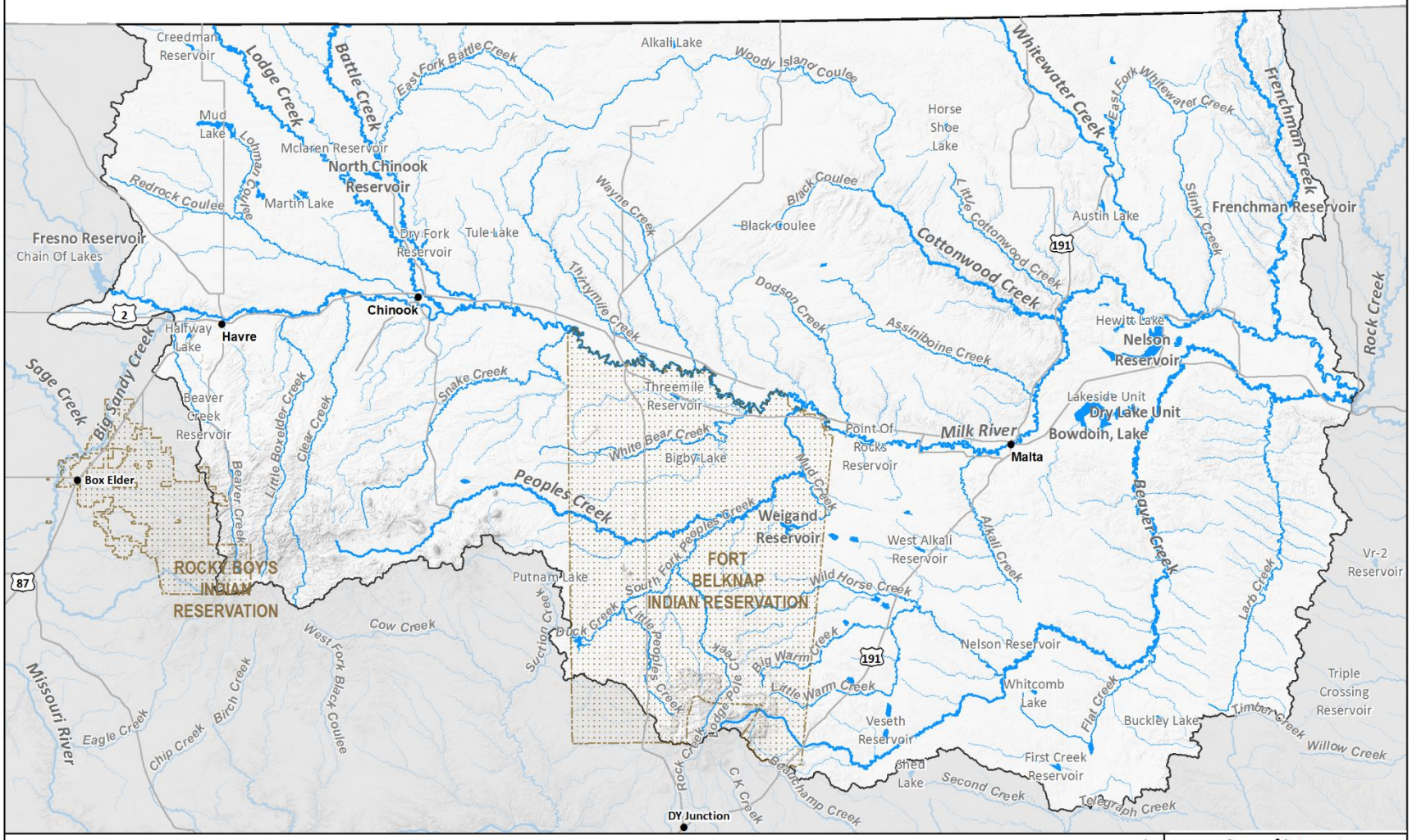
Middle Milk River Drainage

MONTANA FWP



Tribal Lands

Drainage Boundary

N

Area of Interest

Map Produced by:
ASP - Geographic Data Services
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Administrative boundaries and FWP Lands data from Montana Fish, Wildlife & Parks, Helena, MT. Background Imagery from ESRI

0 15 30
Miles

Middle Milk River Drainage

Physical Description

This drainage is in north-central Montana in Hill, Blaine, and Phillips counties and encompasses approximately 8,700 square miles. The landscape is diverse with cottonwood galleries and irrigated crop and hay lands along the Milk River and major tributaries, dry-land agriculture, and rangeland throughout the area, and two island mountain ranges (Bear Paw and Little Rocky). Landownership in this area consists of federal, state, and private lands, including the Fort Belknap Reservation and a portion of the Rocky Boy Reservation. In this drainage, the Milk River flows for 302 miles from Fresno Reservoir downstream to Hinsdale. There are several major tributaries to the Milk River located in this reach. Lodge, Battle, and Frenchman creeks all originate in Alberta and Saskatchewan, Canada; whereas Beaver (Hill County), Clear, Peoples, and Little Boxelder creeks originate in the Bear Paw Mountains and Beaver Creek (Phillips) originates in the Little Rocky Mountains.

There are numerous reservoirs located throughout this area. Most of these reservoirs are generally too shallow to support sustainable fisheries and are primarily used for stock and irrigation purposes. The largest reservoirs by surface acreage are Nelson, Dry Fork, Beaver Creek, Anita, and Ester reservoirs which receive relatively high numbers of visitors for fishing and other recreational activities. Nelson Reservoir is managed as an irrigation storage facility by the Bureau of Reclamation (BOR) and can experience considerable drawdowns during prolonged drought cycles.

Fisheries Management

This area is home to a number of fish species including, walleye, yellow perch, northern pike, black crappie, burbot, sauger, lake whitefish, goldeye, shorthead redhorse, smallmouth buffalo, bigmouth buffalo, black bullhead, bluegill, pumpkinseed, green sunfish, smallmouth bass, channel catfish, largemouth bass, Iowa darter, brassy minnow, stonecat, white sucker, longnose sucker, common carp, emerald shiner, spottail shiner, fathead minnow, brook stickleback, lake chub, pearl dace, northern redbelly dace, longnose dace, western silvery minnow, and western silvery/plains minnow. Species such as rainbow trout, brown trout, brook trout, Rocky Mountain sculpin, and mountain sucker are found in the headwaters of Clear Creek and Beaver Creek. Brook trout are also found in some of the headwater streams located in the Little Rockies.

Nelson Reservoir is managed as a multispecies fishery with an emphasis on walleye management that promotes healthy walleye growth and favorable recreational catch rates. Since 2004, Nelson Reservoir has been annually stocked with 100,000 walleye fingerlings to augment the existing, wild population. Walleye fingerlings stocked from 2007 to 2017 were marked to evaluate recruitment of stocked walleye compared to wild walleye to the fishery. Based on this analysis, survival of stocked walleye in Nelson Reservoir was determined to be variable, ranging from 11% to 43%. On average, 25% of the walleye collected during fall netting surveys from 2007 to 2017 were identified as products of hatchery reared fingerlings. This evaluation suggests a variable number of stocked walleye are surviving and recruiting to the fishery. The majority of walleye in the Nelson Reservoir fishery are products of natural reproduction.

Since the early 1990s, walleye abundance in Nelson remained stable, even during extreme water drawdown events. However, successive drawdowns of the reservoir for BOR safety of dam repairs and

irrigation withdrawals during drought periods have resulted in below average perch and crappie production for four years (2019 to 2022). The reduction in overall forage production reduces relative weight and condition of walleye and pike. Walleye stocking in Nelson will continue as walleye growth, relative weight, and age structure of the population remain good. Forage populations in Nelson are more diverse than those in Fresno Reservoir (Part II Chapter 2.27 Upper Milk River Drainage) and appear more resilient to short-term drawdowns. FWP will continue to work with BOR on water level management for Nelson that emphasizes the importance of inundation of key spawning and rearing habitats and the importance of natural reproduction of the multispecies fishery.

Limited information is available on species composition, densities, interactions, and habitat use of native and non-native fish within the middle Milk River. Development of a standardized sampling program for this reach has not occurred due to staffing limitations and the fact that other components of the program are higher priority.

Smaller reservoirs located throughout the area are managed for diversity and recreational opportunity. Many of these waters are monitored every one to five years, based on angler use and location. Trap and transfer of warmwater species such as yellow perch, bluegill, black crappie, and fathead minnows is used to establish new fisheries, promote kids fishing, establish a forage base, or to supplement existing populations. Hatchery reared rainbow trout and largemouth bass are stocked into those ponds that have traditionally received them and exhibit good overwinter water conditions. Ponds and reservoirs will be restocked following severe drought events or winterkills. Windmill aeration systems are maintained on those ponds with marginal depths and low winter dissolved oxygen levels.

Angling opportunities occur year-round with anglers typically targeting the rivers and streams during the spring and shifting to ponds and reservoirs from late spring through winter. Shore, boat, and ice fishing opportunities exist throughout the area with anglers using a variety of methods to catch multiple species.

Habitat

The middle Milk River is one of the most impacted sections of river in Montana. There are eight instream dams/diversions used to divert water for irrigation and municipal use that are barriers to fish passage. Fish passage issues also exist in the larger tributaries, with a dam located on Frenchman Creek (Frenchman Dam). Current staffing limit FWP's ability to identify and evaluate areas that restrict fish passage. Involvement with the 310 and SPA 124 permitting programs is often the only opportunity for biologists to interact with landowners and recommend best management practices on stream altering projects and provide alternatives for projects that degrade aquatic habitats. Furthermore, budget and staffing limitations preclude actively identifying stream bank stabilization and riparian enhancement projects.

Nelson Reservoir is an off-stream storage facility that draws water from the Milk River and has water levels that are relatively stable, except during extreme drought, compared to other reservoirs within the area. Ensuring stable or rising reservoir levels during critical spawning and rearing periods allows this fishery to maintain balanced predator-prey densities and good growth rates.

Riparian and aquatic habitats associated with smaller reservoirs vary depending on current rotational grazing plans, fencing, and sedimentation. Water quality also varies based on surrounding land

practices, depth, and seasonal climate. Working with federal agencies, such as the Bureau of Land Management (BLM), to implement riparian fencing and off-site watering projects for livestock improves riparian habitats and increases the aesthetic values surrounding these small reservoirs. Additional work to identify storage losses due to sedimentation and reservoir aging would aid in identifying potential projects to increase aquatic habitats and productivity.

Special Management Issues

Milk River Water Management

The St. Mary canal and existing infrastructure has exceeded 100 years in age and federal funding has been earmarked to start rehabilitating this infrastructure. The St. Mary's Working Group is working on a plan to update and repair the existing infrastructure to ensure St. Mary River water continues to be diverted into the Milk River for irrigation. BOR has finished a recent trans-basin study and identified future climate change and highly variable water supplies being the biggest factors limiting all users in the next 40 years. FWP will remain engaged with the St. Mary's Working Group and local irrigation districts to identify opportunities to address aquatic resource conservation in the basin.

FWP recognizes the complexities and importance of Milk River water to the many users of the system. Additionally, FWP strongly supports agricultural production on the Hi-Line and the critical link to reliable, cost-effective Milk River water. FWP supports the restoration of the Milk/St. Mary system.

Dace Conservation

A recent study found the distribution and density of northern pearl dace, northern redbelly dace, and northern redbelly dace × finescale dace hybrids have declined. Pearl dace are present in several streams on the middle Milk and declines were attributed to habitat alterations and predation by northern pike, which have expanded their distribution. Conservation and management strategies include: 1) Identify threats to known pearl dace populations (principally northern pike populations), 2) Expand sampling effort to identify additional dace populations within their historic range, 3) Identify strategies to conserve current pearl dace populations (barrier construction, northern pike suppression and future northern pike stocking strategies near known pearl dace populations), 4) Long-term monitoring program to assess population trends, and 5) Identify habitat enhancement opportunities (water leases/conservation and stream restoration). FWP will continue to identify areas to implement these strategies for dace conservation.

FISHERIES MANAGEMENT DIRECTION FOR MIDDLE MILK RIVER DRAINAGE

Water	Miles/Acres	Species	Recruitment Source	Management Type	Management Direction
Milk River - Fresno Reservoir tailwaters to Hinsdale	302 miles	Walleye, Northern pike, Yellow perch, Black crappie, Lake whitefish, Sauger (N), Channel catfish (N), Burbot (N)	Wild	General	Develop and implement a standardized sampling program to monitor sport fish populations. Better understand fish entrainment losses through diversion canals and intake structures.
		Native nongame fish (N)	Wild	Conservation	Monitor populations to detect changes in species composition and abundance.
		Rainbow trout	Hatchery	Put-Grow-and-Take	Continue to stock 4,000 rainbow trout into the Fresno dam tailwaters annually.
Habitat needs and activities: Work with local, state, and federal agencies along with landowners to implement best management practices that improve or maintain natural riverine habitats. Monitor stream water temps throughout the summer and fall.					
Beaver Creek section 03 and 04- Bear Paw Lake headwaters to East Fork Dam tailwaters	12 miles	Brook trout, Rainbow trout	Wild	General	Manage for self-sustaining brook trout fishery. Continue to monitor and understand fish distribution and population size.
Habitat needs and activities: Work with Beaver Creek County Park to implement best management practices that improve or maintain natural riverine and riparian habitats. Monitor stream water temps throughout the summer and fall.					
Beaver Creek section 02- Beaver Creek	8 miles	Brown trout	Wild/Hatchery	General	Continue to monitor population and stock 2,000 brown trout annually.

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Reservoir headwaters to Bear Paw Lake tailwaters.		Rainbow trout, Brook trout, Walleye, Northern pike, Yellow perch, Smallmouth bass	Wild	General	Continue to monitor population and understand fish distribution and population size.
Habitat needs and activities: Work with Beaver Creek County Parks to implement best management practices that improve or maintain natural stream and riparian habitats. Monitor stream water temps throughout the summer and fall.					
Bear Paw Lake	45 acres	Rainbow trout Brook trout, Smallmouth bass White sucker	Hatchery Wild Wild	Put-Grow-and-Take General Suppression	Stock rainbow trout annually for put-grow-and-take trout fishery. Manage for self-sustaining brook trout and smallmouth bass population. Continue annual efforts to trap and remove adult white suckers to lower densities and increase trout growth.
Beaver Creek section 01-confluence of Milk River to Beaver Creek Reservoir tailwaters.	22 miles	Brown trout Rainbow trout, Brook trout, Walleye, Northern Pike, Yellow Perch, Smallmouth bass	Hatchery Wild	General General	Stock brown trout annually for put-and-take trout fishery. Continue to monitor population and understand fish distribution and population size. Identify northern pike distribution and impacts to other fish species.
Habitat needs and activities: Work with local, state, and federal agencies along with landowners to implement best management practices that improve or maintain natural riverine habitats. Monitor stream water temps throughout the summer and fall.					
Beaver Creek Reservoir	160 acres	Rainbow trout, Walleye	Wild/Hatchery	General	Stock rainbow trout annually for put-and-take trout fishery. Evaluate current walleye stocking programs success. Implement a

Water	Miles/Acres	Species	Recruitment Source	Management Type	Management Direction
					walleye stocking strategy that optimizes stocked walleye recruitment and relative abundance while maintaining a favorable forage base.
		Northern pike, Yellow perch, Smallmouth bass, Brook trout	Wild	General	Continue to monitor populations as well as evaluate the biological and social impacts regarding a black crappie introduction into the reservoir.
Habitat needs and activities: FWP has requested that reservoir water levels remain stable to slightly increasing during the spring spawning period (April to May).					
Clear Creek	40 miles	Walleye, Northern pike, Yellow perch, Sauger (N)	Wild	General	Monitor assemblage and population size of game fish. Identify northern pike distribution and impacts to other fish species.
		Native nongame fish (N)	Wild	Conservation	Protect habitat and provide passage where applicable.
		Brook trout	Wild	General	Manage for self-sustaining brook trout fishery.
Habitat needs and activities: Identify habitat issues and work closely with local conservation districts, county road crews, and landowners to implement safe water crossings which emphasis fish passage and water connectivity. Monitor stream water temps throughout the summer and fall.					
Lodge Creek, Battle Creek	62 miles, 70 miles	Walleye, Sauger (N), Yellow Perch	Wild	General	Continue to monitor and understand fish assemblage and population size of game fish.
		Northern pike	Wild	Suppression	Identify northern pike abundance and distribution. Suppress northern pike overlapping with identified pearl dace populations.

Water	Miles/Acres	Species	Recruitment Source	Management Type	Management Direction
		Native nongame fish (N)	Wild	Conservation	Continue to monitor populations. Expand understanding of pearl dace abundance and distribution. Protect habitat and provide passage or barriers where applicable.
Habitat needs and activities: Identify habitat issues and work closely with local conservation districts, county road crews, and landowners to install safe water crossings which emphasize fish passage and water connectivity. Monitor stream water temps throughout the summer and fall.					
Peoples Creek	70 miles	Walleye, Northern pike, Yellow perch	Wild	General	Continue to monitor and understand assemblage and population size of game fish. Identify northern pike distribution and impacts to other fish species.
		Native nongame fish (N)	Wild	Conservation	Protect habitat and provide passage or barriers where applicable.
		Brook trout	Wild	General	Manage for self-sustaining brook trout fishery.
Habitat needs and activities: Identify habitat issues and work closely with local conservation districts, county road crews, and landowners to implement safe water crossings which emphasis fish passage and water connectivity. Monitor stream water temps throughout the summer and fall.					
Larb Creek	68 miles	Yellow perch, Northern pike, Channel catfish, Walleye	Wild	General	Inventory current game fish assemblage. Determine extent of northern pike distribution upstream from Beaver Creek confluence.
		Native nongame fish (N)	Wild	Conservation	Evaluate collection of native nongame fish as bait by anglers. Continue to educate public of proper fish identification to limit use of illegal species.
Habitat needs and activities: Continue to inventory fish passage barriers. Work towards restoration of natural stream sinuosity and flow once northern pike distribution has been determined. Provide fish passage stream crossings where northern pike are not present.					
Dry Fork Reservoir	350 acres	Walleye	Wild/Hatchery	General	Stock 10,000 walleye fingerlings biennially.
		Northern pike, Yellow perch,	Wild/Hatchery	General	Maintain a quality fishing experience for all species. Continue to monitor the populations.

Water	Miles/Acres	Species	Recruitment Source	Management Type	Management Direction
		Black crappie, Largemouth bass			
Habitat needs and activities: Look to minimize irrigation impacts on pool elevations and explore projects that increase aquatic habitats using natural and/or artificial structures.					
Ross Reservoir	6 acres	Yellowstone cutthroat trout White sucker	Hatchery Wild	General Suppression	Maintain current harvest opportunity. Monitor population. Trap and remove adult white suckers to lower densities and increase trout growth, as needed.
Faber Reservoir	38 acres	Rainbow trout	Hatchery	Put-Grow-and-Take	Manage for put-grow-and-take rainbow trout fishery.
Brookie Pond	4 acres	Rainbow trout	Hatchery	Put-Grow-and-Take	Maintain current harvest opportunity.
Habitat needs and activities: Maintain windmill aerator.					
Frenchman Creek	78 miles	Walleye, Northern pike, Yellow perch Native nongame fish (N)	Wild Wild	General Conservation	Continue to monitor and understand fish assemblage and population size of game fish. Identify northern pike distribution and impacts to other fish species. Protect habitat and provide passage where applicable.
Habitat needs and activities: Identify habitat issues and work closely with local conservation districts, county road crews, and landowners to implement safe water crossings which emphasis fish passage and water connectivity. Monitor stream water temps throughout the summer and fall.					
Beaver Creek (Phillips County)	78 miles	Walleye, Northern pike, Yellow perch Native nongame fish (N) Brook trout	Wild Wild Wild	General Conservation General	Continue to monitor and understand fish assemblage and population size of game fish. Identify northern pike distribution and impacts to other fish species. Protect habitat and provide passage or barriers where applicable. Manage for self-sustaining brook trout fishery.

Water	Miles/Acres	Species	Recruitment Source	Management Type	Management Direction
Habitat needs and activities: Identify habitat issues and work closely with local conservation districts, county road crews, and landowners to implement safe water crossings which emphasis fish passage and water connectivity. Monitor stream water temps throughout the summer and fall.					
Nelson Reservoir	4,331 Acres	Walleye, Northern pike, Yellow perch, Black crappie, Lake whitefish, Smallmouth bass, Channel catfish (N)	Wild/Hatchery	General	Manage for sustainable walleye, northern pike, and yellow perch fishery year-round. Evaluate smallmouth bass densities and their effects on the existing fish community.
Trout Ponds- in FWP Region 6 Pond Program	Various	Rainbow trout	Hatchery	Put-Grow-and-Take	Monitor water conditions and impacts from winterkill. Stock trout based on current 6-year stocking plan.
Habitat needs and activities: Work with BLM and landowners to increase riparian and other aquatic habitats and aesthetic landscapes surrounding the ponds. Maintain windmill aeration systems on ponds with marginal depths.					
Warm water Reservoirs and Ponds- in FWP Region 6 Pond Program	Various	Largemouth bass, Northern pike, Walleye, Smallmouth bass, Channel catfish (N), Black crappie, Yellow perch, Bluegill	Wild/Hatchery/ Transfer	General/ Put-Grow-and-Take	Manage as self-sustaining fisheries. Supplement populations with hatchery stocking and wild fish transfers as needed. Monitor fish populations and water conditions. Assess impacts from winterkill annually. Management of specific species is variable and species present depends on size of the pond and consideration of other biological variables.
Habitat needs and activities: Work with BLM and landowners to increase riparian and aquatic habitats and aesthetic landscapes surrounding the ponds. Maintain windmill aeration systems on ponds with marginal depths.					