



Washington Elementary Fifth Grade Students Experience Vancouver Lake, November 9, 2016.

Experience Vancouver Lake

Lower Columbia Estuary Partnership

*Year 2 Final Report
May 2016 – April 2017*

The Experience Vancouver Lake project engaged Vancouver area students and community members in a comprehensive watershed outreach program that showcased Vancouver Lake’s natural areas and its value as a wildlife habitat and recreation destination. Estuary Partnership staff developed relationships with Vancouver area schools and partners to create connections and stewardship between the Vancouver area community and Vancouver Lake through education, engagement, and direct on-the-water experiences. The program built a constituency of people committed to ensuring Vancouver Lake remains a valued regional community treasure and environmental resource. This report outlines the results of the project between May 2016 and April 2017 by task.

Task A. Educate – Vancouver Area Students

Goal: Our annual goal was to work with approximately 336 Vancouver area students (12 classes), providing approximately 2,352 hours of instruction on an extensive Vancouver Lake education project.

Final Outcomes: A total of 318 students from 13 classes received three, one-hour classroom lessons and one, four-hour field trip to Vancouver Lake. We provided 2,226 hours of instruction.

We recruited teachers to participate in the Experience Vancouver Lake Project from five Vancouver schools: Eisenhower Elementary, Fruit Valley Elementary, Hough Elementary, Lincoln Elementary, and Washington Elementary.



A fifth-grade student from Fruit Valley Elementary removes invasive Armenian blackberry, October 6, 2015.

The following table provides details on the schools and students we worked with:

School	Number of Classes	Grade	Number of Students	Parent Volunteers
Eisenhower Elementary	4	4 th	90	23
Fruit Valley Elementary	2	5 th	48	0
Hough Elementary	2	5 th	46	5
Lincoln Elementary	3	5 th	78	8
Washington Elementary	2	5 th	56	0
Total	13		318	36

Students and teachers participating in the program met with an Estuary Partnership educator who came into their classroom to deliver three hands-on science lessons over the course of several weeks. Each of these one-hour classroom lessons covered important watershed concepts relevant to the Vancouver Lake area and introduced students and teachers to the features of a healthy watershed and the interconnectedness of all living things. In lesson one, Estuary Partnership educators taught students how water moves through a watershed from the land to a network of streams and ultimately the ocean, and they were introduced to animals in the watershed and the choices humans make that affect watershed health. During lesson two, Estuary Partnership educators taught students about native and invasive plants and how native plants increase stream health and habitat. During the third classroom lesson, Estuary Partnership educators helped students explore the direct and indirect connections between organisms in the ecosystem and used these connections to evaluate the impact humans can have on the environment. All lessons addressed key Washington State Standards in Social Sciences and Science and feature a variety of hands-on activities and discussions to support a diversity of learning styles. By the end of the classroom lesson series students were excited for their field experience because they had gained a new sense of curiosity and wonder for the wildlife in their watershed and realized their actions would improve habitat health.

The four-hour field trip to Vancouver Lake is designed to stimulate students' curiosity for their watershed, reinforce and further develop their understanding of concepts learned in the classroom, and directly engage students in fish and wildlife habitat restoration activities. The outdoor setting provides learning opportunities that are not available in the classroom, and supports students who learn better through direct experience. Most importantly, field trips were designed to create a sense of place for students. Ultimately, place based connections help students become more environmentally aware and promote behavior that benefits fish and wildlife. Students have fun exploring outdoors, while natural area restoration is more successful when students and the community use these areas and have personal connections to them. Each field trip to Vancouver Lake involved two classes, their teachers, and parent volunteers. Students took part in a service project where they removed invasive Armenian blackberry from around the lake and spent time exploring the natural area during a nature hike, birding, and plant activities.



A fifth-grade student Hough Elementary engage in birding activity, October 3, 2016.

Task B. Engage –Vancouver Lake Events For Community Members

Goal: Our annual goal was to conduct four community events and engage a total of approximately 100-130 community members in a planting, invasive plant removal, birding hike or clean up event.

Final Outcomes: We organized and lead three community engagement events involving 190 people:

- August 20, 2016 - Litter Pick-up Event - 22 volunteers collected 7 bags of trash.
- September 24, 2016 - EcoBlitz Event - 70 adults and 80 youth catalogued 120 species. 43 participants canoed on Vancouver Lake to identify birds.
- March 4, 2017 - Volunteer Planting Event - 18 youth and adult volunteers planted 90 native trees and shrubs at Vancouver Lake.

All events connected local youth and adults to Vancouver Lake and offered a way for them to give back. The Estuary Partnership worked closely with partners to organize and lead each event, recruit volunteers, provide all necessary materials, and provide site information during the event.



Volunteers plant trees at Vancouver Lake, March 4, 2017

Task C. Experience – Vancouver Lake Through On-Water Recreation Paddles

Goal: Our annual goal was to engage 75-100 people in an on-water Vancouver Lake experience using either three community paddle days with multiple trips and/or hosting an annual 11-mile community paddle from Vancouver Lake to Ridgefield, Washington, to highlight opportunities and issues along Lake River – a key input to Vancouver Lake.

Final Outcomes: We led seven paddling trips with over 124 people, including trips with the Skyline Housing Authority, Senior Parks and Rec, and community members.

In related work, but distinct and separate from Experience Vancouver Lake Program, the Estuary Partnership provided Big Canoe paddle trips for two community events in Ridgefield – the National Trails Day Big Paddle in June 2016 and Birdfest in October 2016. These trips engaged more than 40 additional people.



Vancouver Lake Community Paddle, June 14, 2016

Task D. Exchange – Communicate to Support Vancouver Lake

Goal: Our annual goal was to continue various communication strategies to implement the *Experience Vancouver Lake* program by promoting events, building community engagement and engaging further with existing Vancouver Lake users. Our goal was to also plan and host the second annual Vancouver Lake Open house for key stakeholders and the local community.

Final Outcomes: The Estuary Partnership continued to employ multiple strategies to promote the Vancouver Lake litter pick up, volunteer planting, community paddles, and other events through social media, press releases, flyers, webpages, and newsletter articles.



*2nd Annual Vancouver Lake Open House,
April 13, 2017*

Over the past year, we created and distributed five press releases: 1) Vancouver Lake Community Paddles, 2) Vancouver Lake Clean Up, 3) Vancouver Lake Eco-Blitz, 4) Vancouver Lake volunteer planting, and 5) Vancouver Lake Open House. The press releases resulted in seven news articles or mentions in the *Columbian* and other local newspapers. To further advertise Vancouver Lake activities, we posted activities 46 times on Facebook, tweeted 52 times on Twitter, posted 13 times on Instagram and created 18 news articles or event announcements that appeared in the Estuary Partnership’s newsletter and Executive Director e-update. The Estuary Partnership created event flyers for the community paddles, the volunteer planting, the Eco-Blitz, and the Vancouver Lake Open House and widely distributed them to community and corporate partners, community event calendars, the Intertwine, and many others.

The Estuary Partnership worked closely with the City of Vancouver, Clark County and the Port of Vancouver to plan, promote and implement the 2nd annual Vancouver Lake Open House on April 13, 2017, at the Water Resources Education Center. The Estuary Partnership opened the open house with a brief report out on Experience Vancouver Lake Program education and community activities. This was followed by a short presentation from the Washington Department of Fish and

Wildlife who shared information on the potential habitat restoration project at Buckmire Slough. A raffle and light refreshments were also provided. This year, 15 different community organizations/groups hosted tables at the open house, providing information on current education, recreation, conservation, and research activities happening around the lake. These organizations included Vancouver Watersheds Alliance, Sierra Club/Loo Wit Group, Northwest Association for Blind Athletes, Vancouver Lake Aquatic Center, Vancouver Audubon Society, Washington Trails Association, Chinook Trail Association, Fort Vancouver National Historic Site, Vancouver Lake Sailing Club, Washington Department of Ecology, Port of Vancouver USA, Clark County Parks & Public Works, the City of Vancouver and the Estuary Partnership. The two-hour event attracted more than 75 community members and provided booth attendees with a great opportunity to network and strengthen partnerships around Vancouver Lake.

MEASURES OF SUCCESS

The Estuary Partnership quantifies results of our education and community engagement programs. We continually adapt our programming to meet current needs of teachers, curriculum requirements, students, and community partners to develop and deliver programming that achieves measurable results. Our six-person Education Team are highly qualified and experienced staff – five have Masters Degrees, including three with Masters Degrees in Teaching and teaching licenses. The team has over 78 years of experience teaching environmental education and leading volunteer activities.

Student Assessments. The Estuary Partnership conducted student pre- and post-project surveys to assess the effectiveness of our Education Program, including student watershed knowledge and affinity for nature. Student

assessments are independently evaluated by Dr. Paul Michael, an Associate Professor of Psychology at Pacific University, who helped the Estuary Partnership create the survey and annually works with us to fine-tune it. Dr. Michael's analysis of Experience Vancouver Lake assessments showed a statistically significant increase in student watershed knowledge and attraction to nature.

Project outcomes included:

- 44% of students had not been to Vancouver Lake before.
- 91% of students want to return to the lake with friends and family.
- 90% of students feel more comfortable spending time in nature.
- 96% of students know how to protect their watershed.

A full report by Dr. Paul Michael, including increase in watershed knowledge content, will be available August 2017.

Teacher Surveys. Teachers participating in the Experience Vancouver Lake project receive a post-program survey to provide feedback on the project and guidance for curriculum and project refinement. These assessments allow us to adapt our programming to meet current teacher curriculum needs and state benchmarks requirements, and ensure our programs are expanding and complimenting existing work. Both the teacher surveys and direct teacher feedback about the project were excellent. Some of the teacher comments include:

- "The Partnership class lessons truly engage the students in learning. They are hands-on and collaborative; the students look forward to the lessons and are excited about their learning."
- "The lessons align perfectly with our study of ecosystems. The lessons along with the field trip, help students see firsthand their impact on ecosystems and watersheds."
- "The lessons and field trip will be the building blocks to expand our study of ecosystems."
- "One student commented about how he saw birds migrating and related that to a story we were reading about migratory birds. He commented that now he understood."

Community Members. We communicate with community members after each paddle event to recognize their involvement and solicit feedback. We send an email with photos, website and Facebook links, and future engagement opportunities. For this project, we received excellent feedback on our community paddle trips. All participants thought the paddle was very enjoyable, educational and informative. Many community members experienced Vancouver Lake for the first time. Here are a couple of the comments we received.

- "A nice outing on Vancouver Lake. Interesting to see the birds from the water!"
- "I learned some interesting things about Vancouver Lake. As a birder, I liked the birding focus of the paddle."
- "The trip was a nice mix of paddling and instruction. Thanks."
- "I live fairly close to the lake but have never been on the water. So many birds!"

A Closing Note

The Estuary Partnership continued to enjoy this project immensely. We appreciate the continued support of the funders. Thank you for helping us make this project a success.

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