



The Ides of March have slipped quietly by, much to our liking, yet March was not uneventful. Following are brief summaries of notable Montana FWCO activities/accomplishments occurring this month.

## Passage restored-

Often touted as the longest of the undammed rivers in the continental United States, the Yellowstone River flows approximately 670 miles from Yellowstone National Park, Wyoming to confluence with the Missouri River in North Dakota. Along this path, there are six low-head diversion weirs that raise water elevations for irrigation diversions (Figure 1). While technically not dams, as one would think of the Hoover Dam, these low-head diversion structures can be migration barriers to fish.

The upper most barrier, Huntley Dam, is a Bureau of Reclamation structure built circa 1907. Flooding in 1997 resulted in Huntley Dam needing repairs and updating.

As part of this effort, a fish bypass channel was also constructed in 1999. This fish passage structure was not built to the design specifications and provided little passage opportunities. Additionally, this bypass feature soon became clogged with debris; rendering it nonfunctional (Figure 2).

In 2013, the Montana FWCO entered into a cooperative agreement with the Yellowstone County Conservation District to restore and rebuild the fish passage structure. Funding from the Fish and Wildlife Service was provided under the National Fish Passage Program.

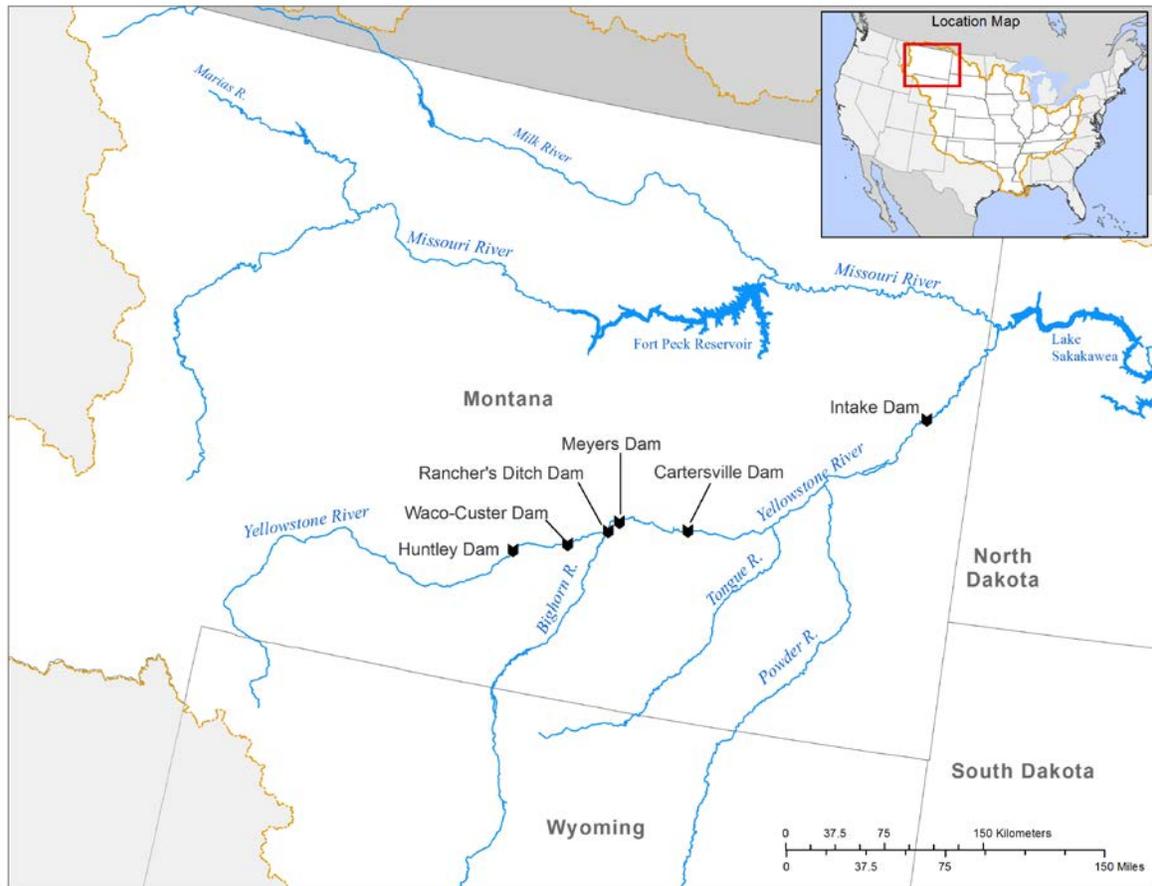


Figure 1. Map depicting location of low-head irrigation diversion weirs on the Yellowstone River, Montana.



# MONTANA FISH AND WILDLIFE CONSERVATION OFFICE

BILLINGS – BOZEMAN – GREAT FALLS – LEWISTOWN



Figure 2. Debris jam at upper end of bypass channel (left), and siltation in lower end of channel (right).  
*USFWS photos*

A partnership with Reclamation, Montana DNRC Montana FWP, and others soon evolved. After several years involving much planning and coordination, the existing fish passage channel was completely rebuilt with passage being restored in late-March (Figures 3 and 4).



Figure 3. Debris jam removed. *YCCD photo.*



Figure 4. Restored lower reaches of bypass channel with improved slope. *YCCD photo.*



## Sikes Act Work at Malmstrom Air Force Base

Unlike The Wizard of Oz, where it was Lions and Tigers and Bears, (Oh, my!) the Malmstrom March mantra seems to have been Deer and Sage Grouse, and Weeds (Oh, my!)

- Elin Pierce, USFWS, established a working group to initiate collaborative discussions among Malmstrom Air Force Base personnel, USDA- APHIS, Montana FWP to discuss crafting a new Deer Management Plan-one consistent with the current flight mission at the base.
- Planning for the 2015 sage grouse surveys was in full swing with several Montana FWCO staff, Elin and Josh Melton, and a few volunteers working diligently to initiate listening route surveys to begin in April. Surveys are planned for strategic locations throughout the 25,000 square miles in north-central Montana that comprises the missile field managed by Malmstrom Air Force base.
- Planning for 2015 weed control hit full swing in March. With the recent completion of the Noxious and Invasive Plant Species Control Plan for Malmstrom Air Force Base, Robbin Wagner and Josh, enrolled in pesticide application training as well as developed preliminary plans for herbicide application to target knapweed, spurge, and other invasive plants. Robbin is now a certified Government Regulatory Weed Applicator recognized with Montana Dept. of Agriculture.

## St. Mary Bull Trout monitoring and conservation

Jim Mogen continues to serve as the lead biologist for the St. Mary Bull Trout recovery efforts. During March, Jim continued to assist Reclamation with various aspects of the development of their proposed St. Mary Diversion and Fish Screening and Passage Facility, including meeting with and working closely with their Natural Resource Personnel, acting as Team Leader on the St. Mary Diversion Biological Review Team and preparing fishery related reports and documents.

## Arctic Grayling

The Montana FWCO continues to support Red Rock Lakes National Wildlife Refuge and Montana Fish Wildlife and Parks (MFWP) with Arctic grayling conservation within the refuge boundaries.

Jim, Josh, and Andrew Gilham have been working on developing a series of fixed passive integrated transponder tag (PIT tag) array system that will allow for passively recording Arctic Grayling movements once the system is installed. The data from these systems will provide valuable insights in early life history use of several streams within the refuge boundary.

Additionally, repairs and upgrades were made to the fish weir and trap that will be installed in Red Rock Creek this April as part of our grayling monitoring and hybrid trout removal efforts.

## Cutthroat Trout

Montana FWCO staff attended several meetings related to cutthroat trout conservation and restoration where Robbin provided partners



## Cutthroat Trout continued...

with updated information as part of the annual database update as well as an overview of our work to restore native Yellowstone Cutthroat Trout to Crow tribal waters as well as providing

Planned activities on the Crow Reservation for the 2015 field season include:

- 1) Stocking native Yellowstone Cutthroat Trout into Shively Creek, Lost Creek, East Basin Creek and Rotten Grass Creek.
- 2) Finalizing a Yellowstone Cutthroat Trout Management Plan for the Crow Reservation.
- 3) Complete the Sage Creek YCT restoration project.
- 4) Reconnaissance surveys on Little Bull Elk Creek near Bighorn Lake and Black Canyon

Creek upstream of the youth camp to determine if natural migratory barriers are present in these streams.

## Other Notable Events

Former Pathways Intern Michael (Josh) Melton was converted to a permanent full-time GS-401 Fish and Wildlife Biologist. He will serve as a biologist with the Montana FWCO sub-office in Lewistown Montana. Congratulations Josh!

Mat Erickson reported for duty as a new seasonal bio-tech in late March. Mat is a welcomed addition to the team and will be primarily assisting with grayling and cutthroat work this spring and early summer and then bull trout in late summer and early fall.

The official "Welcome Aboard" cake custom baked by Judy Kobus-Fisk (and family) in honor of Josh and Mat. This truly was a chocolate and blue creative masterpiece of deliciousness. Thanks Again Judy!

Elin Pierce/USFWS photo.

