

THE TAHO MAVIEW



FARMING FOR THE FUTURE

Larry Bailey's face lights up when he talks about his new solar array's power to produce clean power to run a "Solar" egg washer capable of processing, cleaning and candling 1,000 eggs per hour, along with the farm's shop, irrigation, well, and refrigeration units.

Bound by sun, sweat, and soil (and a resolute belief in stewardship of the land) Washington farmers and rural business owners are answering one of the most urgent questions of our time: how do we grow a more sustainable and resilient future for our families and communities when threatened by a changing climate? **Part 1 of our Farming and Renewable Energy Stories of hope, hard work, and resiliency in Puget Sound farm country.**

The dream burned hot under his WSU Cougar ball cap and Carhartt coat as Larry Bailey stepped out the back door of his farmhouse into the lengthening shadows of a late November day. Underfoot, the foundation of his dream, ten acres of Orting valley sandy loam soil: deep, fertile, well-drained, perfect for growing nutrient-rich blueberries, pasturing a couple cows, and free-ranging

500 or so chickens. Lanky, bespectacled and prone to dispensing his wry sense of humor, Bailey, 62, is now powering his dreams with a new 8.64 kW solar array, composed of twenty-four, made-in-Washington solar panels: shiny new and gleaming in the sun while quietly cranking out electricity from the top of his tractor shed.

As the owner of Clean Food Farm in Orting, Bailey says "farming has to be serene, simple and sustainable." He traces his vision back to his days as a young boy visiting his grandfather's dry-land wheat and barley farm in Alberta. "He was one of the first in the area to practice sustainable farming. He used to say that people have forgotten their roots and what feeds them every day; it's the sun but also the soil," said Bailey. "So, I've always had that goal and dream."

Since 2016 Pierce Conservation District, along with partners at Spark Northwest, have assisted farmers, rural business owners, and ranchers build projects producing over 1.4 million kWh a year of clean energy from solar, wind and renewable biomass. This is supported by USDA's Renewable Energy for America Program (REAP) grants that cover 25% of the project costs. Due to the positive impacts that renewable energy is having on rural communities across the country, Congress recently re-committed \$50 million dollars a year for the next decade for REAP funding.

The thought of investing hard-earned dollars in up-front cost for a solar PV array or wind energy system might seem counter-intuitive. But increasingly for farmers like Bailey, who are running the numbers on 2019 investments, *(Continued on back cover)*



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ENVIRONMENTAL EDUCATION

iDEA SCHOOL'S WATERSHED TOUR

Our environmental education team teamed up with Tacoma's iDEA School, Washington Green Schools and the Pierce County Educators for a one-of-a-kind field trip this January. The partners collaborated on a daylong field trip for iDEA high schoolers throughout the Puyallup/White River watershed. The students began their day at Mud Mountain Dam, talking about flood control and salmon usage on the White River with the Army Corps of Engineers. Next stop was the City of Sumner's wastewater plant to see where water goes to be treated and the science behind it. The day finished with a stop at Swan Creek to observe salmon spawning and look at stream organisms to gauge the health of the stream. This top-to-bottom watershed tour was a unique experience for both the students and our Environmental Education team. A big thank you goes out to the partners who made this day happen!



iDEA students observe salmon in Swan Creek with Ryan Misely of Pierce County's Environmental Education Team.

ENVIROTHON COMPETITION DRAWS NEAR

PCD is helping coordinate the regional Envirothon competition this spring at the Billy Frank Jr. Nisqually National Wildlife Refuge. The competition is for high schoolers, grades 9-12 throughout North America. Students form teams of 5 and put their wits to the test on topics such as forestry, aquatic ecology, soil and land use, wildlife, and agriculture. The winning teams from regional competitions advance to state, and one team from Washington will represent at the North American competition in North Carolina in July.

To help the students prepare, we partner with other groups to host workshops to give the students some extra knowledge and practice.

Workshops are open to all high school students! Check out our website to learn more about this fun science competition and RSVP to workshops. www.piercecd.org

Interested in lining up a program or field trip for your students? Visit www.piercecd.org or contact Chris - ChrisT@piercecd.org or (253) 845-9770 x112



HABITAT IMPROVEMENT



The plant sale was another great success due to wonderful community support. We couldn't handle the volume of customers and plants without the help of all our dedicated volunteers. We missed our long-time super volunteer, Keith Chadd, this year, seen here at the 2017 plant sale, but other folks stepped up and we managed one of our biggest sales to date.

Thanks to all for a wonderful Annual Native Plant Sale!

Several vendors and over 33,000 plants, 700 customers, 25 volunteers, and 20 staff came together to make this event successful in providing low-cost environmentally-friendly plants to our residents.

Thanks for supporting our mission to make Pierce County (and neighboring counties') lands greener and healthier.

Please share photos and stories of your plantings on our Facebook page or Instagram!

If you missed our sale this time, please keep an eye out this fall for the opening of 2020 Native Plant Sale pre-ordering, or email info@piercenativeplantsale.com to sign up for our mailing list.

Need native plants now? Try Woodbrook Native Plant Nursery in Gig Harbor, or Sound Native Plants in Olympia. Happy planting!

HABITAT IMPROVEMENT



Planting to restore riparian habitat along almost two acres and just under a half-mile of Card Creek began last Fall (photo), and will conclude this March with a volunteer planting party.

DROPSTONE PLANTING SITE

Registration for this event is through
PCC Farmland Trust.

You can access a link via the District's
online calendar at:
piercecd.org/Calendar.aspx

Join us for some pre-St. Paddy's Day planting fun at the Dropstone Planting site Orting (March 16, 9 a.m.-12 p.m.). Together with PCC Farmland Trust and the Dropstone Farm landowners, this planting will complete the establishment of native trees and shrubs along a nearly half-mile stretch of a tributary to the Carbon River. Over time, the shade provided by these plants will help keep stream temperatures cool (important for salmon!) and minimize the invasive reed canary grass that can fill in the stream channel if left unchecked.

HABITAT IMPROVEMENT



The District has received grants from the WA State Salmon Recovery Funding Board to purchase two properties along South Prairie Creek, including the one shown here. Protecting critical stretches of stream through acquisition is just one action of many the District and its partners in salmon recovery are taking to improve wild salmon runs in Pierce County.

STRATEGIC ACQUISITIONS FOR SALMON RECOVERY

Across Washington State, 18 distinct runs of salmon, steelhead, and bull trout are listed as endangered or threatened under the federal Endangered Species Act. To say that efforts to recover Pacific salmon to self-sustaining populations is complicated would definitely be an understatement. But for at least the last 20 years, the Pierce Conservation District has contributed to salmon recovery via fish passage improvement, riparian habitat enhancement, and reducing stormwater run-off on both rural and urban landscapes. Working with landowners to implement these practices is fundamental to the work of

the District, but sometimes the chance to acquire strategic stretches of stream is an opportunity too good to pass up.

In the mid-2000's, the District received funding from the WA State Salmon Recovery Funding Board (SRFB) and other partners to purchase two properties along South Prairie Creek, one of the most important salmon streams in the Puyallup River watershed. Protecting these properties from development, and making them available for salmon recovery projects, has resulted in the work that is currently underway at the former Inglin Dairy to recreate a half-mile of new side

channel, reconnect South Prairie Creek to its floodplain, and improve spawning habitat.

In the 2018 SRFB funding round, the District received grants to acquire two additional properties, also on South Prairie Creek. Negotiations with the current landowners are underway, and if successful, these new acquisitions will contribute over 40 acres and almost a half-mile of in-stream habitat to salmon recovery efforts in Pierce County.



CRACKING THE CODE: FERTILIZERS IN THE RIGHT PLACE, RIGHT TIME

Need a caption here...

Since we started our “first one’s free” soil testing program for pastures, hay fields, and commercial crops in 2006, we have received a lot of sign-ups, and also a lot of questions. Some of the questions have included things such as:

- How to read the soil test reports from the lab
- How to read the fertilizer labels
- How to determine which fertilizers to apply based on the results
- When to apply fertilizer

Since one of the goals of the soil sampling program is to educate

landowners so they can interpret future soil test results and make the fertilizer calculations, we always include the information contained in this article with the soil test results. If needed, we also will sit down with landowners to go through the results together.

If you are planning to take soil samples and send them to a lab yourself, you may also want to obtain the Oregon State University (OSU) Extension Service’s publications that the District’s farm planners use when making fertilizer recommendations. They are the Soil Test Interpretation Guide (EC 1478),

Pastures: Western Oregon and Western Washington (FG63), and Fertilizer and Lime Materials (FG52). Copies of these publications can be obtained from our office, or they can be viewed at <http://extension.oregonstate.edu/catalog/details.php?sortnum=0134&name=Fertilizer+Guides>.

For far more details on Fertilizing in the Right Place, Right Time, and Cracking the Code on Fertilizer Labels, please visit the News & Highlights section of our website under the “Get Involved” heading.

FARM RESOURCES AVAILABLE AT THE DISTRICT INCLUDE:

- Free, No-obligation farm visits • First five free soil sampling* • Manure Share Program
- Rental of: Manure spreaders- 1/2 cubic yard and 2 cubic yard capacities, No-till seed drill, poultry processing equipment
- Loan of: Hay probe, electric fencing tools, and temporary electric fencing
- Cost share assistance

**Starting in 2019, the first five soil samples are free. This is an increase from previous years. Includes 1 compost test in lieu of 2 soil tests.*

SPRING FARM + RURAL LIVING WORKSHOPS

Soil Health Workshop

Tuesday, March 5, 6:30-8:30 p.m.

Check www.pierced.org for more forthcoming class information.

Starting or Growing Your Farm

April 4th, 6:30-8:30, Key Peninsula Civic Center, Vaughn

Whether your farm is a commercial or non-commercial endeavor, careful stewardship of agricultural land is crucial to the vitality of farming in our county and to the preservation of water quality. Come learn about Pierce County and WA State regulations and permits that affect your agricultural activities and protect our environment. Hear how Pierce CD is available to assist you in complying with these important regulations whether you are growing crops, livestock, or are just keeping horses for enjoyment.

WSU/PCD Cover Crop and No-till Seed Drill Demonstrations Field Days

April, Date and Time TBD, Four Elements Farm, Orting

Join WSU Extension- Puyallup and PCD staff to see Cover Crop Demonstrations showing effectiveness of different species and named varieties grown under different fertilization regimes to achieve various management goals. Training on how to use the PCD's no-till seed drill will be featured.

WSU/PCD Pasture Renovation Research Trial and No-till Seed Drill Demonstration Field Day

May, Date and Time TBD, Bright Ide Acres, Orting

Join WSU-Extension and PCD staff for a look at our Pasture Renovation Trials. Seven forage species and five pre-renovation treatments were trialed to assess the best methods of reseeding pasture using PCD's no-till drill. Training on how to use the PCD's no-till seed drill will be featured.

Dealing with Difficult Pasture Weeds

Tuesday, May 7, 5-7 p.m., Tacoma

The bane of many pasture owners, even if they employ good management practices are the difficult six: buttercup, Canadian thistle, reed canarygrass, scot's broom, poison hemlock, and tansy ragwort. Come learn from the experts at the Pierce County Noxious Weed Control Board how to manage these problematic weeds using mechanical and chemical methods. And if you do decide to go the chemical route, you will definitely need to know how to calibrate your herbicide sprayer. Tim Miller, Weed Scientist from the WSU Northwestern Washington Research and Extension Center in Mount Vernon will teach class participants how to calibrate backpack sprayers so that applications are made of the correct amount of herbicide at the correct formulation.

Forage Analysis and Management

Tuesday June 4, 6:30-8:30 p.m., Pierce CD Office, Puyallup

Check www.pierced.org for more forthcoming class information.

HARVEST PIERCE COUNTY



On February 16th, we celebrated the Têt Lunar New Year and the coming of Spring with the Vietnamese American Community Association, the Vietnamese Senior Association of Olympia & Vicinity, and sponsored by the Tacoma Arts Commission, the Luce Initiative on Asian Studies and the Environment, and Harvest Pierce County. Thanks to sponsors - the University of Puget Sound Asian Studies Department and the Tacoma Arts Commission.

ANNUAL SPRING SUMMIT

SAVE THE DATE!

Saturday, May 4th 9am-1pm
Location TBD

FREE AND OPEN TO ALL SKILLS & AGES! LUNCH PROVIDED.

If spring has you eager to start gardening, mark your calendar for Saturday May 4th for the Annual Spring Summit! Join local teachers with expertise in a diverse range of topics, including gardening, farming, fruit tree workshops, wildcrafting, and other classes to be announced. The event includes a free lunch as well as many giveaways including plant starts, seeds, and much more.

Space is limited; to reserve your spot, contact us at harvestpiercecounty.org or 253.845.9770

FRUIT TREE EDUCATION SERIES

6 classes, February-August
The Farm at Franklin Pierce
9516 Waller Rd E, Tacoma, WA 98446

The Fruit Tree Education Series is a comprehensive 6-part series focused on organic fruit tree care. All classes are taught by knowledgeable arborists and local specialists. Participants can enroll in the full series or choose to register for individual classes.

Featured classes this year include:

- Plant Biology & Pruning 101
- How and What to Plant in the PNW
- Grafting, Pest & Disease Control
- Pruning 201
- Food Preservation

Thank you to our sponsor Coordinated Care for making the series possible!



EDIBLE GARDENS

Edible Garden classes are back! Starting February 5th, you can explore the basic foundations for successful gardening in the Pacific NW—seed to table.

For class dates and information visit: <https://www.piercecountywa.org/1558/Edible-Gardens-Workshops>
Classes are free and open to the public.

Many thanks to our Edible Gardens Sponsor LRI for helping make this education available to everyone in our County!





Garden Co-Coordinators Anthony Bradley and Corina Going have been preparing for the BPG for three years, and are now enjoying the harvest with the community.

BPG members plant, garden, harvest, wash, and bag their harvest together as a group. They even cook together once per month!

The Blueberry Park Garden is the story of how a little space can have a big impact.

You'll find the Blueberry Park Garden (or the BPG, as they call themselves) at the corner of Charlotte's Blueberry Park in Southeast Tacoma. The BPG is the result of over three years of planning and organizing led by the Charlotte's Blueberry Park Action Group, in partnership with Harvest Pierce County and supported by Metro Parks Tacoma. The Action Group started as a way for neighbors that came together to clean, activate, and care for their neighborhood. Informed by the Action Group's energy and community input, Metro Parks Tacoma has dedicated nearly \$200,000 to park improvements, including an ADA-compliant community garden with a water connection, and a playground that is still being planned.

The garden had its grand opening in the summer of 2018 and the BPG members immediately began planting

and harvesting together. For the Annual Community Garden Tour in September, the gardeners harvested, washed, bagged, and shared greens with all attendees. They even had enough left over to donate to food banks. "We ended up harvesting over two hundred bags of lettuce greens, and over two hundred bundles of kale and chard," reported BPG Garden Co-Coordinator Anthony Bradley, "it was bountiful."

The BPG is one of the few community gardens operating with this collective model. Our County has 80 community gardens, and over ninety percent of them assign plots to individuals or families and are structured as plots or raised beds.

In contrast, the BPG's main space is set up farm-style, with long, in-ground rows. With relatively the same space as the standard community garden, BPG has the capacity to grow significantly more food. It also has the ability to host more members and then harvest hundreds of

pounds of produce together for their families and neighbors.

"For now, we call it 3C Gardening, patent pending" jokes Bradley. The three C's stand for Communal, Collective, and Commercial; all important elements that make up the gardeners' interests in the project. What they mean by "Commercial" is the level and style of production, as well as the fact that many BPG members aspire to have their own small-scale farming business one day. For now, they practice growing together to learn, and what they produce benefits the community around them.

Come celebrate Blueberry Park for the Fourth Annual Blueberries & Blues celebration in July. Stay tuned for the next issue of the Tahoma View and/or follow Harvest Pierce County on Facebook (@harvestpiercecounty) to be the first to know when the date is announced. **If you're interested in gardening at the BPG, contact ReneeMe@pierccd.org**

WATER QUALITY IMPROVEMENT



Meeker Minion volunteers find time every month to help the establishment of over 10,000 native trees and shrubs.

MEEKER MINIONS WORK PARTIES

The (self-named) Meeker Minions continue to plug away at the Meeker Creek Restoration site in Puyallup, removing invasive blackberry to make way for new plantings and protecting young, growing trees.

The Minions work the 2nd Saturday of every month and are looking for more

volunteers to help on this dynamic site. Also, this quarter we have included a Winter Twig ID walk around Meeker on **XXXXXX**.

If you are interested in attending a Meeker Minions work party, please contact Caleb at calebm@pierced.org

HABITAT STEWARDSHIP HAPPENINGS

The Gilmur Grubbers (Thelma Gilmur Park) and Adriana Hess habitat stewards continue to make progress in creating great urban habitat spaces. Between both groups over 5,000 square feet of invasive material was cleared last year! Both groups are looking for interested volunteers to continue clearing invasive blackberry and ivy from the parks.

The Gilmur Grubbers meet the first Mondays of the month from 9 am – 12 pm. The Adriana Hess habitat stewards meet the first Saturdays of the month from 9 am – 12 pm.

If you are interested in volunteering, please contact Belinda at belindap@pierced.org

WATER QUALITY IMPROVEMENT

NEED PHOTO

WHITTIER PARK EARTH DAY WORK PARTY

Saturday, April 20th 9:00am - 12:00

Join the Whittier Park Habitat Stewardship group in Fircrest on Earth Day! The group is making progress removing the invasives and replacing them with natives. Work parties are held quarterly at Whittier Park.

If you are interested in attending a Whittier Park work party, contact Caleb at calebm@pierced.org

SILVER CREEK EARTH DAY WORK PARTY

Saturday, April 27th 9:00am - 12:00

The Silver Creek Habitat Stewards will be hosting a work party to celebrate Earth Day! Join us in providing care to existing trees and shrubs. Work parties are held quarterly at Silver Creek.

If you are interested in attending a Silver Creek work party, contact Caleb at calebm@pierced.org

SPRING BUCKET LIST: START YOUR RAIN GARDEN!

Our Spring workshops will take place on the upcoming dates:

- April 18th, 6:00pm - 7:30pm
Pierce Conservation District
- April 27th, 10:30am - 12:00pm
City of Tacoma EnviroHouse
- May 16th, 6:00pm - 7:30pm
Pierce Conservation District

Are you looking to transform your yard into something truly beautiful this year? Come and join us for an informative workshop all about rain gardens! Learn about rain garden benefits, how to create and maintain your own, and how Pierce Conservation District can help you along the way.

Within these workshops, you will learn about:

- The importance of rain gardens, and how they can bring life and functionality to your yard.
- How to plan, design, build and maintain your very own rain garden.
- Selecting the best flowering plants and colorful shrubs to showcase outside your home.

Our staff is excited to help you create your perfect rain garden! To RSVP contact Micah at micahr@pierced.org

SUCCESSFUL URBAN TREE SALE

Our Urban Tree Sale of 2018 was a great success, having sold over 250 trees. We were able to educate over 85 individuals or families about how to properly place, plant and care for the trees that they purchased, ensuring that those trees live long, healthy and happy lives.

Over the last three years, we are proud to have distributed a total of 665 trees to 236 individuals throughout Pierce County. We aim to continue this tradition, helping community members purchase trees at discounted prices, and teaching the impact trees have on mitigating stormwater throughout Pierce County.

Our Urban Tree Sale of 2019 will begin taking shape this spring, with our workshops taking place this upcoming fall. If you are interested in adding trees around your home and learning about the many benefits trees provide for us in our urban spaces, follow us on Facebook to stay up-to-date!

PIERCE COUNTY STREAM TEAM PROGRAM

Stream Monitor Program Goals

- Educate citizens about stream ecology, stream health, and nonpoint source pollution
- Involve citizens in observing, monitoring & reporting stream conditions
- Provide useful data/information to local jurisdictions

What do our stream monitors do?

- Measure dissolved oxygen, water temperature, pH, nitrate-nitrogen and turbidity
- Measure stream flow
- Conduct an annual habitat assessment

Why is monitoring important to your jurisdiction?

Volunteer monitors build awareness of pollution problems, learn about pollution prevention, raise awareness of problem sites, provide data for waters that may be unassessed, and increase the amount of water quality information available to local communities and decision makers.



Program Background

Pierce Conservation District has coordinated a volunteer stream monitoring program in all four watersheds in Pierce County since 1994. Since that time, PCD has engaged over 1,000 citizens in this program and currently more than 70 volunteers are involved with this effort. The goals of this program are to provide education to Pierce County residents about local streams, and the impact of our daily lives on stream water quality and habitat; as well as provide information on current stream conditions.

Spring Stream Monitoring Schedule

- Quarterly monitors may schedule their spring monitoring between March 21 and June 14.
- Bimonthly monitors are scheduled to monitor their streams in March and May.
- Volunteers are also encouraged to run replicate tests once or twice a year. The replicate testing includes the dissolved oxygen, pH, and nitrate tests. Don't forget to mention when you email to reserve a kit, that you will need extra sample bottles.
- Early spring flows tend to be higher and faster than during summer and early fall, so be careful when entering streams.

Water Quality Reports

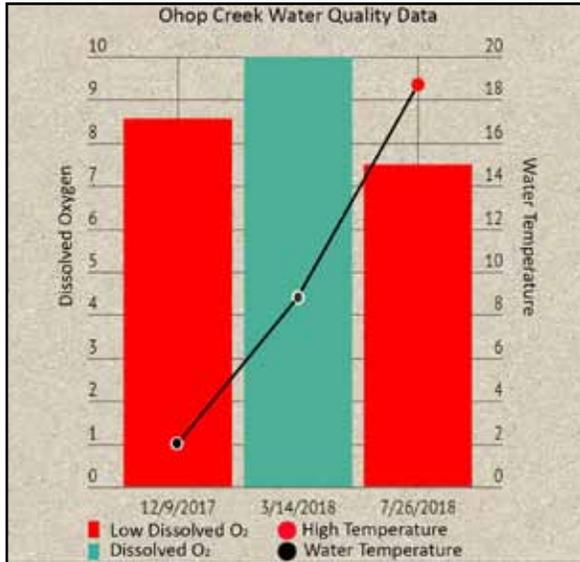
2018 water quality reports can be found on the Stream Team website:
<https://pierccd.org/248/Stream-Monitoring>

We had another great year of monitoring streams within Pierce County. Our Stream Team monitors continue to be our “eyes and ears” of the watersheds, alerting us to issues and communicating the importance of protecting water quality.

If you have questions about the reports or are interested in becoming a Stream Team monitor, contact Belinda at belindap@pierccd.org

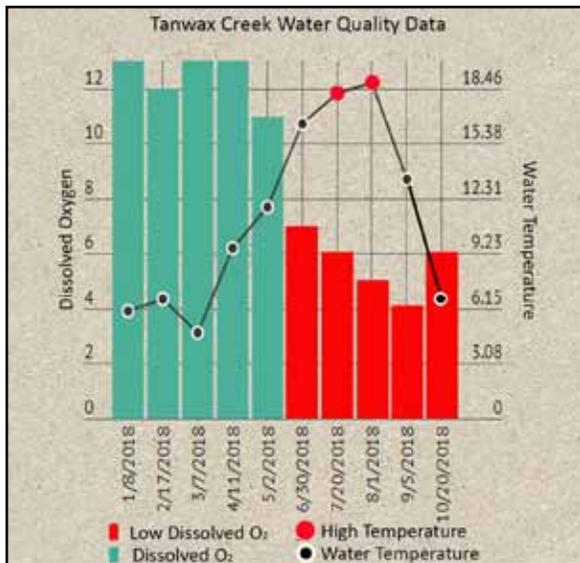
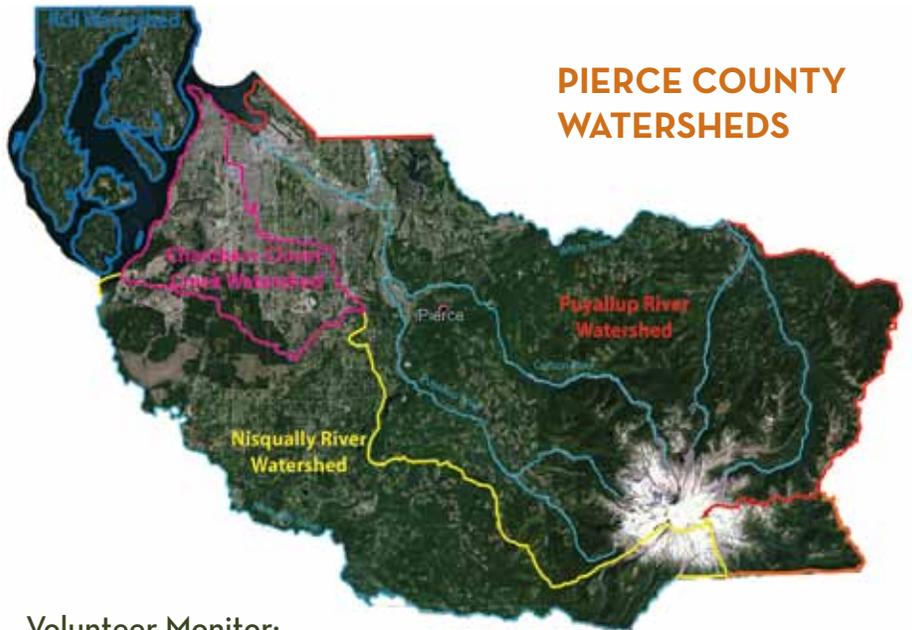
LOCAL WATER QUALITY

“The Nisqually Watershed drains land from the Nisqually River and includes the communities of Ashford, Elbe, Mineral, Eatonville, McKenna, Roy, Yelm, Fort Lewis and portions of Graham, Lacey, DuPont, and Rainier.”
 (Quote from the Nisqually River Council website)



Volunteer Monitors:
 Michelle Cornwell and Kathy Johnstone

Ohop Creek is located in the Nisqually Watershed. Ohop Creek flows approximately 12 miles from its headwaters to the confluence with the Nisqually River. Coho, fall Chinook, and pink salmon are all known to use Ohop Creek and its tributaries.



Volunteer Monitor:
 Daniel Miszewski

Tanwax Creek flows approximately 14 miles from its headwaters near Lake Kapowsin through a series of lakes including, Tanwax Lake, to the confluence with the Nisqually River. Coho, chum, pink, and kokanee salmon are known to use Tanwax Creek.

Volunteer collected data from 2018 for dissolved oxygen and water temperature is shown above. The dissolved oxygen state standard for Ohop Creek is .9.5 mg/l and the water temperature state standard is .16 °C. Ohop Creek did not meet state standards for dissolved oxygen on two sampling dates. The July low dissolved oxygen reading corresponded to high water temperature during the summer when water levels are lower, flow is much slower, and air temperatures are warmer. The monitors noted during the

December sampling date there was light ice on the creek, which can reduce dissolved oxygen because water is trapped under the ice.

The dissolved oxygen state standard for Tanwax Creek is .8 mg/l and the water temperature state standard is .17.5 °C. Tanwax Creek did not meet state standards for dissolved oxygen and water temperature during the summer months. The monitored site also tends to be pond-like and have slow flow, which would explain the low dissolved

oxygen during the October sampling date.

One possible solution to mitigate low dissolved oxygen and high water temperatures is to remove invasive vegetation, like reed canarygrass from streams. Invasive vegetation tends to slow down flow and increase decomposition, both which contribute to low dissolved oxygen. Physical removal of reed canarygrass is not recommended, but instead shading it out with trees and shrubs can have an impact.

CALENDAR OF EVENTS

March 2

South Sound Sustainability Expo, 10:00am - 3:00pm

For more information visit www.southsoundsustainabilityexpo.org

March 19

Children's Water Festival, 8:00am - 3:00pm

For more information contact Chris at ChrisT@pierced.org



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FARMING FOR THE FUTURE

Want more info about how you can make the switch to clean, renewable energy for your farm? Reach out to Nick at nicholasc@pierccd.org for more information!

(Continued from front cover) renewable energy reveals itself to be a game-changing opportunity: utilizing generous state and federal incentives, farmers can acquire a sun-powered workhorse that offers a payback in as little as 3-5 years and reduces operating costs for 25+ years!

Perhaps even more compelling than the economic savings in making the switch to clean energy, Bailey believes that localizing energy strengthens his community's bonds.

"The farm will be a gathering place where people can learn and grow and stretch their boundaries a little bit." Ultimately, Bailey views his new solar panels as a symbol of self-reliance and as a marketing tool to use in the future. "Local food, local power!" Bailey exclaimed. "It's quiet, clean and sustainable. It's a win-win."

To read Larry Bailey's full story and stories of other farmers around the state that have installed solar, visit the News & Highlights section of our website, pierccd.org