

# THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

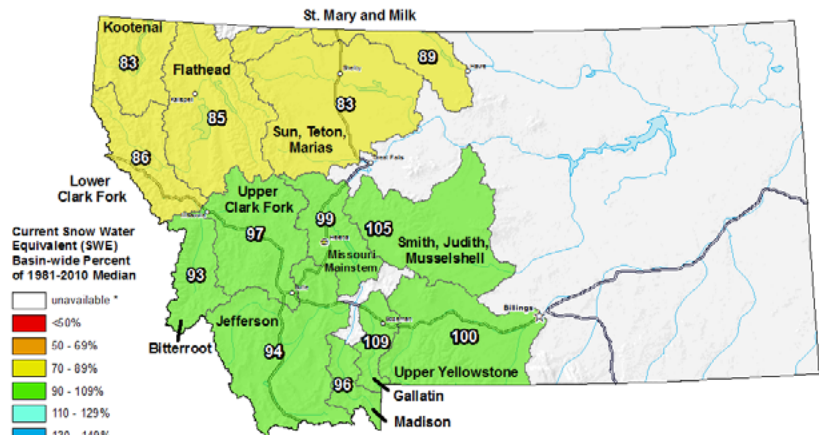
## In This Issue

- 1 Too little too late: January snowfall not enough in some Montana River Basins
- 2 House committee takes up invasive species funding bill  
FWP releases 2018 AIS monitoring & inspection report
- 3 MSU recognized for commitment to protecting pollinators  
Snowpack, continued
- 4 Prairie strips transform farmland  
Report reveals women are key to increasing conservation
- 5 Big Hole River advocate steps down  
Montana DNRC requests funding to increase logging on national forests  
Apps let everyone help track health of insect populations
- 6 OPPORTUNITIES

## February 6, 2019

Volume 13 Issue 3

Feb 05, 2019  
Montana SNOTEL Current Snow Water Equivalent (SWE) % of Normal



## Too little too late: January snowfall not enough in some Montana River Basins

BOZEMAN, Mont., Feb. 6, 2019 –Periods of high-pressure during January resulted in sunny skies and above average temperatures in Montana, causing snowpack percentages to decline in many river basins, according to snow survey data collected by the USDA Natural Resources Conservation Service (NRCS). This pattern broke down late in the month, and significant snowfall occurred across most of the state of Montana.

This much needed system of storms added 1.5 to 3.5 inches of Snow Water Equivalent (SWE) to the snowpack, helping some basins in central, south-central and southwest Montana to remain or improve to near to above normal for Feb. 1. Although the basin-wide snowpack percentages in Gallatin and Upper Yellowstone indicate near to above normal snowpack conditions, there are some areas in southern Montana that have been largely missed by this winter's storms.

Almost all basins east of the Divide have improved snowpack percentages from January 1, but some regions remain below normal for snowpack on February 1. [Continued on Page 3](#)

**SOIL & WATER**  
CONSERVATION DISTRICTS  
of MONTANA



MONTANA ASSOCIATION of  
CONSERVATION DISTRICTS  
We're growing Montana's future.

1101 11th Ave • Helena, MT 59601  
(406) 443-5711 • [www.swcdm.org](http://www.swcdm.org)

This newsletter is made possible  
by a grant from DNRC.



### FWP releases 2018 AIS monitoring & inspection report

*Press Release:* FWP has released the 2018 Reports for watercraft inspection stations and early detection and monitoring.

#### Highlights from the report include:

FWP and inspection partners\* checked more than 109,000 watercraft, the most inspections conducted since the program started in 2004.

Inspectors intercepted 16 out-of-state boats with mussels attached.

Standing water in bilges and live wells was the most common reason a boat failed an inspection.

Plankton tow monitoring has tripled since 2016 with over 2,100 mussel early detection samples collected from nearly 240 waterbodies.

Additional sampling was conducted on Tiber and Canyon Ferry reservoirs including artificial substrate sampling, inspections by scuba divers and snorklers, mussel detecting dogs and mussel eDNA sampling.

No mussel larvae (veligers) or adults were detected in 2018. State-wide monitoring will continue in 2019.

The monitoring program is critical to observing the locations of existing AIS and the early discovery of new populations.

[READ MORE](#)

### House committee takes up invasive species funding bill

*Helena IR:* On Monday, lawmakers took up the session's first proposal for funding Montana's fight against invasive mussels.

"The Montana Legislature, in the 2017 session, was confronted by one of the most severe threats to our lakes, reservoirs and streams that we Montanans have experienced," Rep. Willis Curdy, D-Missoula, told the House Natural Resources Committee Monday.

That year, the Montana Legislature created fees on fishing licenses and hydroelectric power generation to fund the boat inspections, water-monitoring and other efforts necessary to prevent boaters from carrying invasive zebra and quagga mussels into the Columbia River basin.

The hydropower and fishing license fees raised \$6.5 million per year for the effort. Now, lawmakers aim to re-distribute the funding sources.

Curdy's bill, crafted by the legislature's Environmental Quality Council interim committee, would create new aquatic invasive species prevention passes for boaters, ranging in cost from \$5 for a resident's non-motorized vessel to \$60 for a motorized vessel exempt from registration. Resident anglers would still have to pay \$2 fees, and non-resident anglers would have to pay \$7.50, down from \$15 currently.

According to the bill's fiscal note, these fees would raise between \$6.5 million and \$7.5 million each year for the next four years. An additional \$2 million to \$3.3 million annually would come from the general fund.

Representatives from electric cooperatives, environmental groups, business and agricultural associations all spoke in support of the measure.

[READ MORE](#)



## MSU recognized for commitment to protecting pollinators

*MSU News Service:* In an effort to support healthy populations of bees and other pollinators, Montana State University has joined a nationwide initiative certifying the university's pollinator-friendly practices and programs.

In November, MSU was designated a Bee Campus USA by the international nonprofit Xerces Society for Invertebrate Conservation, becoming the first Montana campus to qualify and enroll. The program includes 58 other campuses nationwide.

"This recognizes some incredible work on campus that many people might not be aware of," said Mathew Bain, program coordinator in MSU's Office of Sustainability.

Bee Campuses are required to have pollinator-friendly habitat that includes native plants, engage in outreach programs and teach courses related to pollinators, among other things.

"Becoming a Bee Campus builds upon, and unifies, ongoing research and outreach efforts aimed at promoting pollinator

health at MSU and supports student and community member involvement," said Michelle Flenniken, assistant professor in the Department of Plant Sciences and Plant Pathology in MSU's College of Agriculture.

Flenniken, who co-directs MSU's Pollinator Health Center with Laura Burkle, assistant professor of ecology, led the development of the Honey Bee Research Site and Pollinator Garden at MSU's Horticulture Farm in 2015. The half-acre garden includes native plants that bloom throughout the spring and summer to provide a steady supply of the pollen and nectar that pollinators need.

"One of the factors that contributes to bee deaths is lack of suitable forage," said Flenniken, whose research focuses on pathogens such as viruses that are another contributing factor to the high annual losses of honey bee colonies in the U.S.

[READ MORE](#)

## Snowpack, continued

The western half of the state also benefited from the late January storms, but the river basins experienced decreases in snowpack percentages since January 1 and remain below normal for this date. "The storms just weren't enough in the western half of the state to make up for the deficits we'd experienced early in the winter," Zukiewicz said. "Even with the impressive totals from the late month storms, snowfall ended up being below normal for the month of January."

River basins in the northwest region of the state typically experience their "wettest" months of the year from early November through the end of January. Below normal snow totals in these areas for this date make recovery to "normal" snowpack conditions before runoff begins less likely. "For example, the Flathead River basin would need to receive around 135% of normal snowfall between now and when the snowpack reaches peak accumulation, which typically occurs sometime in April," Zukiewicz said. "While that's not impossible, it would certainly take a major pattern shift from what we've seen so far this winter."

Similar to last month, mountain temperatures were above average in January, and could be one of the impacts the region is experiencing from the weak El Nino that is occurring this year. Whether it strengthens or weakens into the summer of 2019 is still to be determined, but long-range forecasts issued by NOAA continue to indicate above average temperatures for the February – April time-period. [READ MORE](#)



Prairie strips are composed of native perennial plants and located across hillslopes. The stiff stems and abundant, fibrous roots of the native plants slow down water and allow it to soak into the soil, causing less soil erosion. The native plants also provide habitat for wildlife.



## Prairie strips transform farmland

*American Society of Agronomy:* Modern agriculture's large monoculture fields grow a lot of corn and soybeans, planted annually. The outputs from row crops can be measured both in dollars paid in the market and also in non-market costs, known as externalities. Soil, nutrients, groundwater, pollinators, wildlife diversity, and habitat (among other things) can be lost when crop yields are maximized.

Now it appears that prairie strips have an extraordinary power to change this pattern.

A prairie strip is much what it sounds like: a strip of diverse herbaceous vegetation running through a farm's rowcrops. In the American Midwest, chances are the soil that now supports crops was once covered in prairie before cultivation. Prairie plants are a mixture of native grasses, wildflowers, and other stiff-stemmed plants. They have deep roots that draw water and nutrients from far below the surface. They are perennials, returning to grow each spring.

"Research shows that areas of native prairie planted in the right places in a farm field can provide

benefits that far outweigh losses from converting a small portion of a crop field to prairie," said Lisa Schulte Moore of Iowa State University. "For example, when we work with farmers to site prairie strips on areas that were not profitable to farm, we can lower their financial costs while creating a wide variety of benefits."

Schulte Moore is a team member with STRIPS: Science-based Trials of Rowcrops Integrated with Prairie Strips. STRIPS showed that converting just 10% of a row-cropped field to prairie strips:

- reduces soil loss by 95%,
- reduces overland water flow by 37%, and
- reduces the loss of two key nutrients (nitrogen and phosphorus) from the soil by nearly 70% and 77%, respectively.

It also leads to greater abundance and diversity of beneficial insects, pollinators such as bees and monarch butterflies, and birds. Going from zero to 10% prairie provided far more than a 10% increase in the measured benefits.

[READ MORE](#)

## Report reveals women are key to increasing conservation

American Farmland Trust published its Women for the Land program report, "Testing the Women Landowner Conservation Learning Circle Model." The report, along with illustrative profiles and videos, further supports previous research that female landowners are important in the broader implementation of conservation practices on farms. The interviews also show women-only learning circles work as a means for expanding conservation actions and that women who participated want to learn more.

Nearly 301 million acres of U.S. land — about a third of the nation's land in farms — are now farmed or co-farmed by women, and at least 87 million additional acres are in the hands of women landowners. Research shows many women farmers and landowners have a strong conservation and stewardship ethic. They are deeply committed to healthy farmland, farm families, and farm communities. However, women face gender barriers affecting their ability to manage their land for long-term sustainability. And while women increasingly are the primary decision makers on farms and inclined towards conservation, they are underrepresented in use of USDA conservation programs.

To help address these issues, AFT launched Women for the Land.

[READ MORE](#)

## Big Hole River advocate steps down

*MT Standard:* A longtime Big Hole River advocate is stepping away.

Jennifer Downing, outgoing executive director of the Big Hole Watershed Committee, is leaving her position this month. She is being replaced by Pedro Marques, who has been the committee's restoration program manager since 2016.

Randy Smith, Big Hole Watershed Committee board president, said Monday that Downing "has done a heck of a lot for us," since 2010 when she started as watershed coordinator in 2010 part-time.

The Montana Watershed Coordination Council, a Helena-based nonprofit organization,

gave Downing a sendoff Monday evening by awarding her a 2019 Watershed Stewardship Award for her 15 years of conserving, protecting, restoring and enhancing watersheds in Montana.

A native of Rochester, New York, Downing started working in the Big Hole River valley in 2004. Lt. Gov. Mike Cooney presented the award to Downing at the Montana Historical Society.

Since Downing began working at the committee, whose aim is conservation work in the Big Hole River watershed, the committee has grown to six employees and has put nearly \$3 million into restoration and conservation in the watershed. [READ MORE](#)

## Montana DNRC requests funding to increase logging on national forests

*Missoula Current:* As the state plans to increase logging on national forests, the Montana Department of Natural Resources and Conservation wants more money to prepare and manage timber sales.

On Monday, a legislative appropriations committee heard some of the reasons why the DNRC is requesting about \$7 million per year more than it did in the 2017 session. The main reason, said executive director John Tubbs, is to hire more employees, partly to make up for attrition and partly to prepare to start logging national forests under a Farm Bill program.

"DNRC, since I've taken over in 2013, has lost 20 (full-time

employees). We have not grown this agency. I've lost. We had about 520; we're down to 500," Tubbs said. "We are going to ask for some FTE's. But, even if those are approved for the forestry division, we'll be net-down 14 FTE since I started."

In particular, Tubbs wants enough money for state forester Sonya Germann to hire 6.5 people to help expedite timber sales and contracting on national forests as authorized under the Good Neighbor Authority program created by the 2014 Farm Bill. Germann also needs extra money for the program's operating expenses.

[READ MORE](#)

## Apps let everyone help track health of insect populations

*AP:* More challenging than birdwatching and not nearly as popular, insect-watching — noting and sharing exactly what one sees and where — is nevertheless on the rise.

Concern about dwindling native insect populations is one reason why. And new technology has made it easier to log insect sightings and become part of wide-reaching "citizen-scientist" projects.

A worldwide project called "Never Home Alone: The Wild Life of Homes," for example, aims to photograph and catalog the insects, spiders and other tiny creatures that share our homes. It was created by Rob Dunn, author of "Never Home Alone: From Microbes to Millipedes, Camel Crickets, and Honeybees, the Natural History of Where We Live" (Basic Books, 2018).

In the equally global City Nature Challenge, meanwhile, cities compete for how many sightings residents can log. The idea is to see which city can make the most observations of nature (of any sort, not just insects), find the most species and engage the most people. The first year, it was just San Francisco versus Los Angeles. The second year, 16 cities joined in. Last year, 68 cities around the world took part. Over 100 cities internationally have signed up to participate this year.

[READ MORE](#)

## Grants

### 223, Mini Education, and District Development Grants

The Fiscal Year 2019 deadlines for the 223, Mini-Education, and District Development grants are: **April 25, 2019** [Grant Application](#)

### Montana Land Information Act Grants

Montana State Library administers an annual grant program to distribute accumulated funds from the Montana Land Information Account, established by MLIA. Projects funded range in diversity from collecting water lines data for the City of Billings Heights, collecting/maintaining statewide address points for 9-1-1, developing a GIS education program at Swan Valley Elementary School, and improving the spatial accuracy of land records for Park County. Due **February 15**. [More Info](#)

### GLCI Education & Demonstration Project Funding

The Montana Grazing Lands Conservation Initiative (GLCI) mini-grants will provide funding for educational events and support partners and organizations with an interest in the conservation, education, and awareness of grazing lands and natural resources in Montana. \$50-\$1,000, applications accepted year-round. **February 18** [More Info](#)

### RRGL Planning Grants

This program provides financial assistance to governmental entities preparing quality RRGL grant

applications for projects that that will conserve, manage, develop, or protect Montana's renewable resources. **February 28** [More Info](#)

### RDG Planning Grants

The DNRC Reclamation and Development Grants Program (RDGP) is accepting grant applications to fund planning and assessment for natural resource projects. Proposed projects must plan for projects that will provide benefits in one of two categories: Mineral development reclamation or crucial state need. Up to \$50,000 is available, deadline **February 28**. [More Info](#)

### Forestry Landscape Scale Restoration Grants

The DNRC Forestry Assistance Bureau is now soliciting project ideas for the FY20 Landscape Scale Restoration Grant Program application process. We want a pitch, not a proposal. This process is designed to solicit your best ideas and develop them based on a dialogue. Due **March 1** to awells@mt.gov.

### NACD Technical Assistance Grants

NACD has announced the availability of \$9 million in technical assistance grants for conservation districts. A significant portion of the granted funds will be awarded directly to conservation districts to hire staff where additional capacity is needed to improve customer service and reduce workload pressure. Due **March 1**. [More Info](#)

### DEQ Nonpoint Source Pollution Grants

Montana DEQ has \$500,000 in funding to address or nonpoint source pollution. Projects should be between \$30,000-\$100,000. \$300,000 will be focused on the Bitterroot watershed. Applications are due by 2 p.m., Friday, **March 15, 2019**. [More Info](#)

## Events, etc

### Greater Yellowstone Agricultural Forum

Sponsored by Montana Land Reliance, topics include water rights, water web tools, and protecting your claim in the Gallatin decree. **February 7**, Three Forks. [More Info](#)

### Farm & Garden Workshop

How to Create HEALTHY SOILS that Work for You using regenerative agriculture. Sponsored by Carbon CD. **February 9**, Bridger. More Info: 406-962-3641 x105

### MSU Extension Crop School

Topics will include soil acidification, wheat irrigation, nitrates in forage, herbicides, and trade policy implications for wheat markets. **February 20**, Three Forks. RSVP to gallatin@montana.edu.

### Montana Lakes Conference

This conference will gather resource professionals to exchange information, scientific advancements, and management strategies that promote clean and healthy lake and reservoir

## Coming Up

### February

- 9 Gardening workshop, Bridger
- 11 **MACD Board Conference Call**
- 14 **SWCDM Board Meeting**
- 13 Managing Your Farm Finances (PFOS series, several locations)
- 20 MSU Extension Crop School, Three Forks
- 25 **MACD Executive Committee Conference Call**

### March

- 11 **MACD Board Conference Call**
- 13-14: SWPP Preparer Certification, Kalispell
- 13-15 Montana Lakes Conference, Whitefish
- 15 National Ag Day

#### Have an event to share?

Please email [tmc@macdnet.org](mailto:tmc@macdnet.org) with details.

ecosystems. Whitefish, **March 13-15 2019**. Hosted by the Whitefish Lake Institute, sponsored by DNRC, Flathead CD. [More Info](#)

### 310 Database Trainings

Montana DNRC is planning on scheduling some 310 Database training starting in early March. This will consist of some live webinars which will also be recorded and stored on the DNRC site for future training. We may also schedule some in person training if there is enough interest. The first webinar will likely be scheduled for the first week of March. You can find the [310 Permit database here](#).

### SWPP Preparer & Administrator Certification

The Montana DEQ, starting this year, requires SWPPP Preparer certification for Stormwater Pollution Prevention Plan (SWPPP) writing for construction activity. We are currently offering a SWPPP Administrator and SWPPP Preparer

certification and recertification class in Kalispell on **March 13 and 14**. More Info: 509-947-6583.

## Jobs

### Fuel Reduction Program Administrator

The Lower Musselshell Conservation District in Roundup, MT is looking to hire a fuel reduction program administrator to work directly with USDA-NRCS to further develop and administer the district Fuels Reduction Program. Open until filled. [More Info](#)

### Executive Director, Five Valleys Land Trust

As Five Valleys' chief executive officer, the Executive Director is responsible for the successful management, administration, and coordination of all programs and activities of Five Valleys and its staff. Closes **February 11**. [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. Visit [macdnet.org/scholarships](http://macdnet.org/scholarships)