

LARAMIE RIVERS CONSERVATION DISTRICT

2015-16 Annual Report

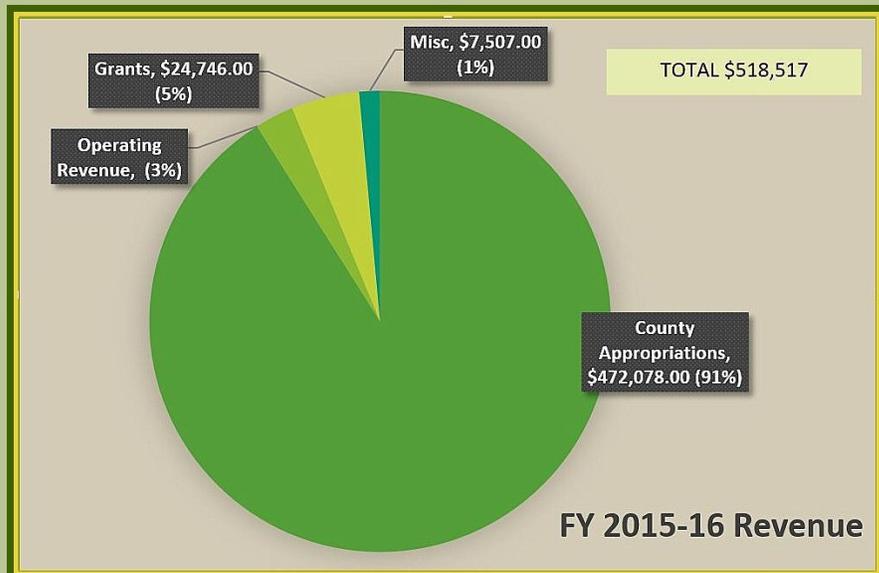


PARTNERS IN CONSERVATION

Laramie Rivers Conservation District works closely with other local, regional, and state organizations and other agencies to address significant conservation issues in Albany County. In 2015-16, we completed several multi-year projects, continued working on others, and started some more. All of the projects involve collaboration in some part, with others. This year's annual report highlights the projects and the partnerships we have that benefit the land we call home and the people who make up our community.

<i>Albany County 4-H</i>	<i>Seniors on the Go</i>
<i>Albany County Cattlewomen</i>	<i>Society for Range Management</i>
<i>Albany County Fairgrounds</i>	<i>WY State Science Fair</i>
<i>Albany County Government</i>	<i>U.S. EPA Region 8</i>
<i>Albany County School District #1</i>	<i>University of Wyoming Dept. of Architecture & Engineering</i>
<i>Albany County Weed & Pest</i>	<i>US Fish & Wildlife Service</i>
<i>Anderson Consulting Engineers, Inc.</i>	<i>United States Forest Service (USFS)</i>
<i>Building Energy Resource Group (BERG)</i>	<i>UW Biodiversity Institute</i>
<i>City of Laramie</i>	<i>UW Extension</i>
<i>Eppson Center for Seniors</i>	<i>UW Haub School of Environment & Natural Resources</i>
<i>Feeding Laramie Valley</i>	<i>Wyoming Association of Conservation Districts</i>
<i>Laramie Beautification Committee</i>	<i>Wyoming Conservation Corps</i>
<i>Laramie County Conservation District</i>	<i>Wyoming Department of Environmental Quality</i>
<i>Laramie Local Foods</i>	<i>Wyoming Future Farmers of America (FFA)</i>
<i>Laramie Soup Kitchen</i>	<i>Wyoming Game & Fish</i>
<i>Medicine Bow Conservation District</i>	<i>Wyoming Wildlife Natural Resource Trust</i>
<i>Mule Deer Public Working Group</i>	<i>Wyoming Resource Education Days (WyRED)</i>
<i>Natural Resources Conservation Services (NRCS)</i>	<i>Wyoming Water Development Commission</i>
<i>Project Learning Tree</i>	
<i>Saratoga-Encampment-Rawlins Conservation District</i>	

The Year in numbers



Mapped 42,730 acres for conservation planning

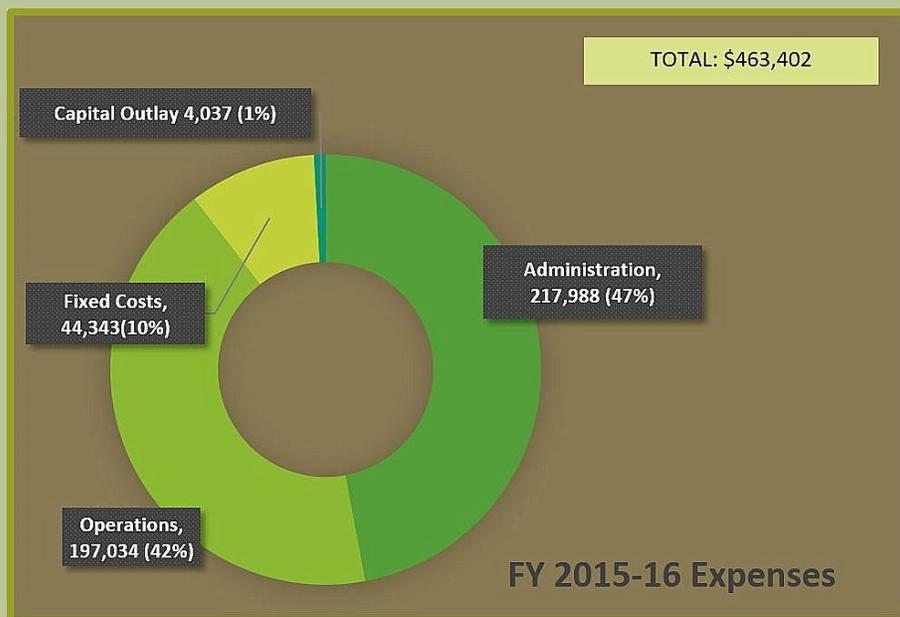
Installed 3500 linear feet of Living Snow

Visited 21 project sites identified in the Watershed Study

Sold 2045 trees and shrubs sold to Albany County residents

Provided hands on learning for kids through 4 summer gardening programs

Selected 3 winners from 246 entries in the kids Ag Expo Poster Contest



Invested \$18,000 in Conservation Education for 3200 K-12 students

Offered Workshops and Presentation reaching 1200 Adults



Granted \$20582 to Regular & Rural Cost Share program projects

Wyoming Toad *bufo baxteri*

HISTORY:

The Wyoming toad, once common around Laramie, declined dramatically in 1970's. The exact cause of the decline is unknown, but possible causes include aerial spraying of pesticides, chytrid fungus, red-leg disease and habitat alteration.

1984 The WY toad was officially listed as endangered.

1987 The Wyoming Toad Recovery Group was formed.

1991 The Nature Conservancy purchases 1800 acres of land encompassing Mortenson Lake.

1993 the Federal Government purchases the land and creates the Mortenson Lake National Wildlife Refuge specifically for the Wyoming toad. At that time what was thought to be the last 10 living toads were captured at there and brought into captivity to start a breeding program. By end of this year, the toad is considered extinct in the wild.



1994 the first successful captive reproduction of the toad at the Sybille Wildlife Research and Conservation Center in Wyoming.

1995–2003 captive breed toads re-introduced at Mortenson Lake with moderate success.

2004 LRCD gets involved with toad reintroduction as an intermediary between landowners and the US Fish & Wildlife Service (FWS) through the "Safe Harbor Program".

2003-2015 Local land owners provide 4 safe harbor sites for the reintroduction of Wyoming. Over 100,000 tadpoles and toads were released. The populations are monitored by Wyoming Natural Diversity Database.

June 2016 - 900 captive-bred Wyoming toads, the largest-ever release of adult amphibians by the National Fish Hatchery System, were given homes at The Buford Foundation, Mortenson Lake National Wildlife Refuge and another private ranch. The release is part of the 2015 recovery plan which set the delisting recovery goal as having establishing at least five self-sustaining populations.

2017 and Beyond– the historic Wyoming Central Land & Improvement Co. has enrolled 41 acres north of Curtis St. on the Laramie River in the Safe Harbor Program as well as Red Buttes (UW) We look forward to seeing toads thrive in these locations and possibly more in the future.





Watershed Study



In 2014 LRCD requested funding from the Wyoming Water Development Commission (WWDC) for the completion of a watershed management plan for the Upper Laramie River Watershed. The comprehensive study identifies issues related to land use and water resources and the develops a plan addressing those issues.

In 2015 WWDC approved the funding and contracted with Anderson Consulting Engineers, Inc. to complete the project.

The Upper Laramie River Watershed consists of approx. 187 sq. miles with 96.2% within Albany County borders. Laramie, Centennial, Albany, Bosler, and Tie Siding are within the watershed.

Participation in this watershed study was voluntary and two Open House information meetings were held for the public to learn about the study.

Martin Curry/LRCD Resource Specialist , worked with members of the Anderson Consulting team and visited 21 sites with landowners who had possible projects addressing water quality or quantity. These included repairs to irrigation structures and conveyance systems, upland water development, and possible reservoir locations.



Water Projects funded through

the Cost Share program in 2015-2016 included:



\$15,500 granted for 4 solar pumping stations for livestock wells and \$1600 granted for living snow fence/drip irrigation system installations.

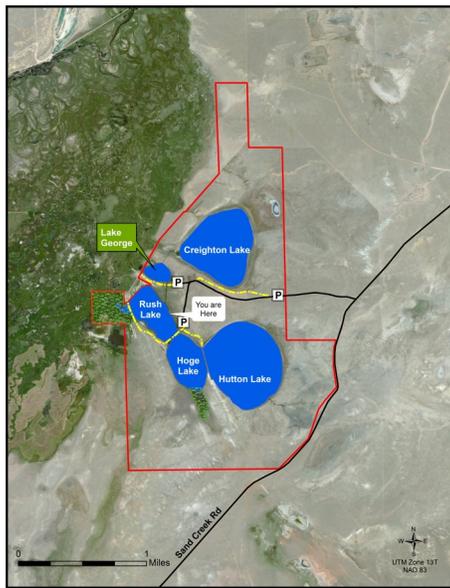


ANDERSON CONSULTING ENGINEERS, INC
Civil • Water Resources • Environmental



Hutton Lake Project

In Fall of 2015 LRCD fulfilled their role as project managers rehabilitating the Hutton Lake National Wildlife Refuge



The refuge is located 14 mile SW of Laramie and includes 1,968 acres of mixed-grass, sage-brush, and wetland habitat that supports a diversity of wildlife. It was established in 1932 for the purpose of providing resting and breeding habitat for migratory birds and other native wildlife and includes five small lakes: Hutton, Creighton, George, Rush and Hoge. It is managed as part of the Arapaho National Wildlife Refuge Complex.

In spring 2012 LRCD partnered with Wyoming Wildlife Natural Resource Trust (WWNRT), US Fish & Wildlife Service (USFWS), and private individuals to sponsor and manage a rehabilitation project at Hutton Lake. This project was the result of a \$42,500 donation from the Kruse family in memory of Gere & Barbara Hull Kruse that they wished to see go toward a project improving habitat for songbirds and waterfowl for the enjoyment of the public as well as for educational purposes. The donation was matched with \$31,278 from US Fish & Wildlife, \$19,187 from WWNRT, \$9717 from LRCD.

In fall 2012, LRCD Resource Specialist, Martin Curry, oversaw the work of replacing the control structure between Hutton Lake and Hoge Lake. Travel gates were installed at each dam to prevent unauthorized access and use.

In 2013 USFWS received additional funding to gravel the main road into the refuge. At this time, two 2-track roads were permanently closed and reseeded with native grass and forbs. A new wildlife friendly boundary fence was installed between the refuge and adjacent private lands.

In 2014 a controlled burn was performed on the banks of Rush Lake and an ADA accessible observation deck was installed. Weed control by Albany County Weed & Pest was an important issue at the refuge and weed eradication efforts will continue into the future.



This project is a great example of the collaboration between organizations that LRCD excels in and looks for in order to provide opportunities to experience wildlife in their habitat. Hutton Lake Wildlife Refuge is a seasonal home to:

- ◇ 146 bird species
- ◇ There are 29 species of mammals
- ◇ 85 plant species
- ◇ 3 species of amphibians
- ◇ 3 reptile species

More information can be found at : www.fws.gov/refuge/Hutton_Lake/



WYND D
Wyoming Natural
Diversity Database

NOXIOUS WEEDS



Cheatgrass *Bromus tectorum*



Spotted Knapweed *Centaurea stoebe*



Hoary Cress/Whitetop *Lepidium draba*

Invasive Species

Invasive species are plants, animals, or pathogens that are not native to an ecosystem and whose introduction causes or potentially will cause harm.

Not all alien species are bad for an ecosystem. In fact, some non-natives benefit their adopted environment. Honeybees brought to America from Europe are the best example. Nonetheless, the evidence is clear that many introduced species are harmful to the new ecosystem and those are what scientist call invasive species.

Three things make a introduced species a successful invader:

1. It reproduces quickly.
2. It has few to no predators in the new ecosystem.
3. It outcompetes native organisms for resources.

When these three things coincide the species can have large impacts on the environment they invade. They can affect the chemical makeup of the water, availability of resources, and even alter the food web. Invasive species impact other species more directly through competition for resources. Because invasive species evolved with other competitors and native species evolved in the absence of invasive species they lack the ability to compete. This gives invasive species an advantage when resources become scarce and this leads to an overall decrease in biodiversity as native species in invaded areas native are depopulated.

Invasive species are also expensive. They are costly to society in many ways through both, direct management, and decreased production. The annual estimated cost in the United States of invasive species control is about 120 billion dollars per year. It is estimated that the global cost of invasive species management is equal to five percent of the global economy.

The State of Wyoming has designated 25 species of weeds and 7 species of pests. Local conservation districts often collaborate with County Weed & Pest districts to identify and manage invasive species of concern. In Albany County, Cheatgrass, Spotted Knapweed, Hoary Cress, Black Henbane, Locoweed, and Larkspur are a few of the major weeds of interest.

Between
2014-16
LRCD &
Albany County
Weed & Pest
held
3 weed
information
meetings
&
6 weed spray days
with 42 volunteers
who treated 1440
acres of rangeland on
Rock Creek west of
Rock River for
Whitetop and
Spotted Knapweed

More information on weeds and other invasive species can be found at :

<http://www.wyoweed.org>

<https://www.uwyo.edu/uwe/wyoweed/wyoweed.htm>



The Importance of Nature

Nature Deficit in Children

Nature deficit disorder refers to the phrase coined by Richard Louv in his 2005 book *Last Child in the Woods* that human beings, especially children, are spending less time outdoors causing alienation from the natural world and affecting how we learn and handle challenges throughout life.



At Laramie Rivers Conservation District we believe that the child-nature connection and environmental literacy should be considered as fundamental elements of children's education. To help young people learn in nature, not just about nature, their classroom must include parks, wildlands, farms and ranches and school gardens. This nature-oriented experiential education helps future generations understand climate stability, the resilience and productivity of natural systems, the beauty of the natural world, and biological diversity.

For Trish Penny, LRCD Education Coordinator, finding ways to bring this type of education to our local schools is a priority. She collaborates with Albany County School District teachers bringing conservation education into the curriculum in ways that engage young minds and their natural curiosity about the world around them. During the school year she organizes field trips to nature areas around Laramie and creates curriculum that teaches kids about nature, water quality/quantity, macroinvertebrates, wildlife and wildlife habitats, and shows where food comes from through use of school gardens. During the summer, she expands on the topic of food and agriculture with the Kids Garden Club that grows hundreds of pounds of vegetables for families and local charitable organizations.

In 2015-2016 she helped install educational gardens at UW Early Care Center, Ark Regional Services, and continued developing gardens at Centennial Elementary, Indian Paintbrush Elementary, Spring Creek Elementary, as well as the LRCD Outdoor Learning Center gardens at LaBonte Park.

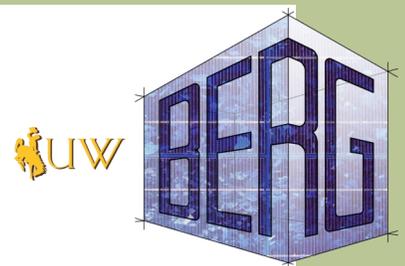


Data shows that adults who were introduced to the outdoors as children were more likely to participate in the outdoors as adults than those who were not exposed to the outdoors as children.

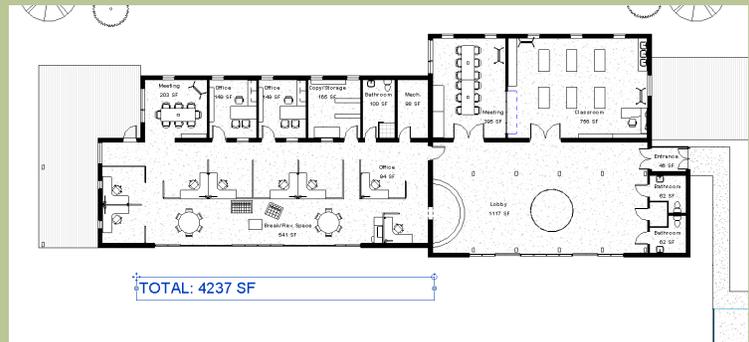
In fact, 37 percent of adults who were introduced to the outdoors during childhood grew up to enjoy outdoor activities as adults. Only 16 percent of adults who do not currently participate in any outdoor activities had outdoor experiences as children. In Wyoming 52% of 6-24 year olds participate in outdoor activities, the 2nd highest in the nation by region.

*2016 Outdoor Recreation Participation Report
[The Outdoor Foundation]

BUILDING DESIGN



In fall of 2015 and Spring of 2016, Laura McGinley, District Clerk and Communication Specialist worked with UW Building Energy Resource Group designing a sustainable office building and education center that could potentially meet standards set out by the Living Building Challenge, United States Green Build Council, or WELL Building Standard. Although LRCD does not currently have plans to construct an office building, we are exploring possibilities for our future and investigating ways to best provide services, education and funding for conservation efforts for rural and urban members of the community, within our district. The project was a valuable education about the future of building construction that conserves natural resources and we now have a greater knowledge of renewables and non-hazardous materials for homes and offices.



REFINERY REMEDIATION

2015-16 took us a few steps closer to completing this multi-year project. After the major demolition in 2014, Tony Hoch, LRCD Director focused on further collaboration with WY Department of Environmental Quality (DEQ) and Environmental Protection Agency for Region 8 (EPA), on the official Remediation Agreement. This is the volunteer agreement entered into for the purpose of remediation of the site and in doing it in accordance to the Volunteer Remediation Program standards. LRCD also signed a Use Control Agreement with the City of Laramie as allowed by WY Statute 35-11-1609 that allows future development of the property with limitations. The main restrictions are:



- No residential development
- Limiting excavation to 6'-8' due to the shallow alluvial aquifer
- Limiting gardens to raised beds.
- No hotels, RV parks, vet clinics, animal shelters, homeless shelters, childcare facilities, nursing homes, or Parks & Recreation facilities.



Despite limitations, the property does have potential for future use that is favorable to the character of the neighborhood. In 2016 WY Dept. of Transportation purchased the south half of the property for the new viaduct over the UP train corridor. The intersection of Harney & N. Cedar will have high visibility which makes it an attractive location for any number of developments.

Who we are:

Laramie Rivers Conservation District was organized in 1945.
It includes 2.7 million acres of land in Albany County.

67% of the lands is PRIVATE

24% is FEDERAL

8% is STATE, COUNTY, CITY, and SCHOOL DISTRICT

OUR MISSION

To provide leadership for the conservation of Albany County's soil and water, promote and protect the quality of Albany' County's waters, and promote sustained use of Wyoming's water and all other natural resources. Preserve and enhance wildlife habitat, protect the tax base and promote the health, safety, and general welfare of the citizens of Albany County through responsible conservation ethic.

LRCO Staff

Tony Hoch - Director with 14 years of service

Trish Penny - Education Coordinator with 13 years of service

Martin Curry - Resource Specialist/Bookkeeper with 8 years of service

Laura McGinley - District Clerk/Communication Specialist with 5 years of service

LRCO Board of Supervisors

Larry Munn - Rural Supervisor / Chairperson

Ruth Shepherd - Urban Supervisor / Vice-chair

Jim Rogers - At-large Supervisor / Secretary Treasurer

Carol Price - Rural Supervisor

Bob Shine - Urban Supervisor