

THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

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Daines says he'll introduce new agreement to settle CSKT water dispute

Montana Free Press: An agreement between the Confederated Salish and Kootenai Tribes and the federal government over long-disputed water rights took a major step forward Thursday when Montana Sen. Steve Daines said he plans to introduce a bill that would implement a new settlement framework.

"Today is a really important step. We've reached a historic compromise on a century-old dispute that protects the water rights of all Montanans," Daines said Thursday in a telephone interview from Washington, D.C. "We've reached a new agreement that addressed my concerns, that addressed those of many others in the agriculture community, and attempts to address the concerns of some of those who have been opposed to the compact."

The announcement comes on the heels of two Trump administration officials recently signaling their support for the proposed CSKT-Montana compact, which the Montana Legislature passed in 2015. The compact would resolve water rights claims between the tribes and other water users on and off the Flathead Indian Reservation, and reconcile Montana's modern water doctrine with fishing rights guaranteed to the tribes as part of the 1855 Hellgate Treaty.

The bill Daines said he will introduce next week would, if passed by Congress, ratify the state compact and settle remaining water disputes between the tribes and the federal government. It would also include \$1.9 billion to settle federal damage claims and to rehabilitate the deteriorating Flathead Indian Irrigation Project, which supplies irrigation to approximately 127,000 acres of agricultural land.

According to details of the proposed legislation provided by Daines' office, the measure would also provide \$10 million in road infrastructure funds to Lake and Sanders counties. Under the legislation, the tribes would relinquish the bulk of their off-reservation water right claims and be prohibited from selling water out of state. [READ MORE](#)



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Farmers, scientists finding fixes for acidic soils

MTPR: Across Montana, many farmers are noticing parts of their fields where nothing will grow, not even weeds. Researchers at Montana State University are wrapping up a multi-year project to figure out what farmers can do.

Three hundred surveys were mailed last week to farmers in Chouteau, Yellowstone, Valley, Daniels and Pondera counties: places where in some areas the soil is becoming so acidic that crops won't grow.

"The goals of the survey are to find out what farmers already know about the problem, what they might know about the solutions to the problem, what they're perhaps trying on the farm if they already have soil acidity or low pH, and then what direction they think our research and outreach should take," says Clain Jones, MSU's Soil Fertility Extension Specialist and the person in charge of the survey.

The problem he's talking about is called soil acidification. Too much nitrogen fertilizer is the main cause. While soil acidification is a fairly common problem in the Midwest and other parts of the world, researchers only started noticing it in Montana in 2015.

Jones is one of the people trying to help farmers recognize it and figure out what can be done. He says no one was really expecting soil acidification in Montana because the state traditionally has had very low-acidic soils.

On the pH scale of 0 to 14, they've been around seven and eight. That's on par with water and eggs, respectively. But now, according to Jones, the pH in some farms' soil is dropping.

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Montana's Aquatic Invasive Species Program Evolving with Canyon Ferry Delisting

Helena IR: Three years ago Canyon Ferry Reservoir received the dubious distinction as a waterbody suspected to contain aquatic invasive mussels. This year after three consecutive seasons with no positive tests or mussels discovered, the state plans to drop it from the suspect list.

The recent announcement that Montana Fish, Wildlife & Parks will move to delist Canyon Ferry means a number of things will change for boaters at the reservoir. No longer will they have to funnel through permanent stations for mandatory decontamination, nor will a local boater program continue — which allowed fewer restrictions for boaters only using Canyon Ferry. That will free up funding for the state to spend elsewhere on the effort to stop the introduction of invasive species.

"With the resources we aren't putting into Canyon Ferry we're able to look at extending seasons and extending hours" for other stations, said Thomas Woolf, AIS bureau chief with FWP. "We'll still sample there more intensively than we would otherwise and have a revolving inspection crew."

Invasive mussels have plagued areas of the Midwest, Great Lakes and Colorado River Basin with significant ecological and financial consequences.

[READ MORE](#)



Montana's water rights fractured by new development

Helen Santoro of High Country News reports from the outskirts of Missoula on the Clark Fork Coalition's work to keep a creek flowing, and finds that as subdivisions spread and drought persists, it's becoming harder to manage one of the state's most valuable resources.

High Country News: O'Brien Creek is situated about four miles west of Missoula, Montana. Flowing alongside country roads, it meanders past neighborhoods on its journey to the Bitterroot River, a tributary of the Clark Fork. But years of drought, decreased snowpack and water siphoned off for crops, livestock and lawns have led to dangerously low flows by late summer. To protect the stream and its native westslope cutthroat trout and bull trout, the Clark Fork Coalition, a watershed-wide nonprofit, bought the majority of the creek's senior water rights in 2014. This permits the organization

to stop upstream homeowners from using too much water.

But that might be easier said than done. A few summers ago, Jed Whiteley, the organization's project manager and monitoring coordinator, contacted every homeowner on the formerly agricultural land and told them they had to stop using large amounts of water by mid-July. The homeowners were shocked. "Nobody had made a call on the senior water right in a while," said Whiteley. "They got used to not getting called on, and all of a sudden, we're shutting them down."

And such calls may soon become more common. Montana's population has risen by 7.4% since 2010, and ranch lands across the state are being subdivided. But when land is divided, so are the water rights, creating an increasingly fractured landscape.

For senior water-right holders like the Clark Fork Coalition, this makes protecting a valuable resource even more challenging.

The Clark Fork River's 14 million-acre watershed stretches from the city of Butte in southwestern Montana all the way to Lake Pend Oreille in North Idaho. Once it was dotted with farms and ranches, but in recent decades, tens of thousands of new houses have been built in the region. From 1990 to 2016, over 1.3 million acres of undeveloped land in Montana was converted into housing, according to a 2018 report by Headwaters Economics. The demographic landscape is changing as well: Several western Montana counties are attracting younger people and new residents from across the country.

All this population growth is making water management more complicated. Montana practices the "first in time, first in right" rule common among Western states, meaning that the first person to use a water source has senior rights over newer users. Senior water-right holders are responsible for enforcing their own water rights; when less water is available, they have to call upstream junior users and ask them to turn off their water. But where there used to be one rancher to call there may now be an entire subdivision with 20 homeowners in it. A senior user now must speak to multiple property owners, many of whom may not understand the limits of their water rights. "It's making an already complicated system more complicated," said Andrew Gorder, the legal director at the Clark Fork Coalition.

[READ MORE](#)

Turn to stock density, a powerful grazing tool

Western Farmer-Stockman: When it comes to forage management, ranchers are finding that high-density, short-duration grazing combined with ample recovery time can boost forage resources. In fact, for Sage and Faith Askin, Wyoming livestock producers who run rangelands and pastures they lease, the practice has meant a dramatic boost to forage resources.

"The power of density is the craziest thing," Sage Askin says. "We have sites where we've bedded 1,500 ewes weighing 120 pounds in a half-acre or less. We continue to use bigger and bigger herds of cattle to get the density up, including up to 1,340 yearlings in grazing paddocks as small as 35 acres."

Livestock are moved regularly to ensure plenty of forage is left behind, and that grasses and forbs can fully recover before being grazed again.

Among the many benefits, Askin says, is the fact that manure and urine are distributed across the entire pasture, and the manure is quickly broken down by constant hoof activity — meaning nutrients are getting into the soil vs. cow patties drying out and staying on top of the surface. This free fertilizer is among the many reasons why the Askins are seeing a boost in forage.

"These sites have more organic matter in the soil, and they are developing more plants that are lush, green and higher in energy," Askin claims. "Stock density is a very powerful tool that can multiply

the effect of each of the other grazing tools. If we change up the timing of use, it's a good thing. If we do it with added density, it compounds any changes faster."

A plan for grazing management

Tom Ford, who works on a 73,000-acre Wyoming ranch that is taking many steps to improve grazing management, says he and brothers Kellen and Cameron Smith — who co-manage the ranch — are looking at everything big and small to bolster forage resources.

For example, Ford says, one 100-acre dryland pasture was hayed for many years. Starting in 2017, they began intensively grazing the pasture for a short period, leaving at least 30% standing residual behind.

Urine and manure were evenly distributed across the pasture, and the high number of animals trampled the manure, Ford says. He adds that the standing residual is catching more moisture than when the pasture was hayed.

"There are now more nutrients and water going into the soil; and in only three years, we are definitely seeing an increase in forage on that 100 acres," he says. "It was previously worth haying that pasture in most years, but we're seeing even bigger financial benefits now."

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Conservation groups convince feds to better protect bull trout, without lawsuits

Montana Current: Bull trout are struggling to survive in Montana's headwaters, and sometimes, federal agencies neglect to do things that could help the fish. But getting them to carry through doesn't always require a lawsuit.

Over the past week or so, environmental groups have dealt with what they see as federal inaction related to bull trout in two ways: filing lawsuits and learning that they don't need to.

In the case of the first, Friends of the Wild Swan, Save the Bull Trout and Alliance for the Wild Rockies sued the U.S. Fish and Wildlife Service in Missoula federal court early last week, insisting the Recovery Plan was inadequate.

The USFWS published the Recovery Plan in October 2015, 15 years after finally listing the bull trout as threatened under the Endangered Species Act.

The environmental groups tried to sue in 2016 soon after the recovery plan came out. The case ended up in Oregon where the judge said the courts couldn't weigh in on recovery plans because they weren't a final action.

The groups appealed, supported by ESA experts from across the nation who said the courts should be able to weigh in on recovery plans. [READ MORE](#)

The impacts of climate change on huckleberry production

Flathead Beacon: For generations, Montanans have hewn to traditions born of the natural world's rhythms, both as a means of survival and as cherished rites of passage.

The ministrations of hunting, harvesting, farming, and ranching have sustained families for eons, and not even the passage of time has eroded the lineage of certain heirloom recipes or tried-and-true techniques, passed down through the ages and preserved today for sentimental reasons as well as sustenance.

Increasingly, scientific studies on climate change show that seasonal variations resulting from a warming world will impact the dependability of some harvests, pushing back the blooming bounty of plant species on which wildlife —

and familial foraging — depend.

In Northwest Montana, very few of those food-producing plants can contend with the culturally iconic huckleberry, whose prized fruit becomes a ubiquitous accoutrement to desserts and dishes each summer.

Families fill their freezers with gallon bags of the dark-red berries for preserves and pancakes, while grizzlies and black bears eat pounds of them in a single sitting, depending on the tart-tasting morsels for up to 15 percent of their diets.

And yet, for a species as popular as huckleberries, little is known about its phenology — in other words, its cyclic, seasonal behavior

and how it's affected by habitat and variations in climate.

A spate of recent studies, some of them using Glacier National Park and its surrounding forests as a living laboratory, have sought to fill that dearth of data with new research and understanding into the important role hucks play in local ecologies.

One such study, recently published in the peer-reviewed scientific journal "Agricultural and Forest Meteorology," predicts that habitat suitability for huckleberries may decrease across much of its current range in the near future, expanding at higher altitudes and latitudes, but shifting the plant's flowering and fruiting forward by more than a month by the end of the 21st century. [READ MORE](#)

What an unprecedented sagebrush die-off — and its even more surprising recovery — taught us

Casper Star Tribune: When Jill Randall and Karen Clause saw the extent of the deaths, all they could do was sit on a hill and stare.

Surrounding them on all sides, for as far as they could see, were chunks of skeletal sagebrush. The plants are a critical food source for hundreds of native species in Wyoming, and so many of them were dried and brittle.

"All of us have seen small areas where there's some sagebrush mortality, but to go and see literally sections of it dead, we don't see it that way," said Clause, range management specialist with the Natural Resources Conservation

Service. "It was a pretty somber moment."

Few had really heard about the die-off. It was in the middle of no man's land, between Farson and Fontenelle Reservoir in southwest Wyoming. A technician for the Natural Resources Conservation Service noticed it when he was monitoring soils and reported back to Clause and Randall, a wildlife and habitat biologist with the Wyoming Game and Fish Department.

So Clause and Randall spent hours driving through the area documenting the die-off and noting anything that could have

contributed. They compiled a report explaining the gravity of the situation.

That was in 2014.

Now, five years later, a handful of researchers from the University of Wyoming, the Yale School of Forestry and Environmental Studies and the U.S. Geological Survey published a paper explaining the die-off. The cause, ironically for a plant known for growing in an arid climate, was a combination of severe drought and then excessive water.

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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: **January 15, 2020, and April 22, 2020.**

Temper of the Times Foundation Grants

Only 501(c)3s are eligible to apply. Grants are typically between \$5,000 and \$15,000 and are awarded for projects that will lead to measurable outcomes for wildland ecosystem conservation and restoration in the United States. Grants may be used to fund the production of print, radio, or television ads, to pay for advertising space or airtime, or to produce or distribute pamphlets, books, videos, or press packets. Due **December 16.** [More Info](#)

Montana Farm Bureau Foundation Grants

In celebration of their 100th birthday, the Montana Farm Bureau is offering grants to support rural Montana. The Centennial Community Initiative is established to help expand economic opportunities, create jobs, support infrastructure improvements, increase support in community service, and provide a long lasting impact in Montana rural areas. A total of \$100,000 is available. Deadline: **December 31, 2019.** [More Info](#)

Friends of NACD Grants

Friends of NACD will support 4 Grants, up to \$2,500 each, to be awarded at NACD's 2020 Annual Meeting in Las Vegas, Nevada. Districts are encouraged to think creatively in how they can use the funds to conduct new activities or test novel approaches to their operations. Deadline: **January 15, 2020.** [More Info](#)

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](#)

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/>

Events, etc

Save the Date: Montana Soil Health Symposium

SWCDM and Montana NRCS are hosting a two-day Soil Health Symposium in Billings, **February 4 & 5, 2020.** Join us for discussions with Gabe Brown, Dr. David Montgomery, and local producers and soil health leaders on the latest in soil health. Visit www.mtsoilhealth.org for 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

Conservation Resource Coordinator, Madison CD

The Conservation Resource Coordinator will fulfill a diverse set of roles for the Madison Conservation District. This position plays a critical role in the MCD team, supporting conservation initiatives, outreach efforts, and administrative functions that help implement the organization's strategic plan. Applicant Review begins **December 9.** [More Info](#)

Coming Up

December

- 9 MACD Board Meeting
Conference Call
- 23 MACD Executive
Committee Meeting

January 2020

- 13 MACD Board Meeting
Conference Call
- 15 223 Grant Deadline
- 27 MACD Executive
Committee Meeting

February

- 4-5 Montana Soil Health
Symposium
- 10 MACD Board Conference
Call
- 13 SWCDM Board
Conference Call
- 24 MACD Executive
Committee Conference
Call

March

- 3-4 Montana Water Summit

Have a story, funding opportunity, or event to share?
Please email
tmc@macdnet.org with
details.

MISC

Accelerating a Generation Syngenta Scholarship

Syngenta provides scholarships to university students currently pursuing bachelor's or master's degrees in crop-related disciplines. Eligible students compete for \$20,000 in scholarship awards. Applicants must be U.S. residents enrolled in an accredited agriculture program at an eligible university. Deadline: **January 7, 2020**

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](#)

