



100 Valleys

A Quarterly Publication for the Supporters of Umpqua Watersheds, Inc

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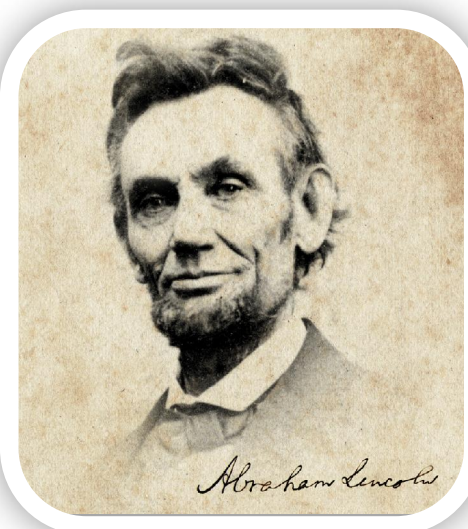
Winter 2018 | Issue 78

Conservation Cornerby Joseph Patrick Quinn

"The dogmas of the quiet past, are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew, and act anew. We must disenthrall ourselves, and then we shall save our country." I borrowed this powerful quote and incorporated it into the conclusion of the climate change portion of a timber sale protest that was delivered, on behalf of Umpqua Watersheds, to the Swiftwater Field Office of the Roseburg BLM District, on November 28. Those words were written by President Abraham Lincoln and were included in a message sent to Congress on December 1, 1862 during a dark time in the history of our country. The nation was deep into an existential crisis. The report of the Intergovernmental Panel on Climate Change (IPCC) in October was followed by a recent and equally dire report compiled by some thirteen U.S. Government Agencies. These words are as compelling, but with apologies to Honest Abe, a person might consider rephrasing the last phrase to read: "...and then we shall save ourselves and our world."



Supporters of Umpqua Watersheds are aware that the present "...*occasion is piled high with difficulty*,..." We are now facing our own existential challenge: either reduce the amount of greenhouse gas emissions (GHG) pumped into Earth's atmosphere or civilization may become unrecognizable or cease to exist. The pressures to life on Earth will mount and iconic species will ultimately disappear, and humans may follow. Limiting or ending most GHG emissions as soon as possible is paramount, however, given current and persistent political and fossil fuel industry obstruction, this has proven to be a tough "row to hoe." The natural disasters the world has witnessed lately, will hopefully increase public pressure to force governments and industries to act in effective ways before it is too late to prevent the worst.



Key to getting climate change under control involves the conservation and/or restoration of carbon sinks. Sequestration is a benefit of high functioning old growth and mature forest and empirical scientific research has shown that conifer forests of the Pacific Northwest are some of the very best at "carbon sinks." They absorb GHG and store it and the threat of large wildfires doesn't obviate the storage of half of this basic equation. When an older stand burns, even if it burns intensely, most of its stored carbon remains unless it is removed as part of a post-fire salvage. UW has presented BLM with the following excerpt from the publication, Oregon Forest Carbon Policy, V1.0 12-11-17, prepared by Mr. John Talberth, PhD., President and Senior Economist with the Center for Sustainable Economy, in Portland, Oregon: **"Timber harvesting is the single largest source of greenhouse gas emissions in Oregon taking into account (1) stored carbon removed from site and lost in the wood products manufacturing process and subsequent decay of final products; (2) the lost sequestration capacity of clearcut lands and logging roads, and; (3) emissions associated with decay of logging debris."**

The UW Conservation Committee has constantly urged the BLM to take this threat seriously when it formulates its management plans. The agency responds by downplaying the short term impacts of their projects. Negative contributions to climate change attributable to the carbon released by one particular timber sale might not be detectable when measured on the worldwide scale, but added to the many extractive actions and these impacts compound. They become what is referred to in the National Environmental Policy Act as "**cumulative.**" Added to the impacts from all of the clear cuts on private industrial timberlands and the carbon cost to climate stability substantially accumulates. Numerous degrading environmental impacts have been accumulating on the watersheds of our county, state and region for many decades. These include diminished summer streamflows, excessive winter peak flows, gross simplification of biodiversity, obvious

Our Mission:

Umpqua Watersheds is dedicated to the protection and restoration of the ecosystems of the Umpqua watershed and beyond through education, training, advocacy and ecologically sound stewardship.

and severe disruption of habitat connectivity, poisoning of air and water by aerial application of pesticides, seemingly endless forest road construction etc. These impacts are harmful and clearly visible on the checkerboard of alternating ownerships.

The nesting and reproductive success of the Northern Spotted Owl in 2018 on the Roseburg BLM was near zero and includes the large area that encompasses the timber sale we have just protested. Regionally, nesting and reproduction in 2018 was non-existent on all other NSO study areas in Oregon. Increased competition from the larger and more aggressive Barred Owl has been a significant factor in the NSO's long slide downward. Studies on the NSO indicate that increased habitat protections would forestall the impact that the Barred Owl has on Spotted Owl populations as well as many keystone species teetering on the edge of extinction. BLM response to our concerns: *Oh, not to worry. This little bit more won't hurt.* **Cumulative.** That is our answer to BLM. The ecological fallout from widespread environmental degradation across our region over decades has continued to accumulate, to the detriment not only of wildlife, but for human beings and our communities. From its very inception during the Great Depression, the O&C Act was charged with protecting watersheds, regulating streamflows and providing for recreation. We have insisted that the BLM raise the alarm and speak up loudly and forcefully about the suite of harmful practices imposed on the shared watersheds of our region by large and increasingly short rotation, private industrial clear cuts created under aegis of the retrograde Oregon Forest Practices Act. In reply, BLM offers silence. As we have opined to them, in comments, protests and appeals: UW interprets BLM's silence as its assent. We will continue to protest this disappointing stance.

In addition to the long list of conservation challenges facing volunteers at UW (time, money, and energy), there remains a personal, emotional, intellectual and spiritual challenge. We must not allow the deluge of bad news about the natural world to dampen our hopes for a saner and more sustainable future. We must guard ourselves and our compatriots from slipping into cynicism or despair. And life-long conservationists must do the very best to encourage young people to engage in a determined, yet optimistic way. For all of us, there can be no curling fetal position under the covers nor caving to what may sometimes feel inevitable. Neither waiting passively for the descent of some earthly paradise or for the express elevator to "pie in the sky" will do. There will be no deliverance by *Deus ex machina*. This Earth is the paradise we have inherited. It is the only one we know. In the words of Abe Lincoln *"You cannot escape the responsibility of tomorrow by evading it today."*



As 99.7 KQUA nears two years of age, our audience has grown significantly. An average listener reports that they listen to the station as much as 2-3 hours a day. The popularity of 99.7 KQUA is due to the airing of more music and less talk and advertisements. However, when we play a message on the air whether it's for an event, non-profit or a business, those messages stand out. 99.7 KQUA is a community-minded participant in Douglas County. One of our main goals is to help the community reach our audience. When an organization partners with the station, it is a benefit to both parties. When you purchase time on 99.7 KQUA for a short message, your donation supports the operations of 99.7 KQUA and is tax-deductible.

How it works: 99.7 KQUA can be a branding tool for a new business, for promoting an event, or for generating money for a non-profit. Our station's programming appeals to listeners generally in the 18-54 age range. At the moment, 99.7 KQUA is offering a discount on underwriting short messages to local businesses, non-profit organizations, and promoters. For the remainder of December, all messages 30 seconds or shorter are 50 cents per message.

During January through February, 99.7 KQUA will be conducting an auction to raise funds for station operations. Businesses and others can donate products, gift cards, services for the station to auction. In return, the station will return the face value of the donation in short messages on our station combined with mentions during auctions.

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WILDERNESS COMMITTEE

By Robbin Schindele

The Wilderness Committee has been busy since the last newsletter. Our ongoing effort to get business support for the Crater Lake Wilderness Proposal continues to grow. We currently have 74 businesses and are nearing our goal of 100 businesses before our next Annual Banquet. Our federal legislators have told us that support from local business owners is very important if we want them to introduce our Wilderness Proposal in Congress. If any of you know a business owner you think would endorse our Wilderness Proposal, please call or email me and I'll contact them.

Our Alice DiMicille fundraising concert in August went well. We had a good and enthusiastic crowd at Oran Mor Meadery and raised over \$1200.

Big news came in September when the Portland Patagonia employees approved our grant request for \$10,000. The money will be used to support our 2018-2019 communications plan designed to expand our reach and influence in support of the Wilderness proposal.

There are four elements in the plan. The first is to reach out to civic and business organizations in the gateway communities of Crater Lake National Park with a presentation on the financial benefits wilderness areas bring to communities and individuals. Second is the creation of a YouTube video channel featuring videos of people enjoying and talking to us about what being in the park and surrounding wildlands does to enrich their lives. Third is a day long symposium on the current state and the future of water in Southern Oregon. And lastly a wilderness focused bi-weekly radio show on our own KQUA, 99.7 FM. While the Patagonia grant was a huge blessing, the committee continues to search for and submit grant requests to support our efforts.

We continued our Wilderness Hike Program into October with hikes to Bull Dog Rock, Tipsoo Peak and the Rogue River Gorge. The general public is always invited on these hikes and committee members lead them. Besides the good exercise and beautiful country it's another opportunity to gain grassroots support for our proposal.



The Wilderness Committee is committed to Wilderness but also to our community. We held a Thanksgiving food drive in November on the Tuesday before Thanksgiving where committee members donated 777 pounds of food to UCAN for distribution to the hungry in Douglas County. A special thanks to Fred Meyer and Sherm's Thunderbird for allowing us to solicit donations at their stores and to Oran Mor, While Away Books and the Umpqua Unitarian Universalist Congregation for have donation barrels in their places of business.

We're going to end the year with a fun, community based event. On December 13 from 6:00 to 9:00 PM committee members will be caroling

in downtown Roseburg at restaurants and on the street corners. We have a lot of singers and musicians in our group and we are looking forward to bringing a little holiday cheer to our fellow Roseburg residents. Watch the UW Facebook page for a list of participating establishments or just drive by and give us a honk.

I hope you all have a wonderful holiday season and a prosperous New Year.



President's Corner Stanley Petrowski

Greetings and salutations. We've been remarkably busy as usual. In this newsletter, you will read the reports from the committee chairs and dedicated members of the organization. We have been extremely active in the community and continue to work hard on Outreach, Conservation, Restoration and Education of our Umpqua Watershed. We have many concerns in this organization about the state of our watershed. I would like to highlight several notable events and concerns.



- 1.) The 10th Annual State of the Beaver 2019 international conference will be held February 19-21, 2019 at the Cow Creek Tribal resort in Canyonville. It is well worth attending if you have an interest in water, wildlife and beaver ecology.
- 2.) As reported many times recently, there is a major crisis regarding the west coast of the North American Spring Chinook runs. We have dedicated our restoration committee meetings to this topic. Though we are also actively engaged in local and regional aquatic and terrestrial restoration as well as biochar production collaborative efforts, the dire condition of the Chinook runs has taken precedent for the time being. Responsible agencies are planning to convene and assess the problem, but our intention is to support the listing of Oregon Coastal Spring Chinook under the Endangered Species Act. The South Umpqua River, in particular, is in a dire condition. Historical surveys completed on this population of salmon indicate that the population has been far below acceptable viability standards. A minimum of 600 fish for each run are needed for genetic diversity. Currently, the run is averaging 170 fish annually and this year the adult return count was 28 specimens.
- 3.) One of our greatest organizational needs is staff to assist with the immense workload that Pat Quinn is handling as he evaluates and addresses projects on public lands. He confers with stakeholders regarding public policy on forest lands and responds to the cumulative effects of adverse impacts on our ecosystems. He is actively and consistently in pursuit of the best available science and best management practices. It is far more than a volunteer Board member can handle. We ask that you please support this staff position by dedicating funds specifically for that purpose.
- 4.) Umpqua Watersheds continues to support our Summer Low Flow research campaign. We constantly and forcefully advocate for the analysis of the influence of clear cut, short rotation, monoculture management regimes on our water supply. If you, also, have an aversion to this type of forest management, please consider designating your year end donations for this purpose. Again, please make it known that the funds should be used for that purpose.
- 5.) Lastly I want to especially acknowledge Patrick "Trick" Schneider for his unwavering support of Umpqua Watersheds' KQUA-LP FM radio station. Patrick needs assistance developing and implementing fiscal support of the station and its programming. Do you have radio station experience and want to support the station's mission? Contact us. All donations to the station are tax deductible under the Umpqua Watersheds' non-profit status. Designate your donation for that purpose if you value this public service.

Hoping this newsletter finds you thriving in our beautiful Umpqua Valley,

Facilities Management Committee...John Hunter

The close of 2018 marks the first full year for the Facilities Management Committee (FMC) and what a remarkable year it has been filled with learning experiences, challenges, setbacks, and accomplishments. We achieved much through cooperation and commitment. As we reported in previous newsletters, we accomplished a number of immediate projects and have a few ongoing projects such as removing the old radiators and assessing the electrical status. More recently, in October, we contracted to install additional flashing on our roof. This was a follow up to his major project in the spring and marked the completion of our biggest project for 2018. We are confident of a leak free winter.

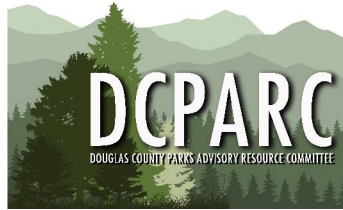
We are also proud that the remodel of our kitchen is nearly finished. It includes cork flooring, oak baseboards, a donated refrigerator, shelves and countertop. It is now available as a place to relax, converse and eat. It will be the showcase of our December 15 Umpqua Watersheds Christmas Open House. Come and see our remodeled kitchen enjoy refreshments and maybe win a prize!!



We are happy to report that all of our rental units are occupied and generating income for facilities maintenance. 2019 will be another busy year for the FMC. Now that the roof is repaired, we plan to begin patching and repainting our damaged ceilings. The ceiling ducts and registers for our heating and ventilation system need replacing to increase energy efficiency. An energy assessment has been completed and we have identified areas where we can reduce energy costs. We hope to acquire grants and/or donations to help with this expense.

Without dedicated volunteers FMC could not have completed so many projects this year. Special thanks to; Kasey Hovik Janice Reid, Diana Pace, Andy Johnston, Doug Hockett, Phil Schad and Rick Kreofsky. We cannot have too many volunteers. Join us the second Saturday, 10 am to 1 pm, for our monthly work sessions and on the first Tuesday of the month, 6 pm at the UW office for our planning meetings . And don't forget our 12/15 Open House from 3 pm to 5 pm!!

The last quarter of 2018 has been a very busy one for Douglas County Parks Advisory Resource Committee (DCPARC). It was a combination of park related activities and the never ending monitoring of our Douglas County government.



Since the last newsletter, we lead UW members on an education tour of Iverson Park, had a table at the Umpqua Brewfest with the Busenbark tree stumps, completed our final trail cleanup for the Riverside trail in Roseburg (with a record number of 9 people to help us fill a dumpster of trash) and held the annual Mushroom Hike at Iverson Park. Despite a lack of mushrooms due to a warm and dry Autumn, fifty people showed up and listened to Geoff Niles educational lecture about mushrooms.

Always challenging is the monitoring of our county government. In October, we learned that the board of commissioners re-adopted the Douglas County "Open Space" amendment. It is being appealed to the Land Use and Conservation Board (LUBA) by the Oregon Department of Fish and Wildlife, Thousand Friends of Oregon, and the Department of Land Conservation and Development (DLCD). This will likely be a prolonged legal struggle. We fear that the state legislature will enact legislation to legalize amendments such as the Rural Open Spaces amendment.

We testified at the Douglas County Planning Commission meeting against a proposal to reopen a rock quarry along the North Umpqua River and were happy to hear that the planning commission voted against this proposal. A proponent of the proposal has filed an appeal. We await the outcome.

Members of the Parks Advisory Board attended the Winchester Bay community meeting despite a 1 day notice where commissioners Boice and Freeman toured the dunes. There have been no follow-up decisions to their October and November meetings. Two new board members have been recruited and appointed while the applications for this board has disappeared. Only one opening was announced, however two appointments have been made. One recruit is Dan Loomis (former candidate for commissioner who

dropped out of the race and endorsed Tom Kress in the last election), the other recruit is Phil Bigler, who was appointed before the current member retired in December. Interim commissioner Christine Goodwin is reported to be "on hiatus" for her Parks Advisory Board position. She returns after

her BOC term ends on December 31. Public attendance has decreased substantially at these meetings. We need more people watching this committee. The parks department wants to spend \$800,000 to replace the restrooms at Rocky Point/ Umpqua Dunes RV Park even after buying it for \$1.4 million. They have also invested in new road signs for many of the developed parks, as opposed to our county nature parks, which have amenities such as hiking trails that people actually desire. Also, they are still monitoring "hazard" trees at Kanipe Park, an issue we are following. Parks director Rocky Houston has decided not to reduce park fees for veterans as requested by the DCPARC. His reasoning was explained by indicating that "unemployment is so low right now." We fail to see how that is connected.

At a BOC meeting recently, the commissioners approved a board order to change the classification of Busenbark from a "park" to "county forestland." It was inspiring that UW had such a large presence at this meeting. Nine members spoke against the reclassification and others were in the audience. This board order is an attempt by the BOC to bury the Busenbark controversy in hopes that we go away. We will not! The truth is, only two public notices of this hearing were listed in The News Review and Busenbark was not named. The legal description was given without the park name which is the bare legal minimum required. We feel that the BOC are trying to

evade public scrutiny of this process. If it were not for the dedicated diligence of Kat Stone, we would not have had such a strong presence at this meeting. We certainly owe her a BIG "Thanks."

For 2019, DCPARC plans more outreach with hikes and tours in our County Parks. A cleanup of the river trail is planned for April. We will never cease our monitoring of County Government. But we do need help. Join us on the 3rd Wednesday, 6pm at the UW office. **REMEMBER BUSENBARK!**





Christine Smith

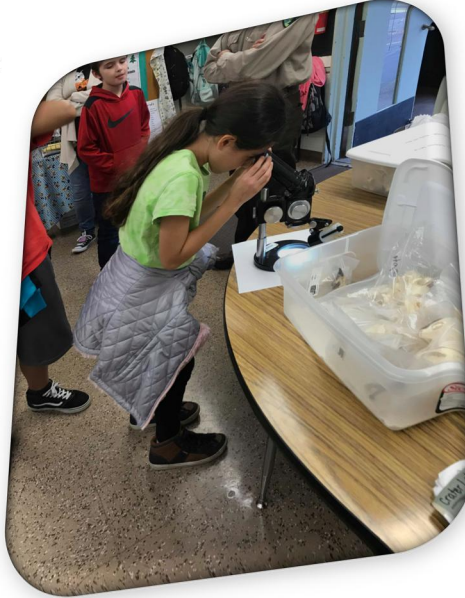
My 2nd year at Umpqua Watersheds as an AmeriCorps member is well underway and I feel even more accomplished than last year. This time last year, I was just finding my way around Douglas County and slowly

creating connections that led to awesome programs in schools. This year, I knew I did not want to repeat the slow beginning of last year and I came equipped with all the connections that I made the previous year. One of those connections from last year is Maris Wilson, our second AmeriCorps member. With her added to the team, we've been able to extend our reach to many more schools and expand our goals for the number of youth reached in the community.

We were lucky enough to start the school year off with some professional development at the Environmental Education Conference in Canby, Oregon. We spent a weekend in September learning about curriculum that is Oregon specific, meeting other passionate educators and listening to inspiring keynote speakers. I left that conference invigorated, equipped with new resources and ready to take on another year of environmental education. This work is so necessary and rewarding. It is inspiring to be surrounded by lifelong learners. Attendees ranged in age from college to those in their 70s, yet everyone blended so well and found ways to learn from each other. I've been determined to bring that energy into the expansion of environmental education programs in Douglas County.

Eight weeks of Science Wednesday have already been completed at Fir Grove Elementary. They have been gracious enough to join forces in education to run this program for many years now. 17 students signed up and we had a great time with the water cycle, orienteering, water chemistry and many more topics in fifth grade science. I have also been continuing environmental art at the Boys and Girls Club for Forest Thursday.

One of my favorite days of last year was leading a station for outdoor school at Hucrest Elementary and I'm so excited to start Science Wednesdays at their school in January. I will finish the school year off at Eastwood Elementary with Science Wednesday and their Camp Eastwood. They have also been long time supporters of science and experiential education and I love teaming up with the energy of their school. I met a wonderful science teacher from Fremont Middle School last year who is piloting a Natural Resources class. Maris and I help with their garden and field trips. We also assist with some class lessons. One of my goals for this year was to do more during class hours and not just after school so we are working more on meeting that goal.



The Gray Family Foundation

AmeriCorps Voice

graciously extended the use of their grant so we are still able to take every fifth grade class in the county to Crater Lake! The state covers 70% of the cost of transportation and we cover the remaining 30%. Eastwood Elementary was the first class of the year to brave the cold and venture out to the deep blue wonder. Very few moments can compare to the moment a child sees their first national park. It brings tears to my eyes every single time.

The children sing and play games during the entire bus ride to Crater Lake and anticipate their first glimpse of the lake. Most of them have never been to Crater Lake and can only imagine from the pictures that they have seen. As we enter the gate and the bus navigates the curves of the road, teasing glimpses of the lake, the anticipation is exciting. When they least expect it, the lake seemingly appears out of thin air! The students jump out of their seats and press their faces to the window, exclaiming about how big and blue the lake appears. After the immediate shock factor dies down a bit, the students continue to gape at the wonder of the lake and there is a collective "wow" heard throughout the bus. They could not wait to run around the park and learn more about

the natural wonders. One student said "This field trip has meant a lot to me. It's not always easy to get out of the house and it's not every day you get to see a waterfall and Crater Lake." Moments like those are exactly why we do this.

We have much more planned for the coming year so stay tuned. Follow the education blog: <https://umpquaeducation.wordpress.com/>, "like" Umpqua Watersheds on Facebook and mark the Martin Luther King Jr Day River Cleanup on your calendar for Monday, January 21st. Hope to see you.



Maris Wilson

I cannot believe it is already December. My first three months of service have gone by so quickly! Though it is just the beginning, Christine and I have already had some remarkable experiences with students and community members.



Almost immediately, we attended the Environmental Education Association of Oregon Conference in Canby. It was a great way for me to learn more about environmental education in Oregon and connect with professionals. I learned about fun ideas for curriculum and ways to get students more involved! We also attended the Trauma Informed Care workshop at UCC where we learned how to think more critically about our practices and how they might be limiting to some of our community members and students.



As part of my professional development this year, I have been taking a beginning sign language course at UCC. The first section just finished before Thanksgiving, and the next section will begin in February. Our class consisted of people from diverse backgrounds with different reasons for taking the course. By the end, not only did we expand our understanding of sign language, we also developed our own community of friendship and acceptance. It is my hope that by learning sign language, I can incorporate more non-verbal communication into my lessons to create a culture of inclusivity and nurture a generation of students who don't hesitate about finding different ways to communicate with their peers.

My first Science Wednesday program at Fullerton

Elementary will finish up just before winter break. We are all having an enjoyable and exciting time doing experiments and learning more about the world around us! In addition to this program, Christine and I are working at Fremont Middle School with their Natural Resources class. We have become a fixture in the classroom and students always have new stories to share with us. I feel lucky to help with this class because I get to combine my love of gardening with my desire to teach environmental education. We have been planting beds, winterizing them, and talking about the role of all the components of the garden. One of the best moments was when I had a small group helping me prepare a garden bed to plant. We removed all the weeds and were working to amend the soil for better growth. On their own, two of the girls started mixing the soil with their hands and ended up getting elbow deep in mud, laughing and chatting the whole time.

Another way I am combining these two passions is through the garden club at the Boys and Girls Club. A few times a month, I work with the students in the garden or in the classroom talking about the connection between the environment and what they see in the garden. One of the most successful days was when we got to explore soil together. I brought in soil samples to feel and compare grain sizes, as well as a profile of a typical Roseburg soil. Then students used a mortar and pestle to grind the soil and make paint! They used their creativity to make designs with the different shades of brown.

I have also had the chance to work in the classroom during the day with Winston Middle School and Fullerton Elementary. At Winston Middle School, 7th graders learned about osmosis through several experiments over the course of two days. Fullerton Elementary students had the chance to learn about food webs and how everything in the environment is interconnected, including humans.

There is never a shortage of excitement and growth. Coming up, Christine and I will both be starting Science Wednesday at new schools in the spring. We are also in the midst of planning our MLK Day River Clean Up on January 21st. Be alert for more details to come— we would love to see lots of volunteers helping to beautify our community.



Restoration Committee Stanley Petrowski

Umpqua Watersheds has participated in numerous forest collaboratives over the last decade and a half that have served several purposes. Our fundamental purpose is to “restore the rest.” From its inception UW has held restoration ecology as a fundamental principle guiding our desire to find some modicum of common ground for watershed management. Most of these collaboratives have come and gone for one reason or another. The unfortunate utilization of time and limited resources on this lengthy experiments has not dissuaded us from trying again and again.

It hasn't been a total loss. Each experience we encounter adds to the repertoire of documentation, science and pitfalls that we have experienced to help us further the purpose of our restoration efforts. Over the years we have gleaned meaningful lessons that have fined tuned our approach to the collaborative process.

One insightful metric has been our awareness of misinformation regarding our intentions and motives. Indeed, Umpqua Watersheds has been besmirched time and again as a group of environmental extremists. UW was not organizationally involved in the Home Rule Charter campaign at all, yet we were depicted as a devious political motivator Even so, before and after that, very few have respected UW. They have instead ascribed some misplaced political agenda derived from some subculture of miscreants as our real motive for our conservation work. Nothing could be further from the truth. I am amazed at the broad spectrum of social and political paradigms that make up our membership and Board. Nevertheless, we live under the onerous burden of alienation from members of our community in many respects as a result of these projected ideas about our mission and vision.

I want to reiterate that our singular intention is to live in a healthy world in a healthy way. Let me state it clearly and succinctly that we really are concerned about conservation and restoration. Why should I wade through all of this history in the context of Umpqua Watersheds restoration report? We feel it is important for you to understand the repercussions of those political agendas conscientiously working to undermine our strident efforts.

Foremost in my mind is the millions of dollars that would most likely have been saved as a result of our support of the Elk Creek South Umpqua Restoration Project. We've been involved with this collaborative project for years. Long hours of meetings, reviews of project goals and objectives, along with a consistent commitment to do the right thing has led to some clear points of agreement with stakeholders and successful project designs. As your local conservation organization, we have done due diligence and given a “thumbs up” to see more than 7500 acres of the watershed treated for fire resilience based on holistic ecological restoration. We're grateful to our partners and sister organizations for their careful consideration of all the perspectives involved in the decision making process, whether they sat at the collaborative table or not. The project is moving forward.

There has been one significant downside to the almost decade long process. To accomplish our ecological, we needed funding for certain aspects of the project that wouldn't pay for itself. The original design of the project would require a substantial utilization of “Stewardship Contracting.” This was one of the tools in the “tool box” of agency mechanisms to provide for a successful completion of the work. Dept. of Agriculture stewardship contracting has been successfully utilized throughout the State of Oregon on both the east and west side of the cascades. It was a major barrier in moving the Elk Creek project forward. Because of these concerns actual implementation of the project was significantly delayed. This summer the Miles Fire of the South Umpqua Fire Complex started right in the middle of the project area! If we had we received approval to proceed with the work a few years ago, large segments of mortality in the roadless area of the project would have been spared. The long season of drought and annual fire activity also delayed the work. Forest Service staff are almost always immersed in fire response mode under these conditions. Nonetheless, had collaborative projects been implemented, the area of the Miles fire would have been treated first at a cost of 1.2 million dollars. It sounds as if it is a substantial cost. Take into consideration that the estimated effort to suppress the fire in that part of the project area was estimated to be \$25 million of taxpayer money.

Terrestrial restoration work, particularly associated with public lands, isn't easy to achieve. What is important is that we listen, speak to those who will listen and act when there is a common good to be achieved. Even among potential allies, there is rarely agreement. UW is very actively engaged with other deeply committed stakeholders in establishing a standard of action when it comes to terrestrial treatments as part of restoration projects and fire resilience. We agreed upon basic principles for defensible space around home and infrastructure. If you are interested in the principles, contact me. More information available at the following websites.

https://www.fs.fed.us/restoration/documents/stewardship/stewardship_brochure.pdf

<https://www.fs.fed.us/restoration/documents/stewardship/EverythingYouWantedtoKnowAboutSC.pdf>

EDUCATION UPDATE ... Ken Carloni, Ph.D.
Biochar: An Ancient Solution to a Modern Global Crisis

biochar /ˈbiːoʊˈtʃɑːr/ *noun*: charcoal produced from plant matter and stored in the soil as a means of removing carbon dioxide from the atmosphere. (Online Dictionary)

When the Portuguese first arrived in Amazonia, they discovered small islands of dark, highly productive soils associated with indigenous villages. Unlike other notoriously poor soils in the region that became depleted after just a few years of cultivation, these soils have remained productive after centuries of continuous farming. The Portuguese named these soils “terra preta de índio” (black earth of the Indian), and they are now known simply as **terra preta** soils.

A few decades ago, anthropologists discovered that these soils contained significant amounts of broken pottery, animal bones, charcoal, and other materials common to “kitchen middens”. Some of these “anthropogenic” terra pretas were created nearly 2500 years ago! Further investigations showed that the key ingredient that made these soils so productive (and dark) was the biochar. The upheaval of indigenous lifeways brought on by the arrival of European cultures and diseases caused this traditional ecological knowledge to become lost as settled agrarian peoples became more nomadic to avoid contact with their invaders. But the discovery of these soils has led to renewed interest in the science of biochar and the technology to produce it.

So what is it about biochar that makes it such a super soil amendment? To answer that question, we need to first understand how it is made.

Biochar is simply wood that is exposed to high heat in a low oxygen environment – a process known as **slow pyrolysis**. This causes two important effects. One is that carbon-based molecules in the wood are converted to forms that are highly resistant to microbial decay. That means that char is unavailable as a food source to decomposers and remains in the soil for millennia rather than being gradually converted to CO₂ through microbial respiration in a few decades.

The second effect of slow pyrolysis is that the cell structure of the wood remains intact. This creates a myriad of tiny compartments that provide pores for water storage and habitat for beneficial microbes. This also creates a huge surface area of black carbon that tends to adsorb soil minerals that would otherwise leach from the soil. This significantly increases soil productivity and boosts plant growth, thereby removing even more CO₂ from the atmosphere.

So – biochar production 1) improves soil productivity, 2) converts logging slash into a value-added product, 3) creates jobs, 4) reduces fuels, and 5) removes carbon from the atmosphere and stores it in a stable form.

Given the urgency of all of the issues biochar addresses, it's no surprise that there are groups of biochar enthusiasts springing up around the world. We are lucky to have a very active group of biochar champions in the Umpqua: the **Umpqua Biochar Education Team** (UBET). This

dedicated crew of researchers and practitioners holds regular demonstrations – you can follow their activities at <http://ubetbiochar.blogspot.com/>.

The Yew Creek Land Alliance (YCLA), a local nonprofit with 380 acres of conifer forest and oak savanna west of Riddle, OR, recently completed a biochar project funded by the Natural Resources Conservation Service (NRCS) to treat six acres of logging slash left from oak habitat restoration/fire resiliency work completed this spring. Kelpie Wilson (<http://www.wilsonbiochar.com/>), a regional leader in biochar engineering and logistics, provided expert consulting services, and Mark Eason handled the contracting and some of the excavator work. We are extremely pleased with the results of the project!

We had a crew of 5-6 in the field for 12 days and treated over 6 acres. We first spent 2 days with a shovel operator using a “rake” to get the slash into piles near the road beforehand. We used 3 kiln styles: 5' X 5' Oregon Kilns (designed by Kelpie) (1.5 yards), a ~7' diameter 4' high round kiln similar to local biochar pioneer Don Morrison's design (~5.5 yards), and 6' X 13' X 3.25' rectangular kilns made from salvaged steel “boxes” from old 39" X 79" flat plate solar panels (9+ yards).

All of these kilns are designed to utilize a “flame cap” that uses smaller fuels to char larger diameter wood. In contrast to the way you would build a fire in your wood stove or fireplace, the larger fuels were loaded at the bottom of the kiln and the fine fuels on the top. We lit the initial fires with propane burners so that we could get an even, clean-burning flame across the whole surface of the kiln. This prevents the downward flow of oxygen into the deeper parts of the kilns while providing heat in excess of 2000° F on top resulting in the slow pyrolysis of the larger material.

We found all 3 kiln styles to be effective in particular situations: we set up the big kilns on the roads near big slash piles, the round one in uneven, off-road settings with a lot of slash nearby, and we used the Oregon kilns to “clean up” in the spaces between. In areas of the project that were too far from the water truck or otherwise difficult to access or process, we left the slash in small scattered piles for wildlife.

Our preliminary results indicate that we converted 20-30% of that slash into biochar, and the whole

project came in under-budget. And, yes, the area now looks like a park instead of a post-logging war zone! We will be treating another 6 acres of slash produced during more restoration work on the YCLA property in 2019, and we will be inviting the public up to see it. Stay tuned to future issues of *100 Valleys* and *Watershed Moments* for times and dates of our next biochar project/demonstration. In the meantime, follow the inks above to learn more about bringing this vital ancient technology back to local ecosystems.



Kasey's Corner ... Executive Director

In mid-November the Board of Directors (BOD) and staff of Umpqua Watersheds (UW) met for our annual strategic planning meeting. We spent the whole day reviewing accomplishments of the past year, our strategic plan and making plans for the coming year. Over the past six years I have had the opportunity to work closely with these amazing people and am humbled and inspired to be able to call them friends and collaborators. In the process of reviewing the work of the organization over the past year we were, once again, surprised by how much we have accomplished together. I want to briefly highlight each committee to emphasize not only the accomplishments and their importance to our strategic plan but that of the work done by the committees volunteers that represent many hundreds of hours over the course of a year.



The “nuts and bolts” of the work related to carrying out the strategic plan is accomplished through our committee structure. Our C.O.R.E. committees (Conservation, Outreach, Restoration and Education) are led by a member of the board of directors. We also have operational committees, Facility Management and Finance as well as the Wilderness Committee. These committees are also led by BOD members.

Operations

As Executive Director, I sit on all of our committees (except Wilderness) and work closely with the Staff and BOD to coordinate activities and to add continuity to the committee process. I also supervise our staff and serve as the mentor for our AmeriCorps members. One of my primary objectives is to help execute UW's strategic plan and to outreach on behalf of the organization to individuals and organizations in our community. I represent UW and the local Watershed Council, the Partnership for Umpqua Rivers.

We are very fortunate to have Melanie MacKinnon as our Office Manager. Her organizational talents have made a significant impact on operations since last March. She works with our finance team to maintain accurate records and serves as our Grant Committee Chair. As our only paid staff member, she works 20 hours/week and has become the day-to-day face of UW. Her regular hours are M-W 1-5pm, and Th-F 9am-1pm.

Facility Management

UW's Facility Management Committee is chaired by John Hunter. Since we gained possession of the building in July of 2017, he and the committee have volunteered many hours updating and improving the building, working with our tenants and planning improvements. The building represents UW's biggest financial asset. Half of the funds we receive from our tenants go toward paying taxes, utilities and insurance. The other half of these funds has gone toward making repairs and upgrades to our building. The 2nd Saturday of the month, we have a work party for 3-4 hours to tackle various projects and provide basic upkeep to our office.

Finance

Catherine Stone is the Treasurer for UW and chair of our Finance Committee. Diana Larson is our volunteer bookkeeper and spends many hours each month to ensure we have accurate financial information for tracking and budgeting. The Finance Committee reviews and recommends financial policies and procedures for the BOD. They also provide updates on the budget for committees and works to maintain the UW financial integrity.

Conservation

Joseph Patrick Quinn, affectionately known as “Paddy”, is our Conservation Chair. He also serves as Vice President on our BOD. Paddy is a one-man committee as he writes comments to proposed work on BLM and Forest Service land. He has earned the respect not only of those of us in the conservation community, but also professionals in the agencies who see UW and Paddy's work as an important check to pressures put on by the industry and politicians to “get out the cut”. It is tedious and trying work and involves researching proposed timber sales and actions of the agencies. One of the major goals in the coming year is to find funding for at least a half-time position for a Conservation Director.

Wilderness

Diane Pace, who serves as UW Secretary, co-chairs the Wilderness Committee with former BOD member, Bob Hoehne. Robbin Schindele is our Crater Lake Wilderness Coordinator and works 20+ hours each week, paid for by a grant from Patagonia. Robbin and the committee have done a great job creating events such as hikes and concerts to promote the Crater Lake Wilderness Proposal (CLWP). He is a dynamo, and has made significant progress in the process of reaching out to our sister organizations and traveling to represent UW and the CLWP at meetings and conferences.

Outreach

Barbara Lynch is our new Outreach Committee chair. Outreach is essential to UW because it involves keeping our members informed of what is happening with the organization and provide opportunities for members and the general public to participate in UW activities such as our Annual Membership Banquet and Auction in April, River Appreciation Day in July and the Umpqua Brew Fest in October. She is also responsible for organizing and promoting concerts, hikes, speakers and tabling opportunities at community events. Our quarterly newsletter, bi-weekly emails, “Watershed Moments”, UW website and Facebook pages are all important tools the Outreach Committee oversees. Patrick Schneider, Program Director for UW low-frequency radio station, KQUA, 99.97 has volunteered many hours to create excellent programming for the station. It has become a wonderful tool for UW to reach people and businesses in our community.

Restoration

Stanley Petrowski chairs the UW Restoration Committee as well as serving as President. He has devoted his life to developing and implementing innovative restoration projects. The environmental challenges our community and world faces are enormous and environmental restoration provides an important catalyst for dealing with these challenges. We are fortunate to have someone who has been nationally recognized for his contributions to restoration leading the way for Umpqua Watersheds and the vital work of Restoration.

Education

Dr. Ken Carloni chairs our Education Committee. He is a former BOD President and a founding member of UW. Over the last seven years UW has sponsored six AmeriCorps members who have invested thousands of hours in environmental education in Douglas County by teaching in local classrooms, leading hikes and campouts for youth and playing important roles as part of UW outreach initiatives. Over the last four years, every fifth grade class in Douglas County has had the opportunity to visit Crater Lake National Park led by our AmeriCorps volunteers thanks to a Gray Family Foundation grant. We have worked closely with Phoenix Charter School and their Oregon Youth Conservation Corps program to provide students with an opportunity to participate in our Learn, Earn and Serve program. Students have the opportunity to

attend environmental science classes at UCC, work on public lands with restoration projects and have the opportunity to mentor younger students as part of the Twin Lakes Youth Wilderness Campout in July of each year. UW invests thousands of dollars and hundreds of hours to support education initiatives in Douglas County every year.

Summary

I hope that this overview helps to provide our readers with an understanding and appreciation for the great work that is happening at Umpqua Watersheds. At least 90% of the work is done through faithful volunteers. We are very fortunate to enjoy financial support from longtime members and sponsors. Please consider volunteering and/or donating to support our work. It isn't easy being green but it is possible with your support.



Get Involved! Join a Committee
All meetings are in Roseburg

Monthly Board of Directors:

When: 3rd Monday of Every Month, 6:00pm

Where: Umpqua Watersheds Office

For board and staff members only. If there is a topic you feel the board should broach let us know!

Email kasey@umpquawatersheds.org

Education Committee

When: 2nd Tuesday of Every Month, 6pm

Where: Umpqua Watersheds Office

Ken Carloni - ken.carloni@gmail.com

Restoration Committee

When: 3rd Tuesday of Every Month, 5:30pm

Where: McMenamin's Roseburg Station Pub

Stan Petrowski - Stanley@umpquawatersheds.org

Conservation Committee

When: 1st Monday of Every Month, 6:00pm

Where: Umpqua Watersheds Office

J. Patrick Quinn - jquinn@mydfn.net

Facility Management

When: 1st Tuesday of Every Month, 6:00pm

Where: Umpqua Watersheds Office

John Hunter - goldenarchie46@yahoo.com

Wilderness Committee

When: Last Wednesday of Every Month, 6:00pm

Where: Umpqua Watersheds Office

Bob Hoehne - oho937@hotmail.com

Douglas County Parks Resource Advisory Committee (DCPARC):

When: 3rd Wednesday, 6:00pm

Where: Umpqua Watersheds Office

John Hunter, goldenarchie46@yahoo.com

Outreach Committee

When: Last Thursday of every month, 5:30pm

Where: Umpqua Watersheds Office

Barbara Lynch at bjflynch@hotmail.com

Upcoming Events

Dec 13, 6-9pm Caroling downtown

Dec 15 2-4pm Open House at Umpqua Watersheds

Jan 21, 2019 MLK River Cleanup

Natural History and Ecology of Oregon's Land Mammals class

Thursdays 6:30-8:30 pm , Jan 24th -Mar 7th(except Feb 14) Tuition is \$85.00.

The State of the Beaver Conferences

February 19, 20, 21 - 2019

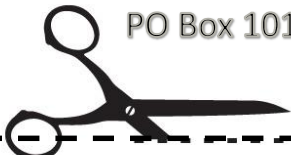
PIELC 2019:- February 28 - March 3, 2019

Lookingglass Rock Hike Saturday March 16, 2019

Annual Banquet and Silent Auction, April 13, 2019

Umpqua Watersheds would like to invite you to make a difference by making a charitable donation or joining or renewing membership. Please use the form below and send your pledge to

PO Box 101, Roseburg, OR 97470



YES! I want to help Umpqua Watersheds, Inc...

Choose Your Membership

Members receive a one-year subscription to *100 Valleys*, our quarterly newsletter.

Defender \$ _____ Steward \$1,000 \$500 \$250 \$100 \$50 \$35 \$20
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Living Lightly \$20

Business Membership \$125 Receive recognition in our quarterly newsletter and website for one year.

*Umpqua Watersheds, Inc. is located at 539 SE Main St. in Downtown Roseburg, OR
We are a 501(c)(3) non-profit organization, contributions are tax-deductible.*

Join Us Today!

fill out this form, send in your ANNUAL CONTRIBUTION and help protect the Umpqua

Name _____

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City _____ State _____ Zip _____

Phone _____

Email _____



- I prefer to receive *100 Valleys* newsletter electronically
- Sign me up to UW's weekly email list
- Please contact me about volunteer opportunities

To learn more, please visit www.umpquawatersheds.org or call 541.672.7065



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- Richard Chasm, Timberland Owner 541.430.2161 Richard.chasm@earthlink.net
- Kauli Family Chiropractic & Massage 541.672.8831 kaulifamilychiropractic.net
- Mark Hamm, D. M.D. 1313 W. Harvard, (541) 673-3355
- Oregon Serigraphics 541.672.6296 www.orserigraphics.com
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