DATE: April 5, 2021

TO: Clean Water Services Advisory Commission Members
and Interested Parties

FROM: Mark Jockers, Chief of Staff

SUBJECT: **REMINDER AND INFORMATION FOR APRIL 14, 2021, CWAC MEETING**

This is a reminder that a Clean Water Services Advisory Commission (CWAC) meeting is scheduled for **Wednesday, April 14, 2021.**

In support of best practices for preventing the spread of the coronavirus, CWS has adopted the following format for the April 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 April 13 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, April 6, 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 April 13 to advise about your attendance at this meeting.

Enclosures in this packet include:

- April 14 Meeting Agenda and Materials
- March 10 Meeting Notes

Clean Water Services Advisory Commission

April 14, 2021

AGENDA

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

5:40 p.m. **Clean Water Services Chair Kathryn Harrington Welcome**

5:50 p.m. **Review/Approval of Meeting Notes of March 10, 2021.**

5:55 p.m. **Industrial Pretreatment Local Limits Update**

The District's 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 can discharge to the District's water resource recovery facilities. These limits are designed to keep workers safe, protect plant operations and ensure that the facilities continue to meet limits established to achieve water quality standards. The District has drafted local limits and is obtaining input from industrial sources and other stakeholders. The presentation will provide an overview of the local limits and potential impact to industrial dischargers.

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

Requested action: *Informational*

6:35 p.m. **Tree for All: Catalyzing Cross-Sector Partnerships for Community Resilience**

Over the past fifteen years, the Tree for All program has restored more than 140 river miles across more than 30,000 acres in the agricultural and urban communities of the Tualatin River Watershed. Staff will provide an overview of the program's evolution and highlight how Tree for All partners are working together to bring about landscape-scale community resilience.

- Bruce Roll, Natural Systems Enhancement & Stewardship Director

Requested action: *Informational*

7:15 p.m. **Invitation for public comment**

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

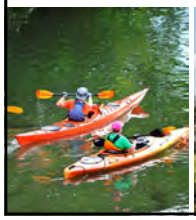
7:30 p.m. **Adjourn**

Next Meeting: May 12, 2021

LOCAL LIMITS UPDATE

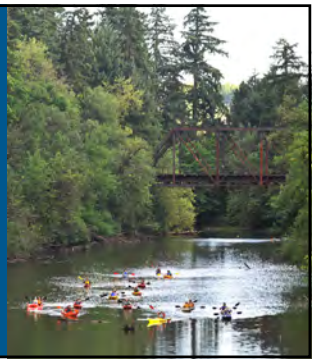
April 14, 2021

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

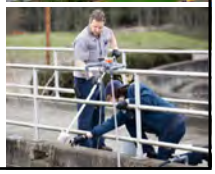
- CWS programs
  - CWS sets local limits, as directed in federal regulation.
  - Include cost recovery.
  - Protect operations.
- Federally mandated limits
  - For nondischarging categorical industrial users.
  - Address prohibitions, conditions or outcomes that must be prevented.
  - Protect health 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

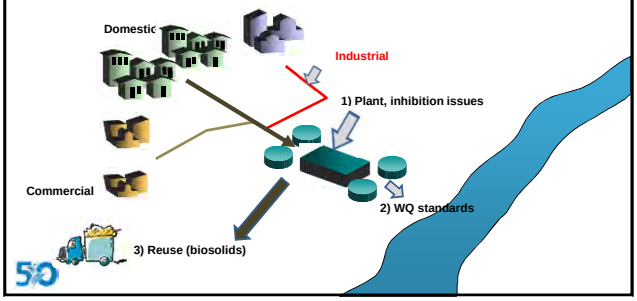
- Customized limits for specific chemicals and substances based on unique local situations.
- Apply to significant industries based on EPA classification, size of discharge, or potential impact.
- Select pollutants of concern including metals and pH.

WHY NOW?

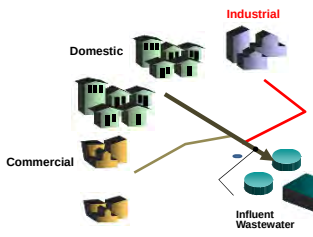
- NPDES permit requirement.
- Substantial growth in industrial and domestic sources - increased plant flows.
- New water quality standards (copper and arsenic).
- Year-round discharge from Forest Grove facility and natural treatment system.
- Concerns about industrial impacts on ability to remove ammonia.

LOCAL LIMITS ON INDUSTRIAL SOURCES



ESTABLISH LOCAL LIMITS FOR EACH POLLUTANT



To Calculate:
Determine allowable level related to:
- Inhibition: Pollutants affecting our good bacteria used in treatment?
- Biosolids
- Water quality standards

Determine reserve for growth
Determine nonindustrial contribution
Determine amount for industries
Allocate to industries

SETTING LOCAL LIMITS

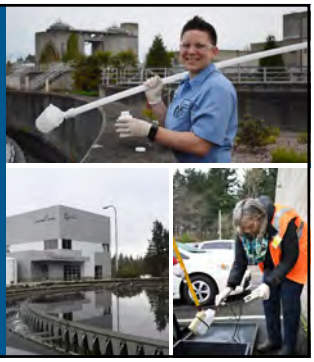
- **Creating potential local limits is complex**
  - Assess risk
    - Inhibition, biosolids, water quality standards
  - Assess potential compliance by industrial sources
  - List of new pollutants of concern
    - Nitrification inhibition (copper and zinc)
    - Water quality standards (copper and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

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



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.

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

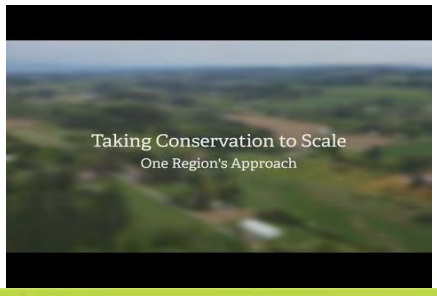
TREE FOR ALL: FROM WATERSHED ENHANCEMENT TO COMMUNITY RESILIENCE

jointreeforall.org

LANDSCAPE CONSERVATION VALUES

jointreeforall.org

VIDEO



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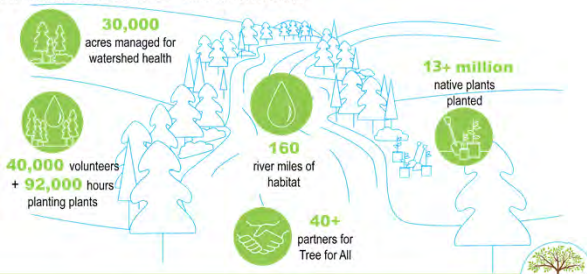
NATURAL SYSTEMS BY THE NUMBERS



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CALL TO ACTION

jointreeforall.org

WAPATO

jointreeforall.org

LONG-TERM COMMUNITY PARTNERSHIP COMMITMENT

US Fish & Wildlife Service = $480,000

Agricultural Community $55,000

$100,000

$250,000

US Fish & Wildlife for pump station Construction = millions+

The Wetlands Conservancy $120,000

Metro $325,000

Tualatin Soil & Water Conservation District $100,000

Clean Water Institute $100,000

Clean Water Services $826,000

In-Kind Services: USGS

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PEOPLE PROTECTING PEOPLE

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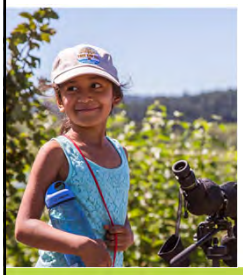
PASEOS VERDES



- 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

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TRANSFORMATIONAL PARTNERSHIPS

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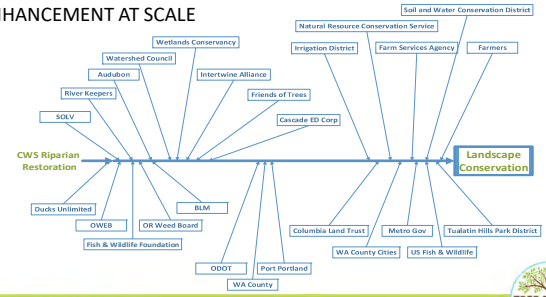
ENHANCEMENT AT SCALE



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INNOVATION AND CREATIVE FINANCING

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

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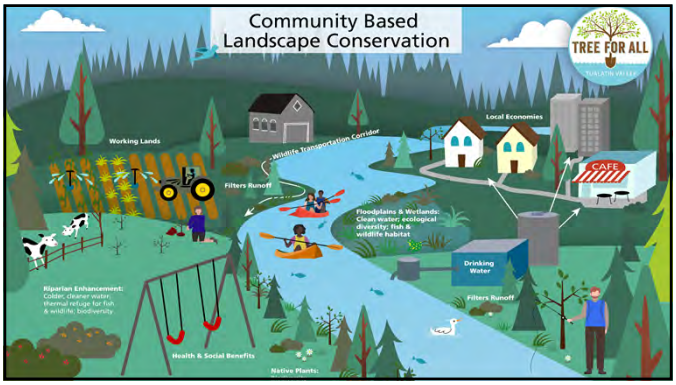

LANDSCAPE CONSERVATION VALUES

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IT TAKES PARTNERSHIPS

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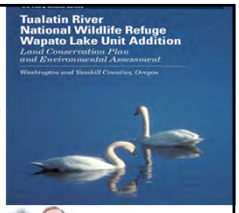
RESULTS SINCE 2004

- 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



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WHAT'S NEXT FOR PARTNERS?

ONE WATER

WETLAND SYSTEMS

jointreeforall.org

QUESTIONS?

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Watershed Restoration Benefits Community Health

BRINGING NATURE BACK into our communities doesn't only benefit water quality and wildlife—it's essential to the health and wellbeing of all the people who live, work, and play in the Tualatin River Watershed.

Tree for All is bringing back Mother Nature on a landscape scale. This translates into equally large-scale health benefits for the population of Washington County.

> "It's about my health, it's about your health, it's about the overall health of our communities."
>
> — Dr. Philip Wu, retired Kaiser Permanente pediatrician

We may intuitively know that we feel better after sitting under a tree or taking a stroll through a park. In fact, scientific evidence confirms that nature provides significant health benefits. Thirty years of research shows that trees and green spaces are important for human health and wellbeing. Nature not only creates a healthier living environment; it improves our physical and mental health, enhances cognitive function, and creates happier, more connected communities. In other words, people need nature just as much as fish, songbirds, and beavers do.

The best part is, when we bring nature back into our neighborhoods we don't have to travel to enjoy these benefits. They are available to us right in our communities. And because of the high population density of urban areas, every square inch of nearby nature has the potential to benefit hundreds of people every day. By connecting the community to the Tualatin River Watershed, Tree for All helps Washington County residents live longer, healthier, and happier lives.

TREE FOR ALL
PARTNERS FOR WATERSHED HEALTH

Tree for All engages communities large and small in conservation projects throughout the Tualatin River Watershed in Oregon.

JOINTREEFORALL.ORG

Paseos Verdes: The Watershed Health Walks Program

Paseos Verdes connects underserved community members to natural areas in Washington County through guided walks in the Tualatin River Watershed.

The program is based on the simple idea that connecting the community with nature is good for the watershed and good for human health and wellness. The walks engage families to learn about watershed health, water management, and wildlife. These experiences promote environmental stewardship while providing the health benefits of being active in nature and the outdoors.

In 2018, Paseos Verdes expanded to include a Bilingual Naturalist Training Program. A cohort of five Washington County residents was recruited to participate in the trainings and lead the walks. Participants learned about plants, animals, and habitats through classroom learning and field practice, while developing organizational and leadership skills.

Walks take place at Fernhill Wetlands, the Tualatin Hills Nature Park, and the Jackson Bottom Wetlands Preserve in Hillsboro. Along the trail, participants can often be heard exclaiming "I live nearby and I have never been here before!" while planning their next visit together. On one walk, children lined up excitedly to observe great blue herons and bullfrogs through a bird-spotting scope while marveling over the fact that their bathwater could end up in such a beautiful place. On another occasion, a delighted grandmother spotted wild chamomile growing alongside the trail and taught the group about the plant's various uses in her native Mexico.

The first four years of Paseos Verdes have been a great success. The response from the Bienestar and Virginia Garcia communities has been overwhelmingly positive and program participation has consistently exceeded expectations. Families have been eager to sign up again.

By providing culturally competent and engaging opportunities for Washington County residents to connect with the Tualatin Watershed, Paseos Verdes is improving community health while fostering the river stewards of tomorrow.

Revised 1/2021

Learn more about Paseos Verdes at:
jointreeforall.org/paseos-verdes

PORTLAND AUDUBON · Clean Water Services · BIENESTAR · Tualatin Soil and Water Conservation District · TREE FOR ALL Partners for Watershed Health

CASE STUDY

—

Chicken Creek

Powerful Ecological Enhancement Amid Rapid Urbanization

—

CHICKEN CREEK borders the west and north edges of the fast-growing city of Sherwood, Oregon, flowing through agricultural lands and past suburban homes before emptying into the Tualatin River. Just beyond the city, Chicken Creek meanders for two and a half miles through the Tualatin River National Wildlife Refuge, one of very few urban refuges in the country, where surrounding wetlands provide a stopover sanctuary for migrating birds on the Pacific Flyway. This stretch of creek, located within a wildlife refuge yet so close to rapid urbanization, holds the promise of important benefits for our watershed.

TREE FOR ALL

PARTNERS FOR WATERSHED HEALTH

Tree for All engages communities large and small in conservation projects throughout the Tualatin River Watershed in Oregon.

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The Site

SIZE	294 acres	**FIRST PLANTING**	Fall 2019
STREAM LENGTH	2.5 miles	**PLANT COMMUNITIES**	Herbaceous and Woody Wetland Complex, Riparian Forest

Habitat Connectivity

Keystone Species

Recreation & Human Health

Community Involvement

Urban Partnership

Working Lands Partnership

Protects Water Quality

The Challenge

In the early 20th century, the reach of Chicken Creek approaching its confluence with the Tualatin River was rerouted to accommodate local agriculture.

The once-meandering creek became a deep, linear channel whose quick-moving waters eroded stream banks, creating a ditch that greatly limited the creek from connecting with and saturating the floodplain. What had once been a woody and herbaceous wetland, complex with thriving flora and fauna, greatly suffered; due to a lack of suitable habitat, native wildlife populations declined. Today, as areas just outside the wildlife refuge rapidly urbanize, investing in the health and resilience of the creek is critical.

> Today, investing in the health and resilience of the creek is critical.

View the Tualatin River National Wildlife Refuge's multimedia story about Phase I of the project at refuge2020.info.

The Transformation

For years, partners had been preparing to transform this reach of Chicken Creek. In 1996, thanks in part to the grassroots support of Friends of Tualatin River National Wildlife Refuge, the U.S. Fish and Wildlife Service purchased the surrounding land and initiated restoration efforts. In 2009, a half-mile upstream from the refuge, neighbors on Green Heron Drive began working with the City of Sherwood, contractors, and other partners to enhance the creek near its crossing with busy Roy Rogers Road. In 2017, the U.S. Fish and Wildlife Service created the first of many opportunities for volunteers to do hands-on creekside restoration near the southern edge of the refuge.

More recently, partners executed a long-awaited project that aligns Chicken Creek to its historic path, all the while embracing the role that beavers can play in the placement of woody debris and revegetation. Project steps included modeling and excavating the historic path of the creek; rerouting and filling in the current channel; construction of two bridges that cross the new channel; removing invasive species and replanting native vegetation; reestablishing a creek connection to the floodplain; and beginning long-term monitoring.

Because optimized beaver habitat is integrated into the revegetation and construction plans, engineered water control infrastructure was unnecessary. Enhanced by woody debris, the natural path of the creek now encourages the migration and spawning of Upper Willamette River Steelhead, a federally threatened species, which is expected to increase their population as well as the value of the ecosystem.

As wildlife reclaims its historic home in Chicken Creek's adjacent wetlands, the creek will once again contribute to a healthy watershed. Additionally, restoration efforts here will benefit the local economy and community by enhancing and protecting Tualatin River National Wildlife Refuge, an important destination for environmental education and a source of regional pride.

Follow the Chicken Creek Story

—

As restoration work begins, Tree for All partners are excited to watch Chicken Creek reach its ecological potential when —with the help of the beavers—the creek realigns to its historic path and native flora and fauna return.

Learn more at jointreeforall.org/chicken-creek.

> Since the establishment of the Tualatin River National Wildlife Refuge the number of bird species seen at Chicken Creek has quadrupled.

Learn more about TFA partners at: jointreeforall.org/partners

Key Partners

Clean Water Services

Tualatin Soil and Water Conservation District

Friends of the Refuge

intel

Bonneville Environmental Foundation

U.S. Fish & Wildlife Service

Willamette Water Supply — Our Reliable Water

Ducks Unlimited

CASE STUDY

—

Fanno Creek: Denney-to-Hall

The Ribbon of Healthy Creek Grows Longer

—

FANNO CREEK originates in the Tualatin Mountains (Portland's West Hills) and travels almost 17 urban miles on its way to the Tualatin River. Just after crossing under Highway 217, it enters the Fanno Creek Greenway, a string of connected Tualatin Hills Park & Recreation District properties with trails that draw more than 100,000 visitors a year. Years ago, a portion of the creek between Denney Road and Hall Boulevard was straightened, leading to eroding stream beds and banks. Wildlife habitat and water quality suffered. In addition, a pair of undersized culverts has impaired fish passage and contributed to frequent trail flooding.

The Denney-to-Hall project replaced the culverts with a timber pedestrian bridge, restored curves to the creek's path and improved plant and animal habitat. Like earlier Tree for All projects on other portions of Fanno Creek, Denney-to-Hall is an exciting opportunity to support a healthy floodplain in an intensely urban environment.

TREE FOR ALL

PARTNERS FOR WATERSHED HEALTH

Tree for All engages communities large and small in conservation projects throughout the Tualatin River Watershed in Oregon.

JOINTREEFORALL.ORG

The Site

SIZE	21 acres	**FIRST PLANTING**	Winter 2020-21
STREAM LENGTH	3,021 ft	**PLANT COMMUNITIES**	Forested Wetland, Riparian Forest, Scrub Shrub

Habitat Connectivity

Keystone Species

Recreation & Human Health

Community Involvement

Urban Partnership

Protects Water Quality

Floodplain Access

Denney-to-Hall is an exciting opportunity to support a healthy floodplain in an intensely urban environment.

The Challenge

Like the Ash-to-Main project a few miles downstream, the Denney-to-Hall project will take on the challenge of erosion by "remeandering" the creek so that it follows a more natural path.

The project design is shaped by the heavy presence of important water infrastructure, including sanitary sewer lines and a stormwater outfall—as well as a pond and other remnants of a decommissioned sewage treatment facility. Another challenge—and opportunity—involves the somewhat complex nature of the partnership. Most of the project falls within the Fanno Creek Greenway, owned and operated by the Tualatin Hills Park & Recreation District. There is also, however, a small amount of project acreage under private ownership. Metro, the regional government, is making the project possible—including its iconic centerpiece, the new timber bridge—with a Nature in Neighborhoods grant. Clean Water Services is handling the engineering, construction and revegetation.

The Transformation

Together, the project team re-established the natural flow of Fanno Creek in the northern portion of the site, replaced two undersized culverts with a pedestrian bridge, removed the berm surrounding the pond, created depressional floodplain wetlands and placed logs in the stream channel and wetland to improve habitat. Finally, they established native plant communities along the entire Denney-to-Hall reach.

With on-site construction complete, the creek's winding path now more closely resembles its natural curving route, and the creek's access to the floodplain has been greatly improved. Results include better plant and wildlife habitat, reduced erosion and a trail crossing that's less prone to flooding.

Thanks to earlier efforts, invasive vegetation was already largely under control. Revegetation, now underway, will leverage the latest knowledge about how to reduce conflicts between beavers and people. Plants of little interest to beavers, such as spirea, will be planted near the trails, while willow and other food/building materials will be planted in more remote areas, where the beavers are expected to enrich the habitat by building dams. And it appears to be working—already, beaver chews have been spotted upstream.

With the Denney-to-Hall project, the ecologically enhanced portion of Fanno Creek grows by more than half a mile, bringing the Tree for All project total along this urban stream to more than 11 miles. Greenway Park and Englewood Park, home to projects launched more than a decade ago, sit immediately south of Denney-to-Hall, while other current and future Tree for All sites exist both upstream and downstream. Increasingly, hikers and cyclists—as well as fish and birds—are encountering a near-continuous stretch of healthy creek all the way from Highway 217 to the mainstem of the Tualatin River. It's as if a ribbon of cleaner water and healthier habitat is unfurling in some of the most developed portions of Oregon's Tualatin River Watershed.

Learn More

Explore a segment of the Fanno Creek Trail, including the Denney-to-Hall portion, from the perspective of Access Recreation, which provides information to benefit hikers with disabilities.

www.accesstrails.org/Phase_1/Fanno_Creek/Fanno_Creek.html

Learn more about TFA partners at: jointreeforall.org/partners

Increasingly, hikers and cyclists—as well as fish and birds—are encountering a near-continuous stretch of healthy creek all the way from Highway 217 to the mainstem of the Tualatin River.

Key Partners

Clean Water Services · Metro · Tualatin Hills Park & Recreation District

CASE STUDY

—

Wapato Lake

The south end of Wapato Lake.

TREE FOR ALL

PARTNERS FOR WATERSHED HEALTH

Tree for All engages communities large and small in conservation projects throughout the Tualatin River Watershed in Oregon.

JOINTREEFORALL.ORG

Crafting a Powerful Plan to Protect Habitat and Water Quality

WAPATO LAKE National Wildlife Refuge, located along the Tualatin River near Gaston, Oregon, is one of the nation's newest refuges—and a site of critical importance to the health of water, wildlife and people across the Portland metro area. For almost a decade, Clean Water Services, Tualatin Valley Irrigation District and the Joint Water Commission have been working with the US Fish and Wildlife Service to develop a strategic partnership. These partners have collaborated to evaluate the potential impacts of a set of habitat management alternatives on wildlife populations at Wapato Lake NWR as well as urban centers downstream. The Fish and Wildlife Service released a draft Environmental Assessment of these Habitat Management Alternatives for public comment in the spring of 2017. Also in 2017, USFWS was able to reallocate deferred maintenance dollars to the pumping infrastructure replacement project due to the critical role it plays in facilitating full restoration of the lakebed. Today, Wapato Lake is at a crossroads.

Wapato Lake from helicopter.

The Site

SIZE 817 acres	**FIRST PLANTING** 2018*
STREAM LENGTH 26,764 feet	

PLANT COMMUNITIES

Emergent Marsh, Scrub Shrub

* *Projected*

The Challenge

Historically, the Wapato lakebed filled and receded with the rise and fall of Tualatin River. A pump system and earthen levees, designed to facilitate farming, were installed in the 1930s. More than 80 years later, the economic and public health risks of this aging infrastructure have become evident.

In the summer of 2008, several breaks in the aging levees led to the release of stagnant, algae-laden water into the Tualatin River, which is the drinking water source for 400,000 residents. The releases affected not only drinking water treatment, but also major industrial users such as Intel; agricultural irrigators; fish and wildlife; and recreational use. Two years later, the primary pumping facility for Wapato Lake failed. With emergency funding and borrowed portable diesel pumps, the partners averted further algal blooms. The challenge at Wapato Lake involves not only aging infrastructure, but also the level of collaboration, funding and expertise needed to transform this expansive and critical site into a haven for wildlife and an asset to the surrounding communities.

Wapato Lake has been identified by the Pacific Birds Habitat Joint Venture and the Oregon Conservation Strategy as a high priority for restoration.

Gary Witt

Wapato Lake downstream.

The Transformation

A decade's worth of effort has transformed the community's capacity to address these challenges. Clean Water Services, the US Fish & Wildlife Service and other partners have forged a strong alliance that is prepared to execute and sustain the physical changes called for at Wapato Lake.

With sufficient resources, partners are prepared to replace the aging pump infrastructure and take the first steps toward full ecological restoration. These actions will protect water quality; create diverse wetland and riparian wildlife habitat; and protect the interests of downstream industrial, agricultural and recreational users.

In the rural context of the upper Tualatin River, the 800-acre Wapato Lake NWR will serve as an anchor site in the vast network of publically owned wetlands, floodplains, waterways and upland forest that stretches from the Coast Range to Forest Grove. In the larger regional context, Wapato Lake will be a vital addition to the 25,000 acres across rural and urban Washington County already under management by this unique collaborative conservation effort. Ultimately, it will create greater access to nature for the entire Portland region, providing a diverse urban audience with unique opportunities to connect with fish and wildlife close to home.

Wapato Lake has been identified by the Pacific Birds Habitat Joint Venture and the Oregon Conservation Strategy as a high priority for restoration. Strong support for Fish & Wildlife funding at Wapato Lake NWR is a necessary condition for the continued transformation of this key component of the landscape level restoration effort in the upper Tualatin River Watershed.

All aerial photos: Sheepscot Creative

Explore Wapato Lake National Wildlife Refuge

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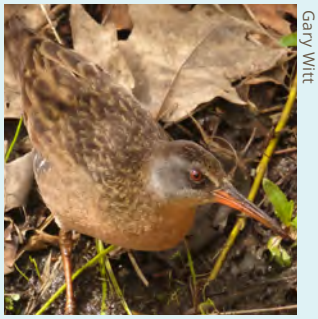
The Wapato Lake area already provides important bird habitat. The collaborative restoration plan—which depends upon continued Fish & Wildlife funding—calls for landscape-scale restoration which will greatly increase and diversify bird habitat at Wapato Lake NWR.



Gary Witt

Lois Manowitz

191 species of birds from 45 families have been documented in the Wapato Lake area in its current condition.

Waterfowl peak average: 21,000 birds, including western Canada geese, cackling geese and northern pintail.

Shorebirds observed year round: Killdeer and spotted sandpiper.

Bird species expected to benefit from restoration include waterfowl, such as cinnamon teal and canvasback; Virginia rail and other marsh birds; migratory neo-tropical songbirds, such as willow flycatcher; and shorebirds, such as the whimbrel.

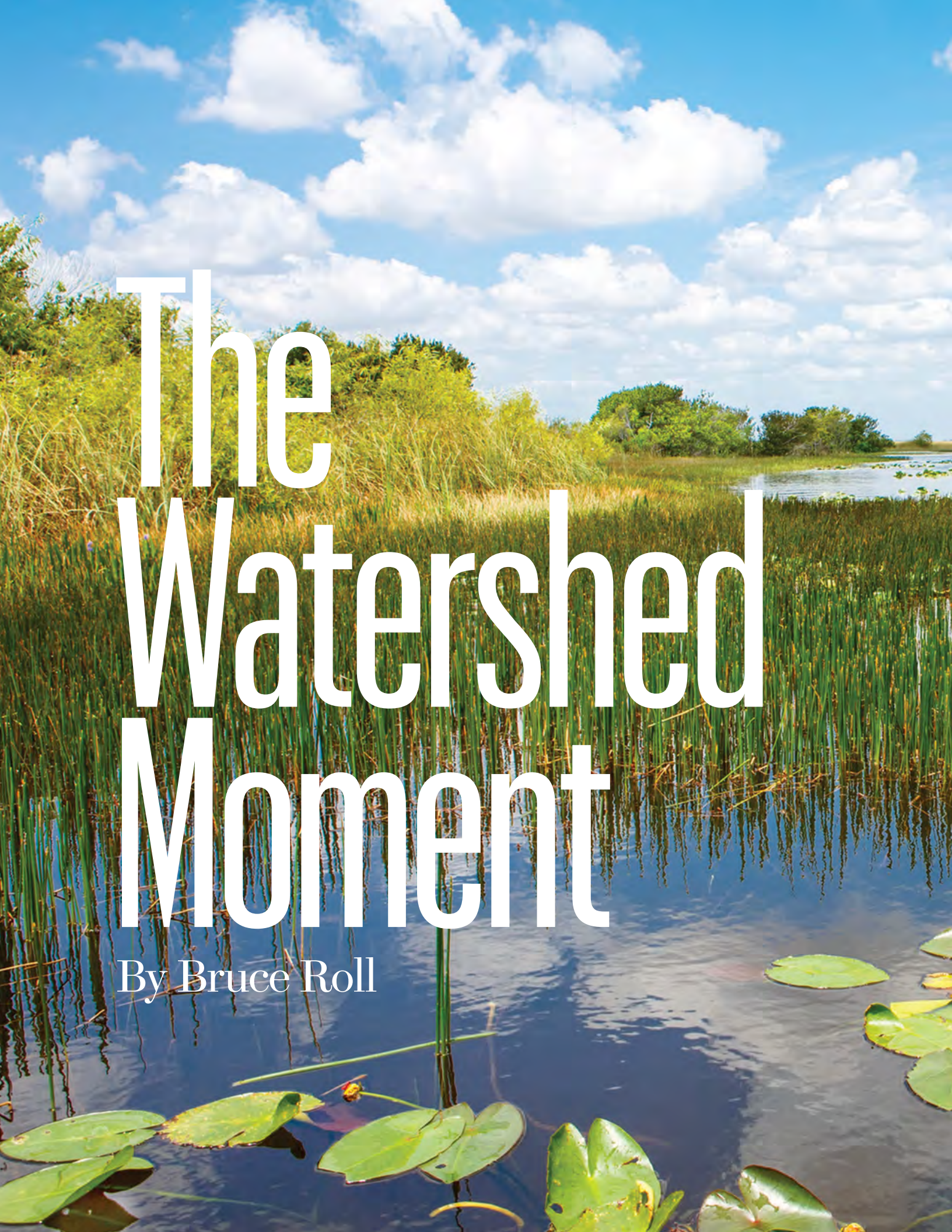
Gary Witt

Ganesh Jayaraman

Explore Wapato Lake at fws.gov/refuge/Wapato_Lake

Key Partners

Clean Water Services · Joint Water Commission · Metro · intel · Tualatin Soil and Water Conservation District · Tualatin Valley Irrigation District, Forest Grove, OR · USGS · U.S. Fish & Wildlife Service · Clean Water Institute



The Watershed Moment

By Bruce Roll

As The Innovative "Tree For All" Approach Matures From Pilot Projects To Landscape Conservation Programs, Historic Opportunities And Challenges Emerge

We have come a long way with the "One Water" concept–that is, the idea that all water moves in a closed system through cycles of use and reuse in watersheds throughout the world. Throughout the water sector, we are witnessing groundbreaking community conversations about direct potable reuse, resource recovery, ecological health, and renewable energy production. It is inspiring that we are now talking about water and its benefits in a way that brings utilities and communities together and begins to knock down the regulatory silos of the Clean Water Act and the Safe Drinking Water Act.

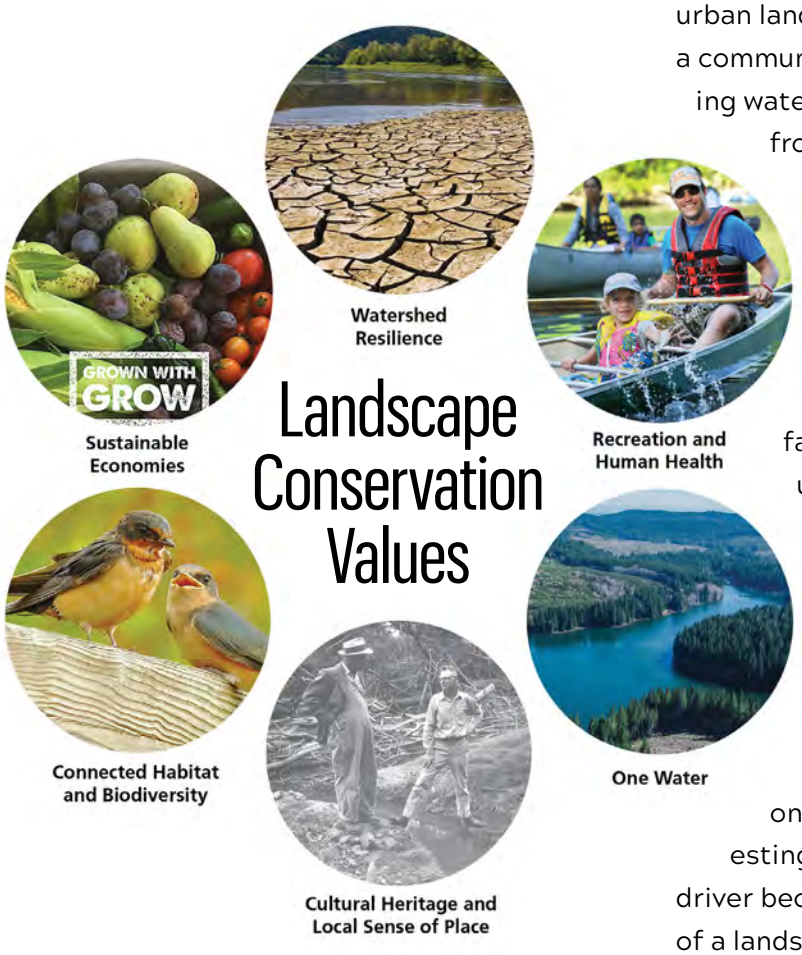
> We are clearly at a tipping point where we are beginning to have clarity on the kinds of One Water projects we want to implement.

We are clearly at a tipping point where we are beginning to have clarity on the kinds of One Water projects we want to implement. This transformation has been a long time coming. And it is now setting the stage for some historic challenges as we seek to create healthy watersheds in an era of unusual weather patterns and rapid urbanization.

There is also an elephant in the room that we are only beginning to think about. That elephant is scale. We will need to act on an unprecedented scale, with new kinds of partners and resources that reach beyond utility-based user fees, if we want to create watersheds that are resilient and able to thrive in the face of these historic challenges.

To work at scale, we also need to take on new approaches to planning and project delivery. Having spent the first half of my career doing watershed, stormwater, source water protection, and Endangered Species Act plans, it has become evident to me that the vast majority of plans never move beyond pilot projects and a few months or years of pounding the pavement in search of more funding. More times than not, new shelf art is created, and we start the process all over again when a new topic triggers another planning effort.

As often happens when dealing with major issues on the ground, a large, important question comes together like gathering droplets forming a burgeoning stream: could there be a different approach that opens the door to landscape-scale conservation in our watersheds?



Adapted from www.largelandscapenetwork.org

Figure 1

BROADENING THE SCOPE: MOVING BEYOND A PIECEMEAL APPROACH TO ACHIEVE WATERSHED RESILIENCE

"Landscape conservation" is a concept that has arisen in response to the challenges of changing weather patterns and urbanization, as well as a perceived excessive focus on site-based conservation. It aims to take a holistic approach, looking not just at biodiversity, but also at local economies, working lands, and the health and social benefits of the environment (see Figure 1).

The Tualatin River Watershed in Northwestern Oregon is home to "Tree for All," one of the largest and most successful landscape conservation programs in the country Since 2005, Tree for All has restored more than 120 river miles across more than 25,000 acres in the rural and urban landscapes of this watershed. It employs a community-based systems approach to building watershed resiliency. Engaging partners from the public, private, and nonprofit sectors, the program weaves together diverse strategies and funding mechanisms to enhance watershed resiliency across the entire 750 square-mile watershed–home to corporate headquarters, productive farmland, vast forests, and massive urban and suburban development. (www.JoinTreeForAll.org).

RETHINKING REGULATORY REQUIREMENTS AS A CATALYST FOR COLLECTIVE ACTION

Creating a program capable of acting on a watershed scale has been an interesting journey. In our case, a regulatory driver became a catalyst for the development of a landscape conservation program.

Like many utilities across the nation, Clean Water Services (CWS) was faced with regulatory requirements that gave it a choice: invest $150 million in facility upgrades or find a creative way to work with Mother Nature to meet the regulations.

CWS and the communities in Washington County, Oregon recognized that there was a unique opportunity to think outside the box with an innovative riparian restoration program that could create watershed-wide benefits. This riparian restoration program became the foundation for what is today a very successful landscape conservation program.

As the Tree for All program matured, we began to see "landscape-scale" results, such as 100 farms working in collaboration, millions of dollars contributed through the federal Farm Bill and by local governments, the engagement of hundreds of community volunteers, establishment of a new national wildlife refuge, and more than two million native plants going into the ground in a single year. These are a few of the many results that demonstrate how the Clean Water Act can serve as a catalyst for landscape conservation.

Twelve years into this journey, CWS is meeting its regulatory obligations and at the same time catalyzing the kinds of actions needed for a healthy and resilient watershed. By working with more than thirty partners, the Tree for All program has generated the millions of dollars needed to fund a landscape conservation program. Notably, CWS was able to access existing funding sources, many of which can be found in every community.

SCALING UP: RETHINKING PROJECT DELIVERY AND FINANCING

Pilot projects have a role. They are an essential part of moving to scale, and they create an

opportunity to think about new partnerships and the planning and administrative costs needed to deliver at scale. For the Tree for All program, two important things happened in the course of conducting pilot projects: multiple partners and resources were engaged, and innovative planning and project delivery methods were created.

Instead of hearing a speech about CWS regulatory obligations, partners were invited to conversations about the actions and outcomes that CWS proposed to lay out on the landscape. This meant talking about things like aquatic and terrestrial diversity, healthy floodplains, urban and agriculture economies, sense of place, recreation, and human health.

Landscape thinking is taking root in the region by meeting each partner where they stand or framing the conversation in a way that clearly articulates how these actions would help them achieve their goals. For farmers, it was about voluntary incentive programs that made their farms more successful. For park interests and groups, it was about supporting recreational opportunities. For environmental interests and groups, it was about creating the aquatic and terrestrial wildlife habitat needed for a healthy watershed. These are a few of the many interesting partner conversations were needed to bring actions to scale.

Thinking at the "landscape scale" provides a broader view of outcomes, and, at the same time, demands

> Making room for a resilient Mother Nature meant that we deliver projects through her eyes.

that we rethink how to plan and deliver projects. Making room for a resilient Mother Nature meant that we deliver projects through her eyes. This approach requires innovative contracting methods, new approaches to easements,

real-time monitoring, integrated adaptive management, restoration asset management systems, and the list goes on. Ultimately, this required–and will continue to require–project delivery methods that deliver multiple outcomes, including clean water, healthy soil, community engagement, and the ecological diversity essential for a resilient and healthy watershed.

THE UTILITY OF THE FUTURE?

As the utility industry continues our One Water journey, we find ourselves crossing paths with concepts like landscape conservation, scale, and watershed resiliency. They appear to be important topics as we think about changing weather patterns and rapid urbanization. The Tree for All program's partners have made transformative progress regarding watershed health and resiliency. However, there are always new opportunities to innovate, collaborate, and achieve results. The Tree for All story demonstrates that a regulatory obligation can serve as a catalyst for landscape conservation. It also prompts us to consider the role that landscape conservation plays in the emerging Utilities of the Future paradigm.

Bruce Roll is the Director of Watershed Management for Clean Water Services and the nonprofit Clean Water Institute in Hillsboro, OR, a founding member of the Intertwine Alliance, and a key developer of the Tree For All Landscape Conservation Program.

Clean Water Services Advisory Commission Meeting Summary

Date: March 10, 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
- Andy Duyck (District 4/Willey)
- Art Larrance (At-Large/Harrington)
- Jan Wilson (Environment 1)
- John Jackson (Agriculture 1)
- Lori Hennings (Environment 2)
- Matt Wellner (Homebuilder-Developer 2)
- Molly Brown (District 2/Treece)
- Stu Peterson (Business 2)
- Terry Song (Business 1)
- Sherilyn Lombos (Cities/nonvoting)
- Joseph Gall (alternate Cities/nonvoting)
- Diane Taniguchi-Dennis (Clean Water Services Chief Executive Officer/nonvoting)

Vacant:

- District 1/Fai
- Agriculture 2

Attending the meeting from Clean Water Services:

- Mark Jockers, Chief of Staff
- Gerald Linder, General Counsel
- Tom VanderPlaat, Water Supply Project Manager
- Shannon Huggins, Public Involvement Coordinator
- Stephanie Morrison, Office Manager
- Ken Williamson, Research & Innovation Director
- Jody Newcomer, Technical Editor & Communications Specialist
- Dave Cebula, IT Enterprise Architect

Attending the meeting from the public:

- Dave Waffle

1. CALL TO ORDER

Mr. Weller called the meeting to order at 5:32 pm.

Ms. Morrison announced the meeting was being recorded and recognized all attendees.

2. REVIEW/APPROVAL OF MEETING NOTES

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

3. TUALATIN JOINT PROJECT UPDATE

- Tom VanderPlaat, Water Supply Project Manager
- Mark Jockers, Chief of Staff

Clean Water Services has been working on the water supply project since 2004. The original goal was to enlarge Hagg Lake; the project evolved to include seismic modifications. CWS and the Bureau of Reclamation have been working under Joint Project authority since 2016 to consider design concepts for a dam that would protect public safety and meet the region's water needs. The federal government pays 85 percent of costs for dam safety modifications; local entities pay the remaining 15 percent. The cost of improvements for other benefits such as additional water or recreation are the responsibility of the local entities and other investors.

There are three conceptual options in play for the Joint Project:

1. Modify Scoggins Dam, often called the Safety of Dams option. The dam would be built higher, but there would be no additional water.
2. Raise Scoggins Dam by 17 feet and gain an additional 21,000-24,000 acre feet of storage.
3. Build a downstream dam below Stimson Mill, which would add nearly 50,000 acre feet of storage.

In February 2020, CWS and Reclamation reviewed feasibility designs for the three options that had estimated costs ranging from $750 million to $1.2 billion. While all three options are deemed technically feasible, they are not financially feasible. CWS and Reclamation paused to gather additional information about risks, costs and other water resource funding opportunities.

Recent modeling shows CWS can potentially bridge its thermal compliance needs without additional water through 2050 by expanding water reuse, increasing the riparian shading program under Tree for All, optimizing existing water and exploring other options. However, modeling also shows that additional water may be needed in the future to meet the basin's long-term environmental obligations. Within this framework, CWS is working with Reclamation to define the regional benefits of additional water to meet the long-term needs of the basin and CWS' regulatory requirements.

The federal Safety of Dams investment is a generational opportunity to support a broad portfolio of regional needs including the Endangered Species Act, hydroelectric power, climate resilience, wildfires, recreation and flood control. Recreational use has increased significantly in the past year, possibly as a result of the pandemic.

CWS and Reclamation are considering three project plan alternatives, with Reclamation taking the lead in all scenarios with CWS in a supporting role.

1. Safety of Dams only alternative: Fix existing structure.
    a. Reclamation: Safety of Dams modifications
    b. CWS: Nonstructural actions such as reuse and other partnerships.

2. Water Resources Feasibility Study Alternative:
    a. Reclamation: Safety of Dams modifications
    b. CWS: Multipurpose project
        i. Additional water quality needs
        ii. Other project purposes such as endangered species, hydroelectricity, recreation, climate resilience. Additional financing and partners are key
3. Tualatin Joint Project alternative
    a. Reclamation: Safety of Dams modifications
    b. CWS: Water quality only for additional benefits; small raise of existing dam or build a dam downstream

Cost is a significant challenge for both CWS as an original partner on the Joint Project and for Reclamation. The team is looking at funding through WIFIA (Water Infrastructure Finance and Innovation Act) and the WIIN Act (Water Infrastructure Improvements for the Nation) grant program. Policy issues prevent CWS from directly accessing WIFIA or WIIN funds, but staff is working with members of the Oregon Congressional delegation and government affairs representatives in Washington D.C. to explore what changes could be made to provide benefits for this project.

For example, WIFIA funds must be secured by an asset CWS owns. CWS would not own the project, but it would own the water storage rights. Would WIFIA consider water rights an asset?

As is typical with Reclamation projects, project beneficiaries assume repayment contracts with favorable terms; repayment doesn't start until the project is complete. CWS is exploring what costs it can fold into the repayment contract related to the Safety of Dams work.

It's possible that CWS could secure partners to invest in one of the dam alternatives given the benefits associated with recreation, climate resilience, flood control or fisheries. CWS has obligations related to water quality, but there are potential obligations under the Endangered Species Act, which could be borne by the federal government.

Next steps include completing economic reviews for funding and financing and searching for partners. The project team will undertake a water resources feasibility study for a multipurpose facility, which would be required for federal funding. There have been feasibility studies for water quality but not for other project purposes.

Reclamation gets about $70 million a year for the Safety of Dams program. It's currently working on the BF Sisk project in California, which will take six to eight years. Scoggins Dam is next in line. Construction is not likely to start before 2028 and would last six to eight years. In the meantime, CWS and Reclamation will prioritize and sequence actions, including interim risk reduction activities such as reinforcing the spillway structure or providing public education and first responder outreach.

On March 2 the Board of Directors approved a Contributed Funds Act agreement between CWS and Reclamation that defines roles and responsibilities and includes a cost recovery component. Some of the CWS investment over the years benefits the Safety of Dams. The CFA allows credit for a portion of those costs. Negotiations continue.

The CFA provides a framework for future work as CWS pivots this project from a joint dam safety-water supply project to a multi-objective water resources project.

Oregon's U.S. senators are positioned well in relation to the dam project. Sen. Ron Wyden is the Chair of the Finance Committee and Sen. Jeff Merkley is seated on the Appropriations Committee. CWS' priority with the Congressional delegation is completing the CFA. Last year Sen. Wyden, Sen. Merkley and Rep. Suzanne Bonamici worked to increase annual funding for the Safety of Dams program. Delegations from Washington, California, Utah, Idaho and Montana are working with the Oregon delegation to fund Safety of Dams.

Every seven to 10 years Reclamation needs to reauthorize the Safety of Dams Act, which was last authorized in 2016 when CWS secured the Joint Project authority. The Safety of Dams Act will probably need to be reauthorized in about two years. The WIIN act is due to expire in 2022. CWS is working with partners in California to get WIIN reauthorized. Increasingly CWS needs to address dam safety issues as part of a coalition of western states.

Ms. Taniguchi-Dennis said the biggest challenge on a project like this is funding; the expectation is the costs will be paid back in 20-30 years. CWS does not need the water until after 2050 or later; it would be prepaying for an asset that has generations of life.

QUESTIONS, COMMENTS

What considerations are being given to wildlife effects at this point, and in the future? For example, Common Loon, Bald Eagle and elk. Also, do you anticipate any impacts to stream confluences with Hagg Lake?

Mr. VanderPlaat said the team has been compiling environmental impact statement elements for the wildlife and fish resource areas. There's a large herd of elk near Stimson Mill that migrate to the east and west that are a challenge to manage. CWS has a lot of information, but hasn't developed strategies to address impacts.

The team knows a lot about tributaries above the lake and the stream below the lake. Mr. VanderPlaat said he think there will be impacts to stream confluences; as river flows increase some lowland areas could flood.

Reclamation is moving forward with its process to look at the Safety of Dams only option. CWS will share information it has gathered as much as possible.

How much of the cost estimate includes costs to relocate Stimson Lumber?

The estimate includes relocation costs, which are considered noncontract costs, as well as the costs to relocate people who would be inundated by a downstream dam. Reclamation is studying whether the mill provides reduction of risk.

Mr. Jockers said CWS asked Reclamation if there's a safety benefit to move people in the downstream area. Is it part of a risk reduction strategy?

Are you considering outside-the-box approaches to construction? Is there any way to cut costs dramatically?

Mr. VanderPlaat said CWS has worked in partnership with Reclamation and does a lot of the work required as part of the process. Because it's a federal project, CWS is limited in how much it can participate. Reclamation would manage construction and all parts related to

safety. Mr. VanderPlaat said he has explored opportunities for ancillary elements such as building roads or recreational facilities that are not tied to safety. He said CWS hasn't looked at alternative construction project delivery systems, but anticipates Reclamation would be open to the options.

Ms. Taniguchi-Dennis said work on any dam option is considered a public improvement and CWS and Reclamation would fall under BOLI wages. CWS would need a private-public partnership with the private entity building the dam to avoid prevailing wage rates. There are a few examples across the country of dams that were built in that manner, and they are examples of some of the more spectacular dam failures.

Will a "no action" alternative be seriously considered? Could risk reduction and water conservation meet the needs of the project at a much lower cost (financially and environmentally) than construction?

A no-action alternative and other alternatives will be considered given the size and price tag. Risk remains a factor. Hagg Lake is the primary water supply and Scoggins Dam is at seismic risk. CWS will continue to advocate for securing the structure.

CWS is looking at the other project alternatives through nonstructural means such as reuse and other opportunities to manage water differently.

This is a generational investment. Henry and Oscar Hagg made tough decisions to build the original dam. CWS realizes the benefits of the existing water and the opportunity it provided to restore the Tualatin River. Think of the picture of Henry Hagg straddling the river.

Did you say Reclamation still has to do an Environmental Impact Statement (EIS)? Is an EIS or an Environmental Impact Assessment (EIA) required on the Safety of Dams project? Who was the federal lead on the EIS you said CWS completed in a year?

An EIA is required for the safety-only option. An EIS is required for the dam raise and downstream option. CWS collected EIS information in advance of the notice of intent, which signals the start of the EIS. (A notice of intent has not been submitted.) During the former administration, an EIS was to be completed within one year. The team invested considerable time and effort leading up to the formal process, including seeking public input.

Mr. Jockers said the Safety of Dams program is moving forward with a Safety of Dams solution. CWS continues to participate in that solution (the CWS share is 15 percent of the final cost).

Referring to the EIS, is Reclamation obligated to do something about the dam? If yes, then a no-action isn't the same as taking no action. Is no construction really an option?

Reclamation assesses the risk and prioritizes actions based on the risk analysis. Mr. VanderPlaat said he thinks some kind of construction is required to secure the dam. The question is can you remove a population to reduce the life loss so it falls under the public protection guidelines. Reclamation looks at two things: the probability of a failure and the potential life loss. The earthquake has an average recurrence of 300-500 years, and we're 300 years into that 500 years. The probability of a significant earthquake is so high, you'd have to remove all the people who would be impacted by a failure. That means moving everyone in the 100-year floodplain.

Reclamation has 375 dams and there are major populations below many of those structures. Reclamation doesn't see removing populations at risk as a permanent dam safety process. How does Reclamation address its dam safety program in relation to the Environmental Impact Statement?

Ms. Brown said it's helpful to know how many dams Reclamation is dealing with. Moving people is a policy question.

Years ago there were projections of what would happen with a catastrophic failure of dam, what would be inundated and how quickly. Has that been reevaluated?

Yes. As part of the risk analysis Reclamation looked at the impact of each option. It's called the inundation study. If the structure is modified to be more robust in a large earthquake, the probabilities of something happening are lower. If the dam fails, water would go down the valley to the mouth of Scoggins Creek. Once it broadens out in the valley near Gaston, it attenuates. Then it would run down the valley and get to the CWS administration building about three hours later. The water stays mostly within the 100-year floodplain, but the City of Tualatin would probably get flooded. If the structure fails, there would be significant impacts. Mr. VanderPlaat said he's talked to many residents about the hazards of living below a dam.

The structure is safe. It's been operated efficiently and responsibly, but it wouldn't do well in a big earthquake (magnitude 9.2 for 300 seconds). There are a lot of structures in this basin that wouldn't do well in those conditions.

I appreciate the comments and explanations. If the current dam had a failure it would be a major, major flood. Is Reclamation prepared to do something about the existing dam and correct the problems?

Yes. That's the focus for Reclamation. As CWS works through its needs, Reclamation is doing additional risk analysis and an EIA. It would be nice to do a value engineering process to see what CWS and the federal government could efficiently accomplish. CWS is challenging Reclamation on numerous policy levels. The funding component is key to the work. CWS has had very good support from its federal delegation; the team wants to assist where it can to secure our existing water supply. The water supply is important to CWS, TVID and for municipal water agencies. The water supply is directly tied to the economics of the basin.

I look at this as a big picture and longer timeline. During the heyday of dam building, we had essentially "free land" from the federal government or Native tribes and "free labor" from Chinese immigrants who were essentially indentured servants. The situation now is completely different. We don't have free land; we don't have free labor. The cost to build dams is completely different. There are dams all across the earthquake zone that are going to fail. If we get a 9.3 earthquake, our little dam is the least of our problems. We need to look more holistically. Right now we need to build a bigger table and invite more people. You said the scope of the project is evolving because we're looking at more funders. I think if the scope of the project is evolving we need more people at the table. Are tribes in on the conversation? If Reclamation seeks input from the same people, it'll get the same answers. Consider the climate impact of 300,000 yards of concrete. What is the real cost to society of a construction option?

Mr. VanderPlaat said the team has had good conversations with the Confederated Tribes of Grand Ronde. Reclamation has a government to government relationship with the tribe, and CWS probably overstepped in many areas because it wanted the tribe's active participation. He said he agrees there needs to be a broader discussion. The safety element is key because Reclamation is responsible for public safety.

I want to know if Tom is going to be allowed to retire if the dam isn't rebuilt?

Mr. Jockers said the team wants Mr. VanderPlaat there for the ribbon cutting, not the shovel ceremony. He added that this is a huge decision for the region and state. This project evolved from increasing the long-term water supply to a safety issue in 2010 or 2012 when Scoggins Dam was listed as the most seismically threatened or among the most seismically threatened facilities in the Bureau of Reclamation inventory. It's an earthen dam. It's the closest dam to the West Coast. The impact of an earthquake in the Cascadia subduction zone would be dramatic. As a result, this project continues to be near the top of the list for the Safety of Dams program.

General comments:

- FYI: The Oak Prairie Work Group has mapped Oregon white oak all around Hagg Lake. That's going to cause some significant loss. Also have new wildlife corridor maps.

4. PUBLIC COMMENT

There was no public comment.

5. ANNOUNCEMENTS

- The next meeting is scheduled for April 14, 2021.
- The Board will appoint Alan Jesse to the Agriculture 2 position and Alexander Phan to the District 1 position at its April 6 meeting.
- Kathryn Harrington, the chair of the CWS Board of Directors, is planning to attend the CWAC meeting in April.
- We'll try to do a joint meeting with CWAC and the Board of Directors for a barbeque and canoe trip on the Tualatin River in September.
- The Board appointed Andy Duyck and Lori Hennings to fill two spots on the budget committee

6. ADJOURNMENT

Mr. Weller adjourned the meeting at 6:47 p.m.

Tualatin Basin Joint Project Update

Clean Water Services Advisory Commission

Tom VanderPlaat, Water Supply Project Manager
Mark Jockers, Chief of Staff

March 10, 2021

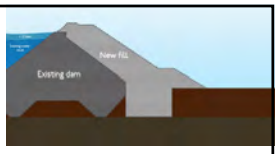


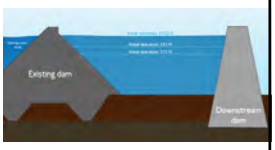
Agenda

- Project status
- Feasibility research
- Timeline
- Upcoming Board action
- Policy & legislative actions


Joint Project Conceptual Options

1) Modify dam
   (Safety of Dams or SOD)
2) Raise existing dam
3) Downstream dam





Project Update

- Costs too high ($770M for SOD only, to $1.2B for downstream dam)
- CWS and Reclamation gathering more information to advance project
  - Costs
  - Risks
  - Other water resource funding

Meeting Environmental Obligations

- Scoggins water releases and riparian shade meet current needs
- May be able to meet future needs with suite of strategies
  - Expanded reuse
  - Riparian shading
  - Optimize instream water
  - Additional water storage
- CWS and Reclamation defining regional benefits of additional water

Considering Regional Needs

- Federal SOD investment is a generational opportunity to support broad portfolio of regional needs including:
  - Endangered Species Act
  - Hydroelectric power
  - Climate resiliency
  - Wildfires
  - Recreation
  - Flood control

Looking at Project Plan Alternatives

1) Safety of Dams only
2) Water resources feasibility study
3) Tualatin Joint Project

Financing and Funding Considerations

- High cost remains
- CWS considers funding/financing options
  - Water Infrastructure Finance and Innovation Act (WIFIA) loans
  - Water Infrastructure Improvements for the Nation Act (WIIN Act) grant program
  - Reclamation repayment contract
  - Secure other partners to invest

Timeline

- CWS completes reviews of funding and financing, and economics
- Water resources feasibility study for multipurpose facility - National Environmental Policy Act (NEPA) = 2-3 years
- Identify SOD program funding and financing options = 6-8 years (once BF Sisk Dam project in California is complete)
- Construction not likely to start before 2028
- Construction duration = 6-8 years

Contributed Funds Act Agreement

- Contributed Funds Act (CFA) agreement
  - Defines roles and responsibilities for Reclamation and CWS
  - Provides mechanism to recognize and credit CWS for past investments
  - Creates framework for future work on Safety of Dams, Joint Project and new works alternatives

Policy & Legislative Actions

- Oregon delegation in key positions
- Priorities
  - Contributed Funds Act
  - Appropriations for feasibility study and Safety of Dams
  - WIIN Act reauthorization
  - Safety of Dams Act reauthorization
- Building coalition to support Safety of Dams program reauthorization, annual appropriations and policy clarification

Thank You

Clean Water Services