

COMPACTS AS A TOOL TO MANAGE WATER: A MONTANA PERSPECTIVE



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Compact Implementation Program
GSA-Joint Cord-RM Section Meeting

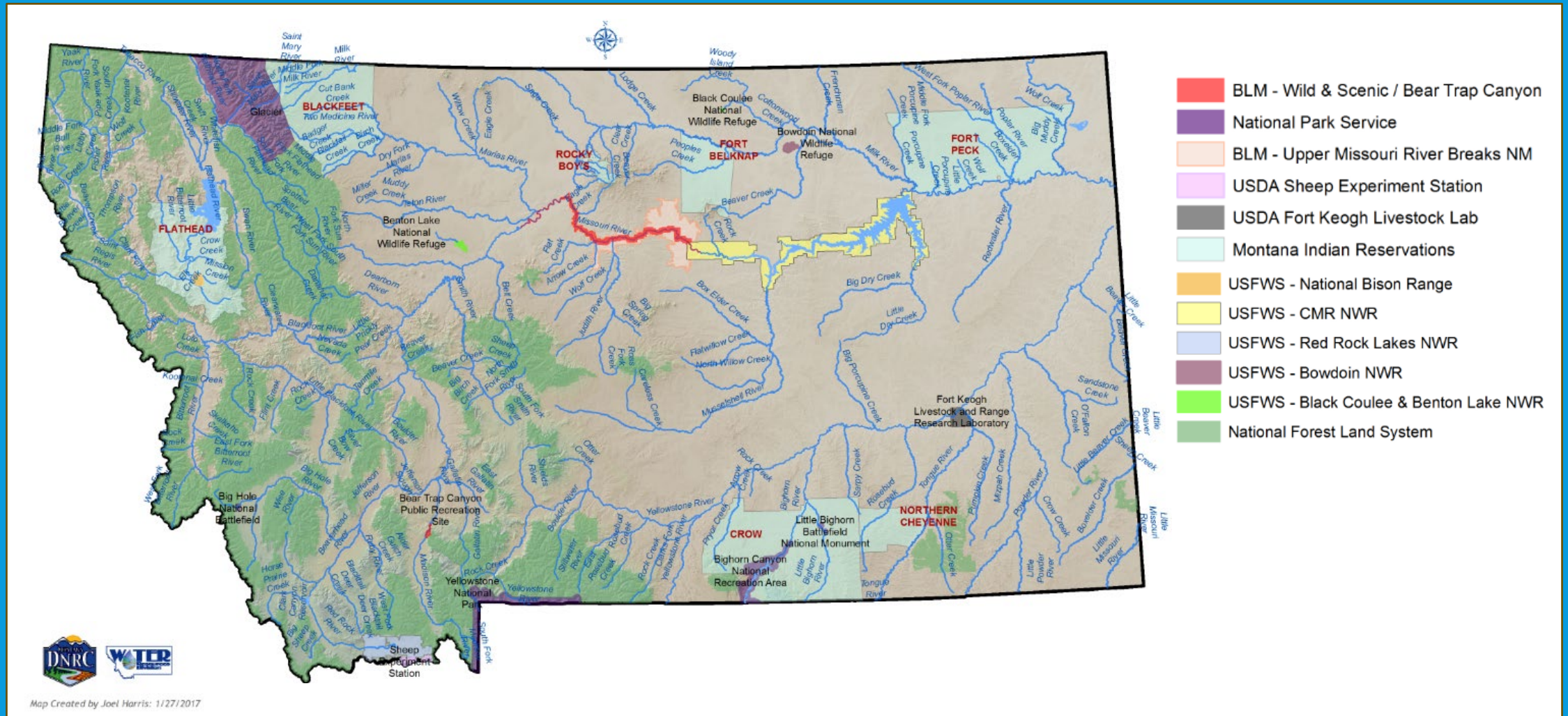


May 14, 2024

COMPACT NEGOTIATIONS PHASE (BETWEEN 1979 AND 2015)

- Reserved Water Right Compact Commission negotiated 18 water right compacts.
- 7 Indian Tribes and 11 federal reserved water right compacts.
- Prior Appropriation Doctrine (First in Time, First in Right)
- Tribal/Federal reserves have senior priority.
- Protect the interests of state-based water users.
- Introduced as a bill to the MT Legislature and U.S. Congress.

MONTANA WATER RIGHTS COMPACTS



COMPACT IMPLEMENTATION PHASE (2015 TO PRESENT)

Settlement funds

- Measurement (e.g., stream gaging, monitoring wells, remote sensing)
- Water Infrastructure (e.g., dam and irrigation project rehab)

Environmental protection

- Instream Flow (e.g., sustaining fisheries and recreation)

U.S. NATIONAL PARK SERVICE-STATE OF MONTANA COMPACT (1995)



Became effective on May 30, 1995



Reserved Water Rights Compact between U.S. National Park Service (NPS) and the State of Montana



Objective: "...shall be to allow no impact to the hydrothermal system within the reserved land of Yellowstone National Park (YNP)."



A Technical Oversight Committee (TOC) provides oversight of permitting and monitoring in the Yellowstone Controlled Groundwater Area (YCGA).

YCGA WATER PERMITTING AND MONITORING NETWORK

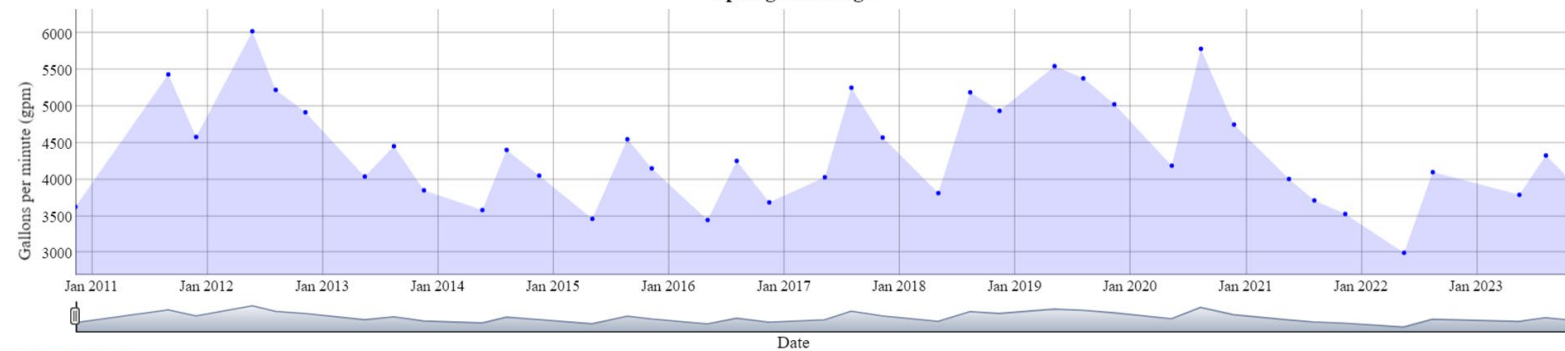
- Water Use Measurement Requirement.
- Water Temperature less than 60 °F results in regular permitting or exception process.
- If greater than 60 °F
 - Temperature calculations (normal thermal gradient).
 - Cl Concentrations less than 10 ppm.
 - Source aquifer is not the Madison Group Aquifer.
- If greater than 85 °F
 - DNRC will not process the application unless credible evidence is provided to show that the water is not a hydrothermal discharge.



COLD WATER SPRINGS

- 34 Active Monitoring Sites (MBMG)
- Maintaining water quantity and quality of these springs is crucial to fish and wildlife habitat.

Spring Discharge

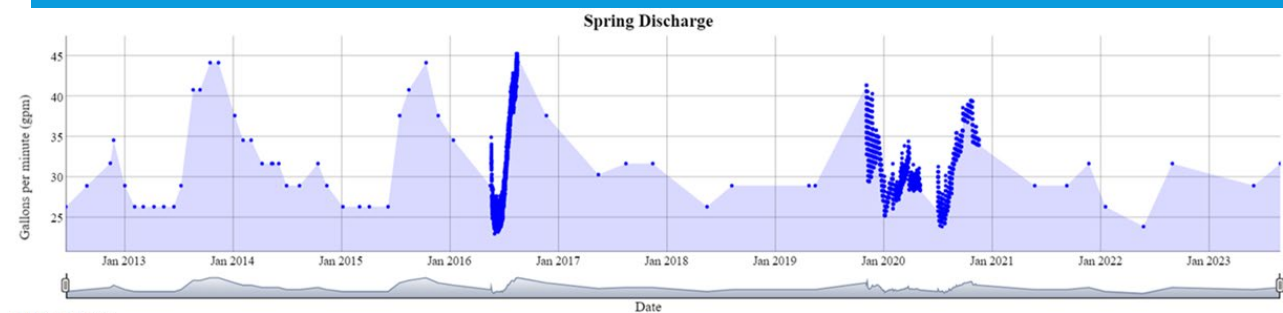
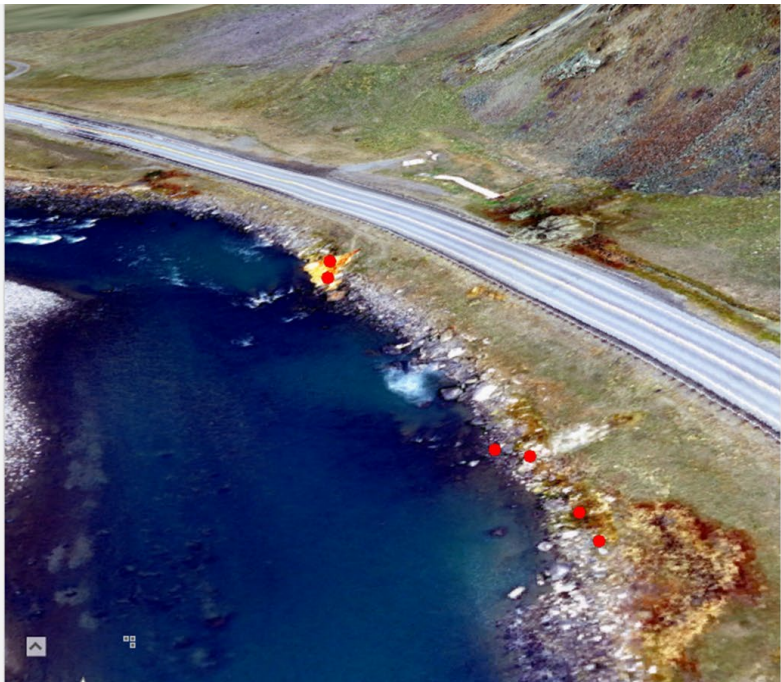
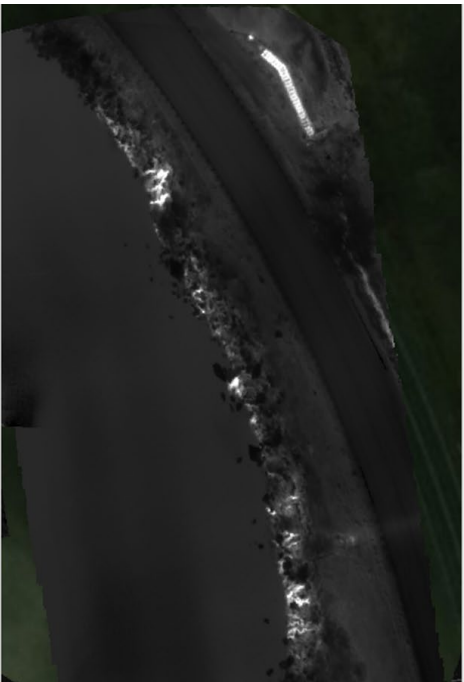


GWIC Id: 182014
Site Name: COREY SPRING (MANSHIP, MIKE)
Location: 12S05E7BCCC
Number of Measurements: 38
Period of Record: 11/11/2010 2:30:00 PM - 11/1/2023 9:20:00 AM



HOT WATER SPRINGS

- LaDuke Hot Springs-
Yellowstone Hot Springs
- Bear Creek Hot Springs
- Bakers Hole



GWIC Id: 197921
Site Name: BEAR CREEK
Location: 09S09E19DBBC
Number of Measurements: 9863
Period of Record: 6/18/2012 3:00:00 PM - 8/29/2023 8:59:00 AM

U.S. FOREST SERVICE-STATE OF MONTANA COMPACT (2007)



Became effective on April 17, 2007



Reserved Water Rights Compact between U.S. Forest Service (USFS) and the State of Montana

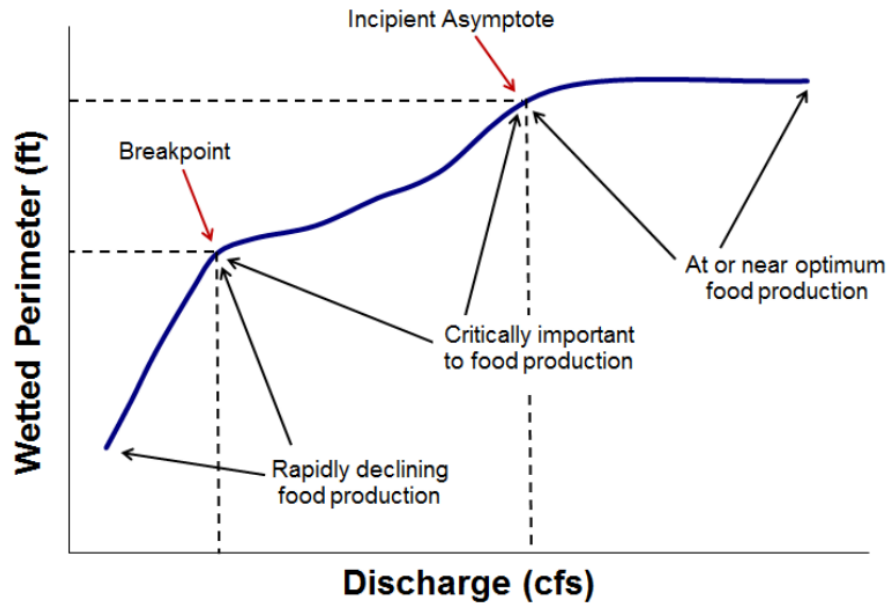


The Compact recognizes current and future administrative uses, 77 instream flow rights for fisheries and one for a wetland.

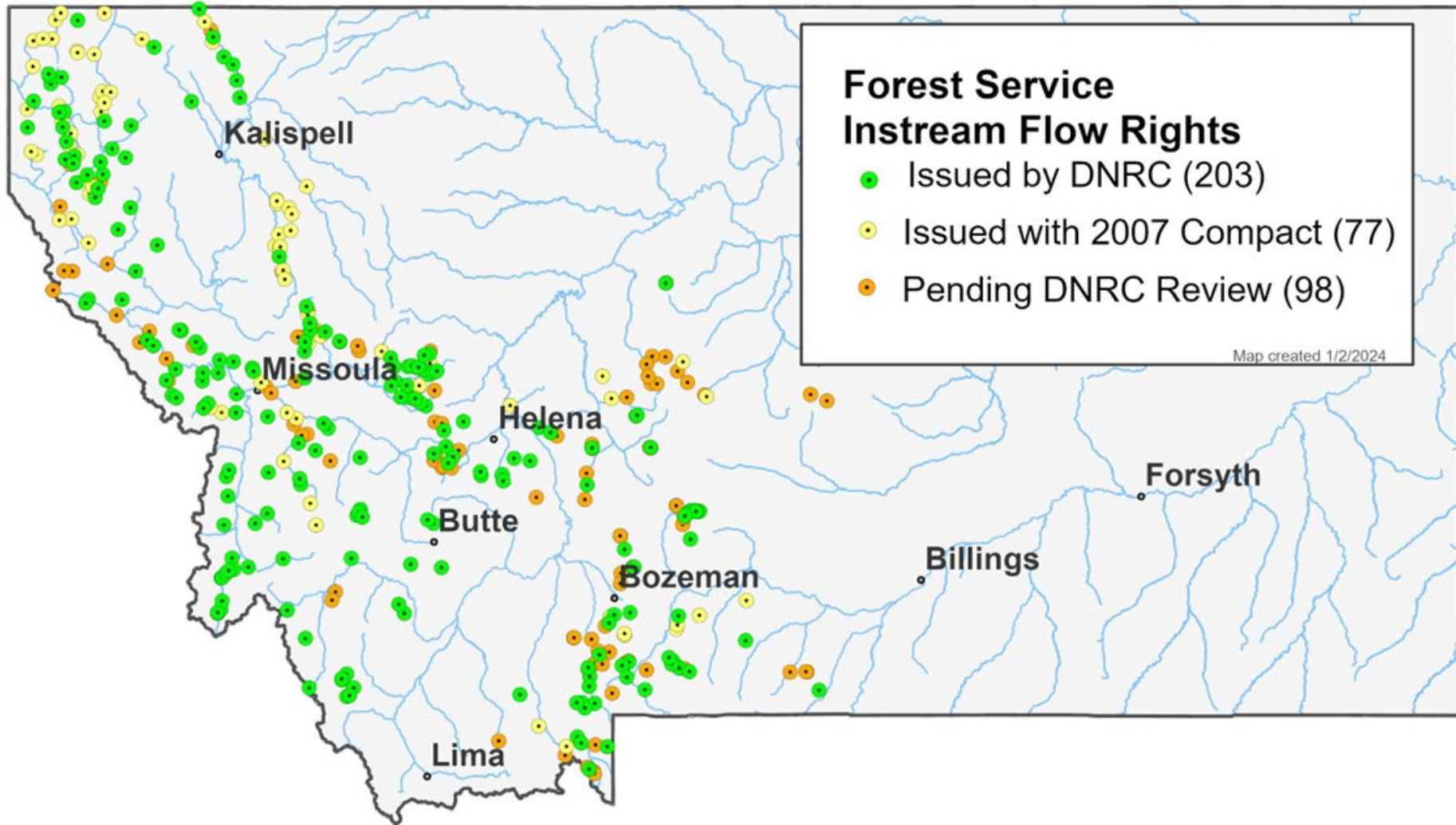


Established a process that the USFS may use to apply for additional instream flows under state law on streams throughout the National Forest System lands in Montana.

DATA COLLECTION FOR INSTREAM FLOWS



- USFS field crews conduct fish surveys, discharge measurements and cross section surveys in riffle stream habitats.
- USFS uses the data and develops a wetted perimeter-discharge curve with an upper and lower inflection point (Wetted Perimeter Method described by Nelson (1989) and CDFW (2020)).
- Generates 'upper' and 'lower' flow rate values (breakpoints) that designate habitat quality thresholds.
- Upper breakpoint is the instream flow rate for species of concern and lower breakpoint is for other fish species.



USFS INSTREAM FLOW LOCATIONS

CONFEDERATED SALISH AND KOOTENAI TRIBES-STATE OF MONTANA COMPACT (2021)



Became effective on September 17, 2021



Reserved Water Rights Compact between Confederated Salish and Kootenai Tribes (CSKT) and the State of Montana



The Unitary Administration and Management Ordinance took effect, and the Flathead Reservation Water Management Board ("FRWMB" or "Board") was established.



Established Tribal Water Rights, adaptive management strategies, and funded Rehab and Betterment Project and Operation Improvements.

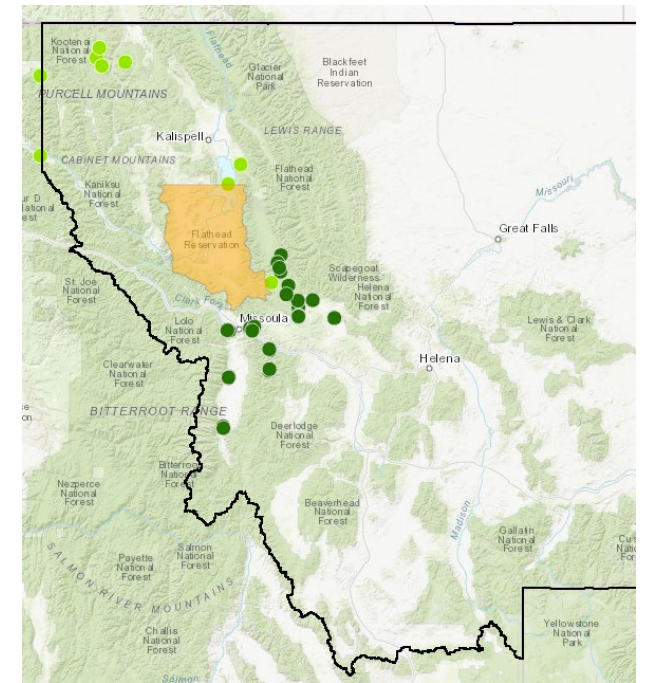
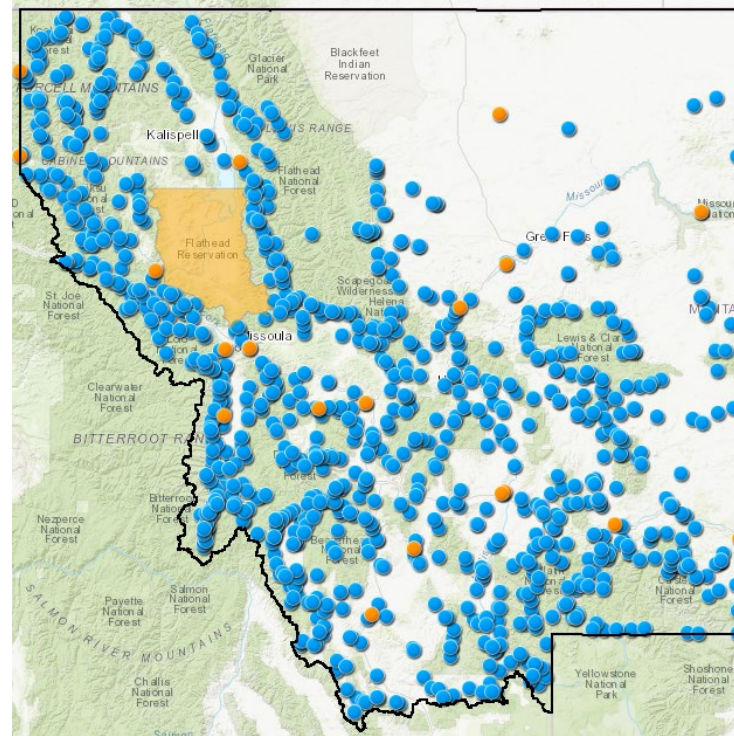
JOINT ADMINISTRATION OF WATER RIGHTS

- Flathead Reservation Water Management Board (FRWMB) established under the Unified Administration and Management Ordinance (§ 85-20-1902, MCA)
- Sole jurisdiction for administering water rights on the Reservation
 - Unique to CSKT Compact
- DNRC maintains jurisdiction over water rights in the rest of the state
- 5 voting board members
- Administrative arm is the Office of the Engineer
- CSKT and DNRC provide financial and technical support.



EFFECTS ON WATER RIGHTS

- Limits CSKT's rights to make call on junior water users
 - non-irrigation existing water right
 - Irrigators with groundwater rights under 100 gpm protected from call
- CSKT agreed to relinquish all other water rights claims in Montana
- Expedited process for water users with domestic wells or stockwater uses to obtain water rights.



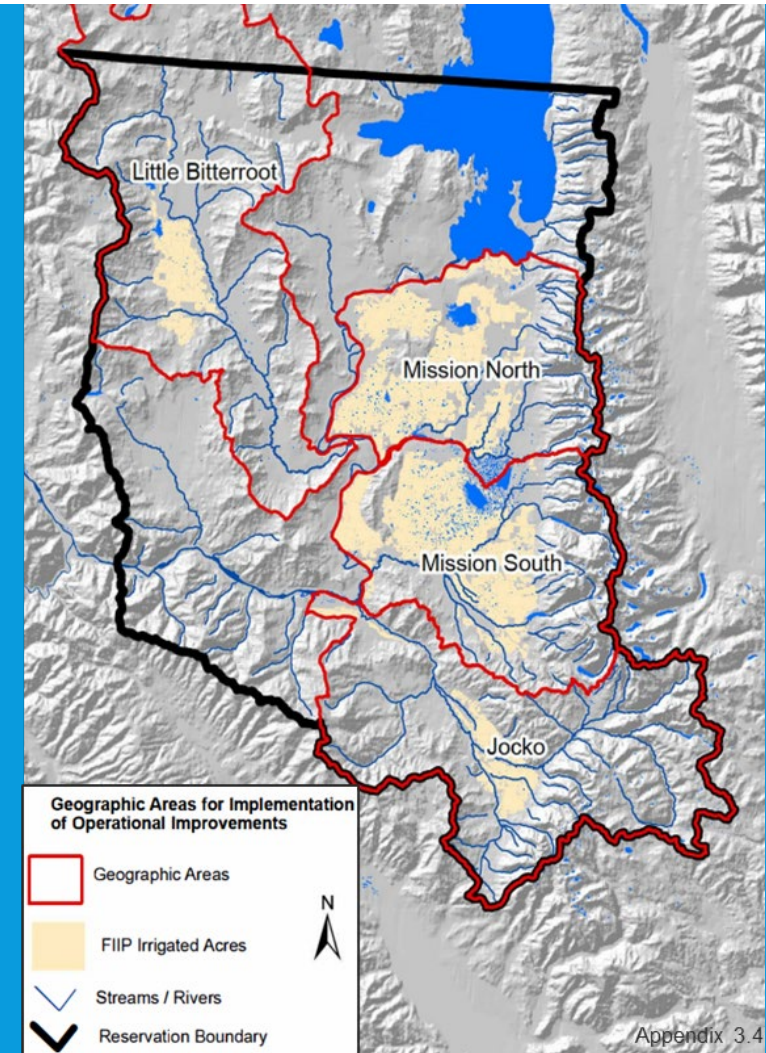


TRIBAL WATER RIGHT

- Compact recognizes existing Tribal uses, including traditional Tribal cultural and religious uses
- Off-Reservation
 - Instream flow rights on the Kootenai River, Swan River, and Lower Clark Fork River
 - Co-ownership of former Milltown Dam right with FWP
- On-Reservation
 - Wetlands and high mountain lakes protected to natural extent
 - Minimum pool elevations for Flathead Indian Irrigation Project (FIIP) reservoirs
 - Instream flows
 - Flathead Lake minimum pool level.

COMPACT IMPLEMENTATION TECHNICAL TEAM (CITT)

- Plans and advises on the implementation of adaptive management, rehabilitation and betterment, and operational improvement projects.
- 5 members
- Allocate \$55 million for projects
- Project examples:
 - Bathymetry study
 - Mesonet stations
 - Irrigation efficiency improvements
 - Stockwater mitigation



ADVANTAGES AND DISADVANTAGES OF WATER COMPACTS

▪ Advantages

- Collaborative and transparent process
- Holistic approach to water rights
- Named technical priorities

▪ Disadvantages

- Compact rights must be integrated into state-based water right process
- Can increase red tape
- Additional workload to fulfill compact requirements



FUTURE COMPACT IMPLEMENTATION WORK

- Continue to meet the state's obligations under these compacts.
- Plan for on-the-ground projects to improve water conservation, development, utilization, and sustainability.
- Lead and provide input to working groups, committees, and technical teams to fund water management projects that increase water use efficiencies.
- Continue to work with partners and stakeholders to meet the future demands for water.
- Increase awareness and understanding of water compacts and their role in water administration.





QUESTIONS/COMMENTS/DISCUSSION

- NPS-MT Compact (1995): Montana Code Annotated (MCA) 85-20-401
- USFS-MT Compact (2007): MCA 85-20-1401
- CSKT-MT Compact (2021): MCA 85-20-1901
- CDFW, 2020. Standard operating procedure for the wetted perimeter method in California. California Department of Fish and Wildlife (CDFW), Instream Flow Program, West Sacramento, CA. CDFW-IFP-004. Version 3.
- English, 2024. Groundwater levels, spring discharge, water monitoring, and well permitting in the YCGA, MT, GSA Abstracts with Programs. Vol. 56, No. 4, 2024, doi: 10.1130/abs/2024CD-399776.
- Nelson, F., 1989. A Literature Evaluation of Montana's Wetted Perimeter Inflection Point Method for Deriving Instream Flow Recommendations. MT FWP document.