

HONORABLE MENTION

These people contributed in special ways to the work summarized in this report:

- **Janet Osborn**, K-1 teacher at Pathfinder, whose passion for learning greatly influenced development of our education offerings. Cancer took her in August.
- **Steve Winter**, a hydrologist with Natural Systems Design and resident of the historic watershed, for expert leadership of emergency work in the lower creek.
- **Betsy Lyons**, culvert specialist with Seattle Public Utilities, for exemplary collaboration with the council and community for culvert replacement.
- **Joe Rankin and colleagues at the Soos Creek Hatchery** for coming through exactly as needed to support Salmon in the Schools.
- **Tracy Record and Patrick Sand** with the *West Seattle Blog* for faithfully and enthusiastically reporting news from the watershed.
- **Jack Lawless** for rearing "volunteer" salmon in an especially challenging year.
- **Steev Ward** for initiating his informative and entertaining dissection program.
- Our dedicated and patient on-the-ground release team: **Dennis Hinton** (chief dipper), **Pete Draughon** (safety officer), and **Shannon Ninburg** (exploration leader).



EAGER BEAVER

A beaver of unknown origin sojourned for several late-fall days in the reach to the beach. No similar activity was reported elsewhere in the system.

COUNCIL BUSINESS

According to council treasurer Dennis Hinton, we opened the year with \$1,545.75 in our money-market account at Washington Federal and closed it with \$1,052.61. This total includes a donation of \$20, plus 55 cents of interest income. We had our largest single expense in council history- \$465.38 - in March, with the purchase of coir logs for the lower creek. We had additional expenses totaling \$48.64 for poster color copies and brochure copies.

We received \$7,213.48 in grant reimbursement from the King Conservation District during 2017 for the Kilbourne Ravine Riparian and Buffer Project, with another \$5,703.24 pending at year's end. After the latter payment, we will have \$18,081.89 remaining for the last two years of this \$70,023 project.

The council met on the second Thursday in January, March, May, September, and November. All meetings were open to any interested watershed resident. Members of the executive committee planned council meetings and took care of business between meetings. They were

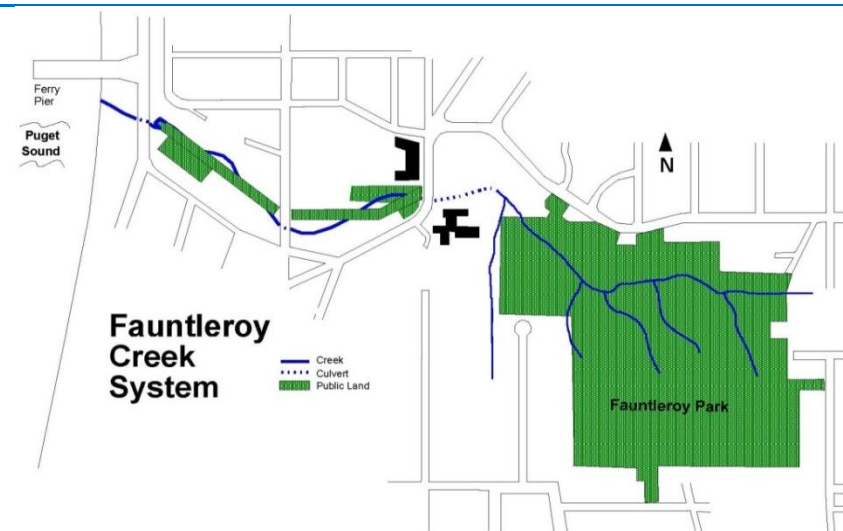
- Peggy Cummings (peggyc@seanet.com)
- Dennis Hinton (denhinton@msn.com)
- Judy Pickens (judy_pickens@msn.com)

ABOUT THE WATERSHED

Fauntleroy Park, Fauntleroy Creek, and Fauntleroy Cove are the dominant natural features of the residential community in West Seattle that shares their name.

Fauntleroy Park is a 28-acre wooded ravine preserved as a natural public park. Its network of well-maintained trails provides access to explore and enjoy a remnant of the coastal forest ecosystem that once blanketed the region.

Fauntleroy Creek originates in the park and drops 300 feet over its one-mile course to Fauntleroy Cove in central Puget Sound. Springs and runoff from a 144-acre watershed sustain flow year round. Prior to installation of the city's storm-drain system, the natural, geologic watershed was approximately 493 acres.



2017 ANNUAL REPORT

This year, the Fauntleroy Watershed Council

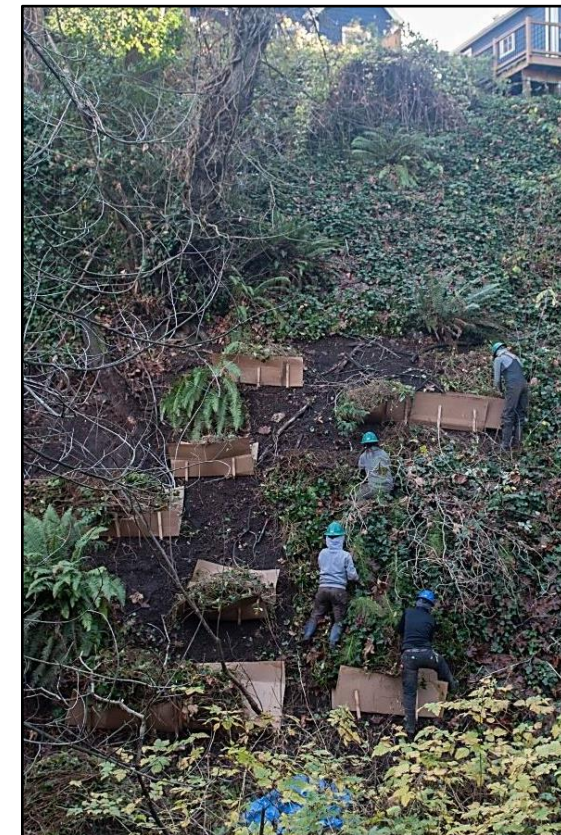
- hosted 764 students releasing salmon in Fauntleroy Park.
- funded and installed emergency erosion control in the lower creek.
- enhanced educational experiences for Salmon in the Schools students.
- celebrated EarthCorps' eradication of knotweed from the Kilbourne ravine.
- supported planning for replacement of Fauntleroy Creek culverts.



HABITAT RESTORATION & STEWARDSHIP

KILBOURNE RAVINE RESTORATION. Over eight days throughout 2017, EarthCorps completed the fourth year of work on the Kilbourne Ravine Riparian and Buffer Project, focusing on invasive plant maintenance and supplemental plantings. Objectives of the six-year project, funded primarily by \$75,023 in grants from the King Conservation District and the Rose Foundation, are to (1) improve water quality by controlling erosion, filtering runoff, and holding rain in restored conifer canopy, (2) reclaim the ravine as wildlife habitat, (3) stop the spread of invasive plants into the neighborhood, and (4) enlist ravine property owners and the community in keeping invasive plants out of landscapes. Specifically, crew members

- made a maintenance sweep of 1.09 acres for invasive plants, including bindweed, blackberry, clematis, ivy, and laurel trees and



Clearing "survival rings" on the steep south slope will enable new plants to take hold without promoting erosion.



Kristin Holschbach, an EarthCorps trainee from Wisconsin, clowns to lighten the hard work of clearing ivy.



Coir logs hold rainfall in place as plants get established on the north slope.

pulled back ivy to create survival rings that will preserve existing trees and make room for new plantings. By year's end, they declared knotweed officially eradicated from the site!

- installed 270 native shrubs and 90 native trees for slope and bank stability and replaced trees that had succumbed when the culvert under 45th Ave. SW backed up in 2016.
- conducted a "rapid habitat assessment" to prioritize restoration actions and use of funds for the remaining two years of the project, including controlling returning invasive plants, improving native plant cover, and enhanced native-plant diversity to increase wildlife value.
- provided action photos for us to make periodic reports to the community and the conservation district..

As part of the scope of work, we will be doing outreach to watershed residents during 2018 to inform them about highly invasive wild clematis and ask them to remove any on their property. Fauntleroy Church (in the drift path of seeds carried by the wind) has already made great strides in this regard.

CULVERT REPLACEMENT. Replacing failing culverts at two street crossings in the middle reach of Fauntleroy Creek became a real project this year as Seattle Public Utilities moved toward an analysis of viable options. Videotaping also raised concern about the condition of the privately owned culvert under the Fauntleroy Church parking lot. Led by Betsy Lyons with SPU's drainage and waste water system management division, the six-year project will inform options for all three culverts and provide the necessary details for design and funding decisions.

FAUNTLEROY PARK. After forest stewards raised concerns about loose **wire mesh** on boardwalks in the park, it became a frequent topic for discussion and strategizing. We invited primary students of Taproot School, who frequent the park, to assess the safety of mesh installed on the salmon-release bridge. Increasing concern as the year unfolded led to a commitment by Seattle Parks to repair/replace the mesh early in 2018.

We hosted a table at the March 21 Fauntleroy Food Fest to solicit interest in a focus group to advise Seattle Parks about an effective way to involve park users in decisions about **trail maintenance, development, and signage**. Although the focus group never materialized, discussions led to issuance by trails staff of draft policies, to be finalized in 2018.

Late in the year, Seattle Parks contracted with Applied Ecology to **plant 2,500 native trees and shrubs** in the Bernice Basin (where restoration began in 2015) and in a neglected area in the northeast corner of the park where unknown persons had cut trees.



New plants stand ready to revegetate native habitat marred by illegal tree cutting.

FOREST STEWARDS. Working closely with the Green Seattle Partnership and Seattle Parks and Recreation, the watershed's two volunteer forest stewards, Steve Hodson and Peggy Cummings, continued their investments, primarily in Fauntleroy Park:

- With daughter Georgia often at his side, Steve spent over 500 hours in 2017 removing invasive species and planting more than 130 native trees, shrubs, and groundcovers on slopes to prevent erosion onto trails.

A BIT OF KILBOURNE RAVINE HISTORY

Fauntleroy School began with grades 1-3 in a storeroom owned by John and Maggie Adams. Older children attended Gatewood School to the north. Growth in Fauntleroy began in earnest in early 1907 when streetcar service started; new homes and businesses sprouted and soon Seattle annexed the area and school.

After the storeroom burned in 1911, the school for grades 1-4 opened in two portables on the south side of Fauntleroy Creek, on another Adams property at the northeast corner of 45th Ave. SW and SW Wildwood Place. The boys spent lunchtime fishing in the creek and mossy banks and flowers made the ravine beautiful.

Dr. Edward Kilbourne, a dentist who backed the streetcar line and many other civic projects, gave his .72-acre property in the ravine to the city in 1951 for "park, camping, playground, and stadium purposes" and envisioned its use by the school and community as an amphitheater. Performances were, indeed, presented there, including folk dances using a wind-up phonograph for the music. A place was cleared on the south side of the creek and a platform erected for audience members.

OUTREACH

ANNUAL EVENTS. The annual **Fauntleroy Fall Festival** on a beautiful October afternoon was one of the best-attended since the event began in 2002, drawing an estimated 2,000 people. Our booth for young children to decorate salmon hats served 176 customers.

Iffy weather and a football game kept attendance at our annual **salmon drumming** to about 15 people. Attendees wrote welcoming messages to spawners on ribbons that hung through spawning season on the railing at the fish-ladder viewpoint.

The arrival of spawners right before a weekend enabled us to host an "**open creek**" for the community. Despite damp, cool weather, a dozen people came, ranging from toddler to elder. Another three dozen stopped by when salmon watchers were on duty.

Our list of regular outreach opportunities through the calendar year now extends to 20, with most in the spring and fall associated with salmon activities.

ASSURING FISH PASSAGE. In the wake of inadvertent trespass during spawning season, the council reiterated our commitment to cooperation and began communicating the following **fish-passage protocol** to creek neighbors: *If a salmon watcher or other volunteer observes what appear to be a barrier to fish passage on private property, the watershed council will make sure the owner is aware and request that the owner assess the situation directly or obtain technical assistance from the Washington Department of Fish and Wildlife.*



Streamers at the fish-ladder viewpoint proclaimed spawning season.

ADVOCACY

ON THE RECORD: In February, a proposal before the City Council to allow **homeless encampments** on public/park property prompted us to comment on the side of protecting habitat and public safety. The council elected to retain the city's existing prohibition.



County Councilmember Joe McDermott enjoys a salmon release with Genesee Hill fourth graders.

In the wake of a late-summer escape of thousands of farmed Atlantic salmon into the Salish Sea, we commented to the governor, State Natural Resources, and a state task force updating **fish-farm policies** in favor of discontinuing state permitting of such farms in public waters.

After monitoring development of the city's People, Dogs, and Parks plan for more than a year, we concurred with revised policies providing for no unfenced off-leash areas, no leash-optional trails, the option for communities to request new off-leash areas, and no off-leash beach access while options are considered.

BRIEFINGS: The year afforded us opportunities to benefit from briefings about planning for trails in city parks, threats to Orcas in Puget Sound, and the Environmental Coalition of South Seattle. We also hosted County Councilmember Joe McDermott on a salmon release, followed by a briefing on creek-related issues.

EDUCATION ENHANCEMENTS. In May, schedules aligned so that students from Genesee Hill Elementary and Our Lady of Guadalupe had the opportunity on salmon-release day to **chat with EarthCorps trainees** working in the Kilbourne ravine. The fourth graders gathered as a group at the project site to quiz crewmembers about their work. On Guadalupe's day, crewmembers joined the students to witness their salmon release, then accompanied them to the lower creek for the annual stonefly exoskeleton count and conversation over lunch.



Genesee Hill students hear from EarthCorps trainees about Kilbourne restoration and how they hope to use their training.

For the first time, we were able to offer teachers an **in-class dissection** of a male coho spawner, secured from the Soos Creek Hatchery in late October 2016 and kept frozen until called for. Volunteer fish biologist Steev Ward visited seven classrooms between January and early May, emphasizing the various systems that enable salmon to live, survive, and procreate. One school got its carcass a day early so young students could make fish prints.

COMMUNICATION

IN THE MEDIA. Our principal medium for disseminating news about the watershed continued to be the **West Seattle Blog** (www.westseattleblog.com). Articles during the year appeared as follows: Salmon in the Schools egg delivery (January), emergency work in the lower creek (March), salmon release (May), Alki Elementary salmon teacher Tim Hannah's retirement (May), and salmon drumming/first spawner (October).

Neighbors, the quarterly newsletter of the Fauntleroy Community Association, featured watershed news as

follows: city's assessment of creek culverts for possible replacement (March), EarthCorps briefing on the Kilbourne ravine project for salmon-release students (June), habitat projects planned for the watershed (September), and spawning summary (December).

WEBSITE. Webmaster Chris Nack faithfully maintained our web presence at www.fauntleroywatershed.org. By year's end, a total of 968 users had visited; 81.3% were new, 18.7% were returning, and just over half were from the greater-Seattle area. With development of a separate website for Salmon in the Schools - Seattle, Chris deleted those lesson plans from our website, contributing to a drop in page views from 3,915 in 2016 to 2,531 in 2017. Visitors most often headed to the map of Fauntleroy Park; creek education was the next most popular destination. Referrals from Google accounted for 46.5% of sessions, followed by coming direct (26.6%).



- Steve coordinated with an Eagle Scout candidate on replacement of a derelict nine-step stairway near the Forest Court trailhead. The Scout rallied a team of helpers, materials from area businesses and Seattle Parks, and even the use of a neighbor's garage for work space and crew restroom.
- Peggy contributed another 80 hours for public outreach, plus a bit of weeding along trails while on her many walks through the park to monitor conditions.
- Her safety alerts to Seattle Parks included several about the wire mesh on boardwalks and the big bridge, installed to improve wet-weather traction but since separating. Her advocacy included working with students from Taproot School to evaluate mesh safety on the bridge prior to salmon-release season.
- Low-hanging branches at the Barton Street entrance were the subject of other alerts as they begin to obscure the kiosk there and create the possibility of public-safety concerns.
- Peggy created and staffed a display for the Green Seattle Partnership's annual meeting to emphasize the considerable progress made over the past decade in restoring healthy, diverse natural habitat in the park.

STORMWATER CONCERNS: Increased rainy-season precipitation in central Puget Sound has substantially **increased peak flows in Fauntleroy Creek**. In 2007, the State Department of Ecology measured creek flow at approx. 0.2 cfs in July, increasing to 0.6 cfs Nov.-Jan. According to data collected by Seattle Public Utilities, maximum flow a decade later often exceeds 7.0 cfs during major storms. Resulting failure of log weirs in the closely built lower creek has widened the channel, reduced depth, and undercut an essential footpath.



Phil Sweetland shows a student how to poke holes for plant stakes.



Steve Winter and Mark Harmon secure coir logs to stabilize and rebuild the bank.

With no grant funding in sight to address this emergency, we dipped deeply into our bank account and rallied volunteers to do the work ourselves under the leadership of hydrologist Steve Winter. State Fish and Wildlife approved his plan to install coir logs along several feet of undercut bank and remove ivy that had been directing flow toward that bank. Additional volunteers for the installation on March 4 were Steve Hodson, Mark Harman, Pete Draughon, Dennis Hinton, Fred Fleischmann, Phil Sweetland, Judy Pickens, and Peggy Cummings. Sixth graders from Our Lady of Guadalupe School followed two weeks later to harvest and install native stakes to promote bank revegetation.

Late in the year we took up concerns raised by park users about **street runoff** at Cambridge and Forest Court entrances. Collaborating with city departments on these and related concerns is on our 2018 agenda.

FUNDING PURSUITS: With few grants now available for riparian restoration or stewardship, we made three attempts this year to secure funding:

- In the spring, we submitted a brief proposal for stewardship planning, targeting environmental grants awarded directly by individual members of the **King County** Council, in our case, Councilmember Joe McDermott. Only then did we learn submittals had already closed but we were encouraged to apply during the upcoming round for a King County WaterWorks grant. Our unsuccessful letter of intent called for \$136,631 in grant funding to identify and begin to take actions to improve water quality and help the community adapt to climate change. We expect to make another bid for funding in the fall to our councilmember's office.

■ For urgent stewardship work in the lower creek, we submitted a \$37,685 proposal to the **King Conservation District** for a City of Seattle jurisdictional grant. Expecting diversity to be a significant factor in funding decisions, our approach involved partnering with EarthCorps to pilot a mentoring concept to expose diverse teens/young adults to opportunities in environmental conservation. Diversity proved to be the overwhelming factor, however, in winning funding.

SALMON

OUT MIGRATION. Volunteer monitors documented 32 coho smolts that survived their time in Fauntleroy Creek to migrate out to saltwater habitat in Fauntleroy Cove. Size appeared to be comparable to past years. Dennis Hinton and Pete Draughon also found 237 live release fry that had washed into the traps. The first sighting was March 20 and the last was May 20. Heavy rains filled both traps with debris numerous times and one smolt appeared to have suffocated in the upper trap as a consequence.

SALMON IN THE SCHOOLS. Delivery of **salmon eggs** to 12 participating schools in West Seattle took a dramatic turn when staff at the state's Soos Creek Hatchery alerted us in late December that all the hatchery's coho eggs had already hatched. They quickly got eggs from a nearby hatchery so that Phil Sweetland, Judy Pickens, and Jack Lawless could make deliveries as planned on Jan. 4.



Sanislo teacher Shannon Crowley and students receive their 150 coho eggs from Phil Sweetland in January.



Singing and colorful flags energize students from Taproot School on salmon-release day.

In May, volunteers hosted 764 students on **18 field trips** to release an estimated 1,817 coho fry into upper Fauntleroy Creek. Judy Pickens did the scheduling and coordination while Dennis Hinton, Pete Draughon, and Shannon Ninburg led releases and habitat exploration in Fauntleroy Park.

Jack Lawless again reared "**volunteer**" fish for preschools that did not bring their own fry to release and for schools that had high mortality, insuring that all students had a fish to release. He acted quickly when his tank had lost its seal in the night, saving about 100 of his 500 fry. In response to the emergency, the staff at Soos Creek came through with hundreds of new fry to continue rearing.



Fifth-grade teacher Tim Hannah led a last release before retiring. He was at Alki Elementary most of his 28-yearcareer and started the salmon program there in 1992.

SALMON WATCH. On Oct. 27, volunteer watcher Mark Ahlness claimed the first of **four spawner sightings** - a 3-4-pound female and a smaller, red-sided male that was soon a carcass. Watchers last saw the fourth fish on Nov. 2 and at least one other was spotted at the mouth. None of the fish ventured upstream of the fish ladder and watchers saw no indication of spawning.

This year the Center for Urban Waters in Tacoma invited our dozen watchers to be on the lookout for odd behavior, a possible indication of **pre-spawn mortality**. Our four fish, however, behaved normally and did not qualify as research specimens.

Year	# Eggs	# Released Fry	% of Fry From Eggs	# Live Smolts Upper	# Live Smolts Lower	# Smolts to Salt	# Spawners
2017	2,400	1,817	-	18	14	32	4
2016	2,900	1,795	62	14	5	19	7
2015	2,700	1,700	63	2	33	35	0
2014	3,450	2,409	70	8	11	19	19
2013	2,800	1,987	71	65	76	141	3
2012	3,100	2,615	84	145	85	157	274
2011	2,900	2,027	70	147	36	36	14
2010	2,500	2,298	92	no trap	24	24	0
2009	2,500	1,936	77	no trap	18	18	18
2008	---	1,790	---	no trap	17	17	2
2007	---	2,276	---	no trap	24	42	89
2006	---	2,033	---	no trap	22	22	0
2005	---	1,138	---	no trap	10	10	48
2004	---	1,534	---	no trap	11	11	6
2003	---	1,254	---	no trap	37	37	4
2002	---	1,965	---	no trap	no trap	no trap	5
2001	---	1,050	---	no trap	no trap	no trap	167
2000	---	750	---	no trap	no trap	no trap	126

RESEARCH & EDUCATION

STUDENT RESEARCH. Science teacher Michael Stein-Ross partnered with a consultant to challenge sixth graders at Our Lady of Guadalupe School with a geo-mapping project to analyze **stormwater drainage** in the watershed. Each student team assessed one of five study areas, looking at trees, streets, and catch basins that could affect the quality of runoff and mapping canopy cover, buildings, and impervious surfaces. The council and many parents heard their report in March, after which they refined their presentation for posting at www.fauntleroywatershed.org/creek/reportsandstudies/DrainagePresentationMap.pdf.

In conjunction with their salmon release on May 4, the same students did the annual survey of **stonefly exoskeletons** due upstream of the fish ladder in the lower creek. Teams located 28 (up from seven in 2016) and mean size was comparable. They observed that having seven spawners decomposing in the reach in fall 2016 would have provided nutrients for aquatic larva. After learning that a volunteer had spotted the first exoskeleton on March 17, students recommended unlinking the count from the release so it could be done by mid April.

CONDUCTIVITY STUDY. Seattle Public Utilities continued monitoring water temperature and electrical conductivity in upper and lower creek, a study begun late 2016 to document any dissolved solids, indicating sewage in the water. Findings as of fall 2017 indicated relatively clean water.

