRETREATMENT LOCAL LIMITS UPDATE**

- Bob Baumgartner, Regulatory Affairs Director
- Joy Ramirez, Environmental Services Supervisor

CWS' NPDES permit requires a review and update of the local limits for its federally-mandated industrial pretreatment program. Local limits establish levels of pollutants that industries are allowed to discharge to the water resource recovery facilities. These limits are designed to keep workers safe, protect plant operations and ensure that the facilities continue to meet their effluent limits established to achieve water quality standards. CWS has drafted local limits and is obtaining input from industrial sources and other stakeholders.

CWS owns and operates four water resource recovery facilities in Washington County that receive wastewater from residential, commercial and industrial customers. CWS implements controls to ensure industries provide necessary pretreatment before discharging industrial wastewater to the system. This is done to protect public health by making sure there are no harmful gasses or chemical reactions occurring in the collection system, to protect worker safety and infrastructure, and to protect the environment.

The industrial pretreatment program is highly regulated at the federal and state levels. There are federal limits for specific types of industries, different kinds of discharge, health and safety protocols. EPA additionally directs CWS and other local utilities to develop local limits tailored to each local situation. In this case, CWS focused on metals, some organics and pH to meet the requirements of each water resource recovery facility.



## **Local programs**

Local limits are separate from the local programs CWS implements to protect operations, prevent disruption and recover costs.

CWS is managing specific local programs including cost recovery, water reuse and source tracking for emerging pollutants such as PFAS. EPA is starting to set limits for PFAS in drinking water and monitoring stormwater and wastewater treatment. CWS has a progressive monitoring program; staff identified one major source of PFAS and worked with the industry to reduce the amount coming to the collection system. Staff is also working on ways to reduce molybdenum and fluoride in the waste stream and protect the water reuse program.

## **Local limits**

CWS last performed an in-depth review of local limits in 2008. Since then there have been a number of changes. There has been significant growth in industrial and domestic sources that increased plant flows. The state of Oregon and EPA have developed new water quality standards for several pollutants including copper and arsenic. CWS made changes to its facilities; Forest Grove discharges year-round from the facility and has implemented a natural treatment system. Staff is also exploring concerns about industrial pollutants reducing the ability to remove ammonia at all the facilities.

To establish local limits for each pollutant, CWS determines the levels needed to protect the facilities and human health and meet water quality standards. Staff determines an amount to hold in reserve for growth in the basin and determines the contribution from nonindustrial sources. The difference between the thresholds CWS sets and the nonindustrial contribution is what can be allocated to industrial sources.

Setting local limits is a complex process. CWS staff assesses the risk of inhibition, especially nitrification inhibition; biosolids; and water quality standards. Inhibition refers to the possibility of pollutants affecting the good bacteria in the treatment process. It also assesses the potential impact to industrial sources. Staff in the research program and at the water resource recovery facilities developed site-specific inhibition criteria for copper and zinc. This methodology will be very useful for other municipalities in Oregon. Staff evaluated a range of alternatives for achieving the water quality standards for copper for the protection of cold-water fish and arsenic as a human health criteria. Staff also considered the effects of arsenic and molybdenum, which is used as an oxidizing material in cooling towers, on biosolids and reuse water.

## **Allocation options**

There are several ways to allocate limits; each has advantages and disadvantages.

1. Uniform allocation: Assign the same limits to every industry. This is the most common approach.

Some industries have very large flows with low levels of pollutants. Under a uniform allocation, they'd have a large allocation they don't need. Because the larger industries are holding large unused allocations, several smaller industries would not meet the uniform limit and could utilize a larger allocation.



2. Contributing sources: Eliminate industries that don't have specific pollutants in their discharge to free allocations to other sources. This approach requires more complex monitoring.
3. Individual allocations for select sources: This approach is the most complex, but allows more flexibility and the ability to account for anticipated growth by major industries.
4. Districtwide: Evaluate each facility and apply the lowest limit across District. It's easy, but it's conservative for most of the basin.
5. Each facility: This approach limits which plant the industry uses. It's not constrained by the lowest limit, but it's complex.

Environmental Services investigators have contacted every industry in the basin to talk about alternative approaches for the local limits and what it means for their facility. It's been an opportunity to identify and resolve issues in a collaborative manner.

### **Status**

- A few industries hold unused capacity and a few small sources need additional capacity.
- Forest Grove has very restrictive local limits for copper. The natural treatment system is very effective treating copper, but the NTS is not an option during high flow scenarios. CWS is working with DEQ to develop effective and cost-effective strategies that work for CWS and industries discharging to Forest Grove.
- CWS devoted significant effort to reach out to permitted sources and evaluate alternative approaches and will be completing the outreach soon.
- The working concept for local limits is to give individual limits to select industries. The approach would allow for planned growth, use available capacity more efficiently and set expectations for treatment. The uniform methodology would be used for the other allocations. CWS also would set a facility-specific local limit for industrial sources discharging copper at Forest Grove.

### **Next steps**

CWS will complete its outreach, finalize limits and submit to DEQ.

### **QUESTIONS, COMMENTS**

#### **How do you track pollutants? Do you start downstream and work upstream? What are the modes of enforcement?**

Yes, we start at the bottom and work upstream. It's just like the game "20 Questions." CWS has key manholes, which provide a logical sequence to work upstream. The closer you get to the source, the higher the concentration of the pollutant. CWS has the authority to regulate what comes in to the collection system, but usually staff tries work with the source to eliminate a pollutant.



**The control over system is fascinating.**

Staff who work in Digital Solutions and with the collection system have done tremendous work with key manholes and flow monitoring. This work has greatly facilitated our ability to track down sources.

Chasing water upstream is always a challenge. It involves a lot of groundwork and industries generally are very receptive. Sometimes they don't even know about the issue if they're not subject to federal regulations. CWS rarely resorts to enforcement, but if a parameter is regulated under the federal program, enforcement action is mandatory.

**Some industries have to do reductions. Some need more allocations. How many sources are you talking about?**

There are 43 industries in federal program, and 33 industries in local program for cost recovery. CWS initially identified 14 industries that would be affected by new local limits. Staff contacted the industries to better understand their processes and found many issues could be resolved by revising basic housekeeping procedures.

The Environmental Services group has a program to recognize industries that have perfect compliance. About 62% of industries are eligible for 2020; COVID-19 had an impact on some of the self-monitoring requirements.

**Do molybdenum and fluoride just show up, or do they come from specific industries?**

High tech industries use fluoride in the etching process. Molybdenum is used as an oxidizer for providing protection in cooling towers.

**What is the timeline for this process? When does the permit requirement need to be met?**

CWS will send a draft to DEQ before the current permit expires on May 31. After that, the timing is up to DEQ. Baumgartner said he hopes to have some local limits within a couple of months. If that doesn't happen, the limits will be connected to the permit renewal this fall or winter.

**General comments:**

Diane Taniguchi-Dennis said CWAC will be working on policies that consider how to allocate the cost of treatment as rates and system development charges. Regulatory Affairs is creating the technical basis to manage the federal pretreatment program. The federal requirements are the minimum necessary for onsite technology at the industry; local limits address the technology at the treatment plants — what comes in at the headworks and what goes out of the plant as treatment effluent and biosolids.

Part of the discussion is a conversation about the minimum technology at the water resource recovery facilities. Rock Creek and Durham facilities use higher levels of technology than the Forest Grove and Hillsboro facilities. Forest Grove does not have a technology called primary clarification. It hadn't needed it before, but there are reasons it would make sense to install it now. Adding primary clarification would raise the treatment provided at Forest Grove with the natural treatment system to levels on par with Rock Creek and Durham facilities. How do you apportion costs across the region to pay for capital expenditures?



Rates for residential, commercial, industrial customers are based on an Equivalent Dwelling Unit or Equivalent Service Unit for stormwater. Both mechanisms include a capacity allocation. Some customers need additional capacity. Should there be other rates and charges related to capacity? CWS hired a new financial strategist to answer these foundational questions about costs, rates and system development charges.

CWS will ask the Board to charge CWAC to consider these policy issues.

#### **4. TREE FOR ALL: CATALYZING CROSS-SECTOR PARTNERSHIPS FOR COMMUNITY RESILIENCE**

- Bruce Roll, Natural Systems Enhancement & Stewardship Director

In 2004 CWS received the nation's first integrated watershed-based NPDES program and had the opportunity to meet thermal load requirements through native plant restoration rather than investing in chillers. That opportunity was the foundation of Tree for All. Alternate approaches to meeting regulations inspired the program, but TFA incorporates a broad array of landscape conservation values — climate change and watershed resilience, recreation and human health, cultural heritage and local sense of place, CWS' One Water philosophy, sustainable economies, and connected habitat and biodiversity.

Roll said when CWS meets its regulations and requirements for riparian restoration, Mother Nature benefits greatly. CWS needs to meet its regulations, but can do it in a way that engages and inspires our community. The avian diversity at Jackson Bottom Wetlands indicates CWS is doing things right in our community. We have the native plants that rare birds need. We have the food sources, the insects that thrive on those plants.

More than 40 TFA partners work together for common goals, leveraging their resources to meet needs on a large scale. Scale is achieved by linking resources. Rather than duplicating efforts, partners fill needs others can't. CWS has the ability to plant riparian areas. The agriculture community leverages millions of dollars from the Farm Bill for drip irrigation and integrated pest management farm planning. In urban areas, TFA works with cities to restore land along riparian corridors. Metro and Tualatin Hills Park and Recreation pass bond measures to purchase natural areas throughout the Tualatin Basin and TFA helps restore those lands. TFA works with the U.S. Fish and Wildlife Service on two national wildlife refuges. CWS addresses shade, shade needs and thermal load requirements; USFWS addresses needs related to wildlife habitat and wildlife migration.

Places like Wapato are vital to protect Sherwood from floods and valuable habitat in the upper main stem of the Tualatin River. In 2008, there was an opportunity to take farmland with water quality issues and work with partners — federal agencies, local government and industries, and nonprofits — to create a national wildlife refuge that solves all sorts of problems.

Partnerships create a network. The TFA network revolves around restoration and nature, but COVID-19 exposed another community need — obtaining Personal Protective Equipment. TFA is working with partners to distribute PPE to farm workers, at-risk groups and business recovery centers.



As TFA has grown, so has the green industry. There are more green jobs and native plant nurseries. There are more reforestation and landscape contractors. Local nonprofits connect public outreach and education.

The key to TFA is the idea of transformational partnerships. Roll said TFA aligns common visions, which allows groups to share and collaborate. Differences don't get in the way of progress. Having healthy riparian corridors creates resilience to deal with big storm events, fires and growth. What's next for TFA? Roll said he wants to explore wetland systems and the One Water philosophy.

Over the past 15 years, TFA partners have restored more than 140 river miles across more than 30,000 acres in the agricultural and urban communities of the Tualatin River Watershed. Partners leveraged more than \$200 million to complete 700 projects and plant more than 13 million native plants. They created a new national wildlife refuge. Farmers allow access to land. Partners manage more than 30,000 acres for watershed health and 50 miles of vegetated corridor.

What is Tree for All? Roll said Ken Williamson, director of Research & Innovation at CWS, described TFA as a giant potluck. All these groups bring their favorite dishes to the table and work together.

## **QUESTIONS, COMMENTS**

**There was a lot of work on the bridge at Wapato. Was CWS able to partner with anyone to enhance the flow out of Wapato?**

Work in Phase 1 included reconstructing a water management strategy to protect the water needs of Tualatin Valley Irrigation District. There's a new pump station and two new bridges. The Joint Water Commission was active in the investment and developing the water management strategy. Roll expects to see fewer discharge issues as the area returns to wetland status. Wapato was open for hunting season this past winter.

## **5. PUBLIC COMMENT**

None.

## **6. ANNOUNCEMENTS**

- Terry Song won the 2020 William A. Bowes Service Award from the Oregon chapter of the American Public Works Association. The award was established to recognize a public works leader for their far-reaching, positive impact on public works programs, services or policies. Read more at the APWA website, [oregon.apwa.net](https://oregon.apwa.net)
- The Budget Committee meeting is Friday, May 7. Budget materials will be delivered Friday, April 23. Some materials will be available on a new online platform.
- The next meeting is scheduled for May 12, 2021.

## **7. ADJOURNMENT**

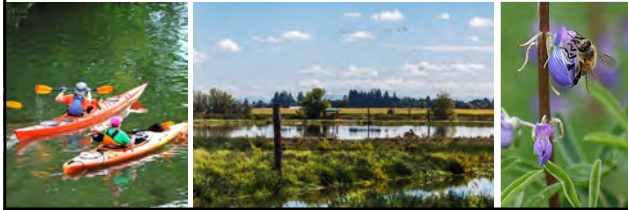
Weller adjourned the meeting at 7:30 p.m.



## LOCAL LIMITS UPDATE

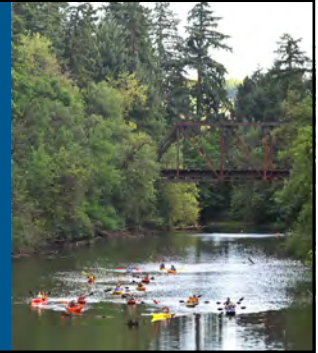
April 14, 2021

Clean Water Services Advisory Commission  
Joy Ramirez, Environmental Services Supervisor  
Bob Baumgartner, Regulatory Affairs Director



## TOPICS

- Industrial pretreatment
- What are local limits
- Why update now
- Issues
- Status
- Next steps



## INDUSTRIAL PRETREATMENT

- Industrial pretreatment program regulates release of industrial wastewater discharged to a treatment plant in order to protect:
  - Public health
  - Worker safety
  - Public infrastructure
  - Environment
- Highly regulated program, used with specific parameters.
- Local limits, which are **in addition** to the specific discharge limits established by EPA for certain industrial categories, are specifically tailored to each local situation.



## FEDERAL AND CWS INDUSTRIAL LIMITS

- CWS programs
  - CWS sets local limits, as directed in federal regulation.
  - Include cost recovery.
  - Protect operations.
- Federally mandated limits
  - For nondischarging categorical industrial users.
  - Address prohibitions, conditions or outcomes that must be prevented.
  - Protect health and safety, prevent gas and explosions.
  - Include categorical limits for specific industries such as metal finishers, semiconductors. Requires a minimum technology.
  - Include local limits, directs CWS to develop these.



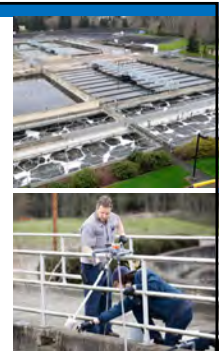
## LOCAL LIMITS

- Customized limits for specific chemicals and substances based on unique local situations.
- Apply to significant industries based on EPA classification, size of discharge, or potential impact.
- Select pollutants of concern including metals and pH.

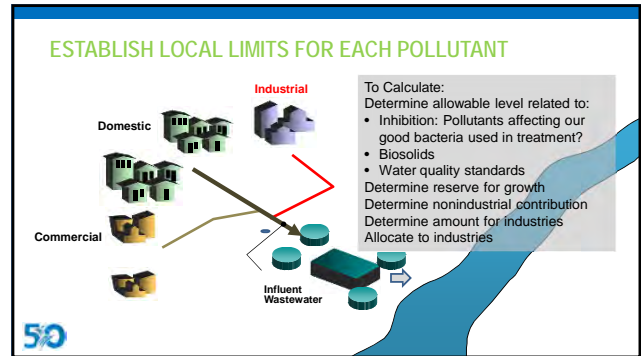
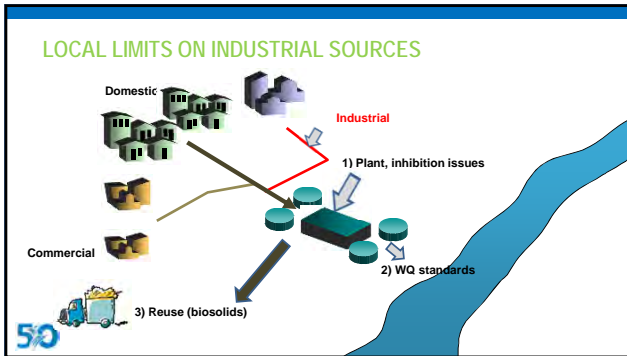


## WHY NOW?

- NPDES permit requirement.
- Substantial growth in industrial and domestic sources - increased plant flows.
- New water quality standards (copper and arsenic).
- Year-round discharge from Forest Grove facility and natural treatment system.
- Concerns about industrial impacts on ability to remove ammonia.







### SETTING LOCAL LIMITS

- Creating potential local limits is complex
  - Assess risk
    - Inhibition, biosolids, water quality standards
  - Assess potential compliance by industrial sources
  - List of new pollutants of concern
    - Nitrification inhibition (copper and zinc)
    - Water quality standards (copper and arsenic)
    - Biosolids (molybdenum and arsenic)
- How to allocate?
  - Uniform allocation
  - Contributing sources
  - Individual allocations for select sources

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### ALTERNATIVE ALLOCATION APPROACHES

Approach	What it does	Advantages	Disadvantages
Uniform	Same limit to all sources	Standard, easiest, conservative	Low limits Compliance when no real impact Unused allocations
Contributing flow	Only industries with elevated pollutants included	Higher limits	Need a stronger data set Difficult compliance Limited flexibility
Individual allocations	Selected sources given individual load	Flexible, especially small sources Greater opportunity for new sources Greater opportunity for growth	Difficult permitting Increased program management
Districtwide	Lowest limit applied across District	Easiest Equitable across jurisdictions	Conservative for most of basin Switching flows between plants not a problem
Each plant	Limits related to which plant the industry uses	Not constrained by lowest limit	Complex, tracking difficult May constrain moving flows between plants

### STATUS: LOCAL PROGRAM

- PFAS
  - Ongoing monitoring
  - One major source reduction
  - Identified a major PFOA source
- Reuse program
  - Questions related to molybdenum and fluoride
- Cost recovery
  - Ongoing

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### STATUS: ISSUES TO CONSIDER

- A few industries holding unused capacity.
- A few small sources could use additional capacity.
- Several industries can improve operations.
- Very restrictive local limits at Forest Grove for copper.
- One industry facing major reductions.
- One industry close to limit and may need upgrades.

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### OUTREACH AND EVALUATION

- Completed general outreach to all permitted sources.
- Completed outreach to several individual sources.
- Working through input received.
- Evaluating alternative approaches.



### LOCAL LIMITS WORKING CONCEPT

- Select industries given individual limits.
  - For planned growth.
  - Efficient use of available capacity.
  - Treatment expectations
- Plant-specific local limit for copper at Forest Grove.
- Reserve for future growth.
- Mostly uniform methodology for the remainder.



### NEXT STEPS

- Complete outreach to industries, finalize limits.
- Develop collaborative compliance strategy with industrial sources.
- Finish reports, submit to DEQ.
- DEQ will determine public process or schedule with permit.



### THANK YOU







Bruce Roll, Director Natural Systems Enhancement and Stewardship

**TREE FOR ALL: FROM WATERSHED ENHANCEMENT TO COMMUNITY RESILIENCE**

[jointreeforall.org](http://jointreeforall.org)



**LANDSCAPE CONSERVATION VALUES**










[jointreeforall.org](http://jointreeforall.org)








**VIDEO**




[jointreeforall.org](http://jointreeforall.org)



**NATURAL SYSTEMS BY THE NUMBERS**

[jointreeforall.org](http://jointreeforall.org)



**CALL TO ACTION**



[www.JoinTreeForAll.org](http://www.JoinTreeForAll.org)

CleanWater Services

[jointreeforall.org](http://jointreeforall.org)



**WAPATO**



[jointreeforall.org](http://jointreeforall.org)





### LONG-TERM COMMUNITY PARTNERSHIP COMMITMENT

US Fish & Wildlife Service = \$480,000

Metro \$325,000

CleanWater Institute \$100,000

CleanWater Services \$825,000

The Wetlands Conservancy \$120,000

Tualatin Soil & Water Conservation District \$100,000

In-Kind Services: USGS \$100,000

Intel \$250,000

Agricultural Community \$55,000

US Fish & Wildlife for pump station construction = millions+

jointreeforall.org

### PEOPLE PROTECTING PEOPLE

PEOPLE PROTECTING PEOPLE  
PERSONAS PROTEGIENDO PERSONAS

jointreeforall.org

### PASEOS VERDES

- Connects underserved communities in Washington County with the Tualatin River Watershed through guided bilingual nature walks
- Promotes environmental stewardship while providing health benefits
- Connecting the community with nature is good for the watershed and good for human health

jointreeforall.org

### ECONOMIC BENEFITS

- Green jobs industry booms with Tree For All demand
- Economic benefits extend through community
  - Native plant nurseries
  - A diverse force of reforestation and landscape contractors
  - Local non-profits connect public outreach and education

jointreeforall.org

### TRANSFORMATIONAL PARTNERSHIPS

Partnership Continuum

**Philanthropic**  
Relationship primarily that of a donor and recipient  
Low level of engagement and investment

**Transactional**  
Relationship based on resource exchanges to carry out specific activities

**Transformative**  
Relationship characterized by a merging of missions, people, and activities  
High level of engagement and investment

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### ENHANCEMENT AT SCALE

Organizations connected to Landscape Conservation:

- Soil and Water Conservation District
- Natural Resource Conservation Service
- Irrigation District
- Farm Services Agency
- Farmers
- Wetlands Conservancy
- Watershed Council
- Audubon
- River Keepers
- SOLV
- Ducks Unlimited
- OWEB
- OR Wood Board
- Fish & Wildlife Foundation
- BLM
- OSDOT
- Port Portland
- WA County
- Columbia Land Trust
- Metro Gov
- WA County Cities
- US Fish & Wildlife
- Tualatin Hills Park District
- Friends of Trees
- Inertwine Alliance
- Cascade ED Corp

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## INNOVATION AND CREATIVE FINANCING



We'll provide the main dish; others, bring a side dish.

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## LANDSCAPE CONSERVATION VALUES



Climate Change/  
Watershed Resilience



Recreation and  
Human Health



Cultural heritage and  
local sense of place



One Water



Sustainable  
Economies



Connected Habitat  
and Biodiversity

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## IT TAKES PARTNERSHIPS



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## RESULTS SINCE 2004

- 150 stream miles restored (10+ per year)
- Over 700 projects completed
- 13 million+ native plants in the ground
- A new national wildlife refuge
- 100+ farms enrolled
- Leveraged \$200M+ through partnerships
- 30,000 acres managed for watershed health
- 50+ miles of vegetated corridor



**Tualatin River  
National Wildlife Refuge  
Wapato Lake Unit Addition**  
Land Conservation Plan  
and Environmental Assessment  
Watershed and Riparian Corridor Program



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## WHAT'S NEXT FOR PARTNERS?



ONE WATER



WETLAND SYSTEMS

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QUESTIONS?

