MONTANA HIGHGROUND

December 2020

Little Blackfoot River in September 2020

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ARE YOU TRACKING LOMCS?

Learn how to sign up for the LOMC subscription service, and stay in the know!

Get more info on Page 2

SUPPORT STUDENTS

Spread the word about a flood-resilience related student competition and learning opportunity, or support as a local expert!

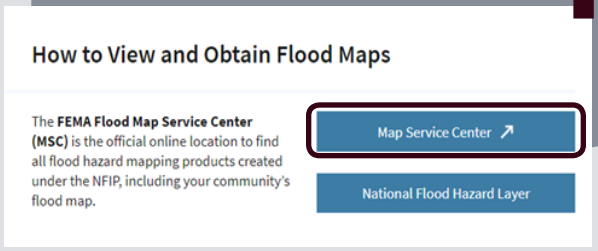
Read all about the project on Page 7

MSC EMAIL SUBSCRIPTIONS

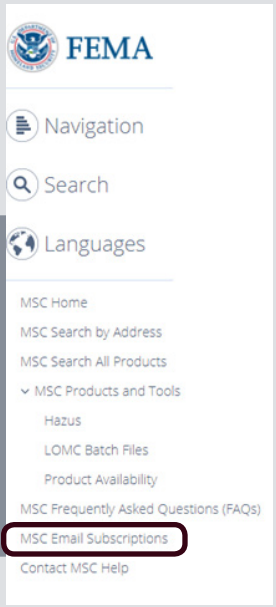
How to Subscribe to Receive LOMA and LOMR-F Notifications for Your Community

When FEMA issues a Letter of Map Change, the determination could affect the floodplain map you use to administer your program. You can stay in the know—and be sure to regulate to the most up-to-date maps—by signing up to receive automatic notices.

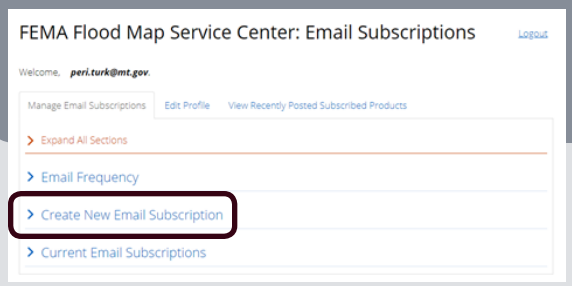
1 Navigate to the Map Service Center:



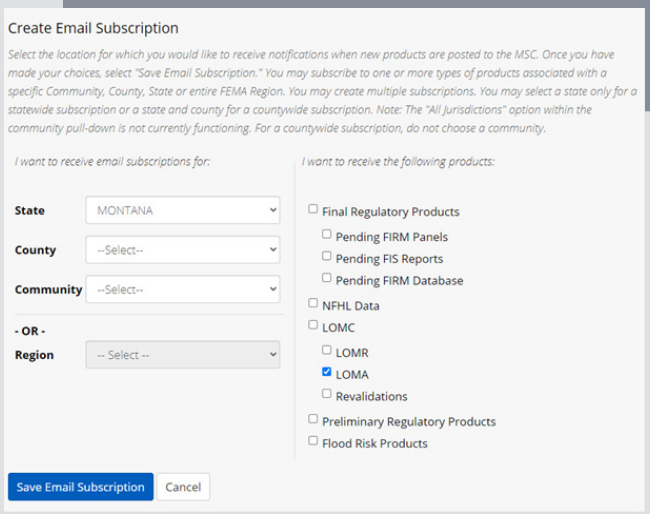
2 Click on MSC Email Subscriptions on the ribbon found on the left side of the screen. Create and account and login. This will take you to a screen to set up email subscriptions.



3 Click on the arrow next to "Create New Email Subscription".

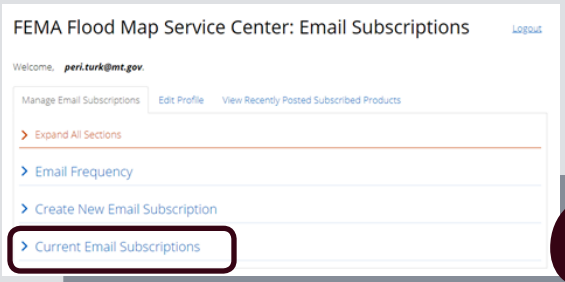


4 Select the state, county, and community you would like to receive notifications for. Make sure that you have LOMA selected for on the right side.

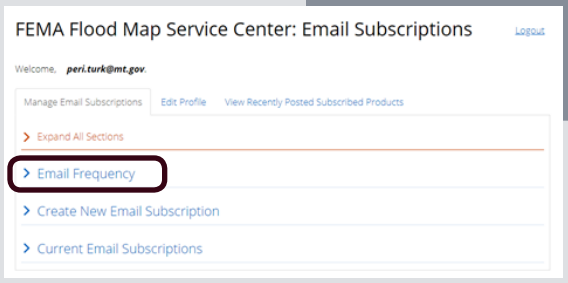


5 Click "Save Email Subscription"

6 You will then be able to see that in the Current Email Subscription Tab.



7 You also have the option to change the frequency of those subscriptions under the Email Frequency tab. This can be changed to either monthly, weekly, or daily.



RECAP: 1st virtual Floodplain Resource Seminar

The annual Floodplain Resource Seminar was held September 14-16.
For the first time, the seminar was hosted virtually.

While we regret not being able to chat with everyone in person, the virtual platform did allow for increased participation from across the state and increased diversity in speakers. Recorded presentations are available on the DNRC Floodplain Training web page and at the DNRC YouTube site.

Each of the three days was centered around a unique theme. The theme for the first day was community resilience. A suite of speakers affiliated with the Natural Hazards Mitigation Association kicked off the seminar with presentations addressing community vulnerability, risk, and opportunities for risk assessment and reduction. The day ended with a deep-dive into the wildfire-flood connection (relatedly, check out the flood-after-fire guidebook on the last page).

The second day was themed around mapping and included a range of more technical topics. Experts from the DNRC and FEMA Region 8 discussed LOMCs, the MT-1 Community Acknowledgment Form, and Montana Lidar and mapping project updates. The day ended with a presentation from the private sector showcasing options for wet and dry floodproofing.

The third and final day of the seminar, entitled working in and around floodplains, centered on the complex considerations floodplain managers must address and the resources they have at hand to do so. FEMA spoke on online mapping tools and the DNRC discussed technical assistance available from the state. The day, and the seminar overall, concluded with two more speakers from the Natural Hazard Mitigation Association highlighting the technical and legal aspects of flood resilience.

Thank you to all who attended or supported the 2020 Resource Seminar. We especially appreciate your flexibility as we adjusted for the first time to a completely digital format. Despite the distance, we loved seeing the interactive conversations in the chat box and great questions for our presenters. Please note, if you are a registered CFM, we tracked your participation (i.e. attendance and poll/chat box engagement) and reported your credits to the Association of State Floodplain Managers.

Finally, as always, training is intended to support YOU. We always welcome your feedback. If you or your community would benefit from a specific topic or workshop, please don't hesitate to let us know.

ICE JAMS: A look up north

Flooding in Alberta (Greg Halinda / The Canadian Press, from CBC)

Here in Montana, we know ice jams can be a serious risk. While Montana experiences the highest number of ice jams in the Lower 48, our neighbors to the north are no strangers to the risks posed by ice jams. Flooding caused by ice jams in Alberta, Canada last spring serve as a sobering reminder for Montana communities. In April, floodwater elevations in jammed rivers raised 15 feet or more. 13,000 people were forced from their homes in Fort McMurray, Alberta. The entire downtown, including critical businesses and service centers, were inundated. You can read more about the flooding from news reports by the Canadian Broadcasting Corporation.

More than 80 percent of ice jams and associated flooding in Montana take place between January and March, with the highest number occurring in March. Ice jams have affected numerous Montana communities in recent winters. In January, City of Choteau declared a state of emergency and a flood watch was issued for the City of Great Falls. In March of 2019, ranchers along the Yellowstone near Glendive reported flooding caused by ice jam damaged their fences and, ultimately, affected their calving.

Now, as the winter freeze begins to take hold, is the best time for community leaders to remind residents in flood-prone areas that they can take steps to safeguard their families and property. In most cases flood insurance must be purchased 30 days before a flooding event, so it's best not to wait until the ice starts to jam.

SOMETHING TO KEEP AN EYE ON:

The Montana Headwaters Legacy Act

In 1968, Congress passed the Wild and Scenic Rivers Act to preserve rivers with cultural and recreational value in their free-flowing condition for present and future generations. Less than one-half of one percent of Montana's approximately 170,000 miles of river are designated as "wild and scenic."

That percentage may soon be changing. In an act proposed by U.S. Senator Tester, the Gallatin, Madison, and Smith rivers are all proposed to be identified as scenic and further protected. Should the bill be passed, the portion of Montana's rivers with such special designation would nearly double—while remaining at under less than one percent overall.

(Photo by Matt Lavin, sourced from Wikimedia Commons)

STORING WATER NATURALLY IN MONTANA

Valerie Kurth, Water Resource Planner for MT DNRC

This article was originally published in the Montana Watershed Coordination Council's Watershed News.

"Never does nature say one thing and wisdom say another." – Juvenal, The Sixteen Satires

One of the most interesting – and most innovative – recommendations in Montana's State Water Plan (2015) is to explore the use of natural storage and retention to benefit water supplies and ecosystems. But what does natural storage mean, and how can we accomplish it in Montana? DNRC Water Planners recently released a short information paper that addresses these questions and more.

Traditionally, water storage has meant reservoirs, which are usually confined by human-made dam structures. Montana has over 64,000 reservoirs, and most of them are small and privately-owned (more information on dams in Montana). Demand for water in Montana continues to grow, but the likelihood of building new, large-scale reservoirs is slim because these types of projects are expensive, few suitable locations exist, and environmental impacts would need to be mitigated.

So, in the absence of additional reservoir storage, how can we continue to meet the increasing water demand? One option is to promote nature's intrinsic ability to store water.

Riparian areas, floodplains, wetlands, and even agricultural land can act like a natural sponge. During spring run-off, they absorb water, which is then slowly released back into the channel over the summer months. This short-term, alluvial aquifer storage serves a key function: the returning water helps maintain river and stream flows late into the summer, when aquatic organisms – and people – need it the most. This type of natural storage is simple and inexpensive, as long as the ecosystem is intact (i.e., the channel can access the floodplain and the floodplain is stabilized by the roots of native vegetation).

We can also enhance the volume of naturally stored water using one or more of the following approaches:

1. Floodplain restoration – Keeping rivers and adjacent riparian areas healthy and functional is the easiest approach, but it is not always possible. If the integrity of a river is already compromised, then it can be restored by reconnecting the floodplain, planting riparian vegetation, and allowing the channel to move dynamically. All of this will promote shallow, temporary storage of water in adjacent floodplains.

2. Irrigation infrastructure – Seepage from irrigation canals and flood irrigation recharges shallow alluvial aquifers to supply late-season flows. Irrigation infrastructure already exists in many places, and it may be feasible to run water through it during spring runoff. However, restrictions on the time period of diversion may limit the practicality of this strategy in Montana.

3. Wetlands and infiltration galleries – Unallocated water could be diverted into constructed wetlands or retention basins. Beaver dams and their artificially constructed analogs may hold the key to creating and maintaining wetlands as natural storage systems. Check out the real world examples highlighted in the Big Hole Watershed Committee's new video, Holding Back the Snowpack.

This healthy, intact floodplain along the Gallatin River fosters natural water storage and allows plenty of room for the river to meander across the floodplain.

Natural and nature-based solutions are gaining traction around the country as effective solutions to reducing the risks of weather- and climate-based hazards, especially storm-related flooding (more information here and here). Many of the same strategies for mitigating flood waters, such as preserving wetlands and keeping riparian areas intact, also function in natural water storage. Importantly, these solutions usually bring additional benefits: conserving bird habitat, protecting drinking water, and enhancing recreational opportunities are all ecological bonuses. And, when looking at the bottom line, nature-based solutions are typically more cost-effective than heavily engineered approaches (like dams) because they do not require ongoing maintenance.

MT STORM WATER 2021
Resilience
BUILDING SUSTAINABLE COMMUNITIES

Save the date for the 2021 Montana Storm Water Conference, May 3-5, 2021 in Missoula, MT. This is a time to gather, share, learn and collaborate on storm water and water quality issues with your local, regional and national colleagues.

This event will attract public officials, contractors, engineers, builders, developers, consultants, regulators, water resource managers as well as watershed groups, public works and utilities directors and more. Come to network, come to learn!

The 2021 Storm Water Conference seeks to enable resilience in our local communities and across the watersheds we call home. We will bring professionals together to facilitate discussions and create networking opportunities to help build strong communities; rehabilitate blighted areas; learn ways to provide better services to those in our communities we serve; while continuing to find innovative ways to better protect water quality.

Attendees will learn about storm water program planning and management, watershed management and restoration, water quality monitoring, design/build best practices, new technologies, and hear stories of success. Special emphasis will be given to sustainability topics such as asset management, land-use planning, green infrastructure, low impact development, funding mechanisms, regulatory updates, and community engagement. Special training sessions will expand opportunities for attendees to Learn, Network, and Participate!

To make this successful, we need Montana's storm water professionals to take part. Share your experiences, success stories, lessons learned and demonstrated collaboration on projects. Topics range from stream and watershed health to climate change and resilience. Submit an Abstract!

Please visit https://www.mtstormwaterconference.org/ for more information.

Photo credit: Destination Missoula

New this 2020-21 School Year

Students blending science & civics for real-world resilience in their communities!

This year's theme features natural disasters, such as wildfire, flooding, drought, severe storms, & stormwater.

The RISE Challenge is a national program that has expanded to Montana as the RISE Challenge Big Sky. It's a game-changer for formal & informal educators and their middle and high school students!

RISE stands for Resilience, Innovation, Sustainability for the Environment.

Part inquiry-based learning, part competition, and part Summit, RISE Challenge Big Sky engages middle and high school students to explore and identify real-world environmental issues, conduct research, and develop solutions and action plans for making their communities more resilient.

All proposals are eligible for implementation funds and are judged by panels of experts. Groups with the top 5 proposals will be invited to present at a spring Summit for the chance to win prize money up to $1,000!

Educators — Join the Challenge!

- No cost to participate
- PD & custom support from the Big Sky team
- High-quality resources provided
- Real-world experiences & skills for students
- In-school, after-school, or other groups

Who is leading the RISE Challenge Big Sky?

Missoula-based educational nonprofit Brightways Learning (and its local partner, the Watershed Education Network) have teamed up with FEMA, the ASFPM Foundation, and Earth Force.

National Partners/Sponsors

FEMA · ASFPM foundation · EARTH FORCE

Big Sky Coordinators

Brightways Learning · watershed education network

Professional Experts — Volunteer!

Volunteers are the driving force behind the RISE Challenge Big Sky! There are a variety of flexible ways for you to help your Montana community RISE, such as:

- helping students guide their research
- serving as a Summit judge
- co-leading training opportunities

Most of these opportunities are one-time commitments. Exceptions could be "expert" volunteers or community stakeholders who may work with educators and students on their RISE Challenge project proposals.

If you are involved with...

- floodplain management
- environmental issues
- emergency management
- natural hazard mitigation
- state and federal policies
- or a similar area of expertise,

...then please view our volunteer flyer for more information. Your community – and the environment – will thank you!

To learn more & sign-up to participate:

Visit brightwayslearning.org/rise
or contact Tina Hamilton
thamilton@brightwayslearning.org

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Retirements and Departures

The DNRC would like to recognize the service Charlie Sheets (City of Great Falls) and Brian Bender (City of Deer Lodge) have contributed to their communities, and thank them for their many years of hard work. It has been a pleasure working with each to support community floodplain management goals.

Congratulations TO CHARLIE SHEETS

Like so many involved in floodplain management, Charlie wears many hats along with Floodplain Administrator for the City of Great Falls. Charlie started with the City 34 years ago as a Code Enforcement Tech, then Building Inspector, Rehab Specialist, Plan Reviewer, City Planner and currently titled Development Review Coordinator doing mostly Residential Plan Review. Charlie accepted the assignment of Floodplain Administrator in 2010 and was certified as a Floodplain Manager in 2012. Working with colleagues at the City, County, State and Region 8, Charlie helped the City compile enough points to lower to a Class 7 CRS rating in 2017.

Charlie writes: Great Falls has not had a significant flood events in my tenure as floodplain administrator (close one in 2011 as so many in our State did experienced) so why press my luck, I should consider passing on the torch next year in 2021. We've been so lucky to enjoy and protect the wonder and majesty of the Missouri River. I have enjoyed and successfully helped numerous property owners with their projects along the banks of the Sun and Missouri Rivers of Great Falls, so they may continue to enhance and enjoy their properties. It's been a pleasure and good experience getting to know and work with everyone associated with AMFM.

Happy Trails TO BRIAN BENDER

Brian started with Powell County as Planning Director and Floodplain Administrator in 2011 and remained with the County until 2016. During his tenure with the County, Brian earned his CFM status and received the distinction of a Certified Environmental Planner through the American Planning Association. In August of 2016, Brian became the City of Deer Lodge's first Chief Administrative Officer where his numerous responsibilities included floodplain administration. The City embarked on several important projects to reduce flood risk, including the removal of a residence through the acquisition program and starting a new planning/ engineering effort to apply a fresh approach to reducing the flood risk from Cottonwood Creek.

Brian is departing to take advantage of the wonderful opportunity to be the City Manager of Willits, California. Although, he will not be directly involved with floodplain management, he intends to maintain his CFM and attend conferences to form new relationships with California floodplain professionals.

Brian writes: During my tenure with the County, I was fortunate to start a beneficial association with DNRC and AMFM that helped me learn the practice of floodplain permitting in Montana. I would say my greatest accomplishment during my career with the City of Deer Lodge was my opportunity to educate the City Council of the importance of qualified floodplain management to the community. The Council is now aware of the consequences of allowing unwise (or illegal) development in regulatory flood zones and how those decisions impact an entire community.

Welcome to the newest Floodplain Administrator in the state

SCOTT HAZELTON | Powell County Floodplain Administrator

Updated list of local Floodplain Administrators
CLICK HERE

Contact shaye.bodine@mt.gov with updates

Did you know??

Training Opportunities

January 20th: New FPA and basic enforcement training.

First week in March: Virtual workshops. Check your email for specifics soon!

Montana Flood After Fire Guidebook

Newly published, this guidebook is intended to be a resource for local communities recovering from fire and preparing for flood impacts. **Click here** find it on the DNRC website!

ABOUT THE MONTANA HIGHGROUND

We are always accepting articles and ideas for this newsletter! Please email your contributions at anytime to shaye.bodine@mt.gov

The Highground Newsletter is a quarterly publication of the Montana DNRC Floodplain Program. This newsletter & other DNRC Floodplain Program activities are funded, in part, through grants from FEMA.

Persons with disabilities who need an alternative accessible format of this document should contact the DNRC Public Information Officer at 406-444-0465.

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