



# In the Flow

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### SK Data Sent to Dept. of Ecology

It's been a long, winding road, but thanks to heroic efforts on the part of a swarm of volunteers, we've been able to upload most of our freshwater data since 2007 to the Dept. of Ecology for their quadrennial State Water Quality 303(d)/305(b) report, required under the federal Clean Water Act. Our database has been in transition to a new structure, so we were not able to enter the water chemistry or flow data after Spring 2010, but we were able to upload all of the data before then, as well as all of the fecal coliform and B-IBI data up through May 2011 (Ecology's cutoff date), and some of **Coleman Byrnes'** stormwater data from WRIA 19. All in all, we've submitted thousands of new data points for Ecology to consider as they attempt to prioritize streams for cleanup plans.

We give a special thanks to the following people who braved the treacheries of the new database to come in to help, who went far beyond all reasonable expectations in sticking with it till the job was done: **Walt Johnson, Steve Belcher, Randy Washburne, Marilyn Harbaugh, Jinx Bryant, Coleman Byrnes, Donna Spence, Jon Swensson, Adar Feller, Liz Maier.** It was looking "iffy" for a while, but thanks to a lot of true grit, we made it happen. Thanks for all the work that all of you do in support of healthy watersheds for Clallam County.

## Streamkeepers Still Alive After Talk of Losing Program Due to County Budget Cuts

### Streamkeepers Finds New Home

We're pleased to announce that Streamkeepers will move to Clallam County Public Works-Roads as of 12/1/11, with **Ed Chadd** taking a 20 hr/wk position coordinating the program. It might seem like a strange fit, but road maintenance and construction permitting requires that environmental impacts be described and managed, and data helps inform that process. Furthermore, if the State finds evidence that County infrastructure is having a major impact on streams, they can require the County to operate under a special permit related to the Federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES). This could cost the Roads division a lot of money, so it's in their interest to do their own monitoring and take quick action if things start going south. That's where Streamkeepers comes in. Five years ago, our data helped keep Clallam County out of the NPDES permit issued to the City of Port Angeles, because the data showed that the problems on the streams that run through Port Angeles begin at roughly the City limits.

What if our data show that the roads are causing problems? In that case, we have a chance to deal with the problem locally before the State comes in to impose regulations.

At this point, County Engineer **Ross Tyler** wants us to run our program the way we have, or at least the way we'll have to with only a half-time coordinator. In time, we will explore in more depth how Streamkeepers can better help the Roads division keep the streams clean.

## Streamkeeper Volunteers and Community Members Rally to Help Save the SK Program

For several weeks, volunteers, community members, and local agencies worked alongside one another in a valiant effort to keep our valuable Streamkeepers (SK) program from falling victim to County budget cuts. They wrote letters to the County Commissioners, the Director of Community Development, and the editors of the local newspapers; showed up to brainstorm together at numerous gatherings; and spoke out in public forums about the importance of preserving this program that monitors the health of our watersheds.

Clallam County officials heard supportive testimony on both Nov. 15 and 22 at the regularly-scheduled meetings of the Board of County Commissioners. Among the SK volunteers who addressed them were **Walt Johnson, Roy Morris, Dr. Nancy Messmer, Donna Spence, Adar Feller, Bob Lake, Jim McCullough, Beth Oakes, Coleman Byrnes, Gary Gleason, and Marilyn Harbaugh**. Many more were in attendance. Nearly everyone who stepped up to the microphone spoke about the excellent care with which the data has been collected and the invaluable resource it has become for the County and the community. The exceptional caliber and training of the volunteers who work in the field and office make us proud to be part of the SK organization.

Many letters of support have been received; among those we know about, both the **Lower Elwha Klallam** and the **Jamestown S'Klallam Tribes** have encouraged the continuation of SK, the **Lower Elwha** offering monetary assistance; **Port Angeles Mayor Dan Di Giulio** admonished the County to consider carefully the impacts of a decision to discontinue the program; **John Miller**, former Director of Community Development for Clallam County, emphasized the dedication of the volunteers and estimated the value of their service to be in the tens of thousands - if not hundreds of thousands - of dollars, leveraged on the salary of only one County employee. John also said simply that we all depend on clean water, and SK monitoring keeps us aware of the water quality conditions in our watersheds.

It was explained to the Commissioners that during the past two years, volunteers, working closely with **Ed Chadd**, have been redesigning the database to handle additional data elements in a much more sophisticated style which will mesh with the needs of other agencies, particularly the State Department of Ecology. Data entry has been suspended for much of the time the system was under reconstruction. Several more months of work will be needed to enter the backlog of data which has been gathered and there will also be a need to troubleshoot problems as they inevitably arise when implementing any new data system. Volunteers have dedicated hours and hours - much of it in inclement weather - monitoring the streams. If that data were not entered into the computer system, where it could be shared as a valuable resource, it would be an insult to those volunteers who gathered it.

It was pointed out that outside agencies rely on and provide grant money or financial support to the program. The City of Port Angeles pays the County to sample streams for fecal coliform measurements, and the money received from the City has been available to help cover other operational costs of the SK program. The Commissioners were presented with an impressive list of agencies and individuals who use SK data. (That list is summarized elsewhere in this newsletter so that our volunteers can be reminded of what we have accomplished.)

More than one speaker gave persuasive arguments about the value of maintaining a long-term dataset. Should either natural or man-made calamity befall a local watershed, an uninterrupted chain of data, such as SK is building, would be a strong asset in the County's ability to evaluate and manage their reaction to the emergency. Without a baseline of continuous data, it would be difficult to assess damage or measure the progress of recovery. Gaps in the data would destabilize its value. Continuing to gather data may insulate the County from exposure to future state or federal environmental regulation. There would be a tremendous cost involved in having to pay for contracted services to accomplish what SK does with only one paid staff person and a well-trained cadre of volunteers. Praise was heard for the current head of the SK program, **Ed Chadd**, and his ability to manage an ever-growing demand for the services of the volunteers under his direction.

One volunteer expressed thoughts that, in the current cloud hanging over our society due to this economic downturn, overall positive feelings are generated by the contributions of a volunteer group with the outstanding reputation that accompanies SK. It is a program envied across the nation due to the quality of the training given its volunteers and the detail to which the monitoring protocol is followed. Another talked about how much he enjoyed being able to be out in the natural world collecting valuable data, but also having fun doing it, and ultimately making a difference by being able to measure and record change as it happens.

According to the Volunteer Handbook, back in December 1998, when the 8-Streams Project was looking for sponsorship to be able to continue monitoring the watersheds, a volunteer said, "**We're motivated, we're trained, and we're cheap.**" Thirteen years later, that quote still holds true.

## A Brief History of Streamkeepers of Clallam County

**4/1/99:** Streamkeepers of Clallam County is created per unanimous vote of the Board of Clallam County Commissioners—**Martha Ireland, Carole Boardman, and Phil Kitchel**—and placed in the Department of Community Development. It succeeds the grant-funded 8 Streams Project of WSU Cooperative Extension. **Jessica Baccus** and **Ed Chadd** take the helm.

**1999:** A new monitoring program is devised with help from Streamkeepers advisors and volunteers, the first Volunteer Handbook is published, the first training held, and quarterly monitoring begins. There are 46 active volunteers. School outreach begins with **Bob Boekelheide's** class at Port Angeles High School.

**2000:** First direct results: SK data points to a failing septic system on Valley Creek that gets cleaned up; the data improves. First outside funding: SK performs work under a grant project to produce a "State of the Waters" report. First special project for an outside client: SK is hired by the Conservation District to monitor irrigation ditches for possible pipelining. First edition of Streamkeepers' Quality Assurance Project Plan is approved by the State.

**2001:** Clallam County Water Resources database is created, and volunteers begin to enter backlogged data. Partnership with City of Port Angeles begins to collect additional bacterial samples. Bullitt Foundation makes a rare exception for a government agency and awards a grant for SK operating costs. The first of many grants comes from the WA Dept. of Fish & Wildlife (WDFW). SK protocols and QAPP are called out for praise in a WDFW publication. Outreach to schools continues with programs at Olympic Park Institute and Sequim School District. Volunteer Education & Outreach team kicks off.

**2002:** **Hannah Merrill** replaces **Jessica Baccus**, who decides to stay home with her second child. With backlogged data entered, requests for data from outside groups begin rolling in. First submittal of data to the State for their Clean Water Act report. First partnering with U.S. Forest Service. SK volunteer time provides match for \$50,000 state grant for cleanup activities in the Sequim area. Volunteers number more than 100.

**2003:** SK match helps the Wild Salmon Center secure \$680,000 grant to protect Elk Creek near Forks. **Dr. James Karr**, creator of the Benthic Index of Biological Integrity (B-IBI), moves to Sequim, joins Streamkeepers, and speaks at the annual meeting, saying that citizen scientists can be an important counterbalance to government and business groups.

**2004:** Clallam County publishes "State of the Waters" report, relying heavily on SK data and featuring two multimetric indices: the B-IBI, which analyzes stream health based on "stream bug" populations, and the Water Quality Index, which analyzes water chemistry and bacterial data. SK presents a draft of a third multimetric index, the Physical Habitat Index, at the National Water Quality Monitoring Council annual conference. SK is the first entity ever to submit B-IBI data for the State Clean Water Act report; these data indicate that certain stream reaches are Impaired and require cleanup. The State argues that B-IBI data can't be used for an "Impaired" designation. The Clallam County Departments of Community Development and Health appeal this decision.

**2005:** The U.S. EPA sides with Clallam County and orders the State to investigate sites listed as biologically impaired by the B-IBI.

**2007:** SK completes its first analysis of Land Use & Land Cover (LULC) in watersheds draining to SK sites, to enable correlations between LULC and stream condition.

**2008:** **Hannah Merrill** takes a new job with Clallam County and is replaced by ex-volunteer **Adar Feller**. SK helps Clallam County land a \$536,000 EPA grant to develop a comprehensive stormwater management plan, and takes the lead on planning monitoring to be performed under this grant. Adar takes a different job with Clallam County and is replaced by **Robert Knapp**, who performed the LULC project in 2007. The first storm Robert gets to monitor is on Christmas Eve.

**2009:** Revised version of Physical Habitat Index report published. The two metrics showing the strongest positive correlation with biological condition are large woody debris and winter canopy cover, and those with the strongest negative correlation are aquatic and riparian noxious weeds. The State publishes its 2008 Clean Water Act report, and for the first time ever, B-IBI data is used to label stream reaches as Impaired and requiring cleanup. SK forms partnership with the North Olympic Peninsula Skills Center Natural Resources program to engage students in Streamkeeping.

**2010:** SK partners with the Clean Water District to enable continued monitoring after expiration of the District's grant project. This is a typical role: when funding dries up, SK is called in. SK undertakes restructuring of the Clallam County Water Resources database in order to hold more types of data, portray Quality Control measures, and be compatible with the State's database.

**2011:** To help with County belt-tightening, SK gives up **Robert Knapp's** half-time position and Robert becomes a full-time Planner. SK publishes a major revision of its Quality Assurance Project Plan, detailing extensive QA improvements undertaken since 2006. SK updates B-IBI and WQI scores from the 2004 "State of the Waters" report for use in Clallam County's Shoreline Characterization Report. In most cases, water quality is in better condition than biological integrity, probably due to habitat problems. Many sites, however, are showing signs of improvement.

## Who Has Requested Data from Streamkeepers?

Arthur Feiro Marine Life Center	Olympic National Forest
Battelle Northwest Labs	Olympic National Park
City of Forks	Olympic Natural Resources Center
City of Port Angeles	Puget Sound Action Team
City of Sequim	Pacific Groundwater Group, Seattle
Clallam Conservation District	Pacific Woodrush
Clallam County Dept. of Community Development	Peabody RV Park
Clallam County Dept. of Health and Human Services	Peninsula College
Clallam County Public Works	Quadra Engineering
Dungeness River Management Team	Quileute Tribe
Forks High School	Rayonier
Foster Wheeler Environmental Corp.	R2 Resource Consultants, Inc.
Green Crow	Seasons Engineering, Inc.
Huxley College	Tetra Tech
Interagency Committee for Outdoor Recreation	Trust for Public Lands
Jamestown S'Klallam Tribe	U.S. Bureau of Reclamation
Jefferson County Natural Resources Division	U.S. Dept. of the Interior
JimmyComeLately Restoration Project	U.S. Dept. of Natural Resources
Lincoln High School	U.S. Fish & Wildlife Service
Lower Elwha Klallam Tribe	U.S. Forest Service
Maple View Farm	WA Dept. of Ecology
Morse Creek Restoration Project	WA Dept. of Fish and Wildlife
National Park Service	WA Dept. of Health, Office of Shellfish & Water Protection
NOAA	WA State Conservation Commission
North Olympic Land Trust	WA State Dept. of Transportation
North Olympic Peninsula Lead Entity	Watershed planning groups for WRIAs 18-20
North Olympic Salmon Coalition	Westech Environmental

Find a complete listing of users, request dates, what data was requested and how it was used, on the Streamkeeper website:

[http://www.clallam.net/StreamKeepers/assets/applets/Data\\_recipients\\_log.pdf](http://www.clallam.net/StreamKeepers/assets/applets/Data_recipients_log.pdf)

### Streamkeeper Volunteers Mirror The Salmon Lifecycle In Many Ways

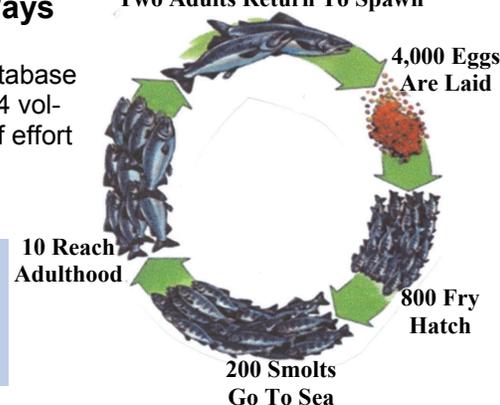
Two Adults Return To Spawn



Volunteer hour tracking in the Clallam County Water Resources Database began in 2005, and in those six years alone, we have logged 29,724 volunteer hours. (These totals do not include the last several weeks of effort on volunteers' part to help save/relocate the program.)

#### SALMON EGGS

Millions of salmon eggs go into contributing to a healthy salmon population. Below are the names of all of the Streamkeeper volunteers who have contributed anywhere between 1 and 49 hours to monitoring the health of Clallam County streams since 2005. All of these contributions add up to make Streamkeepers a huge success.



- |                    |                   |                       |                   |                  |
|--------------------|-------------------|-----------------------|-------------------|------------------|
| Karen Adams        | Bill Dole         | Bowen Jenkins-Warrick | Frank Needham     | Ann Soule        |
| John Allen         | Jill Dole         | Peter Jepsen          | Marvin Nelson     | Darek Staab      |
| Bob Anderson       | Gwen Dopp         | Scott Johns           | Charlie Nickles   | Chris Stallard   |
| Keith Anderson     | Terry Dotson      | Barb Johnson          | Mary Nilsen       | Dylan Stallard   |
| Ed Ansorg          | Gary Dougherty    | Norrie Johnson        | Beth Oakes        | Colin Stief      |
| Melanie Arends     | Erin Drake        | Jessica Kaplan        | Chris O'Connell   | Paul Taft        |
| Elizabeth Athair   | Roger Drake       | Ronald Kaufman        | Phil Oja          | Chad Theismann   |
| Selinda Barkhuis   | Bill Drath        | Cindy Kelly           | Larry O'Keefe     | Fred Ulf         |
| Cheryl Baumann     | Dave Driscoll     | Cathy Kenney          | Terri Partch      | Dan Underwood    |
| Paul Beck          | Carol Dunlap      | Marsha Key            | Jacque Paye       | Susan VanAusdle  |
| Harry Bell         | Sam Fox           | Jennifer Kidder       | Mary Peck         | Jane Vanderhoof  |
| Nancy Bell         | Claire Fredson    | Kendra Konopaski      | Belinda Pero      | Peter Vanderhoof |
| Rebecca Benjamin   | Kristin Frey      | Kristine Konopaski    | Marty Peters      | Jim Vaughan      |
| Leslie Bergman     | Ron Frisch        | Mike Langley          | Brian Phillips    | Lydia Wagner     |
| Jill Brandenberger | Linda Gavin       | Ryan Langley          | Rob Plotnikoff    | Kathy Wagoner    |
| Justin Brown       | Angela Gentry     | Sam Langley           | Janeen Porter     | Daniel Walker    |
| Robert Buck        | Rebekah Gentry    | Judy Larson           | Theresa Powell    | Randall Walz     |
| Willie Burer       | Laura Giannone    | Peter Lavelle         | Lee Raymond       | Julie Watkins    |
| Chris Burns        | Jeremy Gilman     | Mary Lawrence         | Wade Raynes       | Jon Wendt        |
| O.E. Byerley       | Steven Golding    | Russell Lawson        | Karen Rempel      | Edith Werkman    |
| Brett Cain         | Leonard Grim      | Cathy Lear            | Bill Riedel       | Shawn West       |
| Brenda Campbell    | Mike Hagen        | Brenda Lipe           | Anna Ritchie      | Coral Wheeler    |
| Eric Carlsen       | Hansi Hals        | John Longcore         | Joan Ritchie      | Charles Whidden  |
| Linda Carroll      | Bill Hamilton     | Leo Lucas             | Melanie Roed      | Johnny Whitman   |
| Kent Chapple       | David Hamilton    | Susan Lundstedt       | Amy Ross          | Carolyn Wilcox   |
| Dean Childs        | David Hamilton    | Elizabeth Maier       | Pam Russell       | Gail Wilkinson   |
| David Christian    | Junko Harbord     | Elizabeth Maier       | Marcus Sanford    | George Will      |
| Elizabeth Clark    | Blake Hatling     | Chuck Main            | Robert Schmitt    | Angel Williams   |
| Virginia Clark     | Jameson Hawn      | Jim Mantooth          | Lori Schneider    | Jack Williams    |
| Welden Clark       | Evan Hayduk       | Robbie Mantooth       | Arnold Schouten   | Ruth Winters     |
| Dale Codling       | Chris Heilman     | James Mantor          | Patricia Schromen | Susie Winters    |
| Kim Collins        | Johannes Helgeson | Shawn (Otter) McCurdy | Don Schuba        | Judy Winthrop    |
| Laura Costello     | Eileen Herrling   | Shea McDonald         | Matthew Schulze   | Bill Wood        |
| Roy Costello       | Adrian Hoban      | Anita-Vol McMillan    | Rick Shadforth    | Beth Workman     |
| Jessica Coyle      | Joe Holtrop       | Jim Medlen            | Lee Shames        | Amber Yale       |
| Adrianna Creasey   | Elton Homan       | Hannah Merrill        | Tom Shindler      | Sue Zalokar      |
| Carol Creasey      | Esther Homan      | Tom Moody             | Dave Shreffler    | Gary Ziebarth    |
| Olivia Creasey     | Pat Hovis         | Marian Morris         | Trista Simmons    | Laurie Ziebarth  |
| Dianna Cross       | Gay Hunter        | Jen Motley            | Erik Simpson      |                  |
| Colleen Cunningham | Kori Hutchinson   | Kamera Muralt         | Dave Skelton      |                  |
| Robert(Bob) DeLorm | Sam Iverson       | Tom Nash              | Donna Skelton     |                  |
| Heather Delplain   | Flora Jackman     | Greywolf Nattinger    | Kathe Smith       |                  |
| Tara Demers        | Maggie Jamison    | K.C. Nattinger        | D Snodgrass       |                  |
|                    | Mattias Jarvegren | Kathryn Neal          |                   |                  |



SALMON ALEVIN

**Salmon Alevin** hide out in clean cool gravels, surviving off their yolk sack until they are ready to venture out into the world. **Streamkeeper "Alevin"** are all the volunteers who have devoted between 50 and 99 hours of service since 2005 by taking part in regular quarterly monitoring and allowing the program to thrive.

Rudy Albrecht  
Art Ayres  
Bill Bjorklund  
Mike Craig  
Mary Ann Deuth  
Becky Dickson  
Terri Ebert  
Jerry Estberg  
Rob Feller

Bruce Ferguson  
Arthur Frost  
Lora Green  
Don Hamerquist  
Steve Heilman  
Christine Houts  
Mike Hovis  
Bob Johnston  
James Karr

Lara Kawal  
Robert Knapp  
Chris Langley  
Nancy Messmer  
Phil Morgan-Ellis  
Roy Morris  
Gerry Morris  
Paula Obrebski  
Josey Paul

Jim Podlesny  
C.J. Rankin  
Russell Schmidt  
Lindsey Schromen-Wawrin  
Heather Schuiling  
Kim Skerbeck  
Brian Vitello  
Tina Vogel  
Linda Wester



SALMON FRY

**Salmon Fry** are the juveniles who gobble up all the sustenance they can find to grow quickly and avoid being someone's snack. No small fry themselves, the **Streamkeeper Fry** volunteers who have given 100 to 249 hours allow our program to continue to grow with their donation.

Gayle Baker  
Sandy Bengtson  
Dan Brooks  
Lisa Brown  
Bernie Bruening  
Jinx Bryant  
Phyllis Day  
BettyLou Doern-Zeff  
Bob Dunlap

Gerri Ferguson  
Gary Gleason  
Dick Goin  
Peter Gregory  
Marcos Grimsditch  
Donna Hendrix  
Zack Hovis  
Jim Jewell  
Dan Lieberman

Tracey Martin  
Jim McCullough  
Tara Morrow  
Maria Oien  
Harley Oien  
Jack Orsborn  
Lila Petroff  
Mary Robson  
Lucille Schmitt

Bob Shaffer  
Robin Sidwell  
John Spence  
Marcia Sterhan  
Supervised Students  
Jon Swensson  
Randel Washburne  
Pat Willits  
Cathy Wright



SALMON SMOLT

**Salmon Smolt** are those big enough to head off into the ocean and estuaries to find prime feeding grounds. **Streamkeeper Smolt** volunteers, who have donated 250 to 499 hours to the health of our local watersheds, are seriously devoted.

Steve Bengtson  
Bob Lake  
Steve Obrebski

Janet Oja  
Rowann Osborne  
Keith Peters  
Ronald Sidwell

Jean Sigmar  
Julie Slagle  
Leo Sprinzen  
Diane Wheeler



ADULT SALMON

**Adult Salmon** roam the open ocean freely storing up the body reserves and nutrient-rich oils needed to ensure the success of the next generation. **Streamkeeper "Silvers"** are the volunteers who have contributed between 500 and 999 hours since 2005, becoming some of our most dedicated data gatherers in the process.

Janet Bruening  
Mike McClean

Valli Sanstrom  
Donna Spence

Steve Belcher  
Dorothy Gendron  
Marilyn Harbaugh



SPAWNERS

Those salmon hardy enough to return to their birthplace after 2 to 4 years to spawn are responsible for bringing back ocean-derived nutrients to replenish upland soils along with the millions of eggs to start the process all over again. **Streamkeeper Spawners** have thrashed out more than 1000 hours of volunteer time since 2005 to ensure the continuation of the program.

Coleman Byrnes  
Adar Feller

Walt Johnson  
Laurene McLane

Sue Nattinger  
Steve Rankin

# Welcome, New Trainees!



**Beth Workman**



**Maggie Jamison**



**Jinx Bryant**



**Esther Homan**



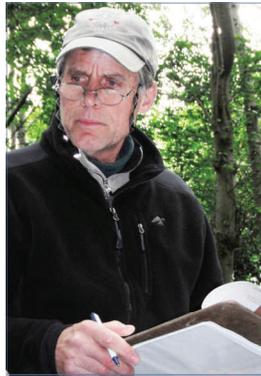
**Laura Giannone**



**Elton Homan**



**Robert Buck**



**Larry O'Keefe**



**Trainer, Keith Peters**



**Trainer, Sue Nattinger**



**Jinx, Laura, Esther, Adar**



**Trainer, Marilyn Harbaugh**



**Trainer, Steve Bengtson**



**Trainer, Adar Feller**



**Marilyn, Maggie, Larry, Keith, Sue, Beth**

## 2011 Training took place on Peabody Creek



## Forest Service partnership to continue into 2012

Streamkeepers has partnered with the USDA Forest Service for monitoring projects under the Title II grant program since 2002, performing salmonid spawner surveys for the past several years, particularly for bull trout, in the upper Dungeness and Gray Wolf Rivers. The Title II program will come to an end next year, and Streamkeepers did not receive additional funding for 2012, but thanks to a huge amount of volunteer hours donated last year, we have enough funding left over to pay for additional partnership projects in the last year of the program. Forest Service staff are deliberating what project(s) to pursue.

**We say Farewell to Valli and also Laurene and Dorothy who have done virtually ALL data entry and kit replenishment for the past decade. Please consider making a commitment to helping carry on this important work. The field work won't be worth much if the kits aren't ready or the data doesn't make it into the database!**

### Thank You, Laurene McLane!

Laurene McLane has hung up her metaphorical Streamkeeper boots, seeking more contemplative pastimes. With her retirement and last year's moving away of her partner-in-crime, Dorothy Gendron, the famous Blue Pencil which made comments and corrections on countless data sheets for ten years is now an item for the Smithsonian. Laurene has this message:

*I started out doing quarterly field site visits on Siebert Creek, but I fell in the Creek too much. I sought a more sedate, age-appropriate mode of contribution: office work. I was working in the Streamkeeper "suite" before 9/11; before Hannah Merrill had her baby, before Ann Soule shaved her head for Steve Tharinger. (Perhaps some readers remember these events?) I retire from Streamkeepers with enduring respect for the concept and the operation of the Streamkeeper enterprise. With awe and affection for the hundreds of volunteers; and for Ed who somehow makes it all happen. I am privileged to have been a part of it all.*

Laurene,  
Streamkeeper Emeritus

## WE NEED YOU!



Laurene,

Dorothy, Valli

Thanks for all your help, Valli!

Valli Sanstrom, who trained for SK in 2009, is leaving and left this message:

Hi you all. I've moved to Kirkland after living in PA for 36 years and boy do I miss it, especially the silence of the wilderness. There is nowhere to go here to be alone with nature. Nowhere to get away from noise. I can't see the stars. At least I knew how lucky I was. I was grateful and appreciated every aspect of that blissful paradise PA'ers have such easy access to. Oh, Morse Creek, how I miss hearing and seeing your pristine waters rushing through the gorge below my house. There are so many wonders to behold down there. I'll never forget watching four young mink wrestling on the bank and frolicking in and out of the water, or the sounds the dippers make, sort of tropical, and their bob, bob, bobbing, or should I say dip, dip, dipping? I'm finishing up school over here. We need a new leader for the team. I'll be shipping out with the Peace Corps in March and be gone a couple years. Thanks, Valli

## Skills Center Natural Resources Summer Elwha Field Course 2011

(The Class Sent This Thank-You to Streamkeepers)



*The Natural Resources class at the Skills Center greatly appreciates your help letting us use the YSI-85 multi-meter. This tool was very useful for our dissolved oxygen research.*

*We had 16 students, 2 teachers, and a Park Ranger in our class. Thank you.*

*Sincerely,  
The Elwha Field Course Class*

The Skills Center Natural Resources Program gives skills, experience and credit to students 16-21 without a high school diploma. Learn more about Natural Resources options at: [www.nopsc.org/naturalresources](http://www.nopsc.org/naturalresources)



### Field Monitoring by Streamkeepers

(on a sunny day)

August Sampling on JimmyComeLately Creek, collecting benthic macroinvertebrates ("stream bugs") for the B-IBI (Benthic Index of Biological Integrity). Why collect stream bugs? Because the "bugs" vary greatly in their tolerance for disturbed watershed conditions, and they can tell the story of the health of a stream. They are collected in the field, then examined, identified, and counted at a professional laboratory.

Pictured at left are Streamkeeper volunteers **Jim McCullough, Robert Buck, Janet Bruening, Zack Hovis, and Coleman Byrnes**

Thanks to all the many dedicated, hard-working volunteers who spend many hours in often very inclement weather and adverse natural conditions, hiking, carrying equipment, following precise procedures, checking and double checking their every move, every entry on the data sheets. The people of Clallam County are being provided with a very basic public service: the ability to provide protection of their water, streams, and watersheds.