DATE: January 4, 2021

TO: Clean Water Services Advisory Commission Members
and Interested Parties

FROM: Mark Jockers, Government & Public Affairs Director

SUBJECT: **REMINDER AND INFORMATION FOR JANUARY 13, 2021, CWAC MEETING**

This is a reminder that a Clean Water Services Advisory Commission (CWAC) meeting is scheduled for **Wednesday, January 13, 2021.**

In support of best practices for preventing the spread of the coronavirus, CWS has adopted the following format for the January 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 January 12 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 Monday, January 4, and posted to the CWAC section of the Clean Water Services' website.

Please call or send an email to Stephanie Morrison (morrisons@cleanwaterservices.org; 503.681.5143) by January 12 to advise about your attendance at this meeting.

Enclosures in this packet include:

- January 13 Meeting Agenda and Materials
- October 14 Meeting Notes

Clean Water Services Advisory Commission

January 13, 2021

AGENDA

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

5:35 p.m. **Review/Approval of Meeting Notes of October 14, 2020.**

5:40 p.m. **Election of Chair and Vice Chair**

The CWAC bylaws require an annual selection of a chair and vice chair. Tony Weller currently serves as Chair; Mike McKillip serves as Vice Chair.

Requested action: Nominate and elect Chair and Vice Chair

5:50 p.m. **Confirmation of Budget Committee Members**

Clean Water Services' Budget Committee is made up of the five members of the Board of Directors and five representatives from CWAC who reside within Washington County. The CWAC representatives serve three-year, staggered terms. Lori Henning's term expired on September 30, 2020, and Dave Waffle is no longer on CWAC. The other members of the Budget Committee are Tony Weller (December 2021), Molly Brown (October 2022) and Mike McKillip (September 2020). The Budget Committee is scheduled to meet on Friday, May 7, 2021.

Requested action: Confirm existing Budget Committee members and nominate two new members to the Board for appointment.

6:10 p.m. **Update on Tracking Coronavirus in Sewage**

Staff will provide an update on CWS research projects to track evidence of COVID-19 in wastewater. This report will be a follow-up to Dr. Ken Williamson's May and July presentations to the Commission.

- Dr. Ken Williamson, Research & Innovation Director
- Dr. Scott Mansell, Senior Engineer
- Dr. Blythe Layton, Water Resources Program Manager

Requested action: Informational

6:50 p.m. **CWS Energy Strategy**

Energy management is an important activity at CWS. Staff will summarize the District's energy efficiency and energy production accomplishments to date, the energy strategy focus for the next two years, and innovative opportunities being explored for the future.

- Nate Cullen, Water Resource Recovery Operations & Services Managing Director
- Bruce Cordon, Business Opportunities Manager

Requested action: Informational

7:20 p.m. **Invitation for public comment**

7:25 p.m. **Announcements**

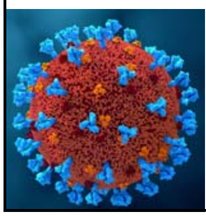
7:30 p.m. **Adjourn**

Next Meeting: February 10, 2021

SEWER SURVEILLANCE OF COVID-19

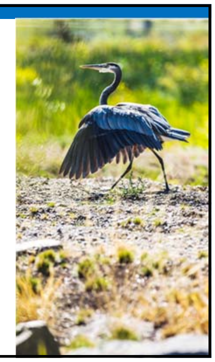
Blythe Layton, Ph.D. & Scott Mansell, Ph.D., PE

CWAC
January 13, 2021



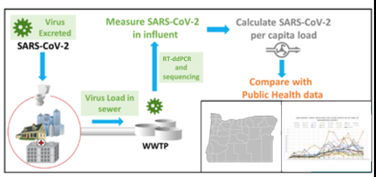
OUTLINE

- Background
- Methods
  - Biomolecular analysis
  - Sample collection
- Washington County results
- Next steps at CWS
- New lab preview!



WHY MEASURE SARS-COV-2 IN WASTEWATER?

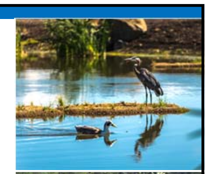
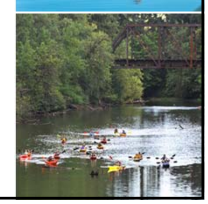
- "Wastewater-based epidemiology" (WBE)
- Assess entire community in a single sample
- Cost-effective
- Sensitive
- Early warning system?



Adapted from Ahmed et al. 2020, doi: 10.1016/j.scitotenv.2020.138764

GLOBAL EFFORT

- ~2,750 results in Google Scholar for "SARS-CoV-2 wastewater"
- Water quality, virology, wastewater; academia, public, private
- Uniquely focused research effort and collaboration
- CWS an early adopter and innovative applications

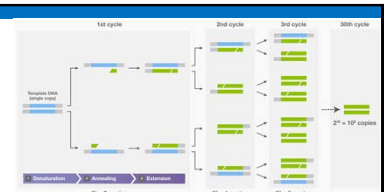



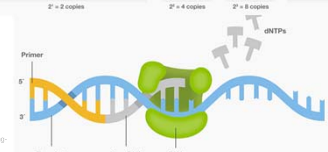
METHODS

Images (from left): Google Earth, https://www.ijinus.com/, https://www.sonicsupply.com/, https://www.omni-inc.com/, https://www.thermofisher.com/, https://www.bioradiations.com/

PCR ANALYSIS

- Widely used in forensics, diagnostics, research
- Robust and reliable method developed for SARS-CoV-2
- Using 3 targets
  - N1: Section of virus genome
  - N2: Section of virus genome
  - RP: Quality control
- Each sample analyzed in duplicate

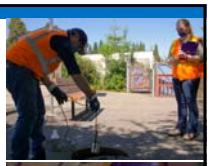




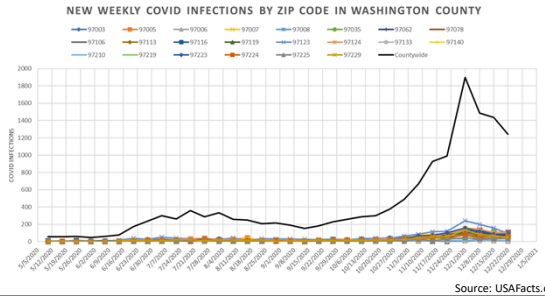
https://www.thermofisher.com/us/en/home/life-science/cloning/cloning-learning-center/invitrogen-school-of-molecular-biology/pcr-education/pcr-reagents-enzymes/pcr-basics.html

ONGOING COVID-19 MONITORING PROJECTS

- **Washington County sewershed surveillance**
- TRACE (Team-based Rapid Assessment of Community-level coronavirus Epidemics) partnerships
  - Newport, Bend, Hermiston/Boardman, Corvallis
- Lewis & Clark dorm surveillance
- OHSU study
  - 4 NE/SE Portland neighborhoods
  - 1 Beaverton neighborhood

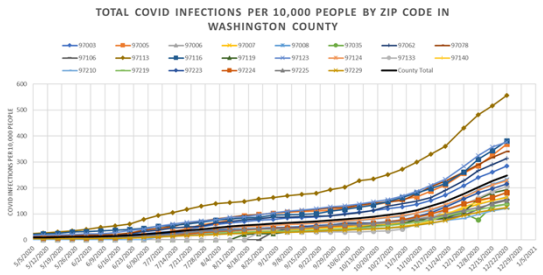


COVID-19 IN WASHINGTON COUNTY



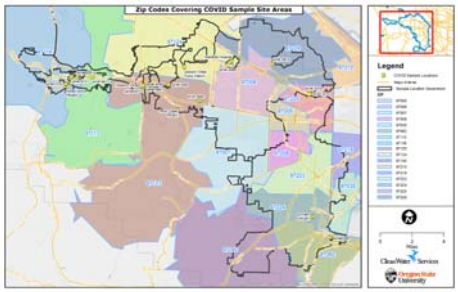
Source: USAFacts.org

COVID-19 IN WASHINGTON COUNTY BY ZIP CODE



Source: Oregon Health Authority

COVID-19 IN WASHINGTON COUNTY BY ZIP CODE



SAMPLE COLLECTION

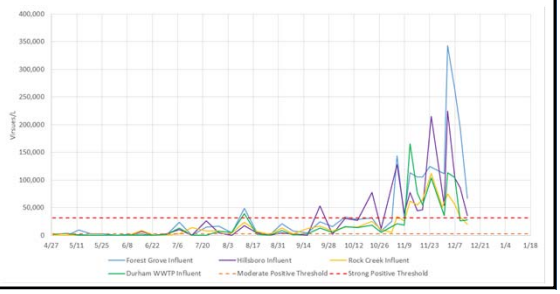
- All 4 WWTPs
  - Mar-Oct: Weekly
  - Since Nov: 2x/week
  - 24-hr hourly composites
- Phase 1: 19 manholes
  - April-Sept: Weekly
  - Grabs then 24-hr hourly composites
- Phase 2: 10 manholes
  - Since Dec 2020
  - 24-hr 15-min Composites
- Experiments
  - Sample frequency
  - Hospital effluents and disinfectants
  - Solid/liquid virus concentrations

SITE SELECTION

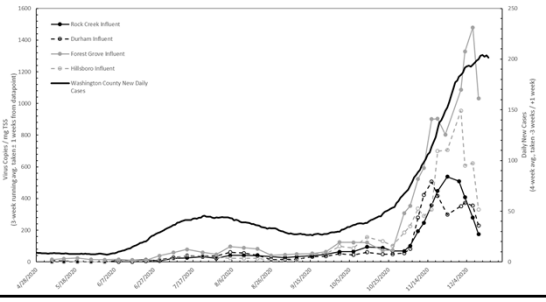
- Likely "hot spots" and entities with available infection data:
  - Hospitals and health centers
  - Industries
  - Retirement homes
  - Jails
  - Isolated when possible
- Known variables influencing community infections
  - Income demographics
  - Racial demographics
- Other potential influences
  - Schools
  - Community centers

RESULTS
TREATMENT PLANT EFFLUENTS

RESULTS – INFLUENT CONCENTRATIONS

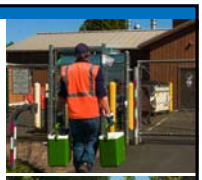


CWS INFLUENT DATA VS. REPORTED CASES



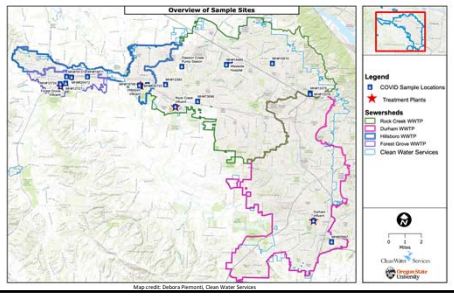
SUMMARY OF FINDINGS FROM WWTP SAMPLING

- Treatment plants tend to be quite similar, temporally
- Forest Grove/Hillsboro generally highest concentrations
- All treatment plants correlate well with infection cases, but not a clear leading indicator

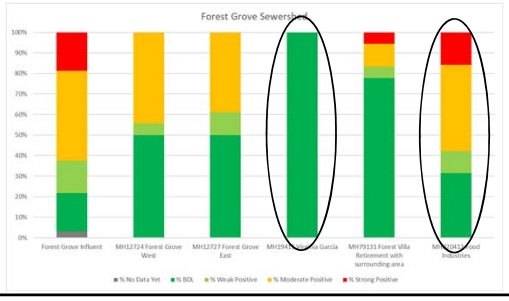


RESULTS
PHASE 1 SAMPLING

PHASE 1 SEWER SURVEILLANCE SITES

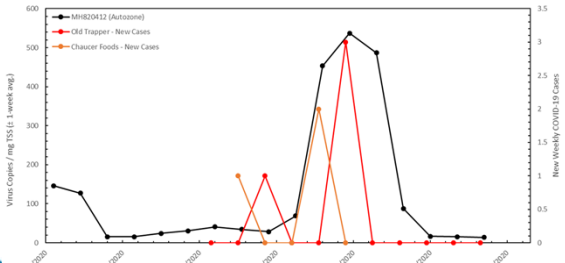


PERCENT POSITIVITY AT FOREST GROVE MANHOLES

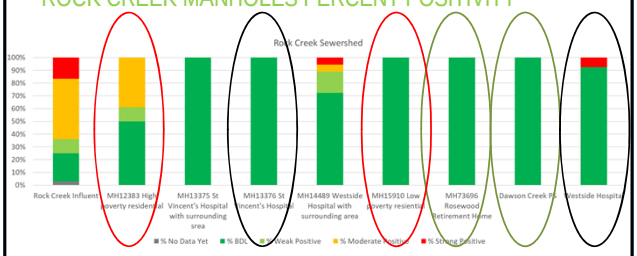


FOREST GROVE FOOD INDUSTRIES SAMPLE SITE

KNOWN OUTBREAK AT FOREST GROVE FOOD INDUSTRIES



ROCK CREEK MANHOLES PERCENT POSITIVITY



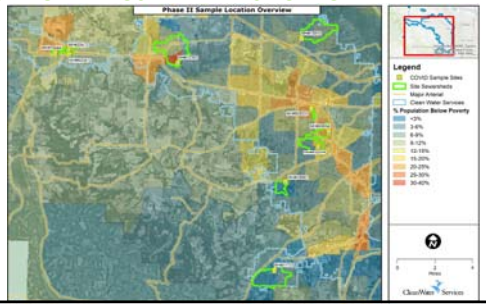
SUMMARY OF FINDINGS FROM PHASE 1 SAMPLING

- Able to detect at least one outbreak
  - Food industry site high/frequent detections
- Hospitals tend to have non-detects when they shouldn't
- Tech industry areas appear to not be of much concern
- Higher poverty areas may be associated with higher virus concentrations

COVID-19 DASHBOARD

ONGOING
PHASE 2 SAMPLING

PHASE 2 SEWER SURVEILLANCE SITES



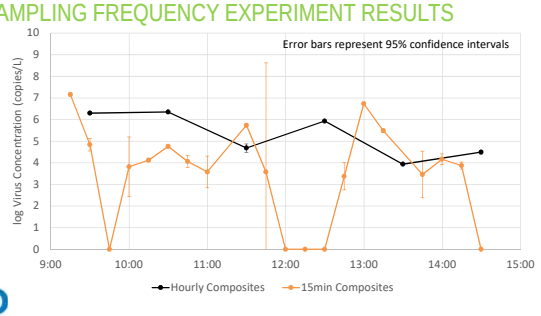
ONGOING EXPERIMENTS

SAMPLING FREQUENCY STUDY

- Dorm that included quarantined, infected students
  - Hourly, 24-hr composite
  - High-frequency 5-min sampling for 8 hours

https://college.lclark.edu/student_life/campus_living/residence_halls/hartzfeld/

SAMPLING FREQUENCY EXPERIMENT RESULTS



HOSPITAL EFFLUENT INHIBITION STUDIES

- Survey hospitals for products used
- Quaternary ammonium compounds
- Hospital effluent effect on nitrification
- Hospital effluent effect on detected virus concentration in known samples

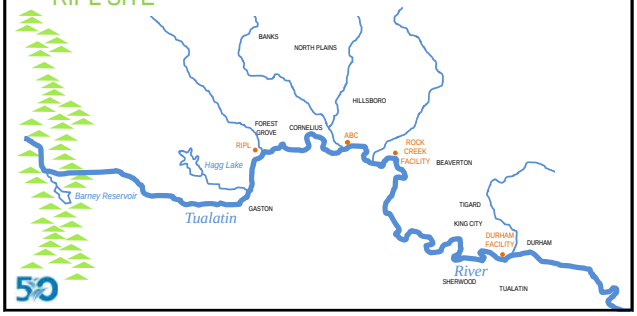
DEVELOPMENT OF MOLECULAR METHODS LAB AT CWS

WHAT IS RIPL?

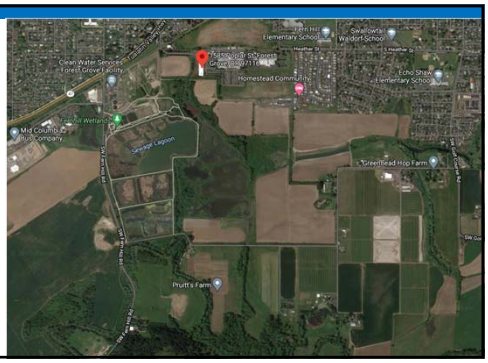
- Research
- Innovation
- Partners
- Labs
  - Water Quality labs
  - Research labs
  - Entrepreneurial labs
  - Teaching labs (?)

ripl

RIPL SITE



RIPL SITE



NEW MOLECULAR LAB

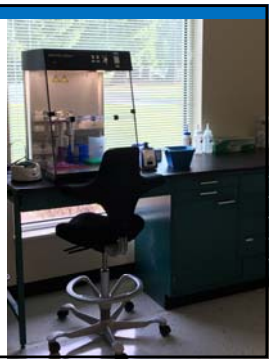
- Measurement of SARS-CoV-2 in influent & manholes
- Measurement of viruses in effluent (RC & DM)
- Quantification of key metabolic genes in BPR
- eDNA for watershed health

DNA/RNA EXTRACTION ROOM

- DNA/RNA extraction, quantification, and storage
- Automated nucleic acid purification on the Biomek FxP liquid handler
- -80°C freezer (RNA storage)
- Biosafety cabinet with UV

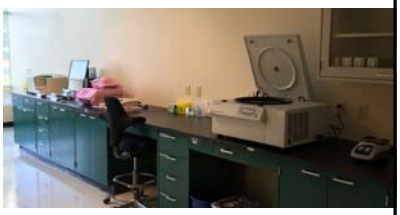
PCR PREP ROOM

- "PCR Clean" room – no samples or nucleic acids
- One task: PCR mastermix preparation
- UV cabinet workstation
- Ice machine



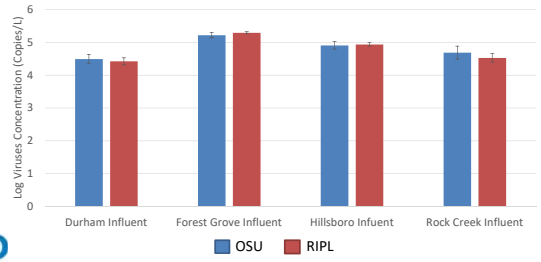
DDPCR ROOM

- Droplet digital PCR system: droplet generator, plate sealer, thermal cycler, droplet reader



INITIAL RIPL TEST

Analyzed four WWTP samples concurrently with OSU lab



CONCLUSIONS

- Wastewater monitoring gives an accurate picture of the viral burden in a community without having to test individuals
- High-resolution spatial and temporal sampling can pinpoint infection "hotspots" and outbreaks
- Tracking wastewater virus trends can inform public health response

THANK YOU!

Special thanks to CWS staff, the OSU team, and the CGRB:

Kestrel Bailey, Katie Carter, Jason Cook, Cindy Covey, Benjamin Dalziel, Jacob DeMartino, Andrea George, Anne-Marie Girard-Pohjanpelto, **Devrim Kaya**, **Christine Kelly**, Debora Piemonti, Steve Thompson, Brett Tyler, **Tyler Radniecki**, **Ken Williamson**

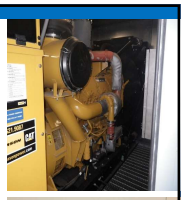
CLEAN WATER SERVICES ENERGY MANAGEMENT UPDATE

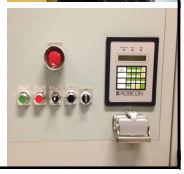
January 13, 2021

CWAC Meeting
Nate Cullen
Managing Director, Water Resource Recovery Operations and Services

ENERGY PROGRAM MISSION

To further our commitment to environmental stewardship and to continuously improve our performance and control operating costs, we will improve energy management within our organization.

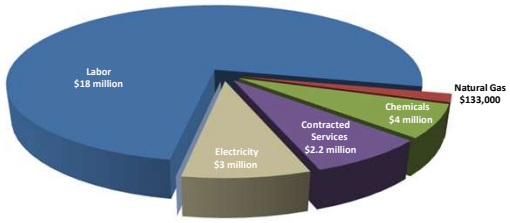




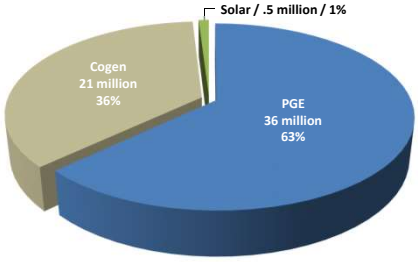
ENERGY MANAGEMENT COMPONENTS

- Capital improvements that reduce energy use
- Operational changes that reduce energy use
- Onsite energy generation

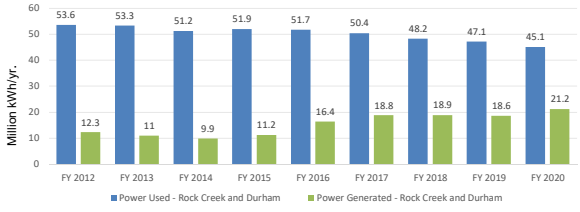
ENERGY IS A MAJOR WRRD OPERATING COST



ANNUAL WRRD POWER USAGE (kWh)



POWER USED VS. POWER GENERATED



2012-2020 Washington County Population Growth: 11.3%

50 Million kWh = 5000 homes

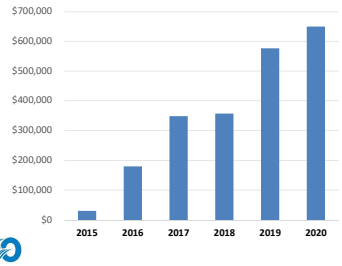
ROCK CREEK COGENERATION SYSTEM

- Consists of two 500 kW engines that operate on digester gas
- Meets 32% of plant electricity needs
- Provides heat to digesters, struvite recovery facility and buildings

DURHAM COGENERATION SYSTEM

- Consists of two 848 kW cogeneration engines that operate on digester gas
- Uses fats, oils and grease (FOG) to double energy production
- Meets 60% of plant electricity needs
- Provides heat to digesters, buildings and tunnels
- Over $5 million in incentive funding for construction

FOG REVENUE



SOLAR PROJECTS

- Rock Creek WWTP: 65 kW (2012)
- Main Office: 9 kW (2012)
- Durham WWTP: 400 kW (2013)

ENERGY EFFICIENCY SINCE 2011

Capital Projects:

- Number of projects: 84
- Energy savings: 11.9 million kWh/year
- Grant funding received: $2.4 million
  (does not include grants for energy generation)

Operational Changes:

- Number of projects: 96
- Energy savings: 2.5 million kWh/year
- Grant funding received: $76,000

ENERGY EFFICIENCY – OPERATIONAL CHANGES

- Industrial Energy Improvement Program (IEI) (2012)
- Process, Innovation and Efficiency Team (PIE) (2013)
- Strategic Energy Management Program (SEM) (2016)
- Green Energy Teams at Rock Creek and Durham (2017)

ENERGY MANAGEMENT AWARDS

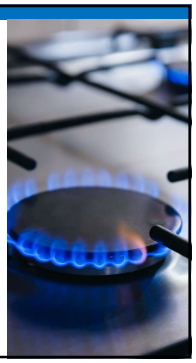
- Utility of the Future (2016, 2018)
- Intelligent Water System (2018)
- Leading Utility of the World (2019)

ENERGY STRATEGY: 2020 - 2025

- Continue Green Team efforts to achieve operational energy savings
- Continue to partner with the Energy Trust of Oregon on capital project energy savings opportunities
- Explore renewable natural gas (RNG) project opportunities
- Conduct a feasibility study of solar project opportunities

RENEWABLE NATURAL GAS OPPORTUNITY

- RFI issued for possible public-private partnership
- Will inform Board of results and recommended procurement strategy in February



QUESTIONS?

Clean Water Services Advisory Commission

Date: October 14, 2020

Location: The meeting was conducted on Webex

MEETING NOTES

Attendance

Attending the meeting from CWAC:

- Tony Weller (Homebuilder-Developer), Commission Chair
- Mike McKillip (District 3/Rogers), Commission Vice Chair
- Art Larrance (At-Large/Harrington)
- Jan Wilson (Environmental)
- Lori Hennings (Environmental)
- Stu Peterson (Business)
- Terry Song (Business)
- Sherilyn Lombos (Cities/nonvoting)
- Joseph Gall (alternate Cities/nonvoting)
- Diane Taniguchi-Dennis (Clean Water Services Chief Executive Officer/nonvoting)

Absent:

- Andy Duyck (District 4/Willey)
- John Jackson (Agriculture)
- Matt Wellner (Homebuilder-Developer)
- Molly Brown (District 2/Treece)
- Nafisa Fai (District 1/Schouten)

Attending the meeting from Clean Water Services:

- Mark Jockers, Government & Public Affairs Director
- Bob Baumgartner, Regulatory Affairs Director
- Gerald Linder, General Counsel
- Roger Dilts, Water Resources Analyst
- Joy Ramirez, Environmental Services Supervisor
- Stephanie Morrison, Office Manager
- Chris White, Public Involvement Coordinator
- Shannon Huggins, Public Involvement Coordinator
- Jody Newcomer, Technical Editor & Communications Specialist

Attending the meeting from the public:

- Dale Feik, Chair of Washington County Citizen Action Network and Project Director of Hillsboro Air & Water

1. CALL TO ORDER

Tony Weller called the meeting to order at 5:35 pm.

Ms. Morrison announced the meeting is being recorded and recognized all attendees. She reviewed the features and functions of the Webex platform.

Mr. Weller welcomed first-time members Tualatin city manager Sherilyn Lombos and Sherwood city manager Joseph Gall as the Cities Representative and alternate, and Jan Wilson, executive director of Tualatin Riverkeepers, as the new Environmental Representative.

2. REVIEW/APPROVAL OF MEETING NOTES

There were no comments regarding the notes from the meeting on Sept 9, 2020. The notes were approved.

3. NPDES Permit Approach and Principles

- Bob Baumgartner, Regulatory Affairs Director

Mr. Baumgartner reviewed the purpose of a National Pollutant Discharge Elimination System permit, which authorizes the discharge of pollutants to waters of the U.S., establishes discharge quality in the form of effluent limits, and requires monitoring and routine reporting. A permit can also include compliance schedules to allow a permit holder to meet permit conditions. The permit regulates the industrial pretreatment and biosolids programs and specifies penalties for noncompliance.

The 1972 Federal Water Pollution Control Act Amendments – better known as the Clean Water Act (CWA) – formed the foundation of the water pollution control program. Its broad goal was to restore and maintain the chemical, physical and biological integrity of the nation's waters so they can support fish and wildlife and recreational uses. The CWA uses a variety of tools to improve water quality, many of which are part of the core program that CWS implements today. These include the NPDES permit program implementing technology and water quality based permit limits and the industrial pretreatment program.

Implementation of the Clean Water Act has evolved from technology-based limits in the 1970s and 1980s, to water quality-based permits in the 1990s and 2000s to watershed-based permits. Permits issued on a watershed basis focus on the needs of the entire watershed, prioritize activities and coordinate actions. The goal is to look at water quality, water quantity and aquatic habitat in a comprehensive manner. CWS wants to adopt an integrated approach and make long-term plans that address the needs of the Tualatin Basin, protect its investments, embrace innovation and achieve positive environmental outcomes in a cost-effective manner.

The current permit is a watershed-based permit that integrates the four water resource recovery facilities and the municipal stormwater program. The integrated permit includes bubbled loads for total suspended solids, ammonia and phosphorus, which allows CWS to shift flow and compliance requirements between Rock Creek, Hillsboro and Forest Grove. This approach allows CWS to maintain compliance, optimize the location and quality of discharge, and was the catalyst for allowing CWS to build the Natural Treatment System at Forest Grove. The NTS has helped offset loads for Rock Creek, improve water quality and save resources.

The permit also allowed CWS to implement an innovative trading program. CWS can release flow from reservoirs where it owns water rights to reduce thermal loads and offset the loads from the water resource recovery facilities. CWS also developed a shade program, which has

expanded stream enhancement. Other initiatives include expanding the water reuse program to grow wetland and grass plants and provide native grass seed to others, and controlling pollution under the mercury minimization plan.

CWS has a number of goals for a new NPDES permit including maintaining infrastructure investments to provide quality treatment, providing for growth and development, advancing the watershed approach, eliminating reconsideration issues, working with DEQ to enhance effective compliance monitoring, building an innovative stormwater to ecosystems strategy, and transitioning to integrated planning.

Some of the focus areas in the permit application are

- Watershed enhancement.
- Resource recovery: Includes nutrient recovery, expanding water reuse opportunities, wetland restoration, environmental enhancement for wet meadows and riparian areas, and beneficial uses for biosolids. This concept has been called "fit for purpose." Other examples include discharge for irrigation, Pure Water for beer and other alcoholic beverages, and industrial reuse.
- Partnership with DEQ.
- Innovation and research: Includes new methods for measuring disinfected byproducts.
- Resiliency, growth and climate: Develop basin plans that better meet the needs of streams.
- Pollution prevention: Taking a proactive approach on mercury minimization, temperature minimization and PFAS chemicals.
- Adaptive management.

Sustainable treatment is important to control costs, improve water quality in the river and reduce CWS' environmental footprint. One area of sustainable treatment is biological nutrient control. CWS has had success controlling nutrients through biological processes instead of relying on chemicals. For example, the treatment plants use the chemical compound alum to remove phosphorus, which creates aluminum discharges into the river. Alum carries a big environmental footprint – it's mined and transported into plants just to discharge into the river.

CWS wants to continue utilizing a natural treatment system rather than investing in more mechanical structures. CWS also wants to continue employing a mix of strategies for stormwater management such as upland controls, riparian and stream corridor enhancement, subbasin strategies and real-time controls.

CWS will submit a permit application by Dec. 1. The submission includes applications for four plants and the stormwater MS4, implementation plans and supporting documents.

QUESTIONS, COMMENTS

There were no questions or comments from CWAC members.

4. STORMWATER MANAGEMENT PLAN PUBLIC INPUT UPDATE

- Bob Baumgartner, Regulatory Affairs Director
- Roger Dilts, Water Resources Analyst

The NPDES permit requires a 30-day public comment for the Stormwater Management Plan (SWMP) prior to submitting an application for a permit renewal.

The Tualatin Riverkeepers provided many extensive, well-researched comments. Many of the comments touched on issues that have been at the heart of discussion with DEQ on updates to the stormwater permit, so comments are both timely and helpful. Many of the issues are policy issues that will be covered in part by the new permit; CWS will capture most of the comments in the SWMP pending the new permit. Some of the comments are in areas that aren't in the permit and CWS can address now, such as outreach and education. CWS will prepare a formal response to the comments as required by DEQ.

QUESTIONS, COMMENTS

One commenter noted that CWS is considering the impact of climate change and encouraged staff to consider climate change implications in the stormwater management plan and the NPDES application. Everything going forward will be different. It's important to get the analysis right.

5. PUBLIC COMMENT

Mr. Feik thanked Mr. Baumgartner, Mr. Linder and Ms. Taniguchi-Dennis for responding to his requests for information, sharing information, and for their openness and transparency.

Mr. Feik asked how the water quality trading program for temperature works. Is the integrated strategy for temperature reduction working?

Mr. Baumgartner said trading is a core function to reduce temperature across the basin. The several hundred miles of streams where CWS and partners have provided shade have had an impact on temperature, habitat and ecology. CWS is working with DEQ on how to objectively measure the impact of temperature at scale.

6. ANNOUNCEMENTS

- The November 11 CWAC meeting is cancelled.

7. ADJOURNMENT

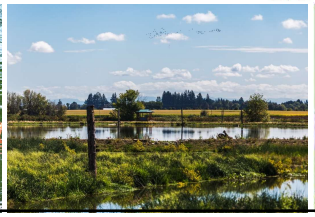
Mr. Weller adjourned the meeting at 6:42 p.m.

NPDES Permit Renewal

CWAC Meeting

Bob Baumgartner, Regulatory Affairs Director

October 14, 2020


WHAT DOES AN NPDES PERMIT DO?

Protects water quality by regulating pollutants discharged into waters of the U.S. The permit:

- Authorizes the discharge of pollutants
- Establishes effluent limits
- Requires self-monitoring and reporting
- Regulates industrial pretreatment
- Regulates biosolids
- Regulates water reuse
- Specifies penalties and compliance schedules

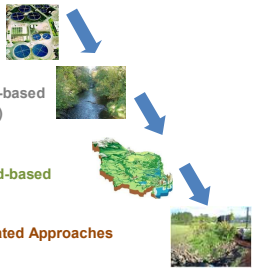
EVOLUTION OF CLEAN WATER ACT IMPLEMENTATION

Technology-based (1970s and 1980s)

Water quality-based (1990s-2000s)

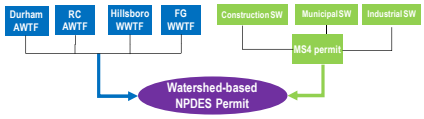
Watershed-based

Integrated Approaches



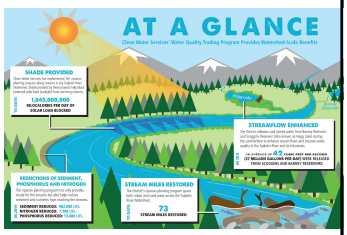
WATERSHED-BASED NPDES PERMIT

- Permits for four WWTFs and municipal stormwater program
- Bubbled loads for TSS, ammonia, phosphorus
- New discharge and natural treatment system
- Includes water quality trading for temperature



CWS WATER QUALITY ACHIEVEMENTS

- Trading/temperature control
- Watershed actions
- Forest Grove natural treatment
- Bubbled loads
- Ammonia flow based
- Reuse native wetland plants
- High purity water
- Mercury minimization



GOALS FOR NEW NPDES PERMIT

- Maintain investment in infrastructure
- Provide for growth and development
- Advance watershed approach
- Eliminate reconsideration issues
- Enhance effective compliance monitoring
- Build innovative stormwater to ecosystems strategy
- Transition to **Integrated Planning**


INTEGRATED PLANNING: NPDES

- Long-term guide for compliance and infrastructure **investments,** rather than a compliance and enforcement tool
- Describes goals and objectives for enhancing the ecology and water quality in the Tualatin River Watershed
- Describes actions to work toward those goals and challenges to address
- Identifies areas to work with DEQ to achieve goals to help guide regulatory and permitting actions
- Helps communicate to DEQ and EPA
- Integrates stakeholder input, builds public knowledge and partnership

PERMIT RENEWAL THEMES

- Watershed enhancement
- Resource recovery
- Partnership with DEQ
- Innovation and research
- Resiliency, growth and climate
- Pollution prevention
- Adaptive management

RESOURCE RECOVERY

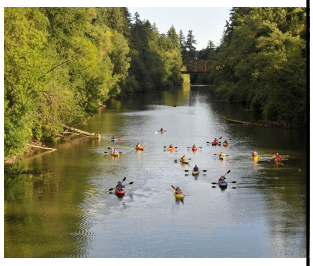
- Expand water reuse program
  - Native seed and plant production
  - Direct consumption crop
- Wetland restoration
- Environmental enhancement
  - Wet meadows, riparian areas
- Biosolids beneficial use
- Environmental services

WATER "FIT FOR PURPOSE"

- Discharge for irrigation
  - Limits for beneficial use
  - Administrative process
- Pure Water
  - It's just water
- Industrial reuse

SUSTAINABLE TREATMENT

- Biological phosphorus control
  - Update phosphorus TMDLs
  - Flow management
  - Environmental outcomes
- Temperature management
  - Flow management
  - Temperature TMDL update
- Basin standards
  - Equivalent CBOD/TSS
  - Supporting natural treatment
  - Expanding natural treatment Hillsboro

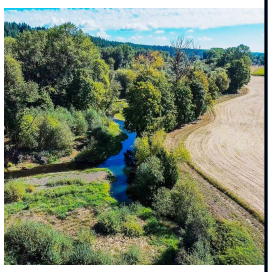


ADAPTIVE HOLISTIC STORMWATER MANAGEMENT

- Upland controls, riparian and stream corridor enhancement
- Sub-basin strategies
- Real-time control
- Climate change resiliency
- CMOM, integrated projects infrastructure and enhancement

POLLUTION PREVENTION: EMERGING POLLUTANTS

- Proactive approach
  - Mercury minimization
  - Temperature minimization
  - PFAS chemicals
  - Reuse (fluoride, molybdenum, COVID-19)
- Initial plans



DEQ PERMIT ISSUANCE PROCESS: ONCE EVERY FIVE YEARS

Current NPDES Permit Issued 2016

↓

CWS Permit Application (12/1/2020)

↓

DEQ Draft Permit and Fact Sheet Development

Effluent Limits/Monitoring & Reporting

Standard Conditions/Special Conditions

↓

DEQ Public Notice and Public Comments

↓

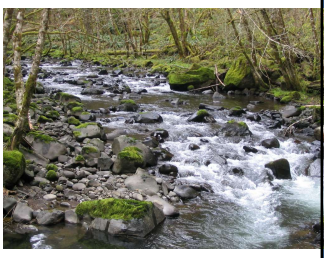
DEQ Permit Issuance (5/31/2021)?

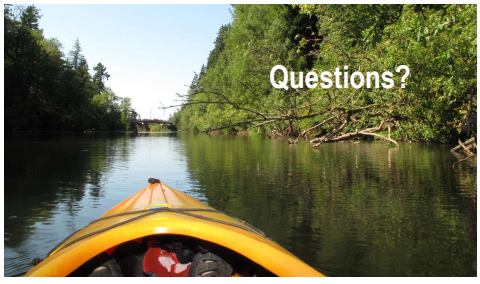
PERMIT APPLICATION PROCESS

- Five applications
  - Four plants
    - Many forms for EPA and DEQ
    - Plant and sewershed area specific
    - Projections on growth capacity
  - Stormwater MS4
  - Implementation plans
    - Trading
    - Reuse
    - Biosolids
    - Industrial pretreatment
    - Mercury minimization
  - Supporting documents
    - Studies
    - Monitoring data
    - Outfall assessment

NEXT STEPS

- Discussion with DEQ
  - TMDL
  - Integrated planning
  - Policy and rules
- Permit application
- Specific details
- Supporting documentation
- DEQ permit process?





STORMWATER MANAGEMENT PLAN: PUBLIC INPUT UPDATE

October 14, 2020

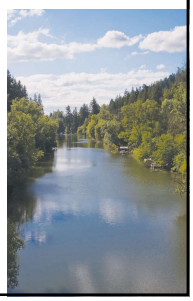
CWAC Meeting
Bob Baumgartner, Regulatory Affairs Director
Roger Dilts, Water Resources Manager

Clean Water Services 1970-2020

COMMENTS RECEIVED FROM TUALATIN RIVERKEEPERS

Technical, Operational and Communication Comments

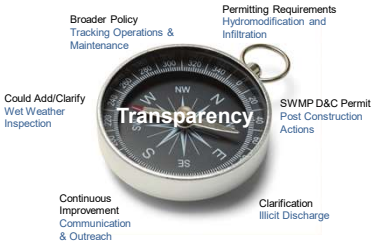
- **Illicit Discharge:** Threshold levels inadequate
- **Industrial and Commercial Facilities:** Frequency of inspections inadequate
- **Construction Site Runoff:** Conduct inspections during wet weather
- **Post Construction Runoff and Retrofit:** Hydromod, legacy erosion, BMPs, planning, infiltration
- **Pollution Prevention Municipal Programs:** Street sweeping adequacy, tracking Integrated Pest Management
- **Operations and Maintenance:** Better tracking and condition descriptions
- **Climate Change:** Add concept, education ideas, stormwater reuse
- **Education and Outreach:** Translation, website, target and track audiences, social media
- **Public Involvement and Participation:** Website, online complaints



RESPONSE COMPASS

- Follow-up discussion with TRK to clarify input
- Communicate issues to DEQ during permitting process
- Explore improvements we can make in near future
- Explore areas where we can collaborate

Discussion Topics



COMMENT RESPONSES

- **Illicit Discharge:** Agree that threshold used would be inadequate. Additional activities to protect streams are occurring.
- **Industrial and Commercial Facilities:** We focus our efforts on sites with greater risk of causing problems (size and amount of pollutants) or those with compliance issues.
- **Construction Site Runoff:** We currently do wet weather inspections and emphasize tracking, but will explore further with DEQ in new permit.
- **Post Construction Runoff and Retrofit:** Plan to capture our hydromod program goals in NPDES permit. Proactive efforts will have biggest benefit – by linking stream, riparian, upland enhancement and low impact development. Updated SWMP will need to capture those permit conditions.

COMMENT RESPONSES CONTINUED

- **Pollution Prevention Municipal Programs:** Robust Integrated Pest Management program now. This is an area we can explore for improved tracking. Discussing street sweeping.
- **Operations and Maintenance:** We will continue to improve tracking and descriptions.
- **Climate Change:** Agree it is important. Our holistic approach is to manage for basin strategies and more integrated stormwater efforts. Stream resiliency will be important for maintaining healthy urban streams as weather intensifies.
- **Education, Outreach, Public Participation:** We are increasing translation, performing targeted outreach now with direct links to website. Can explore and improve accessibility. Anticipate having more resources to manage social media. As website is updated, will explore new functionalities.

FOLLOW-UP

- Appreciate this thoughtful input.
- These comments address policy issues that will be part of next NPDES permit discussion and public process with DEQ.
- We will include changes as part of adaptive management in this permit; incorporate into next SWMP permit.
- Areas not included in permit that we can work on now:
  - Education and outreach
  - Construction site runoff/industrial stormwater permits currently out for public comment
  - Meet with TRK to better understand perspectives

THANK YOU

Clean Water Services
1970 2020