

# Cascade 2022 Water Efficiency Program Report

## Introduction

The 2022 Cascade Water Efficiency Program saves approximately 4.2 million gallons of water per year. Along with 2019-21 savings, this represents 48% of Cascade's 2019 – 24 Water Use Efficiency Goal. The program benefits thousands of member residents, students, businesses, schools, agencies, parks and more by providing training, education, support, and hardware that achieves water efficiency and sustainability, promotion of the value of water, and extends the region's current water resources useful life further into the future. Cascade employs one full-time employee to manage the program and expenses in 2022 were \$494,241.

## Classroom Water Education

Cascade's classroom water education program was in high demand throughout 2022. The program delivers high-quality, locally relevant programming that is aligned with Washington educational learning requirements. Through its vendor, Nature Vision, Cascade provided in-person programs, remote learning opportunities, Blue Team projects, and online curriculum to support classrooms that are interested in water issues.

### Classroom Presentations

Cascade's vendor provided in-person presentations on diverse topics, such as "Watershed Ecosystems", "Water Supply", "Waterwise Gardening", "All About Groundwater", and "Carbon, Climate, and Conservation" for K – 12 classrooms. The presentations are supported by materials, activities, and videos developed by the vendor and are locally relevant. Teacher reviews were positive:

*"The presentation was definitely created for students! Our students were excited, engaged, and learned some facts surrounding groundwater."* – Beth Nakatsu, Rosa Parks Elementary (Redmond)

*"This type of lesson can't come from a textbook and supplements any curriculum nicely."* – Ken Abraham, Pine Lake Middle School (Sammamish)

*"I continue to encourage Cascade Water Alliance to sponsor these programs for students in the Tukwila Community."* – Jennifer Tison, Cascade View Elementary (Tukwila)

*"This program was amazing. So fun and relevant. Students were engaged the whole time."* – Kathi McCabe, Challenger Elementary (Issaquah)

### Blue Teams

Nature Vision also provides a Blue Team option, where an educator works with a classroom to create a customized project over a period of several visits for a more in-depth study of a particular subject. Thirty-eight Blue Teams were provided in 2022. Example Blue Team projects:

**Foster High School** (Tukwila), 10<sup>th</sup> – 12<sup>th</sup> Grade Environmental Science, Joe Camacho, 26 Students

Project Synopsis: Students studied the hydrology of the Duwamish River, the problems resulting from urban runoff to salmon and other aquatic life, and the importance of healthy plants and soil to the functioning of a healthy ecosystem. Students participated in restoration projects at Crystal Springs Park and Codiga Park. Finally, these students were interested in becoming environmental educators themselves, so they were mentored and learned how to develop their own environmental education curriculum as well as strategies for teaching.

**Spiritridge Elementary** (Bellevue), 5<sup>th</sup> Grade, Tessa Heady, Mefan Gegwish, Amy Frieden, 67 Students

Program Synopsis: Students studied several aspects of elements affecting watersheds and biodiversity including the carbon cycle, microplastics, stormwater runoff, and invasive plants. Students practiced water sampling and testing learning scientific methods of observation, note taking, and instrument use to conduct investigations. Students finished their project by reviewing the results of their water sampling to theorize how much pollution was in their local streams and making plans for positive actions to benefit the local environment.

**Redmond Elementary**, 4<sup>th</sup> – 5<sup>th</sup> Grade, Kelsee Herrick and Tara Emitu, 47 Students

Program Synopsis: Students studied the Bear Creek Watershed and challenges to the health of Bear Creek. Students learned about the problems resulting from medications being flushed down the drain. Studies emphasized the importance of healthy soil in functioning watersheds, and field work included spreading mulch around saplings in Bear Creek Park and students making restoration plans for their own back yards to improve local watershed health.

Online Curriculum

During the pandemic, Nature Vision developed several learning packets available online that teachers, parents, or caregivers can use to deliver K – 12 water education absent classroom teaching. The learning packet titles and number of uses in 2022 are listed below:

Watersheds – 176	Humans and Water – 176
Ecosystems – 293	Ecological Impacts - 377
Water Quality - 171	Human Systems - 137
Invasive Plants - 133	

Results

A pre-session survey was conducted with 678 students who received the in-person classroom presentations to determine their understanding of watersheds and water conservation concepts. The average score was 60.8%. The same survey was taken post-session by those students with an average score of 79.4%

A pre-session survey was conducted with 225 students who participated in the Blue Teams program and the average score was 58.3%. A follow-up survey of those students saw an average score of 76.4%. A smaller group of students took the survey again 60 days after the conclusion of the project with an average score 81.1% demonstrating significant retention of key concepts.

Classroom Water Education Program achievements:

- 429 in-person classroom presentations and Blue Team projects delivered to 10,123 students
- 124 remote classroom presentations delivered to 2,759 students
- Online learning packets accessed from website 1,463 times

The total number of confirmed student engagements was 12,882, higher than any previous year (in 2019 the number of total engagements was 11,952). The number of online learning packet student engagements isn't known but could be several thousand.

**Problem-Based Learning for Water Systems**

Cascade co-created and supports the Problem-Based Learning for Water Systems (PBL4WS) program with Sustainability Ambassadors for teachers and students who want more in-depth learning about water systems. The program provides middle and high school teachers with a wide range of entry points including science, social studies, math, and language arts to incorporate the study of water into their classrooms. Problem-Based Learning for Water Systems Program achievements:

- Published new curriculum units including:
  - Home Water Conservation Audit
  - Mapping my Watershed Address
  - Coolest Graph Ever on Water Conservation
- Published 19 Student Impact Project Templates including:
  - Hidden Toilet Leaks
  - Washing Machine Full Loads
  - Recycling Saves Water Too
  - Don't Drip and Drive
  - Use a Commercial Car Wash
- Produced tables demonstrating PBL4WS curriculum units / student impact projects alignment with member city climate action plans, which allows PBL4WS to focus efforts that have the greatest impact on locally developed climate policies and goals
- Cascade provided a teaching session with Cascade's engineer so students could learn about the math and physics behind the design and operation of utility water towers. The session resulted in the creation of a new student-led campaign called "My Water Tower" with supporting videos and materials to challenge students and parents to consider the importance of water towers in their communities
- Provided two student-voiced videos and one student impact project promoting shorter showers:
  - Anshika: Shorter Showers - video
  - Aylin: Money Down the Drain - video
  - Aditi: Excellent Data Story – impact project
- Published four student-voiced video stories on Stormwater and Salmon Impacts from recorded presentations by Stephanie Blair, research scientist at WSU Stormwater Center:
  - Isolating Chemicals in Stormwater Toxic to Salmon
  - Copper in Brake Pads Toxic to Salmon
  - Toxic Tire Dust on Roadways Kills Salmon
  - How 6-PPD Quinone Impacts Salmon
- Provided seven study groups with custom designed professional development to enable development and utilization of curriculum, impact projects, and other program materials:

School	Cascade Teachers	Student Impacts
Renaissance Middle School (Sammamish)	3	90
Pine Lake Middle School (Issaquah)	6	600

Skyline High School (Sammamish)	2	100
International Community School (Kirkland)	1	40
Gibson Ek Big Picture School (Issaquah)	1	30
Emerson K-12 (Kirkland)	2	11
Willows School (Redmond)	2	30
<b>TOTALS</b>	<b>17</b>	<b>~901</b>

- Produced seven curriculum design teacher labs with varying levels of emphasis on water sustainability:

<b>PBL Curriculum Design Lab</b>	<b>Cascade Teachers</b>	<b>Student Participation</b>	<b>Student Impacts</b>
4-Day Lab on City Climate Action Planning, Climate Justice, and Green Jobs	1	19	25
4-Day Curriculum Design Lab: Clean Water Future. Included full day workshop with Kate Zabrocki (PAE engineer) on Net Zero Water buildings, full day tour to Tacoma Water Treatment Facility, and a half-day Green Stormwater Infrastructure Engineering tour in West Seattle with Kathy Gwilyn, MIG and Patty Buchannan, Perteet, Co-funded by King County	-	24	-
Facilitated One-Day Curriculum Design Lab: Kirkland Sustainability Master Plan as Living Textbook	2	6	50
Facilitated One-Day Curriculum Design Lab: Integrating Sustainability Across the Middle School Curriculum. Integrated Nature Vision presentations of resources	13	3	1,125
Facilitated a 3-hour workshop on “Writing on Water” to engage English teachers	2	1	200
Facilitated a 3-hour lab on “Cool Math for Climate Solutions” to engage math teachers	-	6	-
Facilitated a Fall Series of Labs for Climate Action Teacher Fellows Cohort with four teachers from Bellevue, one from Issaquah, one from Tukwila	6	1	900
<b>TOTALS</b>	<b>24</b>	<b>60</b>	<b>~2,300</b>

**Home Water Audits**

Cascade offered materials for teachers who wish to have their students conduct a home water audit to better understand how much water is used in a home. The program includes digital materials to guide students through the process, measuring devices, and spreadsheets that record the findings. The spreadsheets calculate not only the potential water savings, but also the energy savings, and avoided greenhouse gas emissions. When a classroom or entire grade sum the collective savings, the potential impacts are significant. Cascade also provides showerheads and aerators for students who find high-flow fixtures in their homes. In 2022 teachers at Foster High School (Tukwila) and Pacific Cascade Middle School (Issaquah) participated in the program.

**Water Bottle Filling Station Project**

Cascade worked with Redmond High School to achieve the installation of a water bottle filling station at the school. The project was initiated by a student who wanted to encourage others to switch from single-use plastic bottles to reusable. Cascade provided partial funding for the cost of the new station and 2,300 *We Need Water* stainless steel water bottles for any student who took a pledge to avoid plastic bottles and use the station. The school held a ribbon-cutting ceremony in April to recognize the work of the student and promote the value of water. The event was attended by representatives from Lake Washington School District, Redmond Mayor Angela Birney, and Cascade.

The event inspired a student at Skyline High School in Sammamish to initiate a similar project with Cascade’s help. This project will be completed in 2023.

**Cascade Gardener**

**Remote Learning**

Cascade continued its remote gardening classes with a spring and a fall series. There were thirteen classes with 1,505 total attendees and an average of 116 per class. Almost all attendees said they prefer remote learning to in-person classes. Of the survey respondents, 92% rated the classes as “Awesome” (the highest rating), and 0% said, “Didn’t Like It”. The remote learning format allows Cascade to survey attendees on areas of interest beyond sustainable landscaping. The most popular areas of interest for additional learning were “climate change”, “water scarcity”, “water system resiliency”, and “water quality”. This presents opportunities for additional outreach and education in the future.

<b>Cascade Gardener Spring Series</b>			
<b>Presenter</b>	<b>Class</b>	<b>Date</b>	<b>Attended</b>
Peggy Campbell	Sustainable Gardening: A Better Way to Beautiful	3/19/2022	138
Greg Rabourn	Gardening for Wildlife	3/26/2022	87
Christina Pheiffer	Mulch for a More Drought Resilient Garden	4/2/2022	114
Marianne Binetti	Heavenly Plants	4/9/2022	178
Lisa Taylor	Easy to Grow Plants that Beneficial Creatures Love	4/23/2022	99
<b>Total</b>			<b>616</b>

<b>Cascade Gardener Fall Series</b>			
<b>Presenter</b>	<b>Class</b>	<b>Date</b>	<b>Attended</b>
Emily Bishton	Prepping for an Autumn Food Garden	9/13/2022	87
Christina Pheiffer	Fall Planting and Transplanting Trees and Shrubs	9/20/2022	96
Lisa Taylor	Something's Rotting: Make Compost and Build Soil	9/27/2022	65
Jessi Bloom	Weeds & Water: Wisdom and Resiliency	10/4/2022	81
Marianne Binetti	4 Seasons of Color	10/11/2022	146
Emily Bishton	Native Splendor in the Garden	10/18/2022	153
Jessi Bloom	Gardening for Climate Change	10/25/2022	138
Lisa Taylor	Putting Your Garden to Bed	11/1/2022	123
<b>Total</b>			<b>889</b>

Reviews were positive:

*“Peggy Campbell did an excellent job with the presentation last night. I look forward to the future programs you have lined up as they all have been insightful and provide wonderful knowledge for us to apply. Thanks again”.*

*“Keep emphasizing drought tolerance.”*

*“This one was the clearest explanations of sheet mulching I've ever heard.”*

*“Wonderful presentation, thank you so much for offering this free talk to the public!”*

*“Just keep doing what you’re doing!!!”*

Garden Walking Tours

In addition to the remote classes, Cascade offered three in-person garden walking tours. These tours allowed attendees to get outside and have a more direct experience learning about sustainable gardening and water efficiency. Approximately 120 people attended the garden walking tours.

### **Garden Hotline**

Cascade supports the regional Garden Hotline, which is a resource for residents to have their gardening and landscaping questions answered by gardening professionals from Tilth Alliance with an emphasis on water efficiency and sustainability. In 2022 the garden hotline received 237 calls from residents in Cascade member areas.

### **Watershed Ecology Field Trips**

Working with member staff, Cascade provided watershed ecology field trips for residents who are interested in learning about ecology, plants and wildlife, and stream sampling. Families sometimes attend the field trips and reviews are positive. The field trips are typically held in local parks with streams nearby. In 2022 there were field trips in Issaquah, Kirkland, and Redmond for about 45 attendees.

Cascade provided a variant of the watershed ecology field trip as a Senior Day Camp in Redmond, where 20 senior attendees learned about native plants and watershed health.

### **Irrigation Assessments**

Cascade provided 11 irrigation system assessments for high-peak season use customers. Cascade provides a detailed report of the assessment with specific strategies for achieving greater water efficiency and sustainability. Cascade maintains contact with staff at these properties and will assist in the implementation of Cascade's recommended measures over time:

- Brauerwood Homeowners Association (Sammamish Plateau Water)
- Colony at Bear Creek (Redmond)
- Pine Lake Estates (Sammamish Plateau Water)
- King County Housing Authority (Bellevue)
- Lake Washington School District (four, Redmond and Kirkland)
- Tukwila Parks Department (three)

### **Leak Detection Dye Distribution**

Cascade delivered 6,391 toilet leak detection dye packets to 175 multifamily properties across all member areas and 475 toilet leak detection dye packets to seven motels in Kirkland and Redmond. Cascade will visit motels in other member areas in 2023. Cascade follows up with all accounts to encourage the continued use of the dye and to fix leaks when they are found.

### **Soil and Water Stewardship**

Cascade co-created and partners with Tilth Alliance to deliver the Soil and Water Stewardship program, which provides free training for residents on sustainable landscaping practices, rainwater harvesting, drip irrigation, and other water-related topics. Cascade assisted in promoting the program to recruit residents from Cascade member areas. The program was very active in 2022 with 17 Soil and Water Stewardship training events and four community projects completed in Cascade member areas:

**Task 1. Soil and Water Stewardship Training**

Training Event	Location	Date	# of Participants
Training: Food/environment overview	Zoom	Sat 2/26	30
Project: Seed starting and orchard planting	Rainier Beach Farm, Seattle	Sun 2/27	15
Project: Seed starting and forest restoration	McAuliffe Park, Kirkland	Sun 2/27	13
Training: Soil	Zoom	Sat 3/26	25
Project: Orchard planting	IRC St James Garden, Kent	Sun 3/27	9
Project: Orchard planting	World Relief Garden, Kent	Sun 3/27	5
Project: Native plant & pollinator planting	Riverton Park, Tukwila	Sun 3/27	10
Training: Sustainable and edible landscapes		Sat 4/24	23
Project: Compost build for Burien and Skyway	Rainier Beach Farm – for Campbell Hill, Skyway	Sun 4/24	8
Project: Orchard planting	Campbell Hill, Skyway	Sun 4/24	5
Project: Garden bed renovation	Casa Juanita, Kirkland	Sun 4/24	9
Training: Water conservation and drip irrigation	Zoom	Sat 5/21	23
Project: Drip irrigation installation	SHARK Garden, Burien	Sun 5/22	7
Project: Drip irrigation installation	Marra Farm, Seattle	Sun 5/22	7
Project: Drip irrigation installation	Pacific Court, Tukwila	Sun 5/22	6
Training: Permaculture	Zoom	Sat 6/25	20
Project: Rainwater harvesting, social permaculture	Good Shepherd Center, Seattle	Sun 6/26	9
Project: Rainwater harvesting and worm bin	Rainier Beach Farm, Seattle	Sun 6/26	7
Training: Organic Vegetable Gardening	Zoom	Sat 7/23	22
Project: Garden maintenance	Rising Star Elementary, Seattle	Sun 7/24	7
Project: Drip irrigation installation	Redmond High School	Sun 7/24	8
Project: Garden Maintenance	New Holly, Seattle	Sun 7/24	7
Training: Natural Weed and Pest Management	Zoom	Sat 8/27	12
Project: Weed ID and hügelkultur bed building	Rainier Beach Farm, Seattle	Sun 8/28	12
Training: Water Quality	Zoom	Sat 9/24	20
Project: Raingarden container	Emerson High School, Kirkland	Sun 9/25	10
Project: Raingarden maintenance	South King Tool Library, Federal Way	Sun 9/25	9
Training: Native Plants & Ecosystem Restoration	Zoom	Sat 10/22	18
Project: Native planting	McAuliffe Park, Kirkland	Sun 10/23	7
Project: Native planting	Riverton Park, Tukwila	Sun 10/23	11

**Tasks 2. Resources, Workshops**

Description	Location	Date	# of Participants
Service learning with Eastside Prep	McAuliffe Park, Kirkland	3/22	14
Service learning with IACS youth	McAuliffe Park, Kirkland	4/3	36
Service learning with IACS youth	McAuliffe Park, Kirkland	6/4	38
Google Service Day	McAuliffe Park, Kirkland	6/16	30
Service learning with IACS youth	McAuliffe Park, Kirkland	7/10	26
Drip installation at Riverton Park	Tukwila	7/28	1
Green Kirkland Day	McAuliffe Park, Kirkland	10/23	40

**Tasks 3. School Garden Water Efficiency Projects**

Description	Location	Date	# of Participants
Garden expansion at Campbell Hill	Campbell Hill, Skyway	4/24	5
Drip irrigation maintenance at Campbell Hill	Campbell Hill, Skyway	6/28	1
Drip installation at Redmond High School	Redmond	7/24	9
Raingarden installation at Emerson High School	Kirkland	9/25	12



### **Events**

Cascade supports its members through events, such as fairs and festivals to promote water efficiency and support member objectives. Cascade attended the following events in 2022 and provided 4,034 conservation items, such as shower timers, rain gauges, and toilet leak detection dye:

- Bellevue Family Fourth
- Issaquah Salmon Days
- Kirkland Farmer's Market and Concert Series
- Lake Washington Tech Plant Sale
- Northwest Flower and Garden Show
- Redmond Derby Days
- Sammamish Party on the Plateau
- Skyway Health and Wellness Fair
- Tukwila Bark in the Park

### **Online Orders**

Cascade provided 620 shower timers, rain gauges, leak detection dye packets, and other conservation items through Cascade's website. The conservation items are provided free of charge to Cascade member residents, schools, businesses, and homeowner associations who pay the postage. Cascade also provides members with conservation items for distribution to customers at utility offices, community meetings, and events. For example, Sammamish Plateau Water requested and received hundreds of showerheads, shower timers, aerators, and rain gauges from Cascade in 2022.

### **We Need Water**

Cascade has operated a social media campaign for a few years with limited success. In 2022 Cascade desired to expand the outreach and conducted a search for a professional social media consultant. Staff selected Brilliant Marketing to assist with the development of a strategic plan to create more effective engagement of its social media platforms. The strategic plan included:

- Customer surveys and interviews
- Four audience personas around which to target social media content
- Annual calendar of events and materials to post
- Templates for posts and reels

The plan was implemented in December and began providing immediate results of higher numbers of engagement and put Cascade into an excellent position for moving ahead with its social media campaign in 2023.

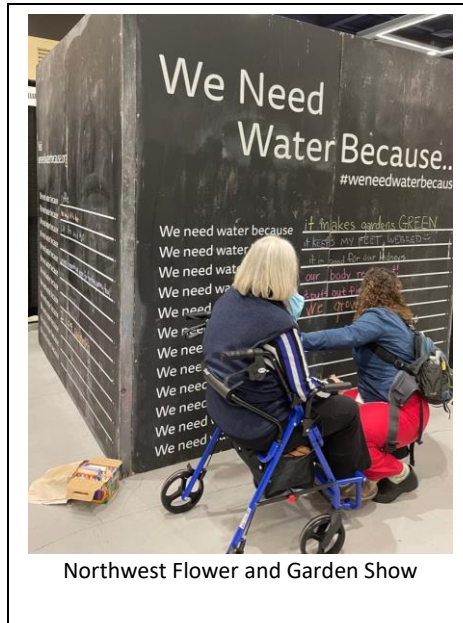
### **Shared Rebate Programs**

Cascade cost shares with Puget Sound Energy on selected Energy Star and WaterSense rebate programs, such as clothes washers, showerheads, and faucets. In 2022 Cascade shared in 369 clothes washer, 167 shower adaptor, and 44 tub spout diverter rebates. Total savings from these rebates and other measures was 11,553 gallons of water per day. This is a disappointing and much lower figure than in previous years. The rebate programs that Cascade shares were significantly disrupted by the supply chain crises and the pandemic, which continue to limit certain program activities, such as direct installation of high efficiency fixtures in apartment complexes. If these programs don't rebound in early 2023, Cascade will find other avenues to generate the savings necessary to achieve its adopted savings goal.

**Photos of 2022 Cascade Activities**



Garden Walking Tour,  
Marymoor Park



Northwest Flower and Garden Show



Skyway Health and Wellness Fair



Lake Washington Tech



Riverton Park, Tukwila



Senior Day Camp, Redmond

**PROBLEM BASED LEARNING**  
EDUCATING for SUSTAINABILITY

WATER SYSTEMS COLLECTION

**Coolest Graph Ever on the History and Future of Water Conservation**

Grade Level: 6-12  
Subject: Human Geography, Local History, Science, Engineering

Created by  
Peter Donaldson, Sustainability Ambassadors  
Ashley Hill, Triangle Associates, Inc

PBL for Water Systems Curriculum

**CLEAN WATER FUTURE**

Water Supply, Stormwater Management, Wastewater Resources, Climate Justice  
July 18-21, 9:00-4:00

Educating for Sustainability PBL Curriculum Design Lab Series  
Middle and high school teachers in all subjects

Facilitation: Peter Donaldson 206-227-6657 peter@sustainabilityambassadors.org  
Clock hours: 24 STEM Clock Hours

**DAY ONE**

Monday July 18 - Net Zero Water Buildings with **Katie Zabrocki, PAE**  
In-Person at UW Gould Hall, Room 114, 3950 University Way NE, Seattle  
Please wear a mask to get started then we will see how we want to spread out.

UW NetID: **event0211**  
Password: **YAJJ/EUTKYUFJ**

9:00 Welcome to the Lab, Introductions, Agenda flow

Land Acknowledgment

**Teacher Learning Goals**

1. Demonstrate an understanding of how science, engineering, and policy actions towards a clean water future can also address climate justice.
2. Design, adopt or refine one or more lesson ideas using the frameworks provided.
3. Apply STEM literacy across disciplines and promote green jobs, college and career pathways.

**PBL for Water Systems Lab**



**Watershed Ecology Field Trip, Redmond**



**Sammamish Party on the Plateau**



**Bellevue Family Fourth**



**Campbell Hill Elementary, Skyway**

**Money Down the Drain: Shorter Showers**  
Aditi Kumarapppan, Class of 2025  
Skyline High School, Issaquah School District, Sammamish, WA

**Background Information**  
The EPA estimates that the standard shower head uses 2.5 gallons of water per minute (GPM). My showerhead, the Waterpik VSA-653E EcoFlow Low-Flow Shower Head, has a flow-rate of 1.8 GPM, saving money and water while offering a spa-like experience.

**Impact Statement**  
By taking shorter showers, I can reduce my water footprint by nearly 38 gallons a week, which will reduce greenhouse gas (GHG) emissions, save my family money, and can motivate others to reduce their water footprint.

**Calculations**  
Before carrying out this experiment, my shower duration per week was as shown:  
8 minutes in a week - uses 20 gallons of water.  
10 minutes in a week - uses 25 gallons of water.  
12 minutes in a week - uses 30 gallons of water.  
If I reduced my shower time by 3 minutes every day, then the total water consumed would be (7 showers x 5.4 gallons) = 37.8 gallons per week.

**And the new total gallons of water used per week would be:**  
= 25 minutes in a week - (3 minutes reduced) = 22 gallons of water.

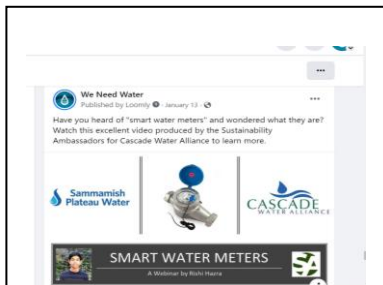
Reducing my shower by only 3 minutes will save me 6.4 gallons every time for a total of 37.8 gallons saved each week.

After doing these calculations, I decided to make some adjustments to my shower time. I needed my

Initial Data:	Data (After Behavior Adjustment):
Day 1 - 8 minutes	Day 1 - 5 minutes
Day 2 - 10 minutes	Day 2 - 7 minutes
Day 3 - 8 minutes	Day 3 - 5 minutes
Day 4 - 10 minutes	Day 4 - 7 minutes
Day 5 - 10 minutes	Day 5 - 7 minutes
Day 6 - 10 minutes	Day 6 - 7 minutes
Day 7 - 10 minutes	Day 7 - 7 minutes

**Statistical Measures**  
Mean: 5.7142857  
Standard deviation: 0.97735  
Skewed Measures

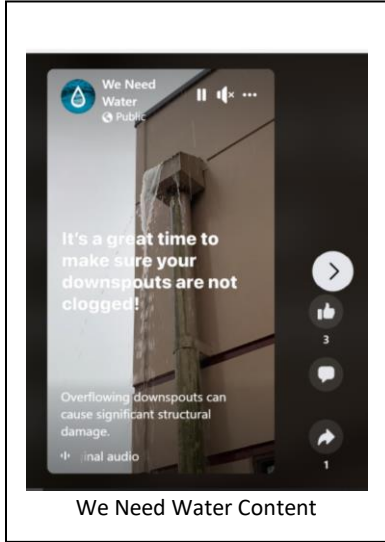
**Student Impact Project**



**Video Highlighting Sammamish Plateau Water AMI**



**Kirkland Concert Series**



We Need Water Content



Emerson K-12, Kirkland

**2022** GREEN TUKWILA PARTNERSHIP

# Native Trees	# Native Plants	Volunteer Hours	Crew Hours	Activated Sites	# Work Parties
6,841	2,329	2,354	1,854	14	57

Green Tukwila Partnership had a significant impact in 2022. The partnership continues to increase the health of the Duwamish River, tree canopy, parks, upland forest, and green spaces in Tukwila. Partners, Staff, Volunteers, and Forest Stewards led hands-on, inclusive work parties and training programs. [www.TukwilaWA.gov/GreenTukwila](http://www.TukwilaWA.gov/GreenTukwila)

Support of Member Activities