

FISH TALES

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THE NEWSLETTER OF THE NOOKSACK SALMON ENHANCEMENT ASSOCIATION

CAMPAIGN ANNOUNCEMENT:

We Are 75% of the Way to Our \$1,200,000 Goal!



The 1950s residential house that will be upgraded to meet NSEA's main office needs

By Adrian Shulock
Development Manager

We are thrilled to announce that NSEA has surpassed the 75% mark toward its \$1,200,000 Capital Campaign goal to purchase, renovate and upgrade a 6+ acre

property at 3057 East Bakerview Road in Whatcom County.

Completion of the campaign will provide NSEA with the stability it requires to meet the long-term challenges of salmon recovery in Whatcom County. With a

solid home as our foundation, we are very excited to enter a point in time where we can think long-range about continuing progress toward our mission. (See page 7 to learn about NSEA's previous office locations in the last 25 years)

How to Help

1. Make a campaign contribution that is meaningful to you: Donate online at www.n-sea.org or send a check payable to NSEA (memo "Campaign" to NSEA, PO Box 32594, Bellingham, WA 98228).
2. Consider an in-kind gift of professional services related to the remaining projects, e.g., engineering, construction.
3. Spread the word – tell your friends, family and colleagues in person or on your own social media outlets like Facebook. Ask them to support and talk-up about the campaign.

Progress Update

We have raised \$915,875 (76.3%) of the \$1,200,000 goal. That leaves about \$292,000 to the finish line. We are hoping you'll consider helping us get there swiftly.

Four generous gifts at the beginning of the campaign provided good reason to continue. Thank you to Mike and

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A View from Home: Rivers, Salmon & Native Plants

By Todd Jones
Former Owner of NSEA's New Permanent Base of Operations

On December 7, 1972, shortly after takeoff, Apollo 17 astronauts Evans, Cernan and Schmitt looked out the window of their space craft at a fully illuminated earth below and took what would become one of the most famous images of the twentieth century. This beautiful, but haunting picture coined the phrase "Space Ship Earth" and evoked a nearly universal feeling of fragility.

For the first time, we saw the place we all call home juxtaposed with the vast black void of space, and felt small. The realization that we earthlings constitute a collective humanity was solidified by that image, but it also accentuated the finality of the natural systems we depend upon and the notion that we humans need to be better environmental custodians.

If someone had asked what my thoughts on ecology were back in 1968 when I was studying forestry, I probably would have been clueless. It would take a couple of years hitchhiking around the



Todd Jones (left) and NSEA Board member Mike McRory during the property dedication ceremony in July 2015

world and the prophetic voice of people much smarter and wiser than me to realize just how interconnected our environment

is, and how important it is that it remains healthy and fully functioning.

It was late autumn of 1969 when my best friend and I boldly walked up to the front door of Ansel Adams' residence on the Big Sur coast. Fearlessly, or perhaps foolishly, we strolled up to the front door, uninvited, and rang the bell. We were two wide-eyed, budding young photographers who had left the east coast behind in search of the great vistas and wilderness of the west. As luck would have it, we were welcomed in but learned that Adams was off traveling, so we didn't get to meet him; that would take a few more years, and a photo workshop following him around Yosemite with a view camera.

However, the wait was worth it, and the workshop was much more than we expected. We spent as much time, maybe more, talking about environmental preservation as we did photography. Adams, then in his seventies, talked about the rapid changes he witnessed and photographed during his lifetime, and his concern for our nation's wilderness areas. The concerns he expressed back then seem to be more and more obvious to me as time goes by, both nationally and right here in our beautiful corner of the world.

Whatcom County has been my home for more than forty years. My wife and I drove into Bellingham forty-one years ago in a 1964 Ford Fairlane, with our dog, a tent from Kmart, and \$35. Everything we have today is attributable to our good fortune to have settled in an area with a thriving agricultural base, spectacular natural resources and a community that appreciates the beauty and abundance this place offers.

With my interest in plants and with plenty of good farmable ground around, I

started leasing land and growing nursery crops in 1978, eventually incorporating the business in 1982 and naming it Fourth Corner Nurseries. We grew mostly conifers at first, but eventually changed our focus and started seriously learning to grow native plants for restoration. I believe that's about the same time NSEA was learning the best ways to install and use those plants, so our two enterprises have crossed paths many times over the past twenty-five years.

Our nursery is not well-known locally due to the wholesale nature of the business; however, we are known in the native plant world, and have shipped plants or seed to nearly every U.S. state, five Canadian provinces and as far as China and Europe. Our focus is on preserving the genetic diversity of the nearly 500 different species we grow; 98% of the two-to-three million plants we produce annually are propagated from carefully-tracked seed collections.

Our extensive database of propagation protocols and years of experience is the reason our nursery was chosen by the National Park Service as the native plant supplier for the Elwha dam removal project (a big win for salmon recovery).

The nursery is located east of Bellingham on approximately 80 acres and run by a wonderful staff of just over twenty people; several have been with us more than twenty years and most have worked with us over ten years. In addition, we have several amazingly-talented, well-educated young people learning the craft of native plant propagation and cultivation. I'm continually inspired by these young people and our many customers, like NSEA, working in the frontlines of habitat restoration.

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FISH TALES

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NSEA welcomes articles, photos and artwork.

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A Letter from the Capital Campaign Chairman

Dear NSEA Members, Friends, and Supporters,

Robert L. Merriam joined the Navy in 1943 and subsequently graduated from Dartmouth College in 1948. Known as a scrappy athlete willing to give as good as he got, with a thirst for contact, he never shied away from a collision. Excelling in soccer, hockey and lacrosse, he was the only four-year, three-letter athlete in Dartmouth College history.

Known as the "frowner," Robert Merriam was my high school Dean of Students and by force of will our unspoken Dean of Discipline. With a close cut and a flat top he was half the height and twice the strength of anyone on campus. He commanded respect and inspired fear at all times. He could also laugh at a good joke even at his own expense and was deeply compassionate in private. Tough and fair, he demanded sportsmanship and never offered or accepted excuses.

Mr. Merriman was my soccer coach. At the end of a long mediocre soccer



Robert L. Merriam coaching hockey

practice, Mr. Merriam sent the team on an unexpected run around the 40 acres of playing fields. We doubled over gasping for air at the finish. We were sure we were done and waited for his permission to head back to the gym to collapse.

But this time, he silently led us back to the field again. We ran "Scottish nines" followed by 50-yd, 100-yd and perimeter sprints. "Last man runs again" he growled. Finally just before the penultimate sprint, Mr. Merriam paused and called out "finish strong...Go!" We took off and ran like the wind with nothing left in the tank. We had no idea where the energy for that last sprint came from.

He demanded from us strength we never knew we had. That day, Mr. Merriam set one of the cornerstones of my life.

So as Chairman, I wish to commend to everyone supporting and everyone considering supporting NSEA's Capital Campaign some of the best advice I have ever received from one of the finest men I have ever known;

Finish strong! Go!

**Phelps S. McIlvaine
NSEA Capital Campaign Chairman
Deerfield Academy Class of 1971**

NSEA's Capital Campaign Donors (In-Kind Included) to Date – Thank You So Much!

The Alcoa Foundation
Al Froderberg
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Analiese Burns
Andy Ecker and Mary Kay Hughes
Anne Kauffman
Annitra and Toby Peck
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Washington Native Plant Society
Wendy Borgensen
Wendy Scherrer
The Sustainable Whatcom Fund of Whatcom Community Foundation
William Wright & Patrice Clark

A View from Home: Rivers, Salmon & Native Plants

Continued from page 1

One thing that eventually becomes obvious to anyone who has lived in Whatcom County for a while is just how vulnerable the ecosystems of Western Washington, and Whatcom County in particular, are. Forty years ago our county had 90,000 people and today we're over 200,000. Thirty-five miles north of Bellingham is the city of Surrey BC, which by most accounts is growing by an additional 700 to 800 new residents a month and slated to become larger than Vancouver in the next couple of decades.

Our community is being challenged to assimilate future growth and maintain healthy ecosystems at the same time; this is why I believe we all need to support the Nooksack Salmon Enhancement Association. Because restoring salmon habitat is

not just about fish, it's about the entire habitat linkage and the symbiotic relationships that comprise a healthy environment.

My hope is that future generations will find Whatcom County as nice a place to live as I have. I don't think that will be possible without healthy, fully functioning ecosystems. We need to restore our wild salmon runs, and we also need to educate our community as to why this is important. No one does that better than the Nooksack Salmon Enchantment Association.

So when I heard that NSEA was looking for a permanent home, I remember thinking that our Bakerview Road nursery, just down the street, seemed like the perfect spot. My wife Allison and I raised our two daughters on that six-acre property so we have lots of good memories and

we were never very excited about seeing it broken into house lots as the zoning indicated. The thought of our property becoming a permanent home for an organization that builds the kind of community that Allison and I want to live in, restores salmon habitat, and uses native plants, almost seemed too good to be true. We are delighted that our home is now NSEA's new home; our hope is that it becomes a dynamic learning center and home-base for salmon recovery well into the future.

The conservative, 19th century, British Prime Minister Benjamin Disraeli talked about the need to *conserve that which is good*. This is exactly what NSEA does and this is why I believe the Nooksack Salmon Enhancement Association deserves our support.

Salmon Science



Stormwater

Fall is descending and wild salmon are returning to local streams to spawn. After this especially warm summer many of us are feeling especially ready for the return of our beloved, and sometimes bemoaned, iconic northwest rainy days. As rainwater runs across our roads, roofs, and other human infrastructure it can't help to collect anything that might be carried away – even pollutants - into local waterways. The first big rains after the summer fill up rain barrels and stormdrains alike, and wash away oil and other residue that has built up over the dry season. This runoff, known as stormwater, is an side effect of rainy days.

In the following article, reprinted with permission from the National Oceanic and Atmospheric Administration's (NOAA) Fisheries West Coast, we hope to provide you with good information about stormwater, how it impacts salmon, and the simple solutions scientists are implementing to address this pervasive problem.

How Toxic Runoff Affects Pacific Salmon and Steelhead

Reprinted with permission from NOAA.



What is stormwater runoff? Stormwater is rain or snow melt that originates during precipitation events. Stormwater that does not soak into the ground becomes runoff.

How do pollutants enter our waterways? Pavement is part of our landscape. Roadways and parking lots accumulate a mixture of contaminants, such as metals and petroleum-related compounds. During precipitation events, stormwater runoff transports the pollutants to our rivers, lakes, and estuaries. Agricultural chemicals, such as pesticides, can also seep into waterways where pollutants are transported downstream.

Development in the Pacific Northwest has transformed how and when water moves through the landscape, and how species respond to the physical, chemical, and biological changes in their environment – in short, how our watersheds function. As our human population grows, so do the number of motor vehicles on the roads and types of pollutants released across the landscape. Deposits of pollutants end up on roadways and other surfaces, and are transported to our waterways via runoff. Contaminated runoff poses significant threats to freshwater, estuarine, and marine species, including the Pacific Northwest's salmon and steelhead runs.

What Science Tells Us about Salmon and Polluted Runoff

Pavement is a prominent feature of the landscape. Roadways and parking lots are impervious and accumulate a mixture of contaminants, including metals (copper, nickel, zinc, cadmium, etc.); petroleum-derived compounds from oil, grease, and vehicle exhaust; and detergents, among others. During rainfall events, stormwater collects these contaminants and transports them to our rivers, lakes, and estuaries. In addition, agricultural practices and landscape maintenance that use pesticides, such as insecticides, herbicides, and fungicides, can also contaminate runoff and compromise the health of watersheds.

When toxics enter our waterways

via stormwater runoff, they can cause a variety of adverse effects to aquatic species. In addition to directly impacting salmon and steelhead, toxics can harm or kill the aquatic insects that salmon eat. Pollution risks vary depending on the particular chemical, the amount transported in stormwater, and environmental persistence.

Recent research has shown that common contaminants can impair salmon health in a variety of ways. For example, certain metals and pesticides are toxic to the salmon nervous system, thereby disrupting feeding and predator avoidance. Pesticides and petroleum-derived compounds suppress the immune system, rendering salmon more vulnerable to pathogens that cause lethal diseases. Petroleum-derived compounds are also known to depress growth rate of juvenile salmon, which can affect their survival. Other compounds target the developing cardiovascular system, causing heart failure or permanent heart defects.

Dissolved copper is a particularly pervasive contaminant that threatens salmon and steelhead survival. Copper is used for many industrial, commercial, and residential purposes. These include use in roofing materials, treated wood, and pesticides. It is also a by-product found in the exhaust and brake pads of vehicles. Copper, like many other metals, is toxic to the sensory systems of fish. Dissolved copper specifically impairs salmon and steelhead's ability to detect odors. This sense guides their response to environmental cues and impairment of smell interferes with certain behaviors. Copper can impede predator detection and avoidance, social interaction, prey detection, orientation, and homing, thereby affecting their survival, distribution, and reproductive success.

Copper is just one example of a contaminant in stormwater. In the natural world, fish are exposed to a mixture of chemicals originating from a variety of sources. Although the specific responses of salmon and steelhead to the mixtures present in stormwater are difficult to predict,



Staff at Kicks Running and Walking shoe store in downtown Bellingham show off the rain garden they have adopted as part of the Downtown Improvement Garden project

they could include many of the effects described above. Research at the Northwest Fisheries Science Center has shown that typical stormwater mixtures affect the survival and development of salmon and steelhead eggs.

Best Practices for Cleaning-Up Toxic Runoff

Using its authority under the Endangered Species Act, NOAA Fisheries has worked with local governments and Federal partners, including the Federal Highway Administration, Federal Transit Authority, and U.S. Department of Housing and Urban Development to improve water quality in salmon habitats by reducing toxic runoff. Some best practices include:

Infiltration: The primary means of treating polluted runoff is infiltration. There are many creative ways to infiltrate polluted runoff into the subsurface where it can be cleaned using natural materials like compost-amended soils. Local developments also are incorporating environmentally sound development techniques, known as "low-impact development," into their buildings and roads. These techniques include

things such as adding green roofs, pervious pavement, rain gardens, compost-amended soils, wetlands, and vegetative filter strips along driveways and walkways.

High Efficiency Sweepers: Major cities like Seattle and Portland are using high efficiency sweepers to collect and dispose of runoff pollutants before they are transported into streams and rivers. This approach can remove up to 90% of the pollutants (e.g., copper and zinc) from roadways.

Reduce Pollution at the Source: Source control is the most effective tool for reducing or eliminating toxics in stormwater runoff. For example, Washington State recently passed legislation that will phase out the use of copper and other metals in vehicle brake pads, and some jurisdictions have banned the use of architectural copper (downspouts, etc.). Many local governments have implemented public education campaigns to reduce the use of toxic lawn care products. With the support of over \$50 million in Federal grants, Seattle and Portland are piloting the use of electric vehicles and charging stations. This change will reduce the amounts and sources of oil, gas, and metals on our roadways.

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Education and Stewardship

See Salmon – Spawning Tours Coming Up!



A tour participant asks NSEA's Program Director Annitra Peck a question about spawning chum salmon along Chuckanut Creek in Arroyo Park last fall.

By Rachel Benbrook Program Manager

Autumn is here and that feels nice – chilly nights, falling leaves, cider pressing and pumpkins turning orange in gardens. Along with these familiar sights, fall means that the salmon are “running” the rivers in search of a place to spawn! NSEA will be providing several guided opportunities for the public to view this incredible moment in the life of a salmon.

As we shared in our summer issue of *Fish Tales*, since it is an odd year (2015), pink salmon were abundant in August and September throughout Whatcom County. The fall and winter months will now bring spawning Chinook, chum and coho salmon as well as Steelhead trout into streams around Whatcom County. This is truly an iconic image of the Northwest - big fish, brightly adorned in their spawning colors, struggling up rapids or resting in pools in forested streams ringed by mossy evergreens. Every resident of our region should get out and see it with their own eyes- and NSEA is going to be providing opportunities!

This November (see dates below) we will be out on local salmon-bearing creeks during the peak of the chum salmon spawning season. NSEA staff and volunteers will be on hand to help you and your family learn about the salmon species present in our waters. Take a walk along one of our lovely local streams and learn about the salmon life cycle, habitat and water quality needs, and what YOU can do to help support wild salmon in Whatcom County. Naturalists will be available to answer questions.

Spawning Tour Dates and Locations

- November 7th along Padden Creek
- November 14th near N. Chuckanut Bay
- November 21st at Arroyo Park along Chuckanut Creek

For more information please visit the Upcoming Events page on our website www.n-sea.org. Families are welcome, although we ask that, if it's possible, you leave your dog at home so as to avoid disturbance to the spawning fish. We hope to see you out along the creek!



You'll get to use one of these handy field guide cards to identify the salmon species you'll hopefully see

Thank You Maggie Long – Good Luck in Graduate School!

By Annitra Peck Program Director

NSEA is small – but mighty. While our community of supporters is in the thousands, we only have 9 fulltime staff members. One key individual in particular has been our top-notch educator for the past 4 years, coming to us as a volunteer through the Washington Service Corps program.

She was so fantastic that we had to keep her, and did just this, by bringing her on board as a full time staff member in 2013. This extraordinary member of our team tirelessly strives to connect with our community through the lens of salmon education. She has created a salmon stewardship force through student participation so powerful that you can barely ask any 4th grader in Whatcom County about

salmon without hearing them reference their time with NSEA.

She has the most exuberant, energetic, and positive dynamic perspective each and every day. Who is this wonderful person? Drum roll please!

It is with great respect that we award Maggie Long as NSEA's Educator of the Quarter! Not only because she instigated a chore wheel around the office to keep things running smooth (that is also educational) or because of her natural talent labeling everything to keep us organized – but because with heavy hearts we are saying goodbye to one of the best education staff members NSEA will ever likely see. S

She has worked over the years to refine our curriculum to meet the Next Generation Science Standards, written



Maggie Long, former Education Manager at NSEA, smiles big while donning a salmon hat.

grants to increase our capacity in more schools and built lasting relationships with teachers around Whatcom County ensuring that all students have access to NSEA's Students for Salmon program.

Maggie is leaving NSEA to pursue graduate school. We are thrilled to support the spawn of a new era as Maggie will continue to serve students in Whatcom County by becoming a formal teacher. While NSEA's Educator of the Quarter is just a small nod (although high ranking) to her good work here at NSEA, we want the world to know that she has truly changed our lives forever.

Maggie Long - thank you for bringing your educational talents and contagious silly self to NSEA. You deserve this award and so many more. You are the best because you brought out the best in us.

Volunteer and Stewardship

Spawning Grounds Surveys

By Tracy Pennell
former AmeriCorps Member

Fall is upon us yet again, which can only mean one thing for the monitoring program at NSEA—it's time to begin salmon spawning grounds surveys! Each season the monitoring coordinator is joined by a team of dedicated interns and enthusiastic volunteers to survey sections of creeks throughout Whatcom County.

We have two exciting things to look forward to this season:

1. It's an odd-numbered year, which means it is a pink salmon year here!
2. A brand new surveying team led by Cameron Coronado (see page 6 for his profile along with the profiles of the other Ameri-Corp team members).

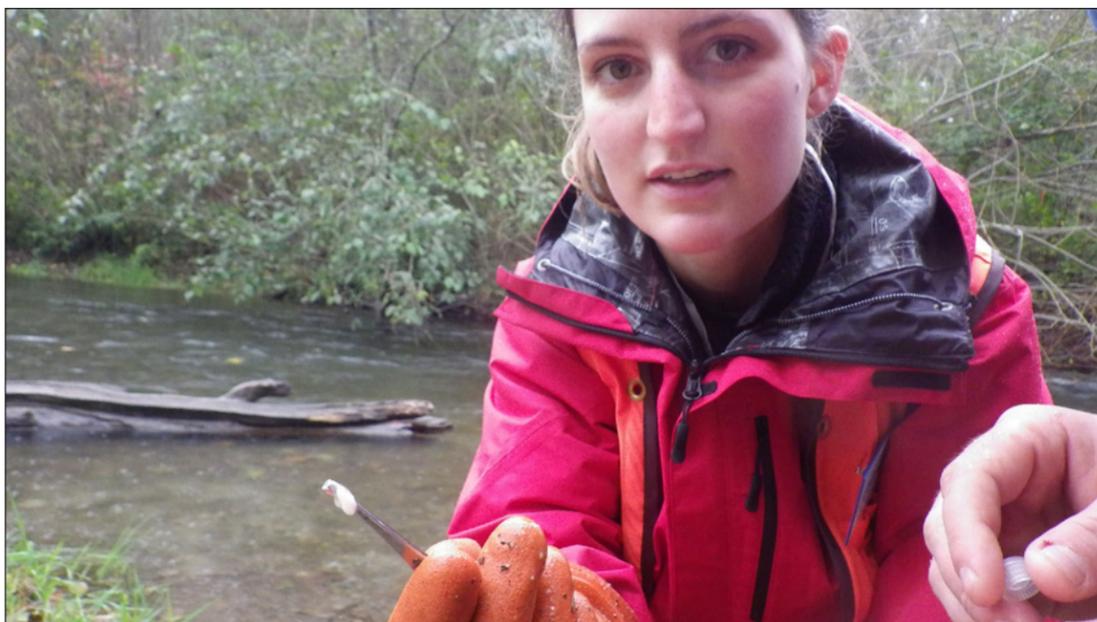
The Beginning of Each Surveying Day

Each surveying day begins at NSEA's Administration office. The team quickly gathers equipment - orange vests, polarized sunglasses, sampling equipment - checks out an NSEA vehicle and picks out a pair of waders and wading boots. We load up and hit the road toward the first sampling location.

Where We and What We See

Depending on the survey schedule and the recent weather patterns, we could end up driving to any corner of our survey area. We may head out the Mount Baker Highway to survey creeks like Macaulay or Mitchell, which are predominantly used by coho salmon. Or, we could drive into the heart of Bellingham to survey Whatcom Creek or Squalicum Creek, where we could see massive Chinook, chum, coho, and pinks. Regardless of which creek we visit during the day, we're always in for a treat. Each creek boasts unique characteristics that are interesting to observe through the lens of a field scientist. When we survey a section of stream, called

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Tracy Pennell, former Monitoring Coordinator, with the freshly extracted otolith bone of a Chinook salmon found along Whatcom Creek



Spawner survey volunteer Vic Andresen searches for salmon signs at Landingstrip Creek in Acme, WA,

Join Us! Fall 2015 Community Work Parties

By Maggie Long
Former Education Manager

Fall is my favorite time of year at NSEA. Salmon are back in our local streams, students have returned to school and are participating in our education programs, spawner survey crews are monitoring the creeks, new AmeriCorps members arrive, and the season of community work parties begins.

Many exciting things are happening around NSEA,

and one of the best ways to get in on this energy is to join us for an upcoming community work party!

This fall, NSEA will be hosting seven. Everyone is invited, no RSVP required, from 9:00 am to noon to join in on restoring Whatcom County's salmon habitat. We're giving some extra love to the Squalicum Creek watershed, including a Make A Difference Day work party that will be in partnership with the City of Bellingham and Bellingham Parks and Recreation on October 24th. This is a part

of the reroute project that has been taking place over the summer to the north of Sunset Square in Bellingham, WA.

NSEA's work parties are a great way to kick off your fall weekends. I encourage everyone to go and check out some amazing Whatcom County sites and be an active steward for these important waterways.

NSEA's website, www.n-sea.org, provides more detail (including where to park and what to bring) for each of the work party dates listed below.



[Upper left]
Make a Difference Day 2012 on a tributary of the South Fork of the Nooksack River

[Upper]
Make a Difference Day 2011 at Landingstrip Creek near Acme, WA

[Right]
Make a Difference Day 2010 along the Nooksack River

[Left]
Make a Difference Day 2014 near Schell Creek (Ferndale, WA library in the background)



Fall 2015 Community Work Party Schedule

October 17th	Bertrand Creek
October 24th - Make a Difference Day	Squalicum Creek
October 31st	Terrell Creek
November 7th	Squalicum Creek
November 14th	Little Squalicum Creek
November 21st	South Fork Nooksack River
December 5th	Whatcom Creek

2015-16 AmeriCorps Team Introductions

To find out a little about them, we asked them about their hometown, college/degree, favorite way to eat salmon, favorite salmon-dependent species, and what they are most looking forward to as part of the AmeriCorps team.



Cameron Coronado
Monitoring Coordinator
Walla Walla, WA
Western Washington University,
Environmental Science



Lauren Murphy
Stewardship Coordinator
Bremerton, WA
Western Washington University,
Environmental Science



Ben Saari
Restoration Coordinator
Langley, Washington
University of Washington, Environmental
Science and Resource Management



Cori Schleich
Education Coordinator
Wasilla, Alaska.
Western Washington University,
Environmental Education

Favorite way to eat salmon? Smoked. Mmmmmmm! My favorite salmon-related species is the eagle. I am looking forward to watching salmon migrate up stream and spawning!

I definitely hope to inspire others to love salmon as much as I do! Funny enough, though, I'm not that into the taste of salmon :) but if I had to choose, I'd say smoked! My favorite salmon-related animal? The grizzly bear!

I'm looking forward to getting to know all the awesome volunteers! And maybe sharing my favorite recipe: salmon barbecued with lemon herb mayonnaise. The osprey is my favorite salmon-related species.

Nibbling salmon fresh off the smoker is my favorite, and the humpback whale is my favorite salmon-related species. I am most looking forward to learning about the science of salmon and their streams... and making friends with more salmon lovers.

NATIVE PLANT CORNER

Red Alder Could Dance with Sammy the Salmon

By Adrian Shulock, Development Manager

NSEA could easily adopt the Red Alder (*Alnus rubra*) as a second mascot. While I'm not sure how I would sew the costume, I'd feel good about proposing the name "Franky" for technical reasons that are discussed later. Let me make the case for why a Red Alder mascot could easily dance with Sammy.

- **Smoked Salmon:** Cedar-planked salmon is good. But, it's not as good as the timeless flavor of alder smoke. There are few things as complete as a hunk of alder smoked salmon. Franky adds flavor to Sammy.
- **Restoration:** Much of NSEA revegetation projects begin on degraded stream banks that are exposed to full sun. Enter



The leaves and male pollen cones of a Red Alder tree

the Red Alder which shines (ha!) in its ability to grow in full sun and quickly begin shading the creek. We plant an enormous number of Red Alder trees because of this single trait. Franky is the first to shade Sammy.

- **Foundation:** Red Alder builds the foundation of an ecosystem in several interesting ways. For instance, it produces a massive mess of leaf litter every year, thereby contributing much of the organic material that successive plants utilize for nutrition. Also, because Red Alder loves wetness it can grow so close to the creek that leaves fall right into water and get eaten by insects that are ultimately eaten by young salmon fry. Franky supports and feeds Sammy.

- **Franky Makes It Possible:** Nitrogen is a limiting nutrient in the soils of the Pacific Northwest. It's not limited in the air we breathe but atmospheric nitrogen is not available to plants for use. Instead nitrogen must get "fixed" by something so that plant roots can make use of it as ammonia. *Frankia*, a genus of bacteria that forms reddish nodules on the roots of Red Alder (and other actinorhizal plants) does the fixing. In this symbiotic way, the Red Alder can easily grow in degraded soils where NSEA often does its work.

For this final reason, the name "Franky" for our hypothetical Red Alder mascot makes sense. Now, back to exactly how I would sew a Red Alder costume.



Sammy the Salmon

Spawning Grounds Surveys *Continued from page 5*

a reach, we start and end at a predetermined location.

Data Collection Starts

At the beginning of the survey we'll make weather observations, and record basic water quality. Then we'll start walking up the creek looking for spawning salmon, new and old redds (egg nests), and salmon carcasses. If we find carcasses, we'll record information

about the species, sex, and condition. We might even get to cut into the brain cavity of the fish to extract the otoliths (ear stones) or cut a tissue sample from the operculum (cheek plate) or take scale samples from the side of the fish. Our team carefully records observations at each site. The information is entered into a database when we return to the office.

How the Data is Used

All of the information gathered throughout the reach will help fisheries managers better understand the current state of salmon populations in Whatcom County. It is then compiled into a cumulative report at the end of each season. To read about the findings from past survey seasons, go to the monitoring tab on NSEA's website.



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NSEA Quarterly Awards

Business of the Quarter: Andesite Industries, Jeff Hamblen



Putting the final railing pieces on NSEA's new office deck, Jeff of Andesite Industries is all smiles

Jeff and his team at Andesite Industries have dutifully and skillfully been working to renovate NSEA's main office at its new location. They've built a beautiful new deck with an ADA ramp, renovated two bathrooms (one ADA accessible), renovated a room to serve as a temporary meeting location and reinforced floor joists to meet the needs of our Conditional Use Permit. It's been nothing short of a pleasure to include Jeff and his team as super supporters of NSEA's Capital Campaign. Thank you Andesite Industries!

Tell us about Andesite Industries and your connection to the community here in Whatcom County.

I have been working in many aspects of the construction industry for over 20 years. I started Andesite Industries to bring that experience to projects focused on remodeling and repurposing structures and spaces in response to the evolution of use and purpose. Living in Whatcom County since 1995, I've had the opportunity to work with many great collaborators as well as observe the characteristics of the local environment from a construction perspective.

Why do you feel it is important to support NSEA and salmon habitat

restoration in Whatcom County?

NSEA is a remarkable collaboration of efforts to synchronize habitat restoration projects that involve many partners. After working at their new site for nearly two months, it appears to me that NSEA acts as a hub for the restoration community. The salmon habitat restoration work involves the community in large scale, fostering stewardship across the county.

Aside from being a small business owner, how do you spend your time? What do you like to do?

I try to balance the construction work in the summer with work in the snow during winters. I teach avalanche education courses at Mt. Baker and try to spend as much time as possible touring in the backcountry.

Do you have a favorite river in the area? Why do you love it?

The North Fork of the Nooksack River has a fantastic stretch of white water near the town of Glacier. The river plunges through a gorge cut into the bedrock during the draining of a lake formed by an ancient land slide. On a hot summer day, the deep channel and mossy boulders create the perfect blend of sun and shade, rapid and eddy.



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NSEA's Offices through the last 25 Years



NSEA leased this property from WWU between 1999 and 2013

It's easy to see what influenced NSEA to pursue a Capital Campaign to purchase, renovate and upgrade a new property (see page 1) when you understand the history of its various office locations. Each office transition has provided NSEA a little more independence, cohesiveness and ability to plan for the long term.

From the early meetings around the dining tables of volunteers, NSEA has demonstrated its ability to adapt, evolve and grow to meet the needs of salmon recovery. Here is a look at where the volunteers, interns, staff, board, tools and equipment have lived since the late 1980s.

Dining Room Tables, Living Room Floors and Garages - Late 1980s to 1994

Springing to life in the 1980's, a core group of concerned volunteers united to try and reverse the trend of declining salmon runs in Whatcom County. That group was the kernel that became NSEA and they met around their own dining room tables. About 20 shovels, a few chainsaws, buckets and a pile of loppers were stored in their garages and barns.

Bellingham Cold Storage, Fussner Monuments and a Corn Field off the Guide - 1994 to 1999

Around the same time NSEA won its first major grant that provided work for displaced timber and commercial fishers, it moved into donated office space in



The entrance to BCS along Roeder Ave. where NSEA's office was located between 1994-1999

Bellingham Cold Storage's (BCS) facility off of Roeder Avenue. At about 300 sq.ft. it provided enough space for 2-3 staff to manage a growing number of projects. Thank you BCS!

As project numbers grew so did the tool inventory. Personal garages and barns no longer made good sense. Enter the generous offer from Jack Westford who donated storage space in the Fussner Monuments building located on State Street in Bellingham. Thank you Jack!

Planting parties were also becoming



Tools for NSEA restoration projects were stored in the Fussner Building during the 1990s

more popular and so NSEA sought out a location to grow its own native trees and shrubs. It's more cost effective to do so and potted plants survive transplanting better than bare root stock. The Meridian School District owned a vacant corn field and agreed to donate about one acre for NSEA's use. Thank you Meridian School District!

NSEA's biggest challenge during this phase was managing communication in three locations. But that was about to end.

Western Washington University Leases Farm House to NSEA - 1999 to 2013

NSEA offices, tools and native plants moved from BCS, Fussner and the corn field into a property owned by Western Washington University (WWU) on the corner of Bakerview and Hannegan. It was the first time that its office, tools and native plant nursery were located together. It represented a huge turning point in efficiency for salmon recovery work. The financial deal between WWU and NSEA was a win-win. For WWU, it had a tenant that would occupy an otherwise empty location. For NSEA, the lease payment was very favorable and allowed dollars to flow toward doing restoration work. Thank you WWU!

Todd Jones Leases His Property to NSEA with an Option to Buy - 2013 to 2015

NSEA was lucky enough that WWU provided a great location for as long as it did. In 2013, WWU made the decision to end its lease with NSEA and sell the property. NSEA's leadership knew this day was coming and so had already begun the process of looking for a new location.

We Are 75% of the Way to Our \$1,200,000 Goal! Continued from page 1

Elaine McRory, Phelps McIlvaine, Philip Humphries and the Whatcom Community Foundation for your leadership. (See Page 2 for a complete list of campaign supporters to date).

About the Property

The 6.3 acre property is perfectly located just beyond Bellingham's city limits. It allows our work crews easy access to restoration sites without distancing office staff too much from downtown Bellingham. The location will maximize our time "doing" while minimizing drive times. In addition, its location makes for the perfect meeting spot for our organi-

zational partners concerned about salmon recovery.

The property is not a blank slate. Instead, it includes a 1950s residential house, several usable outbuildings, adequate space to store restoration materials like mulch, and a template for a plant nursery (the site was owned by Fourth Corner Nurseries) which NSEA needs to grow its native plant stock used to restore degraded stream banks throughout Whatcom County.

It was offered for the right reasons. The seller (Todd Jones, owner of Fourth Corner Nurseries) agreed to a very reason-

able price and a generous lease-option that has allowed NSEA the time to transition into full ownership over the last year. (See Todd Jones' article on page 1 to learn about his reasons for selling to NSEA)

Big Results to Date

As of July 2015, NSEA owns the property free-and-clear! In addition, the majority of the projects related to the Conditional Use Permit issued by Whatcom County are completed while the remaining projects are in-progress.

Note: Our focus on salmon restoration and education has avoided significant distraction during the campaign process. We set out from the beginning of this campaign to keep our mission front-and-center and we've been true to that declaration.

Property Upgrades Are Next

The final phase of the campaign will fund the upgrades that the property needs in order to effectively function as the best "tool" for NSEA to make progress. Here are a few upgrades we need to make:

- **Build a Pole Building for Equipment Storage** – With a secure 1,500 sq.ft.

space we will be able to store all of our equipment under one roof. This will minimize our crews' time each morning that they load the trucks and trailers for a day in the field. That means more time to restore salmon habitat.

- **Construct a Demonstration Garden for Native Plant Landscaping** – NSEA has long needed a location (and now it has one!) to showcase landowners and students how to landscape with native plants, particularly near a stream. We are dedicating about a 1/3 of an acre to this educational project.
- **Convert the 1950s residential house into the NSEA Office** – This includes a new roof, new paint, energy efficiency measures and design related upgrades to create a work space that promotes a productive work culture.
- **Renovate an existing outbuilding into a Community Meeting Room** – With partial funding from the Norcliffe Foundation to complete this project, we will turn an existing storage building into a place that can serve as a meeting, training and educational room for 20-25 people.



One of several sturdy outbuildings at NSEA's new home. This one will be used as an auxiliary office for the restoration project team.



The new property includes greenhouses that NSEA will use for temporary storage and protecting potted native plants.



Make Your DONATION Today!
Your contributions make the work we do possible.
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- By phone, call (360) 715-0283
- Online, at www.n-sea.org/donate-1
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THANK YOU!

All Donations made to NSEA are tax deductible.

NSEA's Offices through the last 25 Years

continued from page 7

Concurrently, the board voted in favor of NSEA pursuing a Capital Campaign to purchase a permanent location – it was time! While this was happening, Darrell Gray, NSEA's Project Manager, struck up a conversation with Todd Jones about NSEA's plans to re-locate. One thing led to another and it wasn't long before volunteers and staff were helping to pack tools, file cabinets and computers for a short move down the hill to Todd Jones' 6+ acre property. Thank you, Todd! (See Todd's article about his decision to provide NSEA a home).

NSEA Makes Final Payment to Todd Jones – July 2015

Someone pinch us! Is it really true? Yes! NSEA now owns a permanent base-of-operations. After a quarter century of "making it work" NSEA can now begin to work and plan for the long term. We need to thank the donors that made this possible and we need to acknowledge all of the previous support related to NSEA's long list of offices going clear back to the dining room tables where this all started. Thank you, thank you, thank you!

Become a Member of NSEA

By joining NSEA, you will be supporting an excellent organization that works within our community to help wild salmon populations. Your contribution will sponsor the hard work of volunteers, students and community supporters who are participating in restoration work, educational programs, community outreach and service learning.

There are many benefits to becoming a member, including a year subscription to Fish Tales and Fish Bytes, personal invitations to NSEA events and an NSEA sticker. Business members will also receive a discounted rate for advertising in Fish Tales and be included in our Annual Report. Your membership donation is 100 percent tax deductible: Student/Senior-\$15; Individual-\$25; Family-\$30; Business-\$100.

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All advertising revenue helps us to offset the costs of printing and distribution and helps us inform readers of the progress being made locally for wild fish through implementation of habitat restoration projects. When you advertise in *Fish Tales*, your ad reaches our readers and helps fund the publication. By purchasing a NSEA Business Membership, your business can advertise at a reduced rate as well.

Please join us in our efforts to restore native salmon habitat and join our growing network of supporters—supporters who believe in patronizing local community-based businesses.

Thank you for your generous support! Please contact us with any questions about NSEA, advertising, or business memberships at 360-715-0283 or info@n-sea.org.



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Mission Statement

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