



POWDER RIVER *belated* EARTH DAY CLEANUP

Saturday • TBD 2020 • 10am to 1pm
@ Geiser-Pollman Park, Baker City
 Check our Facebook for new date
@Powderbasinwatershedcouncil

POWDER BASIN WATERSHED COUNCIL (541) 523-7288
2034 AUBURN AVENUE, ST.B, BAKER CITY OR 97814



Do you need to lighten the mood?
How about some water-related jokes to share with your family?

What do you call small rivers in Egypt?
JuveNiles.

What vegetable is not allowed on boats?
Leeks.

Why don't hipsters swim in rivers?
They're too mainstream.

What do you call a duck that refuses to go in the water?
A Chicken.

What type of doctor does operations underwater?
Sturgeon.

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Board of Directors

Dorothy Mason- President
BLM, retired

Karen Riener- Treasurer
Resident, Richland

Mark Jackson- Director at Large
Clear Creek Ranch, LLC, Richland

Levi Old- Director at Large
Trout Unlimited

Alan Eggar- Director at Large
Resident, Baker City

We are welcoming new Board of Director applications throughout the year

Staff


Christo Morris
Executive Director
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Anna Morgan-Hayes
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Contributors

Photo Contrubitors:
 Levi Old/ Trout Unlimited
 Dan Sizer/ Go Wild American Adventures

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THE THALWEG

"A line drawn to join the lowest parts along the length of a stream, defining its deepest channel"

SUMMER EDITION 2020

OUR WATERSHED, OUR HOME • QUARTERLY NEWS FROM THE POWDER BASIN WATERSHED

Pine Valley Off-Channel Watering

by Anna Morgan-Hayes, *PBWC Staff*

Many ranchers in the Powder Basin Watershed have struggled to find solutions to livestock watering that are freeze-proof, economical, efficient, and/or in the best interest of their land management objectives. Some have explored off-channel watering options, that is, providing watering methods for livestock that are off stream channels, by developing springs, introducing piping, solar pumps, or a combination of methods.

Benefits of off-channel watering both to landowners and the environment are numerous, including: providing more flexibility in managing grazing systems, manure distribution and pasture utilization; providing a year-round supply of disease-free, freeze-proof water for livestock that is warmer in the winter and cooler in the summer; when used in conjunction with protected heavy-use areas, it provides a solid, mud-free watering area; decreases soil erosion and helps maintain stable stream banks as well as reduces damage to irrigation ditches, preventing leakage and improving efficiency; improves water quality in streams while reducing incidents of injury and illness in livestock.

In recent years, the Powder Basin Watershed Council reached out to landowners to provide more information about some of these methods which resulted in several interested community members asking to know more. These landowners were then connected to both Idaho Power and the local Soil and Water Conservation District for expertise in design and funding.

Since the initial outreach campaign by PBWC, one of the interested landowners, Rob

Crawford of Halfway, had been working with Soil and Water Conservation District and Idaho Power to fund and implement an off-channel project on his ranch. The project finally moved to completion this past fall/winter, and Mr.Crawford has sat down to discuss the details of his project with PBWC:

Interview with Rob Crawford

Q: Could you explain what the objective of your off-channel watering project was?
A: For us, the biggest attraction was a freeze-proof system. Chopping creek ice in the winter for stock water is one of my least favorite undertakings—and is only good for a day at a time in any case—if that—so we're really glad to have a reliable winter system. Not freezing up frees us up tremendously. We worked with Idaho Power and the Soil and Water Conservation District, both of whom have their own rationales for such projects.

Q: Could you explain the details of the project? (What exactly did you do?)
A: We tapped into an underground water source that feeds our ponds, laid a couple of hundred yards of two-inch poly pipe, and installed three gravity-fed equipment-tire troughs. The first is fed from the source; its overflow feeds the second; that overflow feeds the third; and its overflow goes back into the creek. Total flow is probably less than a gallon a minute, but it's been plenty to keep all three troughs open in the

temperatures down to the low teens. For sustained, seriously cold weather, I'll float some closed-cell foam panels cut to fit that leave only room for an animal's muzzle. We're pretty confident that will handle the coldest weather.

Q: What did you find challenging about the project?
A: Not much, to tell you the truth. Idaho Power and the Soil and Water Conservation District engineered the project from the simple drawings I'd provided regarding our preferences, and then funded the construction. We feel pretty lucky about the whole thing.
Continued on page 3...



One of three watering troughs installed on the Crawford property in 2019

Meet the Board Member

Karen Riener

by Anna Hayes, PBWC Staff

Karen Riener serves on the Council as the Treasurer. Her dedication and passion for environmental stewardship make her an excellent asset to the Board.

Karen came to the place where she now dwells, by Eagle Creek upstream of Richland, 27 years ago, from the state of Washington, where she finished graduate studies in Olympia and worked for the Washington State Department of Wildlife in the eastern part of the state. Having explored many regions of many western states, she chose to abide here in the relatively lightly-populated southern foothills of the Wallowas, where the mountains' life-sustaining water provided the potential for permaculture integrated with the natural environment, while being close to the high country where she loves to go hiking and camping.

Karen's first involvement with the Powder Basin Watershed Council was at its formation in the mid-90s, when board members were appointed by a county commissioner. Many years later, in 2013, she became re-acquainted with the re-organized PBWC when she was hired to work under a grant for stream survey of Eagle Creek and its tributaries.

Since then she has worked voluntarily with the ongoing water quality monitoring project, whose purpose is to establish quantitative baseline data that can be used to assess watershed health and management effects. This past year, Karen became a member of the PBWC board.

Karen's motivation for work with the Powder Basin Watershed Council, in all capacities, is her conservation ethic, which comes from appreciation of the land and its water as that which gives us life and



Overlooking East Eagle, contiributed by PBWC Volunteer

To Karen, engagement with the watershed council is a way collectively to care for the geographically-defined region of the land upon which we depend, and she would encourage anyone with interest in watershed health to consider participation, as a board member or as a volunteer.

the opportunity to enjoy it. She finds it rewarding to work cooperatively with the other board members and PBWC staff, whom she regards highly.

To Karen, engagement with the watershed council is a way collectively to care for the geographically-defined region of the land upon which we depend, and she would encourage anyone with interest in watershed health to consider participation, as a board member or as a volunteer. It is a modest opportunity for service to a greater good for the benefit of all.



Eagle Creek, contributed by PBWC Volunteer

Summer Calendar of Events

EVENTS TO LOOK OUT FOR

Due to social distancing from the COVID-10 outbreak, all public events hosted by PBWC have been postponed indefinitely. However, if the threat of community spread begins to decrease, we hope to host some of the events listed below later in the year.

TBD - PBWC and Baker 5J Art Auction Fundraiser

Come celebrate the Powder Basin Watershed Council's 25th Anniversary by bidding on watershed-themed art created by local Baker Elementary School Students. All funds raised for this event will go to the Outreach & Education programs for PBWC. These programs provide outdoor and watershed education for students and the public in a variety of forms.

TBD - Powder River Cleanup - 10:00am to 1:00pm @ Gieser-Pollman Park, Baker City, OR 97814

Join us to celebrate Earth Day a little late this year by giving the Powder a good spring cleaning! All tools and supplies provided, dress for the weather.

TBD - PBWC 25th Anniversary Short Film Festival and Fundraiser

PBWC will be celebrating the 25th anniversary by hosting a series of short films related to fishing, watersheds, and other informative topics! We hope to see you there!

TBD - PBWC Field Trip and/or Hike

Come join PBWC as we explore our watershed and learn about important issues that affect the quality of our watersheds.

TBD - Monthly Meetings

Normally PBWC holds a meeting that is open to the public on the first Wednesday of every month from 4:30-5:30pm at our offices. This is an opportunity to learn about the Powder Basin and find out what projects PBWC is involved in. During this period of social distancing we have suspended these meetings, but hope to begin again later in the year.

We want to hear from you!
All community members are welcome to attend our meetings, for more information please contact the Council at:
www.powderbasinwatershedcouncil.org
pwbcmc@qwestoffice.net
(541) 523-7288



PowderBasinWC



www.facebook.com/powderbasinwatershedcouncil



The Future of Fishing in the Powder River

By Christo Morris, Executive Director, PBWC

Can you imagine strolling down to the Powder River and throwing your fishing line into the water to catch a trophy-sized trout? In the near future this may be more of a reality, just as it has been in the past. Long-time Baker County residents remember that fishing for trout in the Powder River used to be better, with bigger and more fish. Jim Martin of Bowen Valley remembers catching 17-19 inch rainbow trout in the Powder River from his front yard in the early 1970's. One day he even caught his limit of smaller fish in just under ten minutes from the same location.

Last summer, the Powder Basin Watershed Council was approached by members of the community and asked to find out what could be done to improve fishing in the Powder River from Baker City to Phillips Reservoir. As it turns out, this section of the Powder River has the potential for great fishing for a number of reasons. First off, there is abundant access for anglers along the Leo Adler Memorial Parkway in Baker City and at the Powder River Recreation Area managed by the US Forest Service below Phillips Reservoir, so any improvements in fishing will benefit the whole community. Craig Ward, whose property is crossed by the Leo

Adler Parkway, describes the pathway as, "... a huge asset to the community. People walk it all day long." Secondly, unlike many cities that have rivers running through them, the Powder River hasn't been converted to a concrete-lined flood control channel, so any plans to improve fish habitat would be relatively minor. Third, due to the water released from Philips Reservoir during irrigation season, water levels in the Powder River down to Baker City remain high all summer long. Fourth, water temperatures are currently low enough to support trout, though lower temperatures would improve populations. Lastly, the Oregon Department of Fish and Wildlife has committed to stocking hatchery trout in the Powder River close to Baker City once conditions have been determined to support them.

In order to begin improving trout fishing in the Powder River, the first step is to determine the current habitat conditions for fish. The Oregon Department of Fish and Wildlife has offered to survey the quality of fish habitat on this section of the Powder River for us, but before they will begin a survey, they get permission from landowners on both sides of the river to allow them to follow the river across their property. To date, the Powder Basin Watershed Council has received permission

to have the survey conducted by the Oregon Department of Fish and Wildlife on about 80 of the 200 properties that fall between Hughes Lane in Baker City. In addition, the US Forest Service has offered to contribute to this effort by conducting fish habitat surveys in the Powder River Recreation Area, which is the two miles of the Powder River that they manage below Phillips Reservoir. However, of the other properties where we have received permission, they are somewhat scattered, so we are trying to fill in the gaps to make a more continuous survey area.

If you or someone you know is interested in allowing a section of the Powder River that runs through your property to be surveyed as part of this effort please contact us by phone, email, regular mail, or in person (541-523-7288, pbwced@qwestoffice.net, 2034 Auburn Ave. Ste. B, Baker City, 97814).

The first surveys will occur during the fall of this year, once water levels have decreased after irrigation season, on properties where permission has been granted. As more landowners grant permission to have Oregon Department of Fish and Wildlife conduct the surveys, we expect to conduct another batch in the fall of 2021. It is important to note that for landowners who allow their property to be surveyed for fish habitat, **there is no requirement to allow for fish habitat improvements to be made on their property or to allow any public access.** The survey is for information-gathering purposes only to determine areas that will improve fish habitat the most for the lowest cost.

Once the surveys are complete, the Powder Basin Watershed Council will work with a variety of partners, including willing landowners, the City of Baker, Oregon Department of Fish and Wildlife and Trout Unlimited to determine what types of fish habitat improvement should occur and where they should be located for the best results. Typical fish habitat improvements include pool formation with boulders or logs, tree planting to increase shading and reduce water temperatures, fencing to

"Future of Fishing..." continued from page 4

protect trees from livestock and beaver, water source development for livestock and shrub planting to increase insect prey species for fish.

Craig Ward planted about 400 trees on his property downstream of Hughes Lane and says, "We are stewards of the land. Water is our life blood and we try to take care of the river." He also notes that the rock weirs installed during the construction of the walkway have helped prevent ice build-up during the winter, by increasing flow velocity. This benefit can easily be incorporated into the design of any future fish habitat structures.

As mentioned before, these types of projects would only occur on properties where the owners have decided to be involved and do not involve any requirement for public access.

The return of high quality trout fishing in the Powder River would be a big benefit to the community. It would provide one more way for people to enjoy the Powder River along the two-mile long Leo Adler Memorial Parkway, along with walking, birdwatching, wading and tubing.

"We have [the Powder River] right here in Baker and it's out the front door, so how will we treat it, and how can we all benefit from it?... Andy Griffin, Opie and the folks of Mayberry would approve. We all have a little Opie in us, let's go fishing and take a kid with." says Randolph Tracy, a Baker City resident.

High-quality trout fishing may also help local businesses by attracting people to Baker City from within Baker County and from further away. Having a river that runs through the center of town adds a lot of character to the community and provides opportunities that other towns don't have. By working together to make the most out of our unique situation, we can make improvements that truly make a difference.



Leo Adler Memorial Pathway, contributed by PBWC Staff

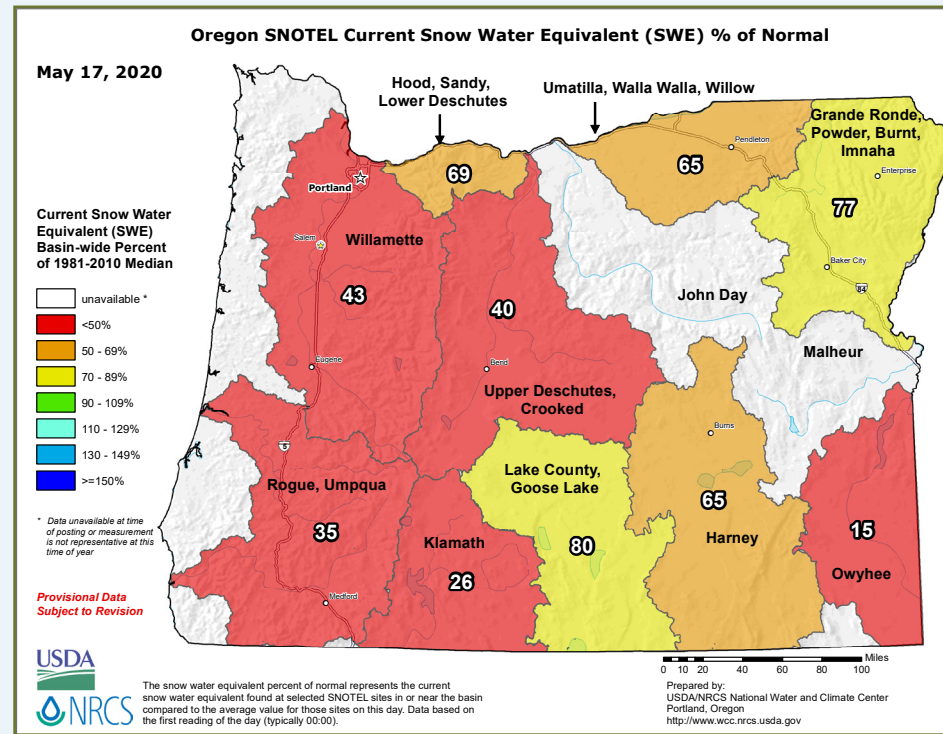


Powder River provided by Levi Old/ Trout Unlimited



Rainbow Trout caught in the Powder River. Photo provided by Dan Sizer/ Go Wild: American Adventures.

Snow and Climate Report

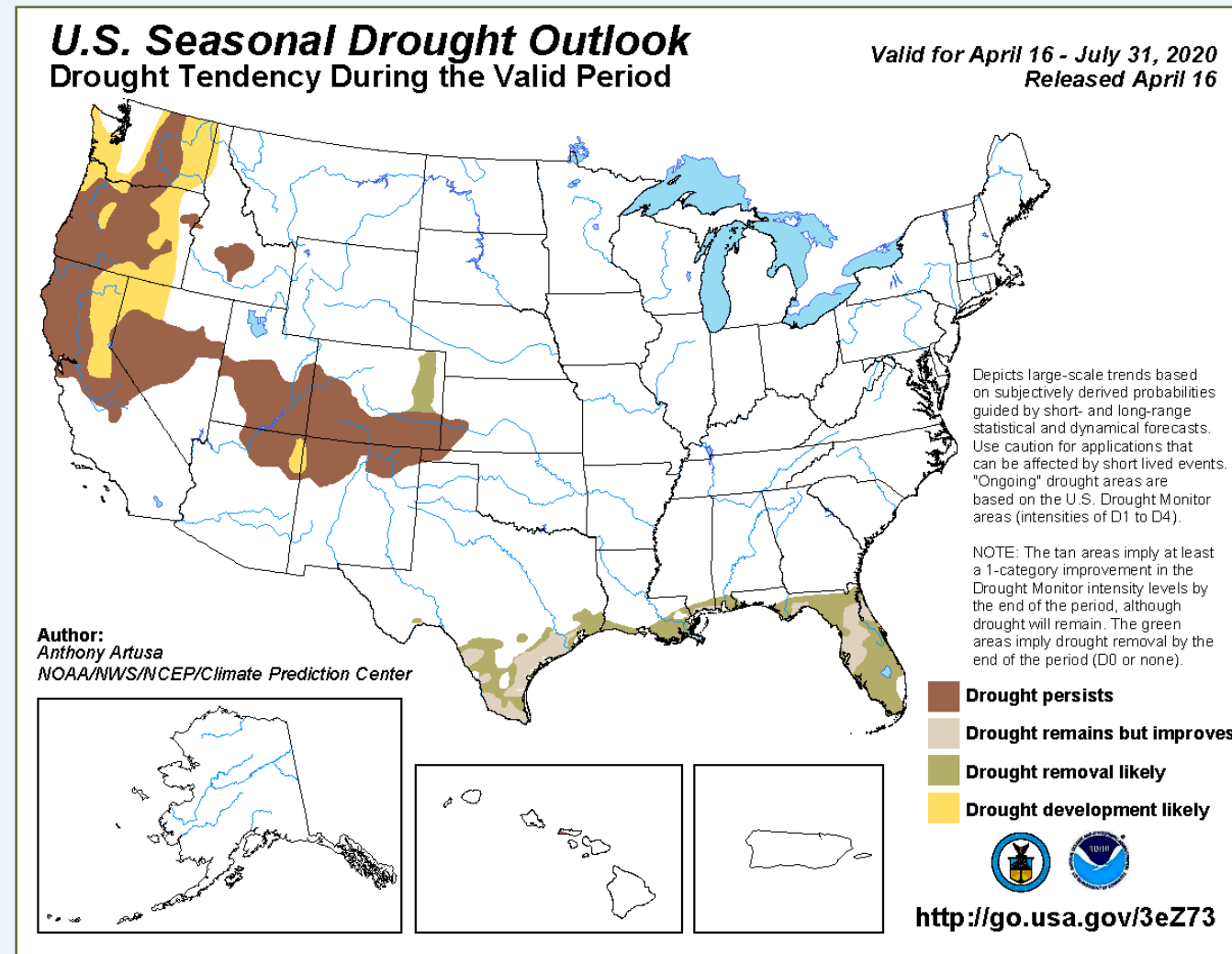


SNOWPACK

This map shows the current status of the snowpack as compared to an average calculated using snowpack measurements from 1981-2010. Measurements are taken throughout the year at SNOTEL stations, which are scattered throughout mountainous areas and which measure the weight of the snowpack. This is called the Snow-Water Equivalent (SNE) and accounts for differences in snow density. For more information, go to: <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/snow/>

DROUGHT

This map shows the expected presence of drought for the period of April 16-July 31, 2020. This prediction is based on seasonal and longer-term climate cycles. For more information, go to: <https://www.cpc.ncep.noaa.gov>



Continued from pg. 1...

Comco Construction, who won the bid, was great to work with. As far as the actual construction itself, laying the couple of hundred yards of pipe was something of a challenge—we have a LOT of big rocks just underground on our place, and the big excavator had to come help the laying plow several times. Also, maintaining grade was a challenge. But everything works just as it should!

Q: Did anything surprise you during the process of getting your project going?

A: The speed with which it gone done, once started, was amazing!

Q: How was the project funded?

A: An Idaho Power grant took care of that. We purchased a frost-free hydrant, and a couple of small plumbing parts I happened to pick up because it was handy for me to do so—but that was because the hydrant wasn't part of the original bid.

Q: About how much did it cost?

A: To tell you the truth, I don't know what the bottom line was. The grant must have been quite generous, as the heavy equipment time has to have been expensive.

Q: Do you feel like it was the best economical decision? Why/Why not?

A: There's no question it was the best economical decision for US, for obvious reasons. We maintained all our water rights, so there's no downside to this for us. Other than a couple of checks down the road to make sure the system is still working, we haven't given up control of any of our operations or land. To address the question as if we'd had to do it ourselves, I'd say it would still have been worth it. I probably would have done it myself using a backhoe, would have to have laid the pipe in segments rather than off a big roll, and so forth, so it would have taken a lot longer and involved a great deal of labor and a great deal of expense—though not as much as hiring the job done—but compared to the labor, expense, and anxiety of battling with creek ice every winter for stock water, it would still pencil out as a good thing to do.

Q: Do you feel like it was the best environmental decision? Why/Why not?

A: That was the assessment of Soil & Water Conservation and Idaho Power—I don't really feel qualified to weigh in on this one with any

authority. I do think that being able to provide clean, accessible drinking water for livestock off-channel must certainly lessen their erosive impact on riparian zones, and minimize the polluting effect of horses and cattle actually standing in the stream.

Q: Do you have any doubts that it will be successful in the long-term?

A: The construction was pretty robust, the system is safely buried, and maintenance at the source was a routine I'd already carried on for years, so no—no doubts.

Q: Would you recommend to others to participate in these types of projects? What are the trade-offs?

A: I surely would recommend participation to anyone who gets the chance! As with any signing of contracts or inviting big projects onto your personal domain, there was a certain amount of trepidation involved—but really, in the final analysis, I don't feel we had to trade off much of anything.

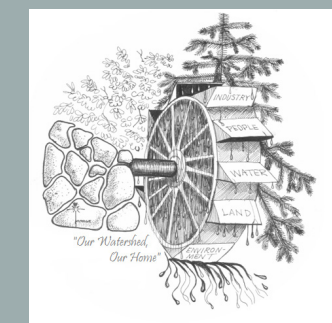
Q: Anything else you would like people to know?

A: One aspect of life in these parts is a certain amount of suspicion of any large corporation and especially of any sort of government bureaucracy. I'm happy to report that this whole operation seemed perfectly transparent, didn't involve any incursion on our water or property rights, and was completed with professional briskness and competence.

If you would like more information about off-channel watering or have questions about this article, please contact the Powder Baisn Watershed Council at:

Powder Basin Watershed Council
2034 Auburn Avneue, Suite B.
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www.powderbasinwatershedcouncil.org



WATERSHED ART AUCTION FUNDRAISER

The Powder Basin Watershed Council and Baker School District are hard at work developing a way to celebrate the PBWC's 25th Anniversary with students!

Our goal for this project is to provide Powder Basin Watershed education to all Baker School Students while inspiring them to create orginal masterpieces featuring their local watershed environment. The intersection between art and conservation helps create meaningful relationships for students with the place they live. These relationships are part of what helps keep and build healthy community.

Due to delays in programming for schools because of COVID-19 related closures, our art fundraiser has been put on hold for the time being. We are looking forward to safely returning this ambitious project next school year.

If you would like to contribute ideas, artistic talents, or volunteer in the future please contact us at: (541) 523-2800

