

Two-time NSEA Americorp service volunteer Katie Duane stabilizes a local stream bank with hearty, young kinnikinnick shrubs.

photo credit: Zach Beckler



# ANNUAL REPORT

# Vision & Leadership

We envision all residents of Whatcom County to be fully educated and involved in salmon habitat restoration and as a result be stewards for the restoration of sustainable wild salmon runs.

Our methods include actively restoring salmon habitat using techniques grounded in science while working in concert with the co-managers of our region, teaching salmon ecology in each of the seven school districts and providing all members of the community with a positive way to directly participate in the process of habitat restoration.

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“ Beyond our mission, NSEA is a product of and for our community; one that gives so much more than it asks; all of which is a reflection of the dedicated staff, volunteers and benefactors that bring it to life. ”

- Matthew Clark, new to NSEA Board in 2014

# Letter From the Director



**You are essential to salmon restoration. Each year you share your leadership, ideas, inspiration, time, sweat, support and resources. You are truly generous. Thank you.**

I started here at NSEA as a community volunteer in 1996. I was inspired by how good it felt to give my energy and time to a cause that I could see making a difference for both salmon and the broader health of our community. Since then, my role and responsibilities have changed, but I still know that our community is the core of NSEA.

As NSEA enters its 25th year, we continue to work hard to engage you in the process of salmon recovery in Whatcom County; we believe community participation is vital to our mission to restore local self-sustaining salmon runs to Whatcom County.

In the early 1990s, we started by trying to produce more salmon. By the mid 90's, change in regulation made it more difficult to be successful in this task alone. So, we made an intentional decision to help salmon by completing habitat restoration projects. At the end of 2014, we counted 379 projects – many of which we observed salmon returning to the very next season!

At the millennium, we transitioned our on-call educational resource to an education program, with the goal of helping teachers engage students in learning more about salmon and their local creeks. Sixteen years and thousands of student hours later, many of the original schools and teachers are still active participants.

Through our collective experience, reflective culture and emphasis on listening to our constituents we continue to learn, adapt, and grow in many ways. For example, while we remained true to our core in 2014 by accomplishing as much on-the-ground-work as possible, we also planned for and implemented organizational stability measures to prepare for the long-range effort that salmon recovery requires.

One exciting and significant measure includes a capital campaign to purchase a 6.5 acre, centrally located property that will become NSEA's first permanent base-of-operations. Fundraising for this effort is well underway and I expect to announce our need for support in the summer of 2015. If that's too long for you to wait, we can certainly talk sooner – there's a lot to share!

I hope in the year ahead and beyond you will continue to be an essential part of NSEA's mission to restore sustainable wild salmon runs to Whatcom County.

With gratitude,

**Rachel Vasak**

Executive Director

# Numbers

The Nooksack Salmon Enhancement Association is a community-based nonprofit organization dedicated to restoring sustainable wild salmon runs in Whatcom County.

Established in 1990 as one of the 14 Regional Fisheries Enhancement Groups in WA State, NSEA works cooperatively with landowners, agencies, tribes, businesses, service organizations, students, schools and community volunteers to achieve its mission.

## Get Involved!

While we make progress each year, the challenges remain big. To overcome those challenges we embrace a model grounded in broad community participation. Volunteers support NSEA's mission at all levels and in all departments. To see our current needs visit [www.n-sea.org](http://www.n-sea.org) or email your ideas to [info@n-sea.org](mailto:info@n-sea.org)

### IMPROVING FISH ACCESS AND RESTORING HABITAT

12

Salmon habitat enhancement projects implemented

26

Large woody debris structures installed

7

Fish passage barriers removed improving fish access to 10.8 miles of fish habitat

17,343

Native tree and shrub seedlings planted

40

Past riparian planting projects maintained along more than 3 miles of stream



### COMMUNITY INVOLVEMENT

22,612

Hours contributed by volunteers, service corps and community members participating in restoration work, education programs, community outreach and service learning

140

Parents participated as chaperones for student outdoor field trips

61

Community work parties to restore streamside habitat brought to life by 1,845 volunteers

2,002

Nooksack River summer visitors educated through the River Stewards program in Glacier

1,382

Students participated in education programs



# Work Party Volunteers

“ NSEA gives me the chance to remember what lives below the blackberries. After popping wheelbarrow tires and tearing skin, it is a great joy to find a hidden Douglas fir, eager for the sun. But the joy is even greater when I look up to see my neighbors doing the same thing: together finding the earth that has sustained salmon and trees for thousands of years. ”

- Rob Rich NSEA Stream Restoration Intern, Fall 2014

## VOLUNTEERS ARE ESSENTIAL TO RESTORATION

### Community Work Parties

We can't emphasize enough how important it is to physically engage community members in restoring salmon habitat through work parties. In 2014, we built on established partnerships with organizations such as the City of Bellingham Parks Department, WA State Parks, Whatcom Conservation District, Whatcom Land Trust and the City of Ferndale to develop well-orchestrated work parties that emphasized efficiency, effectiveness and above all, safety.

### Contribution

Volunteers brought 61 work parties to life in 2014 replacing invasive plants with 10,378 native trees and shrubs. During the work party season, **1,845 volunteers** contributed **5,335 hours of service** to restore salmon streams in Whatcom County.

### Support

If you've ever been to a work party, especially in the rain or snow, then you know the joy of a being warmed by a hot cup of coffee and recharged with a sweet or savory treat.

We are very appreciative of the support from the local businesses of Whatcom County. In particular, it's important to call attention to the long-term commitment from the **Community Food Co-op, Starbucks, The Bagelry** and **Tony's Coffee**. Each of these companies has donated food and beverages to work parties for more than 10 years.

### Funding for restoration equipment, tools, materials and native plants provided by:

- WA State Parks and Rec Commission
- American Forests
- Alcoa Intalco
- WA Department of Fish and Wildlife
- Environmental Resource Management
- Patagonia World Trout Initiative
- Whatcom Local Integrating Org.
- Starbucks
- BP Cherry Point Refinery
- National Fish and Wildlife Service
- Aquatic Lands Enhancement Account



Among the many things produced at community work parties, smiles are certainly contagious.



Practicing for other sporting pursuits while restoring habitat is encouraged; this invasive blackberry vine is about to get slam dunked!



On a creek bank near Sumas, WA a new tree gets a final protective sheath

# Educating the Stewards of Tomorrow

## Education is a key feature of salmon recovery

As part of the long-range effort to achieve NSEA's mission, we educate the students in Whatcom County schools about stream ecology, salmon habitat, stewardship, restoration and the importance of participation. Because we believe access to positive outdoor science experiences is a matter of fairness, all programming is provided at no-cost to participating schools. By developing a knowledgeable, caring and participatory community we are sustaining the efforts toward salmon recovery.

In 2014, **1,382** students participated for a total of **13,828** hours in our three, core education programs.



Our education team ensures that learning is put in the hands of the students, in this case, from Wade King Elementary

## PROGRAMS



Isom Elementary 4th grade students measure oxygen content, a key determinate of salmon survival, in Fishtrap Creek, tributary of the Nooksack River

### Elementary Education - Students for Salmon

Consisting of classroom sessions and an NSEA-led student stream exploration, the SFS program served **1,101 students from 47 classes** within Whatcom County. Taking action on their newfound ecological knowledge, students planted 451 native shrubs and trees to improve riparian habitat for fish and other wildlife.



This happy 7th grade Whatcom Middle School student is hauling willow stakes to a restoration site along Smuggler's Slough, a backwater of the Nooksack River.

### Middle School Service-Learning

This year, 133 NSEA middle school participants implemented service-learning restoration projects along salmon-bearing streams planting a total of **1,860** trees!



High School students use a D-net for macroinvertebrate sampling to better understand Squilicum Creek's capacity to support the immediate food needs of young salmon.

### High School Programs

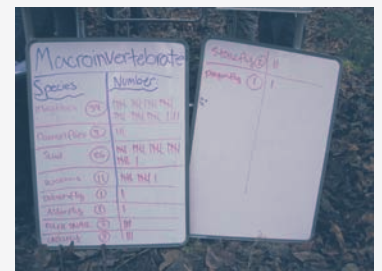
Combine hands-on science with the charisma of fly fishing instruction from members of the Fourth Corner Fly Fishing Club and you've defined NSEA's Swimming Upstream Program (SUP). Art, science and philosophy come together to broaden the horizons of the underserved youth that this cleverly considered program targets. In 2014, **148** high school students paired the skills and ethics of fly fishing with the science of stream ecology.

"It is important to learn about salmon, so in the future we care and we know not to hurt salmon habitat."

- 4th grader from Nooksack Elementary

"I liked the SFS program. My favorite part was when we tested the water to see if it was clear, clean and cold."

- 5th grader from Northern Heights Elementary



Recording the results of the SUP program

## TEACHERS LOVE NSEA



**Tracy Bell**

**5th Grade Teacher at Parkview Elementary  
Bellingham School District  
16 Consecutive years partnering with NSEA**

“I started a partnership with NSEA as a teacher in the Mt. Baker school district and continued that partnership when I came to the Bellingham School District in 2001.

We’ve shared a vision for a sustainable healthy salmon habitat for many consecutive years. My 5th graders study the water cycle and what better way to understand the impact we have on that cycle than to see it from a salmon’s point-of-view. The kids care about their local watershed because they’ve learned from classroom work and NSEA field experiences how to determine if it’s safe for salmon.

We’ll continue working with NSEA, because they help us to extend our learning to the larger world around us.”



**Carolyn Davis**

**4th Grade Teacher at Bernice Vossbeck Elementary  
Lynden School District  
16 Consecutive Years Partnering with NSEA**

“I have now taught in the Lynden School District for 35 years, the last eleven years at Bernice Vossbeck Elementary. Fourth grade teachers in Lynden have partnered with NSEA for 16 years.

In Lynden, our science study includes both Students for Salmon and the study of estuaries (via Padilla Bay National Estuarine Reserve in Bow, WA). NSEA salmon experts introduce students to our salmon study, classroom teachers teach multiple lessons, and then with the help of additional NSEA staff, students are able to do hands-on work at our local Fishtrap Creek learning about the stream’s water quality, macroinvertebrates, and native plants. Kids love these lessons, and become better able to understand the need to be good stewards of our Earth and its resources.

Partnering with NSEA for many years has been very rewarding. Some years our fourth graders have been able to help plant seedlings along Fishtrap Creek. It is wonderful to now see some of those seedlings and shrubs at 15-20 feet tall. My students are making a difference!”

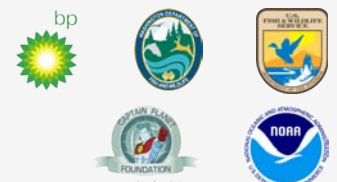
## Opportunity! Independent Projects

In addition to our core education programs, NSEA works with teachers throughout Whatcom County to bring salmon science into their classrooms. NSEA is happy to work with teachers to connect the importance of salmon, watersheds and stream ecology to their students. Please contact [info@n-sea.org](mailto:info@n-sea.org) if you are interested to learn more.

“It’s important to learn about salmon because it’s knowledge we need to know. There are lots of amazing things about salmon that many people don’t know. Salmon are a very big part of culture and many people’s lives.”

- 6th grader from Harmony Elementary

Access to education is important to us. Our “no-cost to school” programs are made possible by generous community donations and support from:



# Scientific Monitoring

## SALMON SPAWNER SURVEYS

In order to assess the abundance and health of salmon populations, NSEA surveys sections of salmon-bearing streams throughout Whatcom County. Surveys are done in the same reaches year after year. Comparable data goes back to 1998.

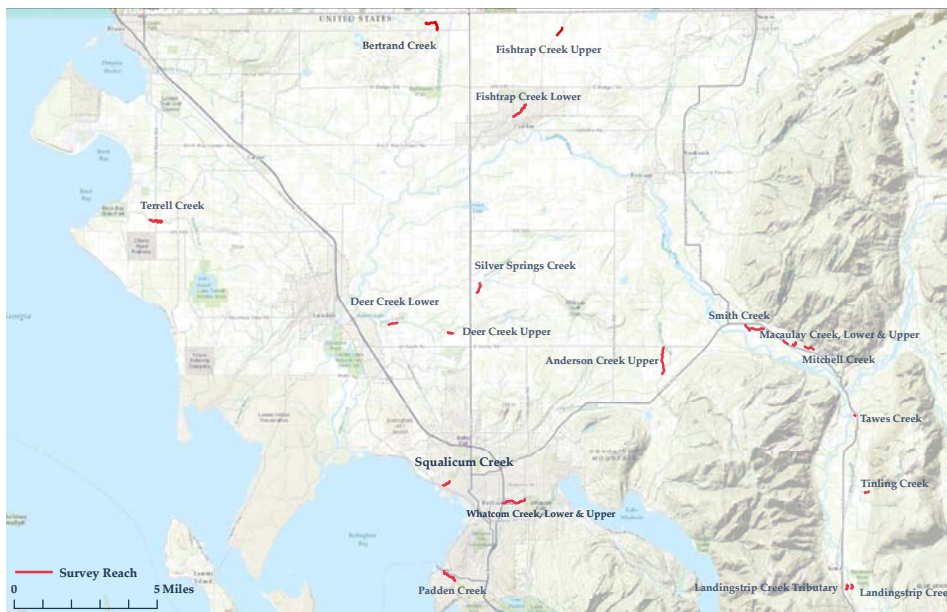
Biological samples were collected from Chinook and coho carcasses to provide population information to the Washington Department of Fish and Wildlife (WDFW), the Lummi Nation, and the Nooksack Indian Tribe; all data collected throughout the survey seasons was shared with these same co-managers.

### Private Landowners Make it Possible

Thank you to the **120 landowners** that live adjacent to the spawning survey reaches. Without the access that they provide, our ability to gain insights on the success of NSEA's work would not be possible. We greatly appreciate their commitment to NSEA's mission.

### Breadth of the Annual Survey

**16** Whatcom County Creeks      **11** Total Creek Miles      **21** Reaches (reaches vary in length)

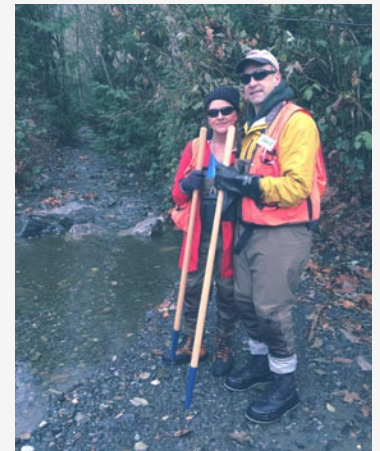


Map credit: Lauren Erickson, Maestro Northwest, GIS

### Community Participation

Volunteer surveyors dedicated **over 1,350 hours**. This is a physically demanding, often very cold, but extremely rewarding experience. The opportunity continues to attract incredibly talented and dedicated individuals who are making a tremendous contribution to better understanding the relationship between NSEA's habitat restoration methods and wild salmon populations.

The monitoring program provided volunteer experience for **12 interns** and a handful of committed volunteers including college students, recent graduates, young professionals and retirees.



John and Kathy Thompson with the tools of the trade: polarized sunglasses to see fish underwater and a sharp pointed peugh (easily brings spawned fish to shore for sampling).

“Each stretch of creek that NSEA monitors for spawners is sampled about every 10 days during the season... Our job was to walk up the creek - in full boots and waders - looking for dead salmon that have finished spawning, live salmon in the process of building their nests (called redds) and mark and note any new redds in the sampling area.”

- John Thompson WWU Marketing Manager and former NSEA Board President



Volunteer Coordinator Kelley James and Monitoring Coordinator Tracy Pennell walk up the Lower Macaulay Creek Reach looking for salmon activity.



## WATER QUALITY PROGRAMS

### Water Quality Monitoring at Schell Creek

#### Challenge

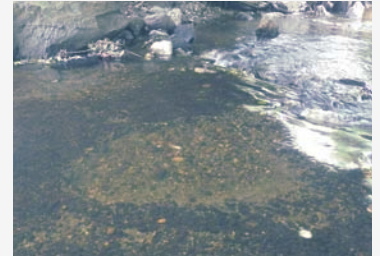
Schell Creek, a tributary to the Lummi River and home to cutthroat trout, coho and chum salmon, consistently has high levels of fecal coliform bacteria.

#### Solution

For the 8th year in a row, NSEA collaborated with Windward High School and the City of Ferndale to test the water quality of Schell Creek on a monthly basis.

In an effort to understand the potential causes of this contamination, students investigate the sources of the fecal coliform bacteria by collecting scientific data using sophisticated instrumentation.

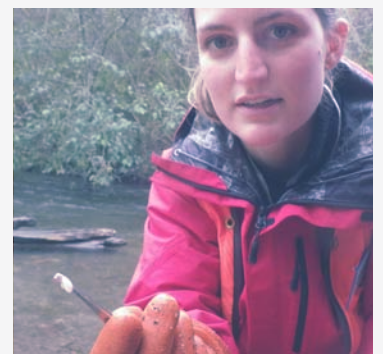
Students are encouraged to lead a community outreach project to educate the residents in the Schell Creek watershed on what they might do to help improve the water quality.



Chinook redd (nest) observed in Bertrand Creek during the Fall of 2014.



DNA sampling of salmon (this one a coho) provides important genetic information on population changes.



Tracy Pennell, NSEA Monitoring Coordinator, holds up an extracted Chinook salmon otolith (a structure of the inner ear) that, when analyzed, can reveal life history information about the fish, like age.

## BRAND NEW MONITORING PROJECT



Two interns, Gwen Hoops and Kate Kimber, joined NSEA to execute the Cain Creek project.

### Drayton Harbor-Semiahmoo Water Quality Enhancement Project

In the Fall of 2014, NSEA partnered with City of Blaine Public Works to monitor the water quality in Cain Creek, which flows directly through Blaine into Drayton Harbor.

The goal is to identify and implement corrective actions that will reduce fecal bacteria loads to Cain Creek, Semiahmoo Bay, and Drayton Harbor, helping create baseline data to prepare for the “next steps” in the restoration of the Cain Creek corridor.

This project will run for two years and will work to raise community awareness by building on education and outreach efforts in the Drayton Harbor watershed.

Want more detail? Read the entire 2014 Spawning Grounds Survey at [www.n-sea.org](http://www.n-sea.org)

Scientific monitoring made possible by:



# Restoration Projects

## TERRELL CREEK: A MODEL FOR WATERSHED RESTORATION

### Terrell Creek 101

Terrell Creek flows northwest from Lake Terrell into Birch Bay just north of Birch Bay State Park near Blaine, WA. The main channel is just over eight miles in length and drops gently as it makes its way to the most popular recreational shellfish harvesting beaches in WA State. (See graphic below)

The Terrell Creek watershed supports coho and chum salmon and Endangered Species Act (ESA) listed Steelhead. Much of the watershed has been altered by earlier forestry, agriculture and land development practices including the removal of riparian vegetation, large woody debris and gravel, the ditching and straightening of many stream reaches and fish passage barriers.

### First Assessment, Then Restoration

The Nooksack Salmon Enhancement Association (NSEA) has completed extensive water quality and fish presence monitoring, habitat assessment, and topographical survey work within this watershed to identify and prioritize appropriate salmon habitat restoration activities. Terrell Creek has great potential for restoring salmon runs because a large amount of the watershed is held in conservation by Birch Bay State Park, Washington Department of Fish and Wildlife (WDFW) and the BP Cherry Point Refinery.

To date, all of the major fish passage barriers have been removed and much of the riparian buffer is well forested. Since 1998, NSEA has worked with multiple landowners, and county, state, and federal agencies to implement numerous salmon habitat enhancement projects within more impacted reaches of Terrell Creek. NSEA has also worked with co-managers and WDFW to operate a remote site incubator, monitored daily by volunteers, to reintroduce chum salmon.

### What's Next?

NSEA is presently working with the Whatcom Conservation District, Washington Department of Fish and Wildlife, Birch Bay Area Watershed Resource Management, Whatcom County, Whatcom Public Utility District, and multiple private landowners from the Grandview road upstream to the Terrell Lake Reserve to restore approximately 1.5 miles of stream and riparian habitat. The project reach was extensively ditched, straightened and bermed during the 1930's. The existing channel is oversized and has no connection with the flood plain. Predictably, salmon habitat is of low quality.

### Project Goals

- Increase the number and depth of resting pools with protective cover
- Increase the amount of available salmon spawning habitat
- Increase flood plain connectivity



Overall salmon habitat along this section of Terrell Creek is poor. NSEA and other partners are proposing to restore key ecological functions to the ditched, straightened and bermed channel seen in this photo.

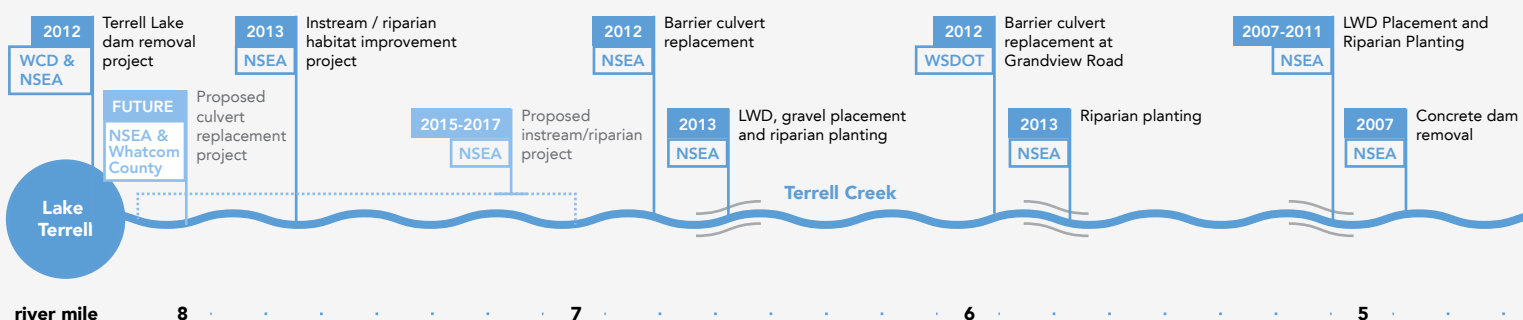


Replacing fish passage barriers, like the culvert (above) with bridges (below) first takes a willing landowner, in this case Myrna Louveau.



The bridge seen here, installed by NSEA in 2014, improves the opportunity of returning salmon to navigate upstream toward Lake Terrell. No longer is this section of the creek difficult for salmon to pass.

## TERRELL CREEK COMPLETED AND PROPOSED RESTORATION PROJECTS



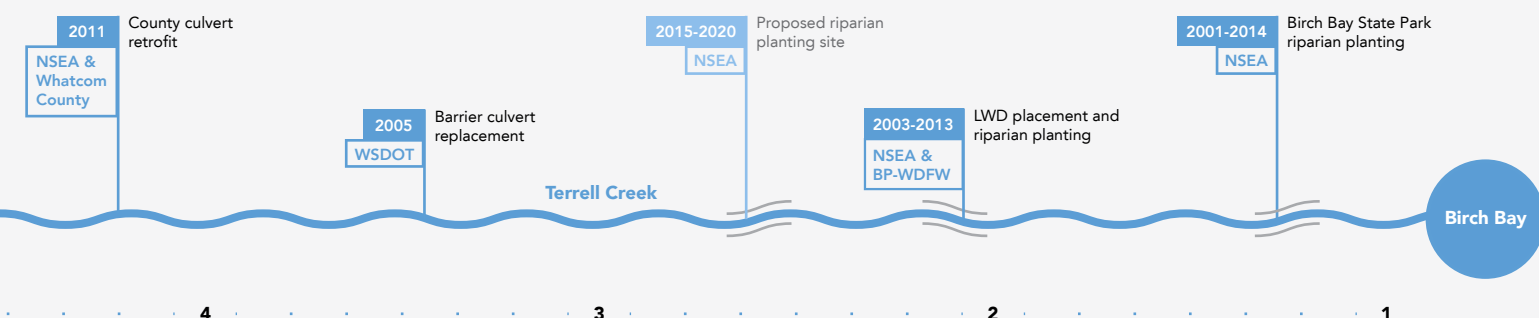
## PROJECT LIST

**12** projects completed      **1,200** feet of riparian habitat improved      **26** LWD\* structures installed      **7** fish passage barriers removed      **10.8** miles of habitat opened

Creek	Tributary of	Landowner	Project Description	Main Purpose	Project Length (ft)	Riparian Planting (ft)	# LWD* structures installed	Miles of habitat opened
Unnamed	Anderson Creek	Jones, Todd	Replaced barrier culvert with 40' x 12' bridge and wier, and installed 80' of roughened channel. Removed 2nd upstream culvert / regraded streambanks	Improve the ability of returning salmon to access upstream habitat and restore existing instream habitat	150	-	-	0.8
Bertrand	Nooksack River (main stem)	Sebring, Ruth	Installed 2 LWD structures and resloped and planted 100' of streambank	Reduce streambank erosion and improve instream habitat diversity	200	200	2	-
Unnamed	California Creek	Forss, Barbara	Replaced partial barrier bridge with new 30' x 20' bridge. Removed upstream and downstream culverts. Removed bank armoring and resloped banks.	Improve the ability of returning salmon to access upstream habitat	100	-	-	0.6
Deer	Ten Mile Creek	Hawley, Vicky	Replaced fish passage barrier culvert with 50' x 18' bridge 6352	Improve the ability of returning salmon to access upstream habitat	100	-	-	2.1
Maple	North Fork Nooksack	Gehling, Ellen	Replaced failing bridge with 5' x 45' x 34" foot bridge	Improve the ability of returning salmon to access upstream habitat	50	-	-	3.2
Middle Fork Nooksack	Nooksack River (main stem)	Uyeyama, Terry	Installed 4 LWD structures and resloped and planted streambank	Reduce streambank erosion and improve instream habitat diversity	200	200	4	-
Middle Fork Nooksack	Nooksack River (main stem)	Moore, Skip and Rhonda	Installed 5 LWD structures and resloped and planted streambank	Reduce streambank erosion and improve instream habitat diversity	200	200	6	-
Silver	Nooksack River Delta	Bennet, Burt	Replaced fish passage barrier culvert with 40' x 12' bridge	Improve the ability of returning salmon to access upstream habitat	50	-	-	0.6
Squalicum	Bellingham Bay	Morganthaller, Clarence	Replaced fish passage barrier culvert with 40' x 12' bridge	Improve the ability of returning salmon to access upstream habitat	80	-	-	1.1
Terrell	Birch Bay	Kostanoski, Phyllis & Stan	Installed 40' x 10' bridge, 12 LWD structures and 300 yards of stream gravel	Improve the ability of returning salmon to access upstream habitat and restore existing instream habitat	500	-	12	-
Terrell	Birch Bay	Louveau, Myrna	Removed barrier culvert and installed 35' x 12' bridge, 2 LWD structures and spawning gravel. Removed blackberry, replanted with native plants	Improve the ability of returning salmon to access upstream habitat and restore existing instream habitat	400	300	2	2.4
Landing-strip	South Fork Nooksack	Whatcom Land Trust / Riverstead	Removed blackberry, replanted with native plants and protected existing plants with caging.	Maintain existing restoration site to improve survivability rates of native plants	300	300	-	-

\*LWD stands for large woody debris. It's presence is important in the formation of pools which serve as salmon habitat in the Pacific Northwest. It is also used to stabilize streambanks and adds to overall complexity of stream habitat.

**Totals**      **2,330 feet**      **1,200 feet**      **26 structures**      **10.8 miles**



# Financial Summary

## STATEMENT OF FINANCIAL POSITION

January - December 2014

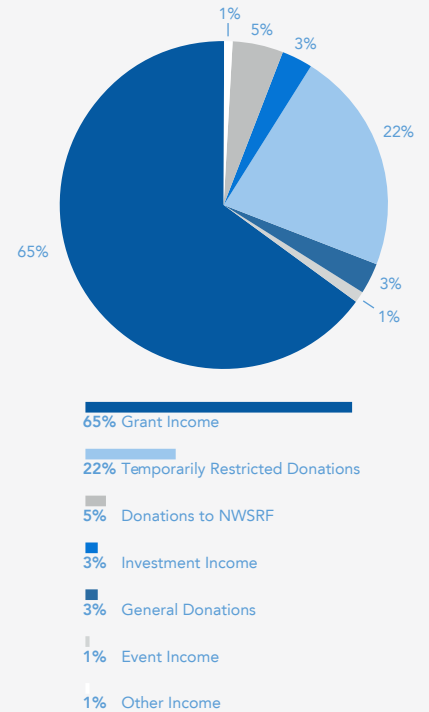
ASSETS	2014
Cash & Short Term Investments	404,031
Accounts Receivable	185,232
Investments	2,090,632
Inventory & Prepaid Expenses	23,546
Property & Equipment	178,003
Other Assets	1,675
<b>Total Assets</b>	<b>2,883,119</b>
LIABILITIES AND NET ASSETS	
LIABILITIES	
Accounts Payable	7,285
Accrued Expenses	31,170
Deferred Revenue	27,958
Line of Credit	98,342
Long Term Liabilities	3,609
<b>Total Liabilities</b>	<b>168,364</b>
NET ASSETS	
Unrestricted Net Assets	1,045,753
Temporarily Restricted Net Assets	1,580,383
Permanently Restricted Net Assets	88,618
<b>Total Net Assets</b>	<b>2,714,754</b>
<b>Total Liabilities and Net Assets</b>	<b>2,883,119</b>

## STATEMENT OF ACTIVITIES

January - December 2014

SUPPORT & REVENUE	2014
Temporarily Restricted Donations	419,627
General Donations	53,344
Event Income	13,491
Grant Income	1,239,995
Other Income	14,127
<b>Total Support &amp; Revenue</b>	<b>1,740,584</b>
FUNCTIONAL EXPENSES	
Habitat Restoration	814,199
Program	402,000
Management and General	134,786
Fundraising	22,157
<b>Total Functional Expenses</b>	<b>1,373,142</b>
<b>Change in Net Assets Before NWSRF</b>	<b>367,442</b>
NWSRF REVENUE/EXPENSES*	
Donations to NWSRF	104,150
Investment Income	64,420
Unrealized Gain/Loss on Stocks	(9,744)
Investment Expenses	(6,712)
<b>Total NWSRF Revenue</b>	<b>152,114</b>
<b>Change in Net Assets**</b>	<b>519,556</b>

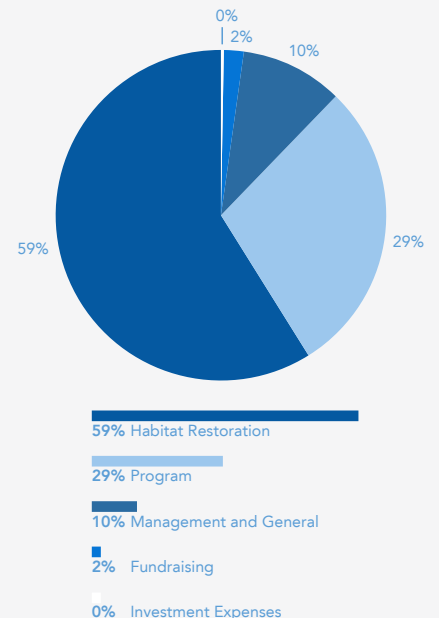
### Support & Revenue



\* The partially endowed Northwest Salmon Recovery Fund (NWSRF) serves NSEA's critical needs by ensuring program continuity and capacity building in times that other revenue sources are insufficient or restricted. To learn more contact Development Manager Adrian Shulock at ashulock@n-sea.org.

\*\* The majority of our 2014 change in net assets is from temporarily restricted donations for NSEA's capital campaign to purchase a permanent base of operations. To learn more contact Executive Director Rachel Vasak at rvasak@n-sea.org.

### Expenses



## A CAMPAIGN FOR SUSTAINED IMPACT

NSEA is actively raising money to acquire a permanent base-of-operations. Fund-raising for this effort is well underway and we anticipate reaching our goal to purchase, renovate and customize a 6.5 acre property by the summer of 2016. To learn more, please contact Rachel Vasak at [rvasak@n-sea.org](mailto:rvasak@n-sea.org) or visit our website at [www.n-sea.org](http://www.n-sea.org)

# Future Restoration Leaders

## WASHINGTON CONSERVATION CORPS (WCC)

The WCC, a Department of Ecology AmeriCorps program, provides meaningful service and training opportunities to young adults (ages 18-25). NSEA is a fortunate host for these hard working and passionate crews funded in part by Whatcom County Public Works and WA Department of Natural Resources.

### Thank you for your service!

#### 2013-2014 WCC

##### Supervisor

Zach Shirk

##### Members

Brady Lester *assistant supervisor*

Courtney Born

Jordan Mackey

Hannah Saldana

Kris Staple-Weyrauch

#### 2014-2015 WCC

##### Supervisors

Zach Shirk

##### Members

Brady Lester *assistant supervisor*

Cassy Castrejon

Annie England

Riley Hills

Brian Lindsay



Much of NSEA's extremely physical restoration work, particularly the required maintenance of past projects, is accomplished by the WCC crew each year. Here the 2014-15 Corps members take a much deserved break along the Nooksack River.

## WASHINGTON SERVICE CORPS (WSC)



NSEA has hosted WSC placements nearly every year since 1995. In 2014, NSEA continued that tradition by hosting Volunteer, Education and Scientific Monitoring Coordinator positions to help achieve our mission. The 10<sup>1/2</sup> month long, 1,700 hour experience provides valuable training for young professionals and passionate talent to the challenges of salmon restoration.

### Thank you for your service!

#### 2013 - 2014 WSC

Katie Duane *Scientific Monitoring Coordinator*

Claire Woodward *Education Coordinator*

Pheobe Tyson *Volunteer Coordinator*

#### 2014-2015 WSC

Tracy Pennell *Scientific Monitoring Coordinator*

Claire Woodward *Education Coordinator*

Kelley James *Volunteer Coordinator*



One reason why NSEA programs are so well executed on the ground is because of the talent and energy provided by three AmeriCorps positions. Kelley, Claire and Tracy team up for a group photo during MLK Day of Service.

## INTERNSHIP PROGRAM

Our internship program is a gratifying, valuable and very popular experience for college students and recent graduates looking to gain hands-on experience in habitat restoration, scientific monitoring, and education while making a positive difference for wild salmon in Whatcom County. In 2014, 44 NSEA interns provided over 3,000 hours of service.

### Thank you for your service!



Interns develop a strong sense of comradery each season working toward the common goal of wild salmon recovery.

# Community Education

## CITIZEN ACTION TRAINING SCHOOL (CATS)

Along with six other Regional Fisheries Enhancement Groups, NSEA is building community leaders who are educated and engaged in the regional Puget Sound recovery effort. The CATS model combines training in watershed ecology with civic engagement in the regulatory and legal processes that affect resource management. As part of the experience, students volunteer at least 50 hours to plan and complete a service project related to the Puget Sound Strategic Initiatives. To learn more go to [www.pugetsoundcats.org](http://www.pugetsoundcats.org).



CATS students gather around an old growth stump during a field trip to the Olympic Peninsula to learn about the restoration work in the Elwha River watershed.



## RIVER STEWARDS

NSEA continued its partnership with the United States Forest Service (USFS) Mount Baker Ranger District to implement the tenth year of the award-winning Nooksack River Stewards Program. **2,002** contacts were made with the public and 53 presentations were given.



River Stewards go where the people congregate. In this case, river rafters are briefed on salmon ecology prior to an exciting float down the North Fork of the Nooksack River near Glacier, WA



GIVING HERE MATTERS



## LIAM WOOD FLY FISHERS AND RIVER GUARDIANS

For the 11th consecutive summer, students and community members in Whatcom County were able to participate in The Art, Science and Ethics of Flyfishing course, offered through Huxley College at Western Washington University (WWU). The course is taught in partnership with NSEA and members of the Fourth Corner Flyfishers Club.



NSEA staff members act as guest lecturers throughout the course and speak on ethics and stewardship issues, as well as the restoration goals for the Nooksack River Basin.



GIVING HERE MATTERS

# Salmon at the Bay

Each summer, NSEA holds a celebratory event called "Salmon at the Bay". For 12 consecutive years, Boundary Bay Brewery has generously donated the use of its beer garden for this event.

In 2014, staff and volunteers set up in the cool cover of morning fog. By the time the first guests arrived temp's were in the 70's and the king salmon donated by the Seafood Producers Cooperative was piping hot. Thank you to all the volunteers and guests for making it such a wonderful event!

All Photos Credit:

Laura Going, NSEA volunteer photographer



# Before & After

**BEFORE**



The partial barrier box culvert was replaced with a bridge to improve fish access to upstream habitat. Deer Creek meets Ten Mile Creek just prior to flowing into the Nooksack River near Ferndale, WA.

**AFTER**



Landowner: Hawley  
Creek: Deer

**BEFORE**



The barrier culvert was replaced with a bridge to improve fish access to upstream habitat. Anderson Creek intersects the main stem of the Nooksack River between Deming and Everson, WA.

**AFTER**



Landowner: Jones  
Creek: Tributary of Anderson



**BEFORE**



The barrier culvert was replaced with a bridge to improve fish access to upstream habitat. Salmon (reports of coho) were observed spawning upstream of the project site for the first time in many years. Squalicum Creek flows directly into Bellingham Bay.

**AFTER**



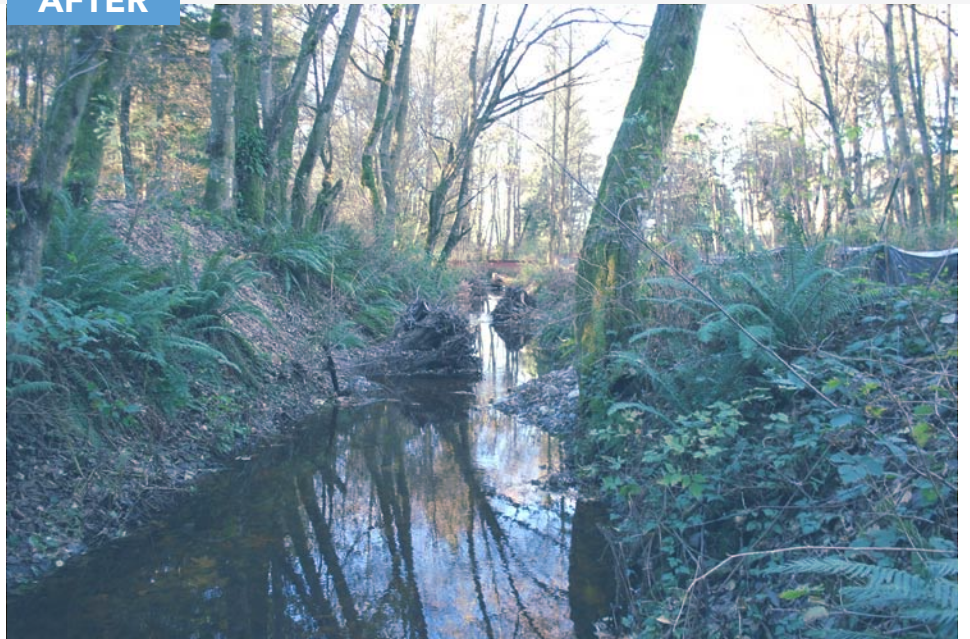
Landowner: Morgenthaler  
Creek: Squalicum

**BEFORE**



Following blackberry removal, we placed LWD and gravel within the ditched, dredged, and straightened channel to improve instream habitat diversity (pools with cover for rearing and holding, gravel for spawning). Adult chum spawned here in late 2014. The riparian buffer is presently being replanted.

**AFTER**



Landowner: Kostanoski  
Creek: Terrell

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