

MISSOULA CONSERVATION DISTRICT

Summer/Fall 2018



Missoula Conservation District Launches Pollinator Initiative Project

By Lindsay Dick

In support of our goal to promote sustainable resource management in Missoula County, Missoula CD is launching a Pollinator Initiative project in fall 2018. We will have curated seed packets available for free distribution to Missoula County residents who wish to plant native wildflower gardens on their property. Native wildflowers provide food and habitat access for bees and other pollinators and play a critical role in healthy ecosystems.

As part of her internship with Missoula CD, 2018 Big Sky Watershed Corps Member Brandi Bergreen has spearheaded the Polli-

nator Initiative. She explains, "The Pollinator Initiative will increase pollinator habitat connectivity throughout Missoula County and encourage residents to become involved in conservation in their own backyards."

Bergreen has dedicated over 120 hours to research, pricing seed mix, designing packet labels, and organizing outreach efforts. Bergreen worked with Bryce Christiaens of Missoula County Weed District to develop seeding recommendations specific to conditions in Missoula County. Lake County Conservation District developed a Pollinator Initiative

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Upcoming Deadlines

Sep 10: District Meeting

Sep 24: Deadline for
October site inspections

Oct 1: Agenda deadline

Oct 9: District Meeting

Oct 22: Deadline for
November site inspections

Oct 29: Agenda deadline

Nov 5: District meeting



Participants in The Flagship Program's
Outdoor Education Week,
Missoula, July 2018 (see p 2)

Photo: Nicole Mitchell

Missoula Conservation District

3550 Mullan Rd. Ste106

Missoula, MT 59808

Blanketflower (gaillardia) is one of the species included in the Pollinator Initiative irrigated seed mix.

Missoula Youth Learn Outdoors with The Flagship Program

For the past three years, Missoula CD has proudly supported The Flagship Program's Outdoor Education Week with Missoula CD mini-grant awards and DNRC education mini-grant sponsorships.

The Flagship Program is an afterschool and summer program that provides Missoula County Public School (MCPS) children a safe learning environment outside of school. The Flagship Program is administered by Western Montana Addiction Services, Inc., a prevention subsidiary of the Western Montana Health Center.

Flagship's free-of-charge summer camp teaches kids about the environment of the Missoula area. The



weeklong camp includes field trips, hands-on activities, and presentations by local natural resource and wildlife professionals.

The majority of students who participate in Flagship's summer camp live in urban Missoula, and about half are from low-income families. Participants have ample opportunity to spend time at local parks and trails. The Flagship Program also sets students up for success back at school. Nicole Mitchell, Flagship's Program Manager, explains that the camp "not only helps students think about and better understand the natural environment of western Montana, but also provides experiences that they can relate future classroom science topics to."

Missoula CD hopes that learning from natural resource experts in an outdoor setting will spark students' curiosity and wonder, putting them on the path

to become the future conservationists and stewards of Missoula County's natural resources.

The July 2-6, 2018, camp theme was "Habitat Heroes." Students spent time at Milltown State Park, Silver Park, the Rattlesnake Recreation Area, and the SpectrUM Discovery Center. Activities including journaling, bug and native plant identification, scavenger hunts, and pollinator and stream ecology units. This year, Flagship was able to expand and offer Outdoor Education Week activities as part of its elementary school program for the first time. Total participants numbered 66, with 36 middle schoolers from CS Porter, Meadow Hill, and Washington Schools, and 30 elementary school students from Lowell, Franklin, and Hawthorne Schools.

Missoula CD offers a mini-education grant for schools and educational organizations that provide conservation, natural resource, or agricultural education in Missoula County. Since 2016, Missoula CD has provided \$1,500.00 in Missoula CD mini-grants and sponsored \$1,500.00 in DNRC education mini-grants for The Flagship Program's outdoor conservation summer camp. To learn more about The Flagship Program, visit their [website](#).



Photos: Nicole Mitchell

(Pollinator Initiative, from page 1)

in 2017 and were an invaluable resource for seeding recommendations.

Bergreen advises planting your seeds in either the spring or fall, as dry summer weather can prevent germination. All species are perennial, so blooms may not appear for a year or two. Be patient and don't discourage—each species has been carefully selected for its longevity and compatibility with the long winters and hot summers in Western Montana.

Once the flowers have become established, they'll be there for the long run. Bergreen explains that each mix contains a limited number of species to control competition for resources between species and to up the chances of full blooms and overwinter survival.

Seed mixes will be available for both dryland and irrigated growing environments. Species chosen for the irrigated mix do well with water amounts equal to or higher than Missoula County's average annual rainfall. The irrigated mix is ideal for planting in a garden that gets watered on a regular basis. The dryland seed mix includes species that do well with water amounts equal to or less than the average annual rainfall in Missoula County.

Each seed mix will come in sizes suitable for planting on areas of 10 square feet and 250 square feet. Bergreen recommends preparing a weed-free area for planting so that the flowers are not competing with invasive species for resources. Missoula County Extension & Weed District details [several weed management methods](#) you can use.

While most of the species in the wildflower mix are native to Montana, both seed mixes are intended for use in managed gardens only. Do not plant in natural areas, as not all species occur naturally in all growing environments.

We're excited to facilitate this opportunity for Missoula County residents to take an active part in supporting beneficial pollinators. Swing by our office to pick up your free seed packet.



*Lewis Flax (*Linum lewisii*) is one of the species included in the Pollinator Initiative irrigated seed mix.*

MISSOULA CONSERVATION DISTRICT

Pollinator Initiative

Irrigated Seed Mix: Showy Milkweed, Lance-leaf Coreopsis, Plains Coreopsis, Blanketflower, Mexican Hat, Black-eyed Susan, Western Yarrow, Rocky Mountain Beeplant, Littleflower Penstemon, Annual Sunflower, Lacy Phacelia*

Dryland Seed Mix: Deerhorn Clarkia, Lewis Flax, Lacy Phacelia,* Scarlet Globemallow, Western Yarrow, Rocky Mountain Beeplant, Littleflower Penstemon, Annual Sunflower

(*native to North America, non-weedy)

Grand Opening at Milltown State Park, June 23, 2018

By Lindsay Dick

On a rainy Saturday in late June, a crowd of about 200 gathered at the confluence of the Clark Fork and Blackfoot Rivers near Bonner to celebrate the grand opening of Montana's newest state park.

The official opening of the Confluence area at Milltown State Park marked the latest milestone in over 20 years of reclamation, restoration, and redevelopment work since the inclusion of the Milltown site in the Clark Fork River Superfund Complex in 1992.

Representatives from several government agencies and state and local organizations were in attendance. The dedication ceremony was bookended by performances by the Yamncut Singers, a Salish drum group. Speakers included representatives from Missoula County, Atlantic Richfield Company (ARCO), Montana State Parks Foundation, Montana Fish, Wildlife & Parks, and the Environmental Protection Agency (EPA).

Park Manager Michael Kustudia provided an overview of the natural and cultural history of the area, which is

also summarized in a series of interpretative panels located on the newly constructed plaza and on the Milltown State Park website in an [interactive story map](#).

The Blackfoot-Clark Fork confluence, or Naayc̓c̓stm in Salish ("Place of the Big Bull Trout"), lay at the heart of Salish-Pend d'Oreille territory, and was regularly traversed by several native peoples, including the Nez Perce, Kootenai, and Blackfeet.

The area began to witness transformative movement in the mid-nineteenth century, as both the Mullan Military Road and the Northern Pacific Railroad further facilitated white settlement of the region and infrastructural connection with the Columbia River.

Large-scale industrialization of the confluence area, along with the establishment of working-class immigrant communities in West Riverside, Bonner, Milltown, and Piltzville was already well underway when the Milltown Dam was built in 1908. Construction wrapped up in Jan-

(Milltown, cont. page 5)



The restored confluence of the Blackfoot and Clark Fork Rivers at Milltown State Park near Bonner, June 23, 2018.

Big Sky Watershed Corps Member Brandi Bergreen

Brandi is serving with the Missoula Conservation District and Missoula Weed District as a Big Sky Watershed Corps member. She grew up in Southern California and earned a BS in Biology, with a concentration in field and wildlife biology from Cal Poly State University in San Luis Obispo. After moving to Missoula in 2017, she served as a Youth Crew Leader with the Montana Conservation Corps. She is excited to continue serving the communities in and around Missoula, this time as a BSWC member, by sharing her passion for conservation through education and outreach while expanding her knowledge of watershed health, protection and management.



Brandi's projects with Missoula CD have included the Pollinator Initiative; assisting with the no-till drill rental program, including creating a "how-to" video; and performing cover crop testing. Brandi's projects with Missoula Weed District have included the Leave No Weeds fifth-grade education program; biological control (biocontrol) insect collections for noxious weed management; and noxious weed surveys in Missoula County.

Content and photo courtesy of [Montana Watershed Coordination Council](#)

(Milltown, from page 4)

uary 1908, and the biggest flood in Montana's recorded history ripped down the Clark Fork and Blackfoot Rivers in June that same year. Mining toxins from Butte and Anaconda poured downstream and ended up in large part stuck behind the dam.

In 1981, University of Montana geologists made the connection between arsenic found in Milltown wells and residual toxins deposited by the 1908 flood. In 1983, the Milltown Sediments Superfund Site was added to the National Priorities List.

Speakers throughout the event emphasized the theme of confluence—not only the physical confluence of two arterial rivers, but the confluence of cultures, economic interests, and the efforts of diverse entities and individuals. Montana Fish, Wildlife & Parks Director Martha Williams credited the tribal, federal, state, local and individual players whose dedication and collaboration have made the park's existence possible.

Several nonprofits had booths set up with family-friendly and educational activities scheduled throughout the day, such as plant restoration, insect identification, and a Milltown memory booth. Organizations in

attendance included the Clark Fork Coalition (CFC), Watershed Education Network (WEN), and the Montana Native Plant Society (MNPS).

Future plans for the park include continued revegetation, finishing the interpretative plaza, and expansion of the trail network.



Milltown State Park Director Michael Kustudia speaks to attendees at the Confluence Grand Opening, June 23, 2018.

Photos: Lindsay Dick

2018 Flooding in Missoula County

An above-average snowpack this past winter in Western Montana resulted in high flow conditions and flooding across Missoula County for much of the spring.

According to USGS provisional data, the Clark Fork River gauge above Missoula crested at 13.82 on May 11, 2018, the second highest levels on record. . The flooding and its aftermath created hardship for dozens of riparian landowners along the river. Clark Fork's levels this year were surpassed only by those of 1908, when the river crested at 17.4 feet, well above major flood stage. Properties and homes throughout Missoula County were impacted by the event. According to National Weather Service data, comparable levels to this year's levels were also reached on May 23, 1948 (13.07 feet), June 10, 1964 (13.35 feet), May 24, 1981 (13.38 feet), and June 21, 1975 (13.75 feet).

The Great Flood of 1908 is widely presented as one of the greatest natural disasters in Montana's recorded history. Communities all along the Clark Fork River suffered the loss of lives, private property, and public infrastructure. What most accounts of 1908 fail to mention, however—and what in turn may have been omitted from collective memory—is that floods are normal, cyclical events.

When high flow conditions push a river into its floodplain, a cycle of renewal is set in motion. Sediment deposited by the water enriches the soil and allows riparian

vegetation to flourish, stabilizing the streambanks and providing wildlife habitat. Erosion over time results in meandering and channel migration, which helps transport sediment, enrich soil and support vegetation across the entirety of the floodplain. When channels access their floodplain, it dissipates energy. Thus, the likelihood of deeper, more rapid erosion in the future also decreases.

Processes that may be catastrophic to streamside landowners—erosion, channel migration, and sediment deposits—are a natural function that, when infrastructure is not entrained, have lasting benefits for the health of the stream.

When responding to and managing the aftereffects of flood events, it is crucial to keep in mind the natural function of streams and the ecosystems they support. Owners of stream front property are encouraged to leave a riparian buffer of wild native woody vegetation. This is not only beneficial for the stream, but it can assist in reducing rapid erosion and protect adjacent lands. For more information on riparian buffers, visit our website or contact our office for a copy of the [Heathy Riparian guide](#).

If you must conduct work in or near a stream channel, contact our office to inquire about obtaining a required 310 Permit as directed by the Natural Streambed and Land Preservation Act of 1975.



Clearwater Junction, Missoula County, May 10, 2018

Photo: Lindsay Dick

Invasive Species Profile: **Field Bindweed** **(Convolvulus arvensis)**



A member of the morning glory family, field bindweed is a creeping perennial that tends to grow in dense, tangled mats in disturbed areas. The rhizomatous root system extends to a depth of up to 20 feet, and produces long, lateral roots that make hand-pulling an ineffective control method.

The white or pinkish bell-shaped flowers are about 1" in diameter, and bloom from late June until fall frost. The leaves are alternate, shaped like arrowheads, and grow on one side of the stem. Seeds remain viable for up to 50 years.

Bindweed is one of the most pernicious invasive weeds in the United States. Hand-pulling, mowing, biological control, and grazing may temporarily reduce surface appearance of bindweed, but will not affect below-ground growth. Herbicides may be applied to help manage bindweed infestations.

Source: <http://www.missoulaeduplace.org/>

Wildflower Profile: **Clarkia (Clarkia pulchella)**

Also known as pinkfairies, elkhorns, and ragged robin, Montana native Clarkia like it belongs on an alien planet. Its gangly appearance, accentuated by narrow



alternate leaves and drooping buds, makes it stand out among shorter specimens. The four separate tri-lobed petals usually come in a vivid magenta or purplish color.

Clarkia was named for William Clark, although it was Meriwether Lewis who wrote the initial species description in his journal. Clarkia grows at lower elevations, in valleys, and on dry slopes. Bloom period is from June to August. Maximum height is 10-20". This eye-catching specimen is included in our Pollinator Initiative dryland seed mix!

Source: <https://www.fs.fed.us/>

"Clarkia Pulchella—Jardin des Plantes" by [Dinkum](#) is licensed under [CC BY-SA 3.0](#)

Navigating the maze of available conservation grants in Montana? Soil and Water Conservation Districts of Montana has developed the [Montana Conservation Menu](#), a website with hundreds of links to various resources for landowners and land managers seeking assistance in implementing conservation practices. Visitors to the site can search by program type, aid type, and agency.



The Montana Department of Natural Resources (DNRC) and Montana conservation districts are sponsoring an ongoing oral history project, "From the Ground Up: Montana Women in Agriculture."

Montana Women From the Ground Up: Passionate Voices in Agriculture by Kristine Ellis includes select stories from the project, and is [available for purchase](#) across the state.

You can participate in the project by recording the stories of your neighbors, friends, and relatives. The DNRC has digital recorders available for use, along with example interview questions. Transcription services are available for a fee. Once an oral history is completed, it will go into the oral history collection at the Montana Historical Society and also be placed on the DNRC website. This will allow people from all over the world to read the stories.

For more info contact Linda Brander, Project Director, at (406) 444-0520 or LLbrander@mt.gov.



MONTANA WOMEN

FROM THE GROUND UP

*Passionate Voices in
Agriculture & Land Conservation*



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Big Sky Watershed Corps Member

Brandi Bergreen, 2018

**The 2018 cost-share program is closed.
The 2019 cost-share program has been
suspended for the 2019 calendar year.
For info on conservation grants, visit
www.MTConservationMenu.org.**

Missoula Conservation District (CD) is a political subdivision of the state governed by a board of seven supervisors.

Missoula CD administers the 310 Law in Missoula County and assists private landowners and land managers in Missoula County with the tools and resources to implement conservation practices that protect and promote the wise use of natural resources.

The views expressed in the Missoula CD Newsletter do not necessarily reflect of those of the Missoula Conservation District Board of Supervisors or staff.