



**ENVIRONMENTAL
SCIENCE CENTER**

**2017 / 2018
ANNUAL REPORT**

OUR CORE VALUES:

RESPECT FOR THE ENVIRONMENT
COMMUNITY ENGAGEMENT

DIVERSITY AND EXPLORATION
ACADEMIC ACHIEVEMENT EQUITY AND ACCESS

WHY WE EXIST:



The weight of **6 bus loads** of toxic chemicals go into Puget Sound every day.

Youth spend over **8 hours** per day at an electronic screen. It's even more per day for adults!

Kids today spend less time outdoors than any other generation, devoting only **4-7 minutes** to unstructured outdoor play per day.



In Washington State **only 53%** of students in 5th grade met state science standards in 2018.

Only **30%** of students in 11th grade met state science standards.



South King County lacks low-cost outdoor science learning opportunities for families.

On average, schools with higher reduced lunch rates had lower science test scores.

Sources: WA State Report, Environmental Washington, Common Sense Media, The National Recreation and Park Association

OUR SOLUTION: WE DELIVER HANDS-ON ENVIRONMENTAL SCIENCE PROGRAMS AT LOCAL BEACHES, FORESTS, RIVERS AND CLASSROOMS



To provide STEM opportunities for the next generation of leaders



To deepen connections to the outdoors



To foster a sense of place and responsibility in our Watershed

OUR IMPACT

3,110

students visited Seahurst Beach



273

hands-on science learning opportunities



12,310

PEOPLE SERVED



3,918

Community members participated in public programs



3,306

students visited a creek or river with spawning salmon

WE VALUE ACCESS FOR ALL!
OUR PROGRAMS ARE
FREE OR OFFERED AT A
HIGHLY REDUCED COST

The average diversity index of the south King County schools we serve is:

71%



(a calculation used to measure the probability that two randomly chosen students are of a different race, 100% being most diverse)

FROM THE EXECUTIVE DIRECTOR

Dear Community Members;

There's a good chance you are reading this from your phone or laptop screen. If you are reading a hard copy, I bet that you've been on an electronic screen (cell phone, tablet, computer, or television) within the last hour. Technology has changed the way we live our lives. American kids spend over 8 hours per day looking at an electronic screen. For teens and tweens several studies suggest it may be as high as 9 hours per day.

It's hard for adults to disconnect from technology too. A national survey conducted by *Common Sense Media* surveyed nearly 1,800 parents from a wide range of socioeconomic classes and career fields and found that parents spent a daily average of over 9 hours in front of an electronic screen. Despite all of that screen time, 78% of parents believe they are good role models of how to use technology.

A greater use of technology among children has contributed to shorter attention spans, aggression, a preference for digital time over physical activity, obesity, depression, lower grades in school and a harder time learning how to interact with others. That was a mouth-full!

So what am I getting at here? We have to be intentional about engaging in nature. It is beneficial for our health and our mental wellbeing. Plus, we want our youth to feel connected to nature so that they are inspired to protect our environment for generations to come. Although in our gut we know that getting outside is medicine for our soul, this technology revolution continues to take up more of our time.

The good news is that we can choose to benefit from both technology and nature in our lives. The Environmental Science Center exists to help people feel a deeper connection to nature and a motivation to protect the environment by delivering science-based programs at local beaches, forests, rivers, and classrooms. We strive to foster a passion for the environment in our diverse community by getting people outside and using nature as our teacher.

I am humbled by the ongoing community support that has allowed us to offer dynamic hands-on programs to youth, families, and individuals who are least likely to have access to environmental science programming. This past year we worked with over 12,000 people in south King County offering a diverse array of free programs to all ages; from preschoolers to seniors. We realize that the need to connect our community to nature is now greater than ever and we plan to continue to expand our reach into local communities who need us the most. Thank you for taking the time to read our highlights this year in the annual report.

Warmly,

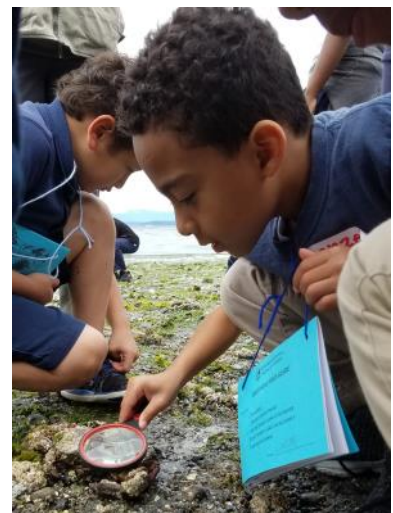


Tara Luckie, Executive Director

P.S.- I invite you to give yourself the space to disconnect from technology and attend an ESC public program to discover for yourself why our programs are a breath of fresh air.



Toddlers use paintbrushes and imagination to become pollinators.



Youth gently study local animals and their ecosystems.



Teens study macroinvertebrates to determine water quality at a stream.



First graders explore dog whelk snails and kelp crabs at Seahurst Park with ESC naturalist.

99
CLASSES

2,219
STUDENTS

735
ADULTS

Beach Heroes

In 2018, we embarked on a journey with students in south King County to explore the marine organisms in their backyard at Seahurst Beach while being gentle visitors. We served 99 classes during the 2018 Beach Heroes season. This means 3,110 people now have a better understanding of the remarkable biodiversity that resides in Puget Sound and how to protect marine habitats.

100% of teachers surveyed remarked that the Beach Heroes field study was an effective way to make and share observations of marine habitats and was relevant to their teaching goals!

StormFest

The Environmental Science Center partnered with stormwater experts from the cities of Burien, Des Moines, and Sea Tac to deliver a two-day Stormwater festival to all sixth-graders in the Highline School District. ESC adapted from Drain Rangers the standards-correlated curricula and built the five hands-on science stations used at this event. We served 1,132 sixth-grade students during this festival and the City of Burien has plans to make this an annual event! Additionally, the curricula and science kits will be available for teachers and community leaders all over Washington to check out and use for their own stormwater program.



Students participate in a StormFest station that uses Enviroscapes to demonstrate where stormwater drains.

"Thank you for providing Spanish speakers!!! My students were engaged much more because they could understand what was happening. Thank you!"

-Hilltop Teacher

Salmon Heroes

The Environmental Science Center reached over 2,600 students in our Salmon Heroes program this year. The program includes 2 classroom presentations and a 3-hour outdoor field study. Students learn about the lifecycle of salmon, test the water quality of local streams, and determine how they can take actions to maintain healthy salmon habitat. ESC provided additional support to teachers by having naturalists assist students in testing the water quality of a body of water near their campus and comparing the data they collected during their field study. Middle and high school students created presentations on why salmon would not survive in these areas compared to restored study sites.

Some schools went above and beyond by conducting additional stewardship projects on campus. Chinook Middle School students built birdhouses and bat boxes, installed native plants, and created videos that highlighted how middle school students are making positive impacts in their community and local watershed. Mill Creek Middle School conducted regular water quality tests and restoration projects at a park near their campus, and Sylvester Middle School installed a Pollinator Pathway in honor of a student who was lost to violence. These units all concluded with presentations to local community members and city officials about the harmful effects of stormwater pollution and our role in keeping these harmful pollutants from entering Puget Sound.

The acronym STREAMS was developed and used on pledge cards to help students learn what they and their families can do to help protect salmon and their habitats. There was a noticeable improvement in students' understanding from prior seasons as some listed the acronym or paraphrased it on assessments.



Students install a watering system for native plants at Chinook Middle School.

100% of teachers strongly agree that their students are excited to bring their families back to the river/creek they explored and share what they learned about salmon.

105
CLASSES

2,685
STUDENTS

400
ADULTS



96% of teachers agree this was an effective way for their students to follow the scientific process.



Students test the pH of the water at the Normandy Park Cove.

"Best field trip we have been on because it was full of information that was relevant to our class studies and to see salmon was amazing!"

-Gregory Heights sixth-grade teacher

"It provided my students with a great hands-on opportunity to experience real science experiments"

-Hazel Valley fourth-grade teacher

After School Science Clubs

In the 2017-2018 school year, the Environmental Science Center delivered a seven-week after-school science program to six different low-income housing units by partnering with New Futures, a youth development program through Southwest Youth and Family Services. Students learned about marine phyla by examining adaptations of different phyla using puppets and shells. They built on this classroom knowledge by exploring live organisms from these phyla at the Seattle Aquarium.

During the summer, each New Futures group visited Seahurst Beach for a three-hour field trip at low tide. They witnessed the marine invertebrates they had been studying throughout the year in their natural habitat and met some of the native plants that are integral to watershed health.

Students also learned about their role in protecting marine habitats by conducting an “eggsperiment.” Students put an egg in vinegar, which breaks down the shell in the same way that ocean acidification breaks down the calcium carbonate shells or skeletons of marine organisms. This experiment helped them better understand the impact of climate change and ocean acidification. A major highlight of this program was examining organisms under microscopes. Students were introduced to plankton-towing techniques used by scientists to collect plankton samples. They then witnessed firsthand the damaging effects of ocean acidification on marine plankton. This subject was so popular that students and staff from other programs within New Futures visited this lesson to see live plankton under microscopes.

New Salmon Field Trip!

In addition to the culminating beach field trip, New Futures students witnessed live salmon along the Cedar River for the first time in this partnership. They witnessed salmon spawning from three different viewing platforms: Renton Library, Renton Weir, and the Landsburg Dam.

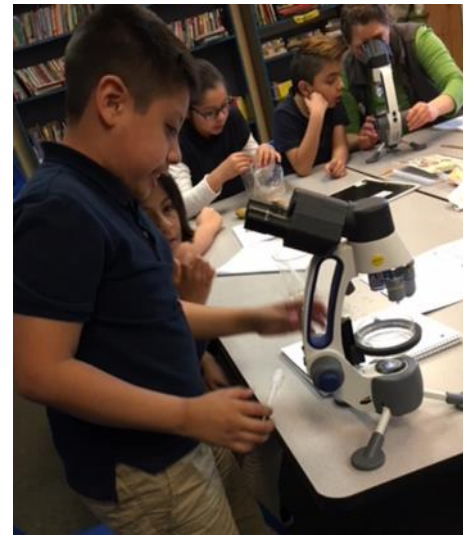
Camp CRAZ

The Environmental Science Center was thrilled to be invited back to support City of Burien’s Summer Program “Camp CRAZ”. Our naturalists delivered 20 one-hour experiential science labs to students in the 1-3rd and 4-6th grade camps. Students met live macroinvertebrates, built bug houses at Dottie Harper park, learned about bird adaptations, and took a walking field trip at Seahurst Park to explore low-tide marine organisms.

Renton Summer Camp

Forging a new partnership with the City of Renton and the Highlands Neighborhood Center this year, the Environmental Science Center delivered science programming to their summer camps and worked with the Renton Youth Leadership Council to assist our naturalists.

During Renton Summer Camps, our naturalists brought live macroinvertebrates to four different age groups. In addition to identification of different species, students also quantified the health of the Cedar River by measuring how many intolerant species they found in their samples. Macroinvertebrate experts in King County joined in helping students analyze the health of the Cedar River with water bugs and Highlands staff were blown away with how engaged students were in this experiment, especially the middle school group.

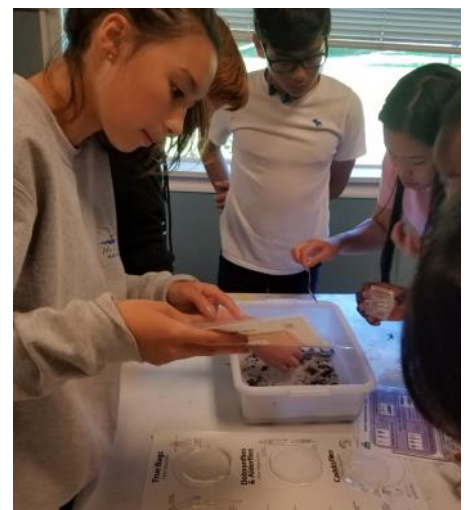


New Futures students examine local plankton under microscopes.



Camp CRAZ campers touch a real Eurasian eagle-owl with John the Falconer.

336
PARTICIPANTS



Renton middle school campers examine macro-invertebrate samples.



Friends and neighbors restored the park during two annual cleanups.



Birds were counted at Dottie Harper Park to aid in community science.



Families learned how macroinvertebrates are water quality indicators.



Low tide offered chances to view animals up close in gentle ways.

3,918

PARTICIPANTS

12% increase in participation this year!
44% increase in participants over 4 years!

COMMUNITY PROGRAM HIGHLIGHTS

International Coastal Cleanup (Sept)

2018 had a record-breaking cleanup with 135 people! With partnerships from Puget Soundkeeper and the City of Burien, 166 pounds of marine debris were removed from Seahurst Park to create healthier waters during the Ocean Conservancy's largest worldwide volunteer effort to protect the oceans.

Birdfest (Feb)

ESC helped 76 local residents deepen their appreciation for birds and take part in community science for the Great Backyard Bird Count through counts, presentations, activities and discussions with local partners! This annual effort assists the National Audubon Society and the Cornell Lab of Ornithology in determining the status of bird populations across the world. Burien is on that map.

Moonlight Beach Walks (Dec-Jan)

Interest in these three traditional walks was lunar! 252 people came out in the dark of winter to explore the beach. Most were new to the memorable experience and enjoyed seeing low-tide species in a new light.

Seahurst Discovery Zones (Jul-Aug)

Many natural discoveries were made this summer, from walks on the beach and in the forest, to viewing macro-invertebrates and plankton in the water. In eight weeks, ESC naturalists and volunteers engaged 550 people in hands-on activities and crafts, demonstrating ways to improve the health of our watershed.

Tide Pools for Tots (May-July)

This season was bursting with fun! Over 475 kids and adults learned proper beach etiquette through stories and songs before exploring Seahurst Park at low tide. Adults expressed appreciation for the sparks of curiosity in the children and themselves while they learned how to respectfully observe low-tide creatures on the beach.

Toddler Time (Weekly)

Storytelling and natural exploration helped more friends and families engage in positive and creative seasonal activities with toddlers. We hit attendance highs with 41 people per session and 1,066 people total in the year. Participation increased by 16% from last year, after a 35% increase the year prior! ESC will collaborate with the Burien Library again to expand their reach and fill this need.



Students learned about salmon adaptations and life cycles by ESC Junior Naturalists at Highlands Neighborhood Center and Seahurst Park.

Junior Naturalist Program

Teens from the Renton Youth Council and Waskowitz Environmental Leadership School (WELS) became mentors for younger students in ESC's signature Salmon Heroes and Beach Heroes programs. The teens used their naturalist training and leadership skills to help students further appreciate local species. They showed how environmental and human factors affect species and shared ways to make positive changes in their surroundings.



Big Picture Middle School students plant native plants after removing English Ivy.

77 TEEN LEADERS

Urban Forest Restoration

Our community and watershed continue to benefit from the dedication of teen leaders. Thanks to 15 students of Big Picture Middle School, there are fewer invasive plants and more native ones at the entrance to Seahurst Park. You may have seen their hand-drawn trail signs highlighting the important role these species play in restoring natural areas.

High School Volunteers and Interns

Every season was full of events and our staff and participants had eager, active teen leaders to help them run smoothly! Seven high school students assisted in festivals, summer camps, and adult and family programming to learn more about local species, natural systems and stewardship opportunities. We eager to continue to help them hone their skills throughout this next year!



From left, Mony Thach assists John the Falconer during the City of Burien's Camp CRAZ sessions. Families engage in watershed games with Andrew and Sarah Jenner, and Kim Nguyen and Ny Ha at the Great Day of Play. This first-time city event was a popular success!

1,436
VOLUNTEER
HOURS

Volunteers

Alison Crab
Andrew Jenner
Brenda Sullivan
Cailin Hunsaker
Chris Jansen
Colin Downey
Dana Wu
Don Hunsaker
Donna Valentine
Emmanuel Cruz Soria
Jack Santo
Jacqueline Drumheller
Janice Mathisen
Jarett Kaplan
Jean Spohn
John Leonard
Kazue Yoshida
Karen Adams
Karl Mejia
Kayleigh Hickok
Katie Imhoff
Katherine Himes-Strange
Kelsey Huebner
Kim Ha
Kim Nguyen
Kristine Ashcraft
Kristyn Clayton
Larry Reymann
Maggie Allen
Melinda Rose
Nanci Leonard
Nancy Tosta
Nicole Killebrew
Phillip Thompson
Robert Richmond
Robin Chiles
Rosario Bryant
Sarah Jenner
Shashi Jain
Simon Powell
Scott Luckie
Scott Stolnak
Sharyl Yamamoto
Shelly Lomax
Sheri Barr
Stephanie Meyn
Terrill Chang
Trey Williamson
Victoria Hall
Xulie Olivos

Volunteers have helped ESC help the community in many ways. From a couple of minutes to hundreds of hours, every moment counts in caring for the people and natural systems that benefit from our programs. Thank you for sharing your passion, skills and time to enrich us all. You are ESC!



Sheri Barr and Shelle Lomax taught families how to help salmon at the Tukwila Backyard Wildlife Festival.



Rose Bryant admired creative ways to turn trash into art.



Highline High School Key Club students cleaned up the park and added what they found to the Salmon Trash Sculpture that was created by Puget Sound Skill Center students.



Advanced Via Individual Determination students helped engage families at the Seattle Aquarium Open House.



Jarett Kaplan revealed the intricacies of plankton during Seahurst Discovery Zones at the center using a microscope that he donated to ESC.

"I think the whole thing about environmental education is inspiring. If you instill that at such a young age, it sticks with you."

-Alison Crab, Toddler Time Volunteer



THANK YOU ESC SUPPORTERS!

LEADERSHIP CIRCLE

\$3,000 +

Anonymous
Horizons Foundation
Tyson and Vanessa Lamoreaux
Georgette Valle
Peter and Junko Valle
Loren Tomlinson
Kristine Ashcraft and Gorm Brunso

\$1,000 - \$2,999

Jean and Tom Spohn
Nancy Tosta and Bob Ewing
Janet Carbary and Robert Albrecht
Karl Mejia and Stacia Servos
Brenda Sullivan
Patti Gifford and Thor Edman
Chris and Betsy Jansen
Janice and Peter Mathisen
Alma and Robert Feldpausch
Karyn Pasquier
John and Pat Richards

\$500 - \$999

Jo Surbrugg and Mark Benson
Jackie and Steve Drumheller
Kristin Clayton
Shelly and Eric Cain
Kathy and Wade Strange
Yvonne Hall
Cheryl Morris and Erik Brunso
Tara and Scott Luckie
Larry and Linda Reymann
Craig and Kimberly Peterson-Watson
Nicole Killebrew
Peter and Anne Hummel
Paul Nuyen
Renna Pierce
Jan and Lisa Allen
Monte Powell
John and Nanci Leonard
Jeff Richter and Kristine Trace
Carrie Nass



King County



Microsoft

Burien



Edward Jones

Doug Head CLU®, ChFC®
Anthony Bright
Phillip Ussery CFP®
Financial Advisors



Remarkable Frozen Meals

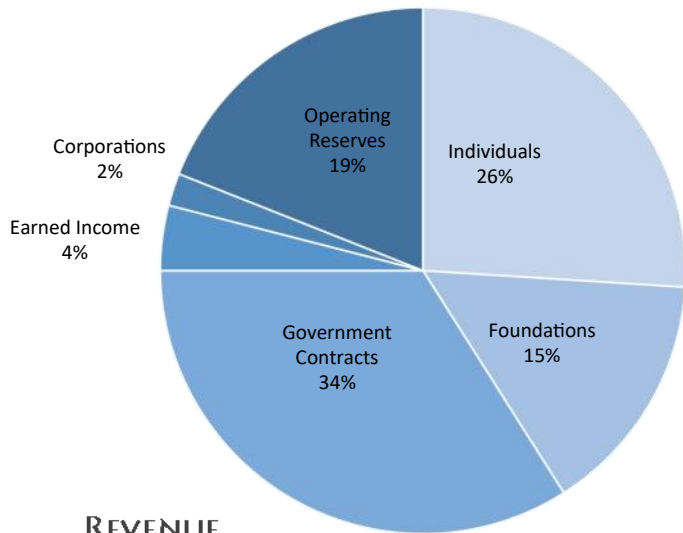


PHOENIX TEA



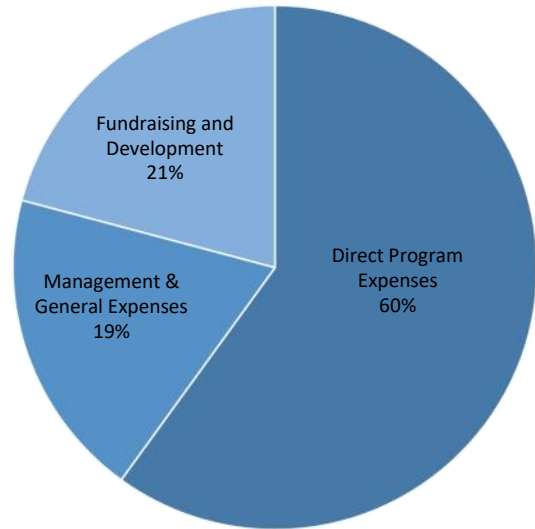
Portland 3D Printing Lab

FISCAL YEAR 2017-2018 FINANCIALS



REVENUE

INDIVIDUALS	\$96,545
FOUNDATIONS	\$54,874
CORPORATIONS	\$6,671
GOVERNMENT CONTRACTS	\$125,925
EARNED INCOME	\$16,390
OPERATING RESERVES	\$71,082
TOTAL REVENUE	\$371,487



EXPENSES

DIRECT PROGRAM EXPENSES	\$222,817
MANAGEMENT & GENERAL EXPENSES	\$71,183
FUNDRAISING & DEVELOPMENT	\$77,487
TOTAL EXPENSES	\$371,487

HOW CAN YOU MAKE A DIFFERENCE?

DONATE!

Donations can be made at www.EnvironmentalScienceCenter.org

You can be part of this movement to protect our waterways, our salmon, and our future. Your gift creates environmental programs, restoration projects, and leadership opportunities for youth and families who would not otherwise be served.

\$1,000

Leadership training for 15 students—Students learn about salmon recovery and train to teach younger students about stewardship actions.

\$350

Scholarship for Salmon

Heroes—Students from a low-income community learn about salmon recovery while visiting salmon habitat. Students test water quality and pledge personal actions to help salmon.

\$50

10 hours of outdoor learning—Students connect with the world around them and learn to be stewards.



The Environmental Science Center during a public program with NOAA.

BECOME A MEMBER!

BOOST your impact! With a monthly **\$10 donation**, you become an integral part of getting MORE kids outside!



Members also **receive great benefits**: discounts at local businesses, discounts on our merchandise, invites to members-only events, and more! You'll also be the first one to hear about ESC news. Join today!

EnvScienceCenter.org/become-a-member

VOLUNTEER

Make a difference by getting involved with ESC's many programs!

If interested, please contact:
Kharli@EnvironmentalScienceCenter.org

(206) 248-4266

YOUR IMPACT

WWW.ENVIRONMENTALSCIENCECENTER.ORG

126 SW 148TH ST. SUITE C100-170

BURIEN, WA 98166

(206) 248-4266



OUR MISSION: To promote environmental stewardship and academic achievement through science-based education.

Serving South King County since 2000.

ESC STAFF

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Jennifer Dumlao, Development Director
Joanna Stodden, Program Manager
Kharli Rose, Community Engagement Manager
Emelia Williams, Development Assistant
Kelly Steffen, Salmon Heroes Coordinator

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NATURALISTS

Rick Davis	Rebecca Mullen
Jennifer Dumlao	Autumn Netley
Mike Gervais	Kevin O'Malley
Mickiala Gonzales	Larry Reymann
Stephanie Eckard	Kharli Rose
Elyssa Kerr	Joanna Stodden
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Katherine Lalish	Arianne True
Alyssa Lind	Nancy van Roessel
Dan Lombardo	Rosie Wilson-Briggs



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