

THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

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BLM plans overhaul of grazing regulations

AgWeb: The Bureau of Land Management (BLM) is preparing to overhaul regulations for grazing on 155 million acres of public lands across the western United States. The BLM published a Notice of Intent (NOI) in the Federal Register on Tuesday (Jan. 21), and opened a public comment period and announced in-person meetings will be held in four locations.

The agency announced it is preparing an environmental impact statement on its proposed updated grazing rules, and will address grazing permit procedures, land use planning, and how best to use grazing to address and reduce wildlife risks.

"We continue to seek ways to improve and streamline the grazing permit process to achieve greater efficiencies and service to permittees," said Acting Assistant Secretary of Land and Minerals Management Casey B. Hammond. "This rulemaking effort is designed to strengthen and improve our administration of grazing permits across the West, and we welcome public and stakeholder ideas and perspectives."

The BLM administers 18,000 permits and leases for livestock grazing on roughly 60% of the 245 million acres it manages across the nation.



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What the new Navigable Waters Protection Rule means

Successful Farming, January 23: A new, clear definition for “waters of the United States” (WOTUS) is now in place, after President Trump’s finalized, revised definition of WOTUS, which protects the nation’s navigable waters from pollution and promotes economic growth across the country.

U.S. Secretary of Agriculture Sonny Perdue also comments on the Navigable Waters Protection Rule in a statement released today. “President Trump is restoring the rule of law and empowering Americans by removing undue burdens and strangling regulations from the backs of our productive farmers, ranchers, and rural land-owners. The days are gone when the Federal Government can claim a small farm pond on private land as navigable waters,” Secretary Perdue says. “I thank President Trump and Administrator Wheeler for having the backs of our farmers, ranchers, and producers and for continuing to roll back Federal overreach. With reforms and deregulation, Americans once again have the freedom to innovate, create, and grow.”

Also commenting on the new rule is National Corn Growers Association President Kevin Ross. “Farmers are committed to protecting the environment and implementing on-farm soil health practices like planting cover crops, reducing tillage, and more carefully managing crop residue. This new rule gives the flexibility and clarity needed to implement stewardship practices without the threat of government action. The final WOTUS rule will protect our nation’s water and be implemented

without confusion, which is welcome news for farmers. NCGA appreciates the work done by the Trump administration to provide this regulatory certainty,” says Ross.

For the first time, the Environmental Protection Agency (EPA) and the Army recognize the difference between federally protected wetlands and state-protected wetlands. It adheres to the statutory limits of the agencies’ authority. It also ensures that America’s water protections – among the best in the world – remain strong, while giving states and tribes the certainty to manage their waters in ways that best protect their natural resources and local economies.

The revised definition identifies four clear categories of waters that are federally regulated under the Clean Water Act:

- territorial seas and traditional navigable waters
- perennial and intermittent tributaries
- certain lakes, ponds, and impoundments
- wetlands that are adjacent to jurisdictional waters

These four categories protect the nation’s navigable waters and the core tributary systems that flow into those waters.

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New model shows how crop rotation helps combat plant pests

A new computational model shows how different patterns of crop rotation -- planting different crops at different times in the same field -- can impact long-term yield when the crops are threatened by plant pathogens. Maria Bargaés-Ribera and Chaitanya Gokhale of the Max Planck Institute for Evolutionary Biology in Germany present the model in PLOS Computational Biology.

The continual evolution of plant pathogens poses a threat to agriculture worldwide. Previous research has shown that crop rotation can help improve pest control and soil quality. Other research shows that switching the environment in which a pathogen grows can limit its reproduction and change its evolution. However, these two concepts have been rarely studied together from an evolutionary point of view.

To better understand how crop rotation can protect against pests, Bargaés-Ribera and Gokhale developed a computational model of the technique that integrates evolutionary theory. They used the model to investigate a scenario in which cash crops (grown for profit) and cover crops (grown to benefit soil) are alternated, but are affected by a pathogen that only attacks the cash crops.



How will Western water be affected by climate change? A tiny Colorado flower may have the answer

Colorado Sun: The question biologist Heidi Steltzer is trying to answer is this: How much water does the tiny prairie smoke – a diaphanous pink mountain flower – send into the sky?

The answer could say a lot about how much water cities from Denver to Los Angeles will have as a changing climate tampers with the snow and rain falling on the West.

The buildup of man-made greenhouse gas in the atmosphere is raising global temperatures, which are linked to melting ice sheets in Greenland and rising seas eating away at islands like Tuvalu in the South Pacific.

For the West, the prime climate question will be about snow: how much of it will fall on the Sierra Nevada, the Cascade Range and the Rocky Mountains and how much water it will yield.

Scientists are searching for a solution to the conundrum using supercomputers, laser radar, climate data from centuries past, measurements of stream flow and snowpack across the region and, in Steltzer's case, by dropping a small plastic tent over prairie smoke to measure its breathing out of oxygen and water and its breathing in of carbon dioxide.

Water has always been scarce in the arid West, relying on a cycle of mountain winter snows followed by spring thaws releasing water into streams and rivers, quenching farm fields and filling reservoirs.

While that has been the rhythm of the region for millennia, there are signs that things are changing, with snows coming later and melting earlier, droughts more widespread and, at times, stream flows lower than they have been in centuries.

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Montana joins new invasive species council

Daily Interlake: In an effort to coordinate invasive species management strategies throughout the western United States, the Western Governors Association recently announced a new invasive species council comprised of representatives from 16 states, including Montana.

Stephanie Criswell, program manager for the Montana Department of Natural Resources and Conservation, was appointed vice-chair for the council. Justin Bush, executive coordinator for the Washington Invasive Species Council, will chair the council.

Other appointed members are from Arizona, California, Idaho, North Dakota, Oregon, Utah, Kansas and other states. The group, called the Western Invasive Species Council, meets for the first time in April.

The governors association authorized the creation of the council as part of one of the nonprofit organization's policy resolutions called Biosecurity and Invasive Species Management. According to a press release, the council was formed specifically to "enhance coordination between existing state invasive species councils, improve communication and collaboration on regional biosecurity and invasive species control efforts, and to advocate for regional needs at the federal level."

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Lower Gallatin selected as the next DEQ Nonpoint Source Management Focus Watershed

In June 2019, the Montana DEQ Watershed Protection Section finalized a 20-Year Vision and Strategic Plan (Plan) for the Nonpoint Source (NPS) Program. The Plan was developed in conjunction with separate but linked plans from other DEQ water quality programs - Monitoring and Assessment (MAS) and Total Maximum Daily Load (TMDL) Programs.

Current Focus – Bitterroot Watershed

The Bitterroot was selected as the NPS Program's pilot focus watershed in 2018. To date, the NPS Program has worked with local organizations to update their watershed restoration plan, to evaluate riparian vegetation to aid in project planning and tracking change, to fund direct outreach and project planning, and to distribute over \$280,000 in project funds.

DEQ has coordinated increased long term nutrient water quality monitoring at existing and newly established sites as well as sediment monitoring in headwaters streams. Results will be reported in 2020. DEQ has also worked with all wastewater treatment facilities in the Bitterroot watershed to optimize wastewater treatment operations and costs. DEQ plans to continue focusing resources in the Bitterroot through at least 2021.

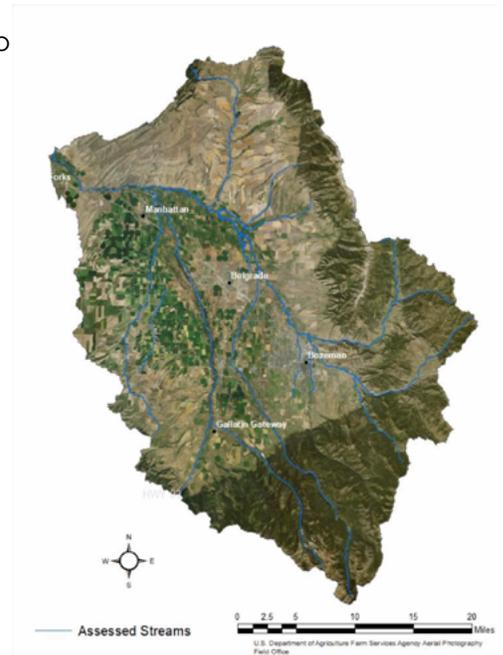
Next Focus – Lower Gallatin Watershed

It is important to consider where future resources will focus in order

to lay the necessary groundwork to ensure measurable improvements to water quality. Based on the characteristics in the Plan, NPS program staff identified several potential focus areas within the state. Through discussion with state, federal, and local partners, DEQ selected the Lower Gallatin watershed as the next focus watershed.

DEQ is excited to bring resources to address existing and emerging water quality issues in one of the fastest growing areas of the state. Over the next couple of years, DEQ will work with partners to set up water quality monitoring and develop appropriate planning for successful implementation. This effort will build upon the success within the Camp and Godfrey Creek watersheds, which are the current focus of the Natural Resources Conservation Service's National Water Quality Initiative. The NRCS initiative's efforts within the Deep Creek watershed created a strong partnership network that led to the 2016 removal of sediment as a cause of impairment.

While resources will be focused in the lower watershed, DEQ recognizes the need for more on-the-ground work and planning in the Upper Gallatin as well. The Gallatin River Task Force recently completed the Big Sky Area Sustainable Watershed Stewardship Plan containing recommendations, goals, priorities, and actions to protect and improve the health of the Upper Gallatin watershed. DEQ will continue to support those efforts with the recognition that issues



in the upper watershed impact the lower. For example, DEQ is currently supporting nutrient and algae monitoring in the Upper Gallatin watershed in response to local concerns.

By focusing resources into a single watershed, DEQ expects to demonstrate the actions and indicators needed statewide to create measurable improvements in water quality. However, staff resources and the remaining project funding will continue to be available to watersheds statewide. If you have any concerns about water quality or questions about DEQ's approach, please contact DEQ to explore opportunities for making improvements.

[Find more information on nonpoint source pollution from DEQ here.](#)

Investments in climate action could boost rural economies

The Daily Yonder: Newly released research by the progressive think tank Center for American Progress found that as much as \$8 billion could find its way into the rural economy as a result of conservation programs designed to counteract climate change.

Data from government agencies such as the U.S. Department of Agriculture and the Environmental Protection Agency show that the impact of climate change is felt hardest across rural America.

"Shifting weather patterns are one of the most noticeable changes," the report says. "For example, in Iowa, the past 18 months have been the wettest on record, according to the Iowa Department of Natural Resources. Iowa climatologists cite

climate change as one of the key causes of flooding in the state."

The research identified five areas for policy overhaul: increasing soil health and sequestering carbon, renewable energy, and energy efficiency improvements, access to broadband, protecting rural lands from development and keeping water clean, and preventing runoff and reducing farm electricity costs with methane digesters.

According to the center, increasing investments in already existing federal programs, as well as adding 100 million acres of program-eligible farmland could have a huge economic impact on the farmers.

[READ MORE](#)

Wind farm projects lining up to call hills around Rapelje home

Billings Gazette: In the hills around Rapelje, where jackrabbits far outnumber people, there's a renewable energy powerhouse in the making.

Wind farms, four of them in various stages of development, promise to deliver up to 480 megawatts of capacity just as planned coal power plant retirements in Montana are escalating.

There are 80 megawatts of generation spinning at Stillwater Wind, and four projects of similar size on a slow walk through the regulatory process of Montana's Public Service Commission. A little further south, between Rapelje and

Columbus, two more developments are in the process. In neighboring Carbon County, construction crews are working on pads for a 240-megawatt wind farm capable of electrifying a mid-sized city.

So many wind farm developers have knocked on the door of the Stillwater County Commission that the regional government has created a form with all the pertinent project questions.

"The previous commissioners have been talking to wind farms for 16-plus years," said Mark Crago, Stillwater County Commissioner.

[READ MORE](#)

As regulations roll back, could clean water protection business dry up?

MTPR: Many business interests are cheering President Trump's recent rollback of water regulations put in place by the Obama administration. But companies that make money protecting clean water could take a big hit.

The Trump administration is stripping protections for streams that only run after rain and for wetlands that don't have a connection to bigger waterways above ground. Announcing the rule last week at the International Builders' Show in Las Vegas, EPA Administrator Andrew Wheeler said it will "save Americans time and money while accelerating infrastructure projects and economic development."

The EPA says there's no data on exactly how many waterways would be affected, but a leaked presentation by government scientists says more than half of wetlands across the country as well as 18% of streams would not have federal protection.

The wetland mitigation industry

Those rollbacks could mean less work for folks like Adam Davis, a managing partner at Ecosystem Investment Partners.

"One of the most gratifying things about the job is seeing nature come back to life," Davis says.

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Grants

223, Education, and District Development Grants

The deadlines for this year's 223, Education, and District Development grants from DNRC are as follows: **April 22, 2020**.

WaterSMART Drought Response Planning Grants

The objective of this funding opportunity is to invite states, tribes, irrigation districts, water districts, and other organizations with water or power delivery authority to leverage their money and resources by cost sharing drought contingency planning with Reclamation to build resilience to drought in advance of a crisis. Applicants under this funding opportunity may request funding to develop a new drought plan or to update an existing drought plan. Up to \$200,000 available. Deadline: **February 5, 2020**. [More Info](#)

DNRC Watershed Management Grants

The Watershed Management Grant (WMG) Program goals are to provide financial support for the development and implementation of locally led watershed related planning and capacity building activities that conserve, develop, improve or preserve state natural resources. Deadline: **February 26**. [More Info](#)

MARS In-Lieu Fee Stream and Wetland Mitigation

Montana Aquatic Resources Services (MARS) runs a state-wide In-Lieu Fee Stream and Wetland

Mitigation Program. We have funding for several wetland restoration projects in our **Marias, Milk and Lower Missouri** service areas (see [Service Area map](#)). Our funding covers site selection, design, construction, monitoring, landowner payments, and long-term stewardship; and can be used for stand-alone projects, or possibly in combination with another rangeland conservation project or program. To learn more about the ILF program, visit <http://montanaaquaticresources.org/>

Ranching for Rivers

The Ranching for Rivers program is accepting applicants on a rolling basis for 2020. Conservation Districts and watershed groups with identified projects, or individual landowners working with a local CD or watershed group may apply. The program offers 50% cost-share for project implementation and/or the development of a Grazing Management Plan. [More Info](#)

Events, etc

Public Meeting on proposed BLM grazing regulations

The BLM plans four public meetings about the proposed revisions. The meetings include: Miles City, Montana: **February 6**, at the Sleep Inn and Suites, 1006 S. Haynes Ave., from 4:30-7:30 p.m.

Composting Workshop

Liberty County CD and NRCS are hosting a workshop on composting for both home gardens and production fields. **February 7**, Chester

Energy Summit

Reclamation of Industry-Impacted Range & Crop Land—How to Develop the Best Reclamation Plan—by Kevin Sedivec. Hosted by DNRC, **February 13**, Billings. [More Info](#)

AIS Training

Allison Zach, invasive species program coordinator from Nebraska, will discuss what water users in Nebraska are doing to keep invasive mussels out - and what water users are doing in places where the mussels have already infested.

- **February 19**, 3:00 pm, Forsyth, Rosebud County Library Basement
- **February 20**, 10:00 am, Billings, MATE Show Theater
- **February 20**, 6:00 pm, Roundup, 747 Main Street
- **February 21**, 2:00 pm, Billings, 5000 Southgate Drive

[More Info](#)

Montana Water Summit

The statewide conversation about water is back! Join us **March 3-4, 2020** in Helena. Join diverse Montanans and invited speakers from a variety of backgrounds to explore hot spots – and solutions – at the land and water nexus. Registration opens January 7. The call for abstracts to host a lunch table is now open. Check out [this page](#) for more information and [submit an abstract here](#).

Jobs

Missouri River Conservation Districts Council Coordinator

Coming Up

February

- 4-5 Montana Soil Health Symposium
- 6 Public meeting on BLM grazing regulations, Miles City
- 7 Composting workshop, Chester
- 10 MACD Board Conference Call
- 13 SWCDM Board Conference Call
- 24 MACD Executive Committee Conference Call

March

- 3-4 Montana Water Summit
- 9 MACD Board Conference Call
- 15 National Ag Day
- 23 MACD Executive Committee Conference Call

Have a story, funding opportunity, or event to share?

Please email tmc@macdnet.org with details.

The Petroleum Conservation District and MRCDC are hiring a coordinator to assist the Council in achieving its overall objective of local input and control in the management and conservation of the Missouri River. Closes **February 17**. [More Info](#)

MISC

Leopold Conservation Award

If you, or someone you know, is a Montana landowner who is committed to land management practices that increase conservation, we invite your application for the Leopold Conservation Award. Application deadline: **March 15, 2020**. Contact Stacy Barta (sbarta@mt.gov) with questions. [More Info](#)

MACD Scholarships Now Open

Each year, MACD awards two \$500 scholarships to Montana students. High school seniors or students who are attending an accredited post secondary institution in Montana may apply.

Eligibility requirements include:

- US citizenship,
- Montana residency,
- minimum grade point average of 3.0, and
- enrollment or plans to enroll in a course of study that allows students to explore natural resource issues. Appropriate courses of study include agriculture, agribusiness, animal science, range science, forestry, environmental science, land resource science, plant science, etc.

Students may receive a scholarship both as a high school senior and once during post secondary career.

The deadline for 2020 scholarships is **February 21, 2020**. [More Info](#)

Free online water education modules available

The Montana Water Center and Montana NSF EPSCoR have posted eight educational water education modules that can be downloaded for free. The modules, which were originally created for CD/DVD and as web-based applications, are now available for free download at montanawatercenter.org/wastewater-operator-resources. While the technology used to create and distribute the modules is being phased out, much of the content is still current and relevant for professionals.

[More Info](#)