



To: Chair Dembrow and Chair Helm
Members of the Senate Committee on Environment and Natural Resources
Members of the House Committee on Energy and Environment

From: Kyle Petrocine, WRCSI Program Manager

Date: March 28, 2017

RE: Wallowa Resources testimony on Oregon carbon and climate change legislation

Dear Chair Dembrow and Chair Helm, and Members of the Committees,

Thank you for the opportunity to voice our thoughts on the opportunities and impacts of carbon legislation in Oregon. I am pleased to be here representing Wallowa County, a community of 7,000 people in NE Oregon and Wallowa Resources, a community based organization located in Enterprise, OR.

Wallowa Resources (WR) is a Wallowa County non-profit launched in 1996 by concerned local citizens, business owners and the local government in response to changes in US Forest Service (USFS) management that resulted in mill closures and the loss of 30% of Wallowa County jobs. Our mission is to "Empower rural communities to create strong economies and healthy landscapes through land stewardship, education and job creation." This work includes land and water stewardship, renewable energy, business development, education and research, and policy development.

WR works to shift rural communities to a "stewardship economy," managing for maximum health of their land, water, and native species, providing economic and social goods such as locally grown foods, sustainable wood products, and renewable energy, while providing family-wage jobs and improving community vitality. Now 20 years old, WR's efforts are having an impact well beyond Wallowa County, and we continue to build on that momentum.

Our testimony tells a story of how increased investment in rural areas from carbon legislation revenues could improve land and community health, while building a strong low carbon stewardship economy.

Natural Resource Based Stewardship Economy. Rural landscapes provide clean air and water, food and fiber for the world. Wallowa Resources promotes and creates rural businesses through investment, market development and R&D. Forward thinking, consistent policy and investment affecting natural resource based economies can help support and spur new low and zero carbon businesses resulting in healthy soil, air, water and economies.

Born out of public-private investment, Integrated Biomass Resources, LLC ("IBR") owns and operates a manufacturing facility in Wallowa, OR. With the support of Wallowa Resources and local government, IBR was started in 2009 with the goal of utilizing the non-saw timber produced in the region for value added products. IBR converts small diameter logs

and woody biomass that would otherwise be scrapped or underutilized by the traditional logging industry and turns them into useful products. The company's work enables forest restoration projects that reduce the risk of catastrophic wildfires and improve the health of remaining trees, as well as creates skilled jobs in economically depressed rural communities. IBR utilizes contract logging companies to cut and haul the small diameter logs and biomass generated from forest health thinning, fire resiliency treatments or traditional timber sales to its Wallowa manufacturing facility. An integrated processing line creates various 'highest value' products from the raw material, including post and pole, firewood, heat logs, pulp chips, fuel chips while residuals are used to fuel IBR's 4.75 million BTU boiler and two 50 kilowatt grid-tied electrical generators. IBR currently has 22 full time employees and processes 25,000 tons of low to zero value forest residuals annually. In 2015 the business generated \$2 million in gross revenues from the sales of post and pole, firewood, kindling, chips, hog fuel and energy. Moving forward, IBR seeks to raise an additional \$1 million in equity to facilitate further expansion and job creation, and to pursue new facility investment opportunities in other rural communities that are strategically located relevant to its primary markets. IBR is a success story of public-private investment in businesses that provide value to environment, economy and community and is an expression of the vision of a natural resource based stewardship economy. With innovation, focus and investment, many more businesses like IBR can be created.

Biochar holds the promise of linking forest health with regenerative agriculture. The 'Forest to Food' concept utilizes forest residuals - converted through pyrolysis and integrated into depleted soils - and results in increased organic carbon content, moisture retention, nutrient holding capacity, cation exchange, bio-diversity, pH and yields. With the support of a Forest Service Wood Innovation Grant and part of an NRCS Regional Conservation Partnership Program project, Wallowa Resources is conducting field trials this spring applying woody feedstock based biochar into local agricultural soils. We are determining whether biochar from local forest thinning and residuals, when applied to local agricultural crop lands, provides economic benefit to farmers, as well as ancillary benefits of improved soil health, reduced irrigation requirements, carbon sequestration and improved forest health. Field trials will be followed by experimental biochar production using local materials, with anticipated commercial-scale local production. Development of a biochar business/industry provides yet another opportunity for investment to support a high soil carbon, low atmospheric carbon economy.

Restoration. Wallowa Resources invests in forest, range and crop land health. Wallowa Resources facilitates both the Wallowa-Whitman and Umatilla National Forest Collaboratives. These collaboratives provide a medium for place-based discourse on forest management issues and output balanced, effective and place appropriate management direction and action. In partnership with 20 other organizations, including the USFS, Wallowa County, and the Nez Perce Tribe, WR was a key player in the Upper Joseph Creek Stewardship Project (50,000 acres in Wallowa County) which reaped \$6 million in job creation and product value while restoring forestland and its associated watershed. This innovative county-based collaborative became a model for over 60 similar current efforts. Oregon state programs like the Oregon Department of Forestry Federal Forest Restoration Program promotes collaboration as a basis for Federal forest management. Through its participation in the Wallowa-Whitman Forest Collaborative (WWFC), WR will support forest restoration activities via the Lower Joseph Creek Restoration Project (100,000 acres in Wallowa County) and the East Face Project (47,000 acres in Baker and Union counties). WR is one of four key players in a recently formed Charter Ranger District (CRD), along with the Wallowa-Whitman National Forest, Eastern Oregon University, and a newly developing Recreation and Heritage Foundation. The CRD will provide a model for local partnerships to support implementation of restoration, stewardship and education activities on USFS land. Whereas the collaboratives above (WWFC and UFC) are focused on planning, assessment and social support for action, the CRD will develop a complementary structure to support implementation. The CRD's work will promote community-based participation in

monitoring, project design and execution, and stewardship. It will also include student internships and applied research in the science, teaching, and communication fields.

Range restoration is the focus of the Wallowa Canyonlands Partnership Program, which manages dozens of invasive species over 1.5 million acres. According to the regional ODA Integrated Weed Management coordinator, WR is leading most counties in Oregon in the use of a comprehensive and continuously updated GIS dataset for noxious weed locations and control efforts. In addition to identifying location, species, size and density of infestations, we also use GPS technology to track contractor movement and activities, including inventory, herbicide treatment, release of bio-control agents, and re-seeding and other re-vegetation work. Early Detection Rapid Response (EDRR) is a method of searching out new weed infestations before they can grow to unmanageable sizes and is universally agreed to be the most effective way to combat the spread of noxious weeds. Each year, we employ inventory crews to survey thousands of acres of land for noxious weeds. This helps us locate and eradicate new weed infestations before they get out of hand. We also employ up to 30 contractors who use ATVs, boats, livestock, helicopters, and backpack sprayers to reach and treat noxious weeds in the rugged canyon country of NE Oregon.

More investment in restoring rural working landscapes such as the examples above heals the land resulting in healthier outputs of water, air, food and fiber, all while strengthening communities that call these places home.

Renewable Energy. Wallowa Resources develops small scale distributed renewable energy projects that are good for economy, ecology and community. Investing in rural energy saves farmers, institutions and small businesses money. Wallowa Resources develops zero impact 'in conduit' micro-hydro projects. These projects create clean energy utilizing existing infrastructure and water already diverted for a primary beneficial use such as irrigation, domestic or municipal. In addition to saving money for rural farmers, landowners, and municipalities, these projects benefit the environment by offsetting fossil fuel-generated grid power. We are currently advocating for 'community hydro' development to follow the model of recently passed community solar legislation in the state of Oregon, which will encourage collaboration by landowners sharing the same water resource. Small-scale distributed micro-hydro projects have the potential to generate direct benefits to agricultural landowners, helping to diversify revenue streams and secure these valuable working lands. These systems are also contributing to a broader suite of innovations aimed at building soil health and conserving water.

Wallowa Resources also develops biomass thermal projects. Use of biomass heat (and the associated removal of woody forest biomass) creates jobs, improves forest health, and reduces carbon in the atmosphere. Biomass projects benefit municipalities, rural small business owners, and rural residents through cost savings compared to fossil fuel thermal energy. We also provide technical assistance to other counties, tribes and organizations to help them understand and assess the feasibility and economics of woody biomass utilization. We are currently performing a supply, market, and operations assessment for the Klamath Tribes in Chiloquin (Klamath County). Tribal leadership will use the assessment to decide whether to pursue the development of a small-wood (non-saw timber) processing operation. This will create much-needed jobs for the Tribes, improve local forest health, and produce renewable energy.

Regional Solution Implementation. Adopting a broad regional carbon regulation strategy enables knowledge and information sharing across jurisdictions. This is important for rural transfer of 'best known methods' of innovation and solutions that work. This information and solution sharing is increasingly important for rural areas as the connectivity of urban areas outpaces that of rural areas. Wallowa Resources is the fiscal sponsor of Rural Voices for Conservation Coalition, a platform for rural input in policy and knowledge sharing. Wallowa Resources provides a leading role in

staffing and energizing the coalition, which now has more than 90 member organizations across ten western states. Supporting coalitions such as these will accelerate the transfer of place appropriate solutions that work.

Education. WR provides direct education services to Wallowa County youth, internships to college students from regional universities, collaborative field research opportunities to visiting scholars and academic programs, and on-campus lectures at multiple universities throughout the West. Investments in education ensure that the next generation is inspired and prepared to continue to build the low carbon stewardship economy of the future.

Transition support. Rural economies need clear, consistent and well thought through policy change implementation to allow for healthy response. With tactful implementation and strategic support in place, rural economies can align with and grow into the winning strategy of a low carbon future. Wallowa Resources underscores the value and return of investments made in rural stewardship businesses and industries, landscape restoration, renewable energy, knowledge and solution sharing and transfer, and education. Investment of carbon legislation revenues in these proven areas as well as others will help improve the health of rural landscapes and communities, on which the world relies on for clean air and water, food and fiber. For those areas with a local champion/innovator such as Wallowa Resources, alignment and progress toward a low carbon stewardship economy can be accelerated.

Thank you for the opportunity to share our story and perspective on how focused investment from potential carbon legislation can improve land health and function, help align and build the stewardship economy of tomorrow, and create vibrant and thriving rural communities.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyle Petrocine', with a stylized, flowing script.

Kyle Petrocine

Wallowa Resources Community Solutions, Program Manager