

Wyoming Reclamation and Restoration Center

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Barbara Rasco, Dean, College of Agriculture, Life Sciences and Natural Resources

The Wyoming Reclamation and Restoration Center (WRRC) provides a focal point at the University of Wyoming bridging the academic needs of the institution to those of the State of Wyoming in studies of distressed lands. The Center is primarily funded externally and with foundation dollars with no direct funding from the University block grant.

The WRRC was originally formed to address the significant gaps in science needed to effectively restore ecological functions of distressed and disturbed lands. Center-affiliated faculty and students have made large contributions to this discipline and take pride by facilitating recovery of Wyoming rangelands but it remains clear that much work remains to be done on how to best reclaim and restore drastically disturbed landscapes whether from human activity or environmental degradation. It is also evident that significant opportunities for restoration-related research should be added to the Center's portfolio, and by refocusing on emerging issues the Center will be well positioned for success in competitive grants and securing foundation funding from regional patrons. Specifically, we aim to broaden the Center to come into alignment with the College and University's emerging research initiatives by highlighting ecological restoration and the assessment, management and restoration of healthy soils and plant communities in Wyoming's managed ecosystems.

As reported last year, with the retirement of Dr. Peter Stahl and the untimely death of Dr. Jay Norton, the leadership of the Center is on hold until we properly identify a new director and with this, the direction of the Center. As of September 2022, a faculty position was awarded through the central position management (CPM) for the Ecosystem Science and Management (ESM) program to hire a tenure track assistant professor with expertise in soil science to support Center activities along with teaching and research in the School of Energy Resources (SER). There is a current search in place for this position, and once filled, this faculty member will provide some coverage in teaching and research in soil science. This individual would work with the SER undergraduate program in Energy Resource Management and Development in addition to Ecosystem Science and Management.

In the meantime, vital work through the Institute for Managing Annual Grasses Invading Natural Ecosystems (IMAGINE) housed at the UW Sheridan R&E Center under Dr. Brian Mealor's direction, is being accomplished.

These funds are directly supporting research and outreach projects focused on restoring diversity, structure, and function to rangelands that have been degraded by the impacts of invasive plant species across Wyoming and the western United States. Critical needs for strategic, effective restoration of rangelands in these conditions were articulated by Wyoming Governor Gordon's Invasive Species Initiative in 2020: (1) Encourage formation of a central invasive weed data clearinghouse that will enhance data sharing, decision making, and interface directly with national invasive plant species data platforms; (2) Develop an informative baseline tool of current and future invasive plant species distribution and a management to guide prioritization of landscape-scale management efforts.

In addition to the above, funds are also supporting a crucial need to expand programming throughout the West. This is being accomplished through the Western Weed Action Plan. Prioritized actions needed to: (1) Strengthen and encourage participation with state and local weed management programs to develop priority areas and strategic cost-effective weed management; (2) Identify existing information, management activities, and databases that will define and establish a data exchange mechanism with improved data sharing; (3) Use planning and decision-support tools to prioritize treatment locations and management strategies. We have convened a cooperative group of partners to develop a data network that will enhance our ability to work toward landscape scale restoration rather than through non-systematic site-by-site activities that are often insufficient to meet the current threats to the region.

Discussion is ongoing about the direction of the Center, but with vital work being accomplished in surface level restoration, we will continue to fund these projects through completion and with the hire of the joint SER/CALSNR position reevaluate the scope of projects in which the Center is engaged.