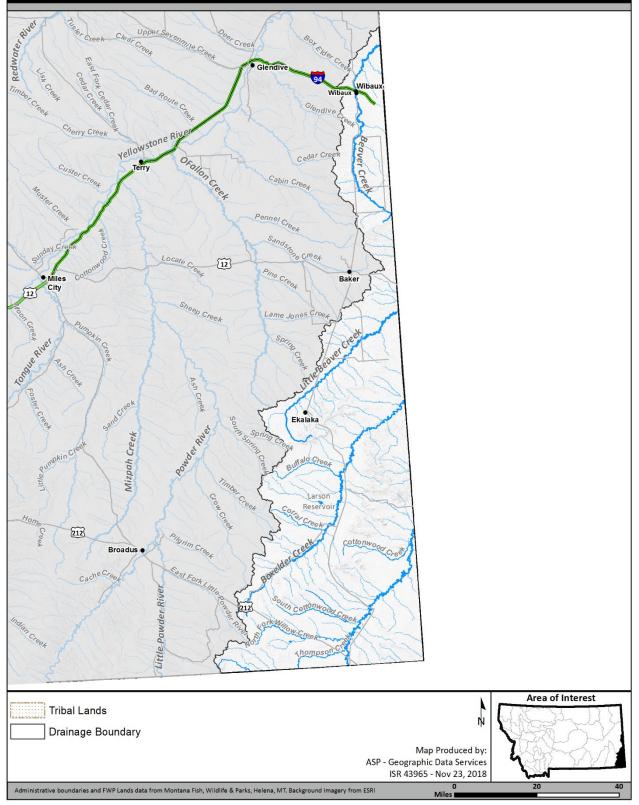
Little Missouri River Drainage

MONTANA FWP



Little Missouri River Drainage

Physical Description

The Little Missouri River drainage includes the Little Missouri River and three perennial tributaries (Box Elder Creek, Little Beaver Creek, and Beaver Creek) and drains portions of Carter, Fallon, and Wibaux counties. Only a small segment of each tributary exists in Montana, and all are tributaries of the Missouri River in North Dakota. The headwaters of the Little Missouri River are in Wyoming and 104 miles exist in Montana before crossing into North Dakota. The headwaters for the other three tributaries occur in Montana and converge with the Little Missouri River in North Dakota.

The drainage is in a rural setting which includes three small communities: Ekalaka, Baker and Wibaux. The landscape is dominated by plains grassland complex but includes a large area of shrub grassland and a smaller area of plains forest in the Custer National Forest. Land ownership includes state and federal lands but is dominated by private property. Agriculture, primarily ranching and secondarily dry land farming, dominate the land use. Industrial exploration and development of natural resources is also occurring, including coal and bentonite mining, natural gas and oil drilling, and wind turbines.

No natural lakes are in the drainage; however, numerous stock ponds exist, and many are managed as fisheries with public access. In addition to the creeks mentioned above, there are numerous warmwater prairie streams throughout the drainage. Some hold game fish and many host several native and introduced fish species.

Fisheries Management

The Little Missouri River and tributaries are managed primarily as general/conservation fisheries. Walleye are stocked in Beaver Creek and are the only species currently being stocked in any of the streams in the drainage. However, past and current stocking practices in Montana and North Dakota have influenced the fish assemblage. The primary management focus for the entire drainage is to improve fish passage at existing restrictions (culverts, fords, dams) and ensure future structures provide for adequate stream function and fish passage.

Fish sampling within the drainage has been limited to sporadic and infrequent seining activities associated with a large-scale prairie fish sampling effort and specific educational activities for school programs. Most of the fishery data in the drainage has been collected in the last decade. Fishing pressure is very low, so there are no specific management goals or fishing regulations for the drainage.

Like other prairie stream systems, the fish assemblage in the Little Missouri drainage is dominated by native species. The Little Missouri River hosts eleven native fish species, five introduced fish species and only one game species (channel catfish). Box Elder Creek supports sixteen native fish species, five introduced fish species, and three game species (northern pike, channel catfish and sauger). Sauger are classified as a Species of Concern in Montana. Little Beaver Creek contains seven native fish species, three introduced fish species, and two game species (northern pike and channel catfish). Beaver Creek hosts eleven native fish species, six introduced fish species, and two game species (northern pike and channel catfish). Beaver Creek hosts eleven native fish species, six introduced fish species, and two game species (northern pike and channel catfish).

The Little Missouri River drainage includes numerous small ponds, including six private ponds and ten public ponds that are managed as fisheries in the <u>Regional Pond Fishing Program</u>. The primary justification for stocking these waters is to provide family fishing opportunity. The pond program is offered to landowners as a public relations opportunity to provide a fishery for the surrounding community. If the landowner allows free public access to the pond, FWP will stock and manage the fishery. Anglers are required to obtain landowner permission each time they access the fishery. Rainbow trout, largemouth bass, yellow perch, northern pike, and crappie are common species stocked in these ponds. The fisheries are sampled at least once every three years to examine population densities and size structures. Populations are established or supplemented when needed through stocking from a state hatchery or by wild fish transfers from another waterbody within the region.

Habitat

Although the drainage is predominately rural, habitat changes have impacted the system since human settlement. Developments include the construction of railroads, as well as numerous roads to accommodate vehicle travel (county roads, state highways and a federal interstate highway). All these developments have impacted the ability of rivers and streams to migrate laterally and interact with their historic floodplain. The use of rock or concrete rip rap to protect infrastructure, roads, bridges, homes, and farmland/ranchland has restricted the natural function of the rivers and streams in this drainage. The installation of culverts, fords and dams impacted the natural function of the waterways and upstream fish migrations.

Most private and public ponds in the drainage are limited by water depth. Most have a maximum depth of 10-11 feet which is marginal for overwintering fish during winters with sustained snow accumulations. The significance and prevalence of winterkills has been and can be reduced by installing windmill aerators. Some landowners and the Bureau of Land Management (BLM) have installed aerators at their expense to reduce winterkill occurrences. FWP has refrained from installing aerators because of the time and expenses required to service and maintain the structures.

Special Management Issues

There are no special management issues in the Little Missouri River drainage considering the low fishing pressure experienced and limited game fish available.

FISHERIES MANAGEMENT DIRECTION FOR LITTLE MISSOURI RIVER DRAINAGE

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Beaver Creek	120 miles	Walleye	Hatchery	General	Annual stocking of walleye for increased angler opportunities.
		Multi species	Wild	General/	Manage for recreational fishing opportunity
				Conservation	where applicable. Monitor game, nongame, and native fish assemblage and overall ecosystem health.
		ve fish passage at current restricti	ons (culverts, f	ords, dams) and ensure fu	ture structures provide adequate stream
function and fish p	assage.		1		r
Perennial		Multi species	Wild	General/	Manage for recreational fishing opportunity
Streams:				Conservation	where applicable. Monitor game, nongame,
Box Elder Creek,	151 miles				and native fish assemblage and overall
Little Missouri	106 miles				ecosystem health.
River					
Intermittent					
Streams:					
Little Beaver	12 miles				
Creek					
Ephemeral					
, Streams: 28 with					
documented fish					
populations					
populations	•	ve fish passage at current restricti	ons (culverts, f	ords, dams) and ensure fu	ture structures provide for adequate stream

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Small Private Ponds/Reservoirs		Trout	Hatchery	Put-Grow-and-Take	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking.
		Bass, Walleye, Northern pike,	Wild/ Hatchery	General/ Put-Grow-and-Take	Promote opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and stocking when necessary.
		Crappie, Yellow perch, Bluegill	Wild/ Transfer	General	Promote opportunity with landowners to provide local fishing opportunity for rural community. Provide panfish angling opportunity, supplement population through wild fish transfers when necessary.
Habitat needs and frequent sampling			ep) is a comm	on limitation that leads to	frequent winterkills; limitation offset by
Small Public Pond/Reservoirs: Fallon County (Pinnow #1 &	Numerous	Trout	Hatchery	Put-Grow-and-Take	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking.
#2); Carter County (MacNab, Sidney, Spring Canyon, Exie, West Plum, Cheesman,		Bass, Walleye, Northern pike,	Wild/ Hatchery	General/ Put-Grow-and-Take	Promote opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and stocking when necessary.
Bucholtz); Wibaux County (Wibaux Pond)		Crappie, Yellow perch, Bluegill	Wild/ Transfer	General	Promote opportunity with landowners to provide local fishing opportunity for rural community. Provide panfish angling opportunity, supplement population through wild fish transfers when necessary.

Water	Miles/acres	Species	Recruitment	Management Type	Management Direction		
			Source				
Habitat needs and activities: Water depth (ponds less than 12 feet deep) is a common limitation that leads to frequent winterkills; limitation offset by							
frequent sampling and stocking or wild fish transfers.							