

**ENVIRONMENTAL SCIENCE CENTER
COMMUNITY REPORT 2011-2012**

THE ENVIRONMENTAL SCIENCE CENTER'S BIG YEAR

We are very pleased to present the Environmental Science Center's first Community Report for our fiscal year July 2011-June 2012. With the opening of our new classroom facility at Seahurst Park, this has certainly been a *Big Year* for the organization! After 12 years of planning, fundraising, and finally construction, the community can now enjoy our wonderful new education space with programs throughout the year designed to inspire environmental stewardship. Check us out on Facebook and Twitter to find out how you can connect with us and learn about upcoming events and programs.

ESC was founded in 2000 by a group of dedicated volunteers to bring hands-on environmental science education to students in South King County. Inspired by this mission, our small staff and corps of naturalists delivered a record number of programs this past year also making this our *Big Year* for programming. We engaged thousands of students in science investigations at Seahurst Park and Normandy Park Cove and presented after-school clubs at 17 locations in South King County. We invite you to look over our accomplishments for this past year that are featured in this report. If you are excited by our work, please consider joining us as a volunteer or supporter. We welcome you to our community of passionate individuals who are working together to create a better, and more sustainable, future!

Caroline Bobanich
Executive Director



OUR IMPACT

CONTACT HOURS OF PROGRAMMING
41,660

STUDENT CONTACTS SERVED
10,362

NUMBER OF PROGRAMS DELIVERED TO THE COMMUNITY
382

PARTNER SCHOOLS
34



This is the most outstanding program that I have ever seen in my whole teaching career (many years). It made such an impact on my students.

Gregory Heights Elementary Teacher

GRAND OPENING!

On October 23, 2011, the Environmental Science Center opened a new facility at Seahurst Park where the community can come together to explore, appreciate, and learn how to protect their precious natural resources. Within a park of nearly 169 acres of wooded trails and almost a mile of shoreline, the Environmental Science Center at Seahurst Park allows the organization to capitalize on a one-of-a-kind opportunity to combine nearshore and upland environments in an indoor/outdoor classroom setting, creating an ideal venue for experiential learning for students of every age.

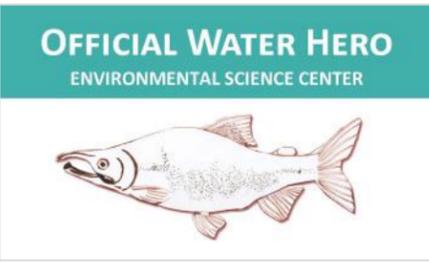
During the Grand Opening event, guests engaged in activities such as nature hikes with naturalists, scientific illustration, and games exploring native and invasive plants. Kids enjoyed learning about the elements of a healthy watershed through a *Fishing for Water Heroes* game and an *Enviroscape* model. Others made use of new microscopes funded by Boeing to study specimens and to learn about the importance of conifer trees in our local eco-system. The highlight of the event was a collection of marine invertebrates presented by Don Ehlen, of Insect Safari, who engaged visitors with his spectacular and unusual display of hundreds of aquatic species.

To commemorate the opening of the Environmental Science Center at Seahurst Park, ESC enlisted artist, Luciana Conceição, to create a suite of scientific illustrations featuring marine and plant life native to Seahurst Park. The illustrations will be used for interpretive signage at Seahurst Park as well as educational materials. The first publication, *Exploring Native Plants at Seahurst Park*, features 27 beautiful illustrations of native plants and is available on ESC's website for teachers and native plant enthusiasts to download.

Special thanks to the City of Burien for the long-term lease of this special property!



ESC AT SEAHURST PARK



WATER HEROES

As part of a new initiative to actively engage students in watershed stewardship, ESC piloted a program called *Water Heroes* which focuses on the water cycle, storm-water run-off, and human impacts. More than 1,000 students became *Water Heroes* by making a pledge to adopt three behaviors to protect our watershed. To honor their commitment, ESC issued each student an *Official Water Hero* identification card and featured their class on the organization's website.

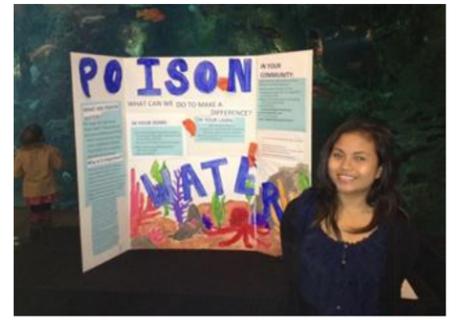
IN-SCHOOL PROGRAMS

IN-SCHOOL PROGRAMS

ESC's trained naturalists use multiple approaches to teaching so that students who don't excel in traditional classroom settings find themselves engaged in new and stimulating ways. And, even as the number of students ESC serves has grown, its programs maintain low student to naturalist ratios (typically less than 13:1). As students learn about the interdependence of life, they understand the impact they have on their environment and ultimately how they can be better stewards of the earth.

During the 2011-2012 school year, ESC delivered 177 field studies serving more than 4,000 students in Auburn, Federal Way, Highline, Kent, Renton, Seattle, and Tukwila school districts. Teachers enthusiastically supported ESC programs because they align with learning standards, reinforce student understanding of the scientific method, and engage students in exciting hands-on learning. Following is a roster of ESC's in-school programs arranged by popularity this past year:

- **EXPLORING INTERTIDAL PUGET SOUND:** For the first time ever, all possible field days were booked within two weeks of opening registration! ESC welcomed thousands of kids to explore the designated marine reserve at Seahurst Park where dozens of species of marine invertebrates were revealed at low tide.
- **SALMON AND YOU:** It was a particularly exciting year at the Normandy Park Cove, as there were over 200 salmon counted returning to Miller/Walker Creeks. Students observed spawning salmon, tested for water quality, and investigated salmon internal anatomy.
- **NEIGHBORHOOD WILDERNESS:** Through this program, younger students became acquainted with their backyard as an ecosystem and built valuable observational and systems thinking skills while exploring insects, spiders, and other terrestrial invertebrates.
- **WATERSHED RESTORATION:** A new field study was developed to involve students in service learning by restoring sensitive habitat areas on the Duwamish River or at Seahurst Park. Students also made pledges to adopt behaviors that promote a healthy watershed and to engage their friends and family in environmental stewardship.
- **DIGGING UP DIRT:** To help students view their own playground as vital habitat, naturalists worked with students in an intensive three-part field study employing the scientific method to assess soil quality.



CULMINATING PROJECTS FOR HIGH SCHOOL SENIORS

Completion of a year-long culminating project is required of all seniors in the Highline School District to graduate. This past year, ESC paired professional mentors with nine high school seniors to guide them in service learning and in-depth research focused on issues in environmental science. Students practiced animal husbandry at the Seattle Aquarium while learning about the effects of polluted waters, joined the Community Salmon Investigation to survey spawning salmon in Miller and Walker Creeks, worked on restoration of native habitat in local watersheds, and developed sustainability projects including the construction of a school garden.

Special thanks to our mentors John Feeney, Joy Neubauer, Elissa Ostergaard, Jean Spohn, and Barb Williams!



A healthy beach habitat has an ecosystem with a variety of animals co-existing and supporting each other. It doesn't have litter or pollution.

6th grade student, Cedarhurst Elementary

HIGH SCHOOL PROGRAMS

Increasingly, ESC is working with high school students and has developed programs specifically geared to their academic and developmental needs. To promote the next generation of environmental leaders, ESC also presents at a variety of career fairs aimed at engaging high school students in green collar jobs.

NEW START HIGH SCHOOL

During the summer and fall, students from New Start High School gained valuable skills working with ESC naturalists and volunteers to restore natural habitat along Salmon Creek. Students learned about the water cycle, human impacts, and watershed health. They also practiced the scientific process by conducting water quality testing on local water sources such as Salmon Creek and Hicks Lake.

AVIATION HIGH SCHOOL

As part of their Environmental Challenge Project, ESC worked with Aviation High School students in the spring during a field study to examine the effects of de-icing planes on the environment. ESC naturalists led the students through a series of water quality tests and discussion of possible environmental impacts.

PUGET SOUND SKILLS CENTER

Exploring Intertidal Puget Sound field studies are in full swing each spring during low tides. This past year, high school students from the Puget Sound Skills Center's Marine Technology program trained as junior naturalists. These students were then paired with ESC naturalists to help deliver programs to younger students. The high school students not only reinforced their marine biology studies, but also learned to present themselves to an audience of young learners.

IN-SCHOOL PROGRAMS

AFTER-SCHOOL AND SUMMER SCHOOL PROGRAMS

ESC's out-of-school programs support kids in earning higher grades, increasing their interest in science, and promoting healthy behaviors including a commitment to protect their environment. This past year, programs focused on a variety of topics from marine invertebrate biodiversity to states of matter to food webs. Programs are interactive and include hands-on activities such as designing an adaptable organism and testing the pH of common household items. Students are genuinely excited to see the "Science Person" and rush over to learn about science!

ESC works with a number of partners to present after-school, school-break, and summer programs on-site at schools, low-income apartment complexes, and community centers in South King County. Through these programs, the organization strives to close the academic achievement gap that often exists for low-income students who do not have equal access to enrichment programs to enhance their learning. During 2011-2012, ESC delivered more than 6,400 contact hours of environmental science education through its out-of-school programs, mostly free-of-charge to its social service partners and their students.

OUT-OF-SCHOOL PROGRAMS

OUT-OF-SCHOOL PARTNERS

CITY OF BURIEN GYM JAMS

Cedarhurst Elementary (Burien)
Hazel Valley Elementary (Burien)
Hilltop Elementary (Burien)

CITY OF BURIEN CAMP CRAZ

Burien Community Center (Burien)

COMMUNITY SCHOOLS COLLABORATION

Beverly Park Elementary (White Center)
Bow Lake Elementary (SeaTac)
Madrona Elementary (SeaTac)
Mount View Elementary (White Center)
Thorndyke Elementary (Tukwila)

NEIGHBORHOOD HOUSE

Highpoint (White Center)

NEW FUTURES

Arbor Heights Apartments (Burien)
The Heights Apartments (Burien)
Windsor Court Apartments (Burien)
Woodridge Park Apartments (White Center)

NEW START HIGH SCHOOL

Salmon Creek Park and Seahurst Park (Burien)

PARA LOS NIÑOS

Hazel Valley Elementary (Burien)

YOUTH EXPERIENTIAL TRAINING INSTITUTE (YETI)

Environmental Science Center (Burien)

The program that my class was a part of was quite appropriate for K-level kids who are still learning English.

Bow Lake Elementary Teacher

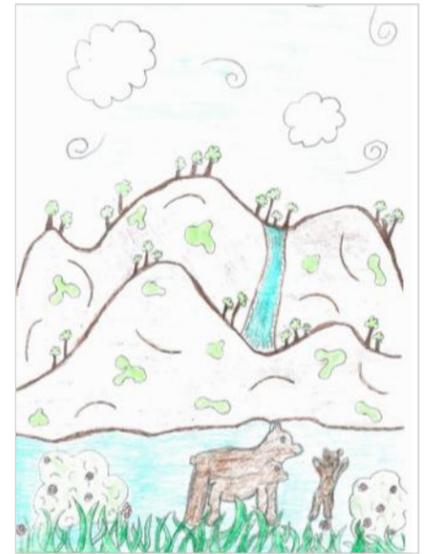


ANNUAL EARTH DAY KIDS ART CONTEST

During the 2011-2012 school year, ESC hosted its second annual Earth Day Kids Art Contest. This contest inspires young artists to express what environmental stewardship means to them and is open to all K-6th grade students in South King County. This year's winner was Anne Wilhite, a 4th grade student from Marvista Elementary. She explained that her art (to the right) depicted what the earth could look like if we took care of it and kept it clean.

For a grand prize, Anne won a family membership to the Seattle Aquarium, plus a craft kit, sketchbook, pencil set, beading kit, and craft sticks. Her award was presented to her at her school by Burien City Councilmember and former mayor, Joan McGilton. Anne and her family were also ESC's guests of honor at the Annual Earth Day Dinner & Auction and her artwork was featured on the event invitation and promotional materials.

The two runners-up were Payton May, 4th grade student from Marvista, and Ngan Nguyen, 6th grade student from Cedarhurst. Their prizes included either a family fun pack to Woodland Park Zoo or four passes to Bug Safari plus two passes to Pacific Science Center & IMAX. Both runners-up also received art and craft supplies.



Anne Wilhite
2012 Art Contest Winner



COMMUNITY OUTREACH

It takes an entire community to make a difference in watershed health. ESC reaches out to families, residents, and businesses to share the message of environmental stewardship and to create positive behavior change through outreach programs. This past year, more than 5,300 contacts were served through ESC outreach activities which included low impact development workshops, beach walks, special interest presentations, restoration parties, and community festivals including the Burien Wild Strawberry Festival, the City of Kent's Water Festival, and the Tukwila Backyard Wildlife Festival.

In May 2012, ESC launched its first *Bigfoot Adventure Series* of public programming at its new facility at Seahurst Park. The roster of programs kicked off with a map and compass skills exploration followed by a *Crab Quest* at which numerous kelp crabs were observed during their annual mating event on the beach. Programs continued throughout the summer welcoming all age groups in exploring the wonders of the natural world.

Special thanks to the Burien/White Center Rotary Club for sponsoring the Bigfoot Adventure Series!

COMMUNITY OUTREACH

COMMUNITY NEED

Residents in Puget Sound depend on a healthy watershed for clean drinking water and safe waters for recreation as well as healthy shellfish beds and fish populations. But, according to The Puget Sound Partnership, the vital signs of Puget Sound do not meet the standards of a healthy watershed. For example, in 2010, 26% of the beaches monitored were contaminated to the point that they were declared unsafe for swimming. These waters, once home to abundant salmon populations, now support a fraction of these historic numbers. Chinook salmon, for example, are estimated to be at only 10% of their historic numbers.

ESC provides a critical service by fostering a community of "citizen scientists" in South King County who understand environmental stewardship and sustainability. Working with children and youth is the organization's primary focus because it believes in forming values at an early age that foster an appreciation for the environment. Also, experience shows that students have a strong influence on the behaviors of their families.

Because an average of 71% of the schools ESC serves have populations in which more than 50% of the students qualify for free or reduced price meals, the majority of its classes and field studies are offered free-of-charge to teachers and social service partners. Providing opportunities to students who wouldn't otherwise be able to participate in outdoor learning activities and enriching science projects is an important way that ESC is helping to close the academic achievement gap in the sciences for students in South King County.

ESC believes that families and students who experience hands-on environmental science better understand the impact they have on their environment and ultimately how they can be better stewards of their natural resources.

ESC IS CLOSING THE ACHIEVEMENT GAP THROUGH HANDS-ON SCIENCE EDUCATION

PERCENTAGE OF SCHOOLS SERVED IN WHICH MORE THAN 50% OF THE STUDENTS QUALIFY FOR FREE OR REDUCED PRICE MEALS

71%

PERCENTAGE OF 5TH GRADERS IN THE HIGHLINE SCHOOL DISTRICT PASSING THE STANDARDIZED SCIENCE TEST (MSP) IN 2011

36%

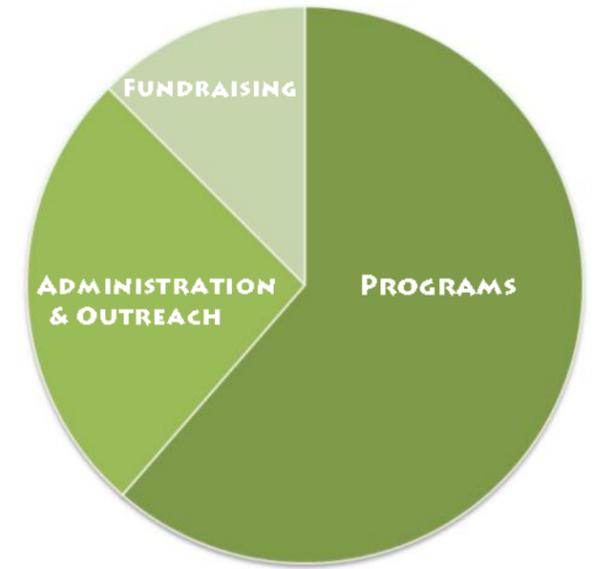
PERCENTAGE OF 5TH GRADERS IN THE HIGHLINE SCHOOL DISTRICT PASSING THE STANDARDIZED SCIENCE TEST (MSP) IN 2012

49%

REVENUE 2011-2012



EXPENSES 2011-2012



REVENUE

INDIVIDUALS & SPECIAL EVENTS	\$65,896
FOUNDATIONS & CORPORATIONS	\$109,749
GOVERNMENT CONTRACTS	\$13,480
EARNED INCOME	\$11,872
TOTAL REVENUE	\$200,997

EXPENSES

PROGRAMS	\$121,383
ADMINISTRATION & OUTREACH	\$51,540
FUNDRAISING	\$24,747
TOTAL EXPENSES	\$197,670
CHANGE IN NET ASSETS	\$3,327

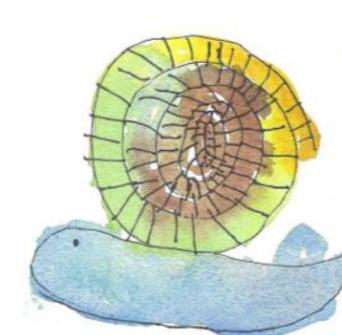
FISCAL YEAR 2011-2012

During 2011-2012, the Environmental Science Center completed its capital campaign with a modest surplus for maintenance activities. In addition, the organization balanced its operating and programs budget with a small, but positive balance.



I enjoyed touching salmon body parts. You don't get to do that every day!

4th grade student, Marvista Elementary



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THANK YOU 2011-2012 DONORS!

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Nancy Corr, Doris Brower, Ellen Fawcett, Robert Fithian, Richard and Patricia Ford, Doris Johnson, Richard and Virginia Johnson, Karen and Rick McMichael. Paul and Mary Pruitt, Nancy Sorenson and Julie-Ann Traub.

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Seattle Art Museum
Seattle Bug Safari
South Seattle Community College's Northwest Wine Academy
Starbucks (Normandy Park, Bothell)
Third Place Books
Trader Joe's (Burien)
Utrecht Art Supplies
Valle Family
Watershed
Wild Birds Unlimited

Very special thanks to Nancy Reidel for the beautiful native plant centerpieces and auction décor.

This is a very meaningful program. My students live so close to the beach, yet many of them had never been there! It was great to see them exploring, learning, and having fun! I think now that they know more about the beach and some of the organisms that live there, they will encourage their families to take them back to keep exploring!

Seahurst Elementary Teacher

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THANK YOU 2011-2012 NATURALISTS!

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