2021-2025 SSG Dashboard: City of Olympia

Participating Schools

Garfield ES	Hansen ES	Lincoln Options ES
Madison ES	McKenny ES	Pioneer ES
Roosevelt ES	Jefferson MS	Marshall MS
Reeves MS	Washington MS	NOVA MS
Avanti HS	Olympia HS	ORLA

Program Summary for Olympia

Between 2021 and the first half of 2025:

- South Sound GREEN facilitated **10,788** student interactions in field and classroom-based hands-on watershed education experiences, including water quality monitoring, nearshore field explorations, action projects, and home science activities during the height of the Covid pandemic. (**900** additional students predicted for Mar-Jun 2025)
- **84** unique teachers participated in South Sound GREEN programming, including field experiences for students as well as teacher professional development events.
- **608** community volunteers dedicated **1,373** hours to programming offered to Olympia students, assisting with all aspects of the field experiences. (**50** additional volunteers predicted for Mar-Jun 2025)

South Sound GREEN Program Overview

South Sound GREEN has persevered for over 30 years due in large part to our extremely effective, efficient, and flexible program model. Since 1992, the South Sound Global Rivers Environmental Education Network (GREEN) has engaged tens of thousands of local students in stormwater education. Here are just some of our most successful program components:

Water Quality Monitoring

Students conduct water quality testing along Percival Creek

"The 5th grade water quality field trip to Kenneydell Park was a huge success! Students were fully engaged as they explored the health of our local water system through hands-on activities and real-world data collection. Their excitement was contagious as they tested water samples and made connections to what they learned earlier in the year during our salmon field trip. Seeing their understanding of ecosystems and environmental stewardship grow was incredible. This experience deepened their appreciation for our waterways and reinforced the importance of protecting them for future generations!"
-Matthew Woodhouse, 5th grade teacher at Black Lake Elementary, after Black Lake students participated in Water Quality Monitoring for the first time.

"This process made me feel like an actual scientist, testing things close to home." -5th grade student

"Partnering with SSG to take a team of students to monitor water quality each year has been a tremendous opportunity for student learning, growth, and leadership. I have students tell me years later, even as adults, about how they remember the trips being impactful. The students that we take are from diverse racial groups, socioeconomic levels, and academic abilities. Those students then become the experts in the classroom when we learn about topics such as food webs and carbon and matter cycling. I thank SSG and their sponsors for this opportunity."
-Tony Harris, Tumwater Middle School teacher

Our Water Quality Monitoring program, SSG's flagship field experience, has grown and evolved in the past five years. Thousands of students test at dozens of sites throughout all corners of our watershed area every year, adding to our student-collected data set of over 30 years.

Classes typically participate in two water quality field experiences during their school year, in October and February, where they:

- Collect and analyze water quality data based on parameters needed for healthy salmon habitat, such as Dissolved Oxygen, Nitrates, pH, Turbidity, and Temperature.
- Gain an understanding of stormwater runoff through authentic, hands-on science experiences.
- Recognize the impact human actions make on their watersheds and generate ideas for what actions may be needed at their own water quality site.

Student GREEN Congress

"So many reasons why Congress is GREAT!!! The students see career choices that help the environment, they see other students that care as much, they are on a college campus and can better dream about what to do after high school, they take classes that they are so excited about they can hardly sleep the night before, parents are so proud of their kids and this opportunity, and the bonus of learning more about caring for our streams. It puts the practice of water quality testing into the category of actually using the information to guide decisions." -Becky Crain, Olympic View ES 5th grade teacher

Students sing along with the keynote presenter at Student GREEN Congress

"I learned that you can combine science and art together!" - 5th grade student at Congress 2024

Student GREEN Congress is a collaboration between SSG, the Nisqually River Education Project, and the Chehalis Basin Education Consortium. Now larger than ever before, Congress is a wholly unique opportunity for student delegates from classes that participate in water quality monitoring to:

- Present their own water quality sampling data to their peers who tested within the same watershed and compare the results.
- Identify "priority actions" to improve water quality in their watershed based on student discussions, leading to behavior change.
- Experience hands-on workshops led by dozens of local community partners, further increasing the environmental literacy of students and highlighting local STEM career fields and organizations.

Restoration Action Projects

Our Restoration Action Projects are an amazing opportunity for students to not only learn about how to improve local watershed conditions but actually make a positive difference themselves. Projects vary greatly in scope and size, but all strive to improve the conditions in the watershed through public education or hands-on activities. Examples include planting native plants, removing invasive species, organized trash pick up events, and presentations to community organizations.

Removing non-native English Ivy from Squaxin Park

Nearshore Experiences

"One thing that stood out to me was how many tiny animals actually lived underneath the mud on the beach." -8th grade student from Reeves MS after their field experience at Meyer's Point

Nearshore field experiences led by SSG have expanded substantially in the past five years. These trips include opportunities for students to connect the health of freshwater systems to that of the Puget Sound. Examples of these field experiences include:

- Beach exploration field experiences with 3rd grade students at Burfoot Park, focused on animal and plant adaptations
- Career-centered experiences at Squaxin Park and the Meyer's Point Environmental Field Station, where a variety of community partners lead stations focused on both marine and forested areas
- Eye on Nature field experiences at the Billy Frank Jr. Nisqually National Wildlife Refuge, in which students conduct nature mapping and explore the indigenous uses of native plants

Studying a Nisqually shellfish garden at the Meyer's Point Environmental Field Station

Teacher Professional Development

Teachers explore the Hood Canal and learn about restoring salmon habitat during the Summer Institute for Teachers

"This was, far and away, the best training I have taken in the state of Washington. It was incredibly comfortable, thoughtfully delivered, and extremely empowering. I have SO MUCH material to immediately take and use in my classroom- I couldn't be more grateful for this opportunity" -teacher at the 2025 Summer Institute for Teachers

"This is the 'cadillac' of all teacher in-services, hands down." -teacher at the 2025 Summer Institute for Teachers

Outside of many one-on-one sessions with teachers to get them situated for a variety of SSG programs, our main teacher professional development events are currently our Water Quality Monitoring Training in September and our Summer Institute for Teachers in June. Our Institute event is unique in that it is a three-day experience for up to 50 teachers outside of their normal schools year, and within so teachers receive:

- An opportunity to receive training on current issues in the watershed and the best available science
- Teaching tools and curriculum ideas to educate their classes on these issues
- Connection to a local community of teachers committed to integrating watershed studies in their classes

Program Adaptability

Students participating in a home plankton lesson during the Covid pandemic

"I am sitting here with my 4th grader tonight and reflecting on how grateful I am for you two! The video and activity materials were perfect, and even were accessible and engaging for my 2 and 4 year olds! A big thanks for sharing your time, expertise, resources, and kindness with our Centennial kiddos. I miss our in person fun together, but this is just as special." -Jennifer Knight, Centennial / Lincoln Options ES teacher

"I valued the ongoing support at bringing live science into the classroom, even though we were remote learners. The commitment evidenced to students was remarkable." -Claire McGibbon, ORLA Montessori teacher

The Covid pandemic was one of the greatest challenges to South Sound GREEN in our history, effectively shutting down all field trips for over two years. With students and teachers still eager to engage with hands-on science opportunities, we created and offered a number of different socially-distant and safe programs to meet the needs of schools during this time, including:

- Live, virtual salmon spawning experiences from McLane Creek
- Hands-on Home Science Activities, published through Thurston Talk, which still serve as a resource for teachers looking for in-class activities
- Outdoor lessons on school grounds such as water quality monitoring, salmon dissections, and stream bug labs during periods when students were not allowed on buses for field trips

Program Evaluation

South Sound GREEN continuously works to refine and improve our program based on internal evaluations and external feedback. Methods for evaluating the content, equitability, and reach of our programs include:

- Conducting student and teacher feedback surveys, measuring impact and understanding both quantitatively and qualitatively
- Anecdotal evaluations from new and long-term teacher contacts
- Collaboration and discussion with community partners regarding local student/teacher needs and program success stories

Feedback from a 5th grade student after a Benthic Macroinvertebrate lesson

Equity and Participation

Equity Statement

Thurston Conservation District has a long history of non-regulatory, community-based conservation work. Through this position, TCD has been involved significantly with underserved populations including socially disadvantaged populations. As an organization, TCD's strategic and annual plans are crafted with community and partner feedback, including that of our local tribes. The South Sound GREEN program has, since its inception, worked collaboratively with teachers and students to meet them where they are and to remove any barriers to outdoor education they may be experiencing. This adaptability allows the program to focus efforts on those schools most in need of our assistance. Due to this flexibility and the ability for the program to develop authentically with changing school standards and culture, South Sound GREEN has greatly increased the equity of our programs as demonstrated in the table below:

SSG Program Participation

Table of main SSG program offerings as of 2025. This table is not exhaustive of all SSG programs and is not representative of programs solely funded by the ILA.

Type of Program	Current Program Examples	Time of Year	Number of Students Engaged Annually (estimate)	Partners Involved
"District-wide" Programs -SSG Serves as lead coordinator -Programs reach <u>every student within grade level</u> -Programs are integrated into district curriculum	NTPS 5th Grade Watershed Explorers	October - November	700 by SSG, 1200 total	NREP; City of Lacey, Thurston County
	NTPS 9th Grade Nearshore	April - May	500 by SSG, 700 total	NREP; PSI; City of Olympia Parks Dept.
	OSD 3rd Grade Nearshore	May - June	600	
	OSD 8th Grade Nearshore	May - June	700	WA DNR; Nisqually DNR; PSI; Estuarium; CLT

Standard SSG Programs -SSG serves as lead coordinator -not every class/teacher across the district is engaged, due to programs being optional for teachers or due to limited scheduling capacity	OSD 4th/5th Grade Water Quality Monitoring	October + February	550	
	TSD 4th Grade Eye on Nature Field Experiences (May-June)	May - June	250	BFJNNWR; NRNC; NREP; CBEC
	TSD 5th Grade Water Quality Monitoring	October + February	250	
	McLane Creek Salmon Spawning Field Experiences	November	450	WA DNR; Thurston County
	Restoration Field Experiences	November - December	250	City of Olympia Parks Dept.
	Winter Stream Bug Labs	January - February	800	
	Student GREEN Congress	March	200 by SSG; 450 total	NREP; CBEC; etc.
	Additional Water Quality Monitoring experiences at smaller districts / private schools	October + February	100	
	Summer Institute for Teachers	June	20 teachers via SSG; 50 total	NREP; CBEC; BFJNNWR; etc.
	Water Quality Monitoring Training for Teachers	September	5-10 teachers via SSG; 20 total	NREP; CBEC
Additional SSG-supported programs -programs are coordinated by a separate partner -SSG serves as educators or supporters	NTPS 4th Grade Salmon Cedar Canoe Experiences	April - May	1200 total	NREP; Squaxin Tribe; Nisqually Tribe
	OSD 6th Grade Stormwater Week	April - May	800 total	City of Olympia; etc.
	TSD 6th-7th Grade	July	45 total	PSI

	STREAMS			
SSG staff-led programs not currently captured by ILA metrics	Teens in Thurston High School Volunteer Program	Year round	40	Various
	South Puget Sound Regional Envirothon Competition	April	100 total	Various

Current and Future Participation (All Jurisdictions)

Since 2020, South Sound GREEN has experienced a significant increase in participation from area teachers and students.

- In 2018, Washington State began implementing the Next Generation Science Standards (NGSS), which have a focus on student-directed learning and local phenomena. The South Sound GREEN offers these local, hands-on, and relevant experiences through water quality testing, and the flexible program model allows students to ask questions and design investigations based on those questions.
- Teachers value the opportunity South Sound GREEN provides to work with science professionals, inspire action and behavior change amongst their students, a connection to their community, and multiple opportunities to get kids outside through field experiences
- South Sound GREEN has engaged students from all five public districts within our program area (Olympia, North Thurston, Tumwater, Rainier, Griffin), as well as multiple private schools (i.e. NOVA Middle School), homeschool groups (i.e. Thurston Co-op Homeschool), and colleges (i.e. St. Martin's University)
- Over the 2026-2030 Agreement period, South Sound GREEN's primary focus will be to maintain already established programs as listed in the table above.
- We hope to sustainably increase class participation in SSG programs over the next five years.
    - As the two largest local districts (OSD and NTPS) have worked to incorporate SSG field programs within the curriculum of multiple grade levels, our goal is to establish similar programs within TSD. Significant progress has been made in the past two years, and now more TSD teachers have grown interested in SSG opportunities as they see their counterparts participate. The continuation of our TSD Agriculture, Forestry, and Natural Resources (AFNR) field program is up in the air as TSD has eliminated funding for the FRESH program beyond this school year.
    - We are anticipating Water Quality Participation from new teachers at schools such as Garfield Elementary (Title 1), Hansen Elementary (Title 1), Michael T. Simmons Elementary, and East Olympia Elementary over the course of this

Agreement period. Incorporation of new schools will need to be done slowly and intentionally under current staffing constraints to provide equitable support to new teachers.

- Expansion of program opportunities to “rural” schools is already underway, as we have specifically targeted schools such as Rainier High and East Olympia Elementary when programs allow and hope to continue these opportunities in the future.
- Additional program expansion will likely be dependent on South Sound GREEN staffing.

Financial Report (2021-2025) - Olympia

As per the 2021-2025 Intergovernmental Services Contract for South Sound GREEN the Cities of Lacey, Olympia, Tumwater and Thurston County have provided South Sound GREEN with a total of $281,920 at the following funding levels:

2021-2023*
City of Lacey: $14,400
City of Olympia: $14,400
City of Tumwater: $8,000
Thurston County: $14,400

2024-2025
City of Lacey: $18,720
City of Olympia: $18,720
City of Tumwater: $8,000
Thurston County: $18,720

**Due to budget uncertainties related to the Covid 19 epidemic, funding contributions were kept at the 2016-2020 levels for this time period.*

This dedicated funding has been instrumental in keeping South Sound GREEN financially diverse and sustainable:

- ILA contributions amounted to 31% total program budget
- Cost share benefits means each jurisdiction pays just 1/3 of that amount but gains collective benefit on collaborative events
- Allowed program to leverage funding to secure a total of $394,538 in grant funding

South Sound GREEN Financial Overview (2021-2025)

City of Olympia Cost Breakdown

- $71,280 contributed (through June 30, 2025)
- 11,480 individuals served through the program as of June 30, 2025 (includes teachers, students and volunteers)
- Cost per person: $6.21 (a reduction from $15.88/person in 2020)

Operational Cost Increases (All Jurisdictions)

Through this contract period (2021-2025), South Sound GREEN has seen increased operational cost increases across many categories, but primarily in the cost related to water quality testing equipment, and transportation expenses to transport students to and from their monitoring sites.

The table below shows some of these increases:

Increase in Operation Costs (2021-2025)				
	2020	2025	Unit Change	Annual Cost Increase
Substitute Teacher	$174.88/full day sub	$269.20/ full day sub	+$94.32/sub	94.32 x 15 full day subs = $1,414.80 increase per year
Nitrate Kit (LaMotte 3354)	$63.80/kit	$79.80/kit	+$16	$16 x 10 kits = $160 increase per year
Wide Range pH Kit (Hach)	$87.35/kit	$142/kit	+$54.65	$54.65 x 10 kits = $545.60 increase per year
Fecal coliform broth (Millipore)	$86.80/50 ampoules	$136/50 ampoules	+$49.50	$49.50 x 10 packs= $495 increase per year
Bus to Monitoring Site	$143.57 (round trip)	$156.81 (round trip)	+$13.24	$13.24 x 35 buses = $463.4 increase per year
Administrative Costs for Staff*	$34,339 (2021)	$45,279 (2025)	+$10,940 (2021-2025)	Average increase of $2200/year

Americorps Placement Fees	$0	$16,500/year	+$16,500	SSG did not have AmeriCorps in 2021. We began working with Washington Service Corps again in 2023
				Total Increase in Cost of Doing Business **$21,778.8**

*Includes staff benefits and annual 2.8% COLA for 1 FTE

Relevance to Western Washington Phase II Municipal Stormwater Permit

The South Sound GREEN model has been in high demand among area teachers and that demand will increase in the coming years. Not only are educators searching for ways to teach their students about water quality, but also to instill a sense of community service through on the ground projects. The "need to continue to educate individuals and communities about ways that they can become part of the solution" is one of five strategies for Puget Sound recovery as listed in the Puget Sound Partnership's Action Agenda (Puget Sound Partnership). Over the past five years, South Sound GREEN has educated thousands of students about the effects of stormwater pollution and what they can do to make a difference through hands-on science that aligns with state learning standards.

South Sound GREEN with continue to work directly with City and County staff to meet requirements under the Municipal Stormwater Permit as written below:

2. Public Education and Outreach The SWMP shall include an education and outreach program designed to:

- *Build general awareness about methods to address and reduce impacts from stormwater runoff;*
- *Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts; and*
- *Create stewardship opportunities that encourage community engagement in addressing the impacts from stormwater runoff.*

Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies to effect behavior change. If a Permittee chooses to adopt one or more elements of a regional program, the Permittee should participate in the regional group and shall implement the adopted element(s) of the regional program in the local jurisdiction.

The performance measures that the South Sound GREEN program addresses include:

General Awareness (S5.C.2.iii)

i. General awareness. To build general awareness, Permittees shall annually select, at a minimum, one priority audience and one subject area from either (a) or (b):

> *(a) Priority audiences: General public (including overburdened communities, school age children, college/university, or trade students) or businesses (including home-based, or mobile businesses). Subject areas:*
>
> > *• General impacts of stormwater on surface waters, including impacts from impervious surfaces.*
> >
> > *• Low impact development (LID) principles and LID BMPs.*

Stewardship (S5.C.2.i)

iii. Stewardship. Each Permittee shall provide, partner with, or promote stewardship opportunities to encourage residents or businesses to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and watershed habitat improvement. Permittees may provide, partner with, or promote stewardship opportunities created or organized by existing organizations (including non-Permittees)