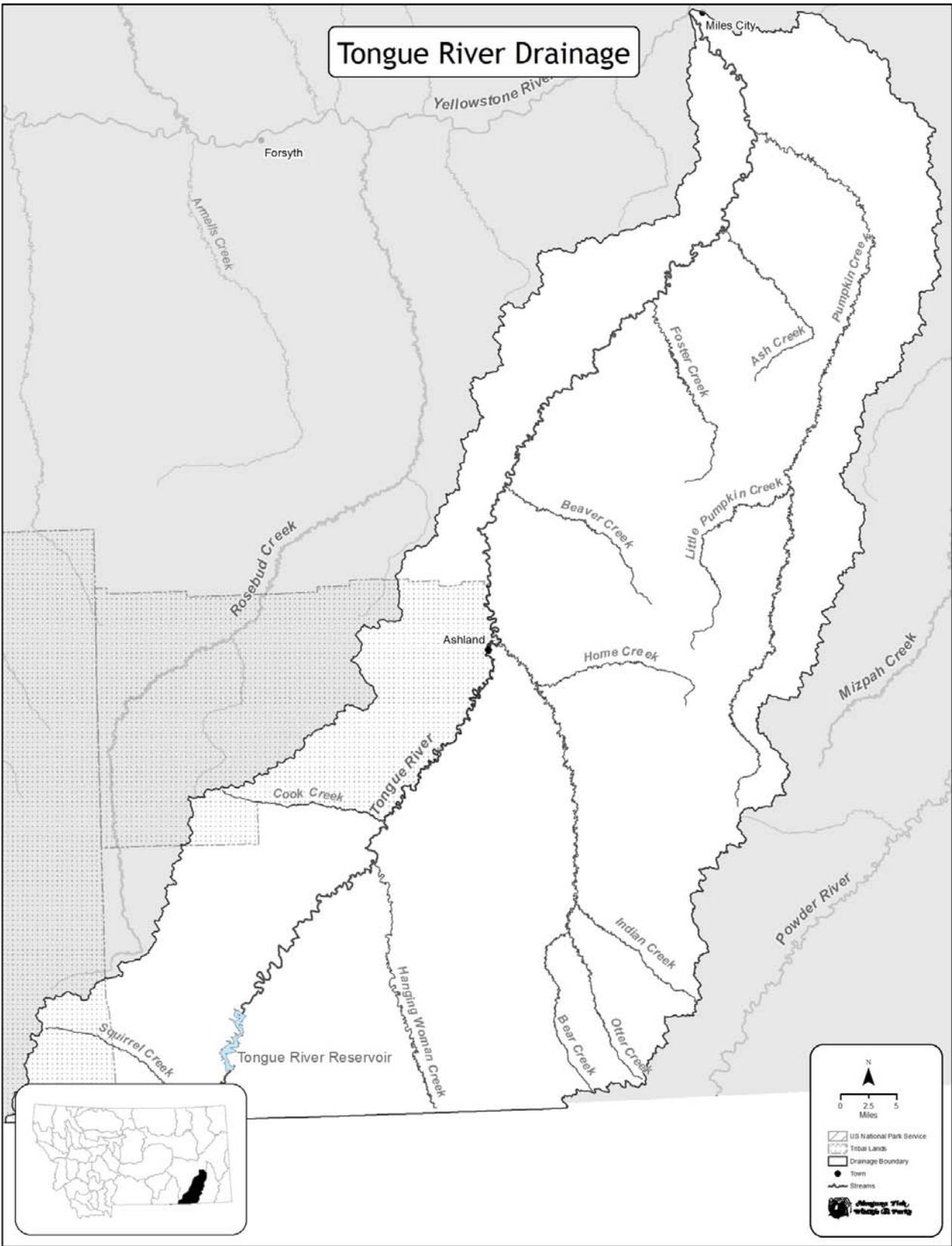


Tongue River Drainage



TONGUE RIVER DRAINAGE

PHYSICAL DESCRIPTION

The Tongue River Drainage includes the Tongue River, Hanging Woman Creek, Otter Creek, Pumpkin Creek, Tongue River Reservoir, and numerous stock ponds and prairie streams. Land ownership in the district is mostly private and agriculture is the primary land use practice in the Tongue River watershed with 67,000 acres of irrigated land supporting cattle ranching and farming operations. The Fort Union Coal Formation underlies the watershed. The Tongue River originates on the eastern side of the Big Horn Mountains in north-central Wyoming (Sheridan County) and flows north through Southeast Montana (Big Horn, Rosebud, and Custer counties) to the Yellowstone River. The Tongue River has a drainage area of 5,379 mi², approximately 70% occurring in Montana and 30% in Wyoming. The total length of river in Montana from the state line to its confluence with the Yellowstone River, near Miles City, is 209 miles.

At Decker, Montana, near the Wyoming/Montana border, Tongue River Dam (river mile 189) creates Tongue River Reservoir, a main stem reservoir that can store 79,071 acre-feet of water. In Montana the Tongue River has been divided into five segments by four dams. There are three irrigation diversion dams: (1) Tongue and Yellowstone (T&Y) Diversion Dam at river mile 20; (2) SH Diversion Dam, which is no longer in existence (river mile 51); and (3) Mobley Diversion Dam, which is mostly gone and does not restrict fish passage (river mile 105); and one flood control dam, Tongue River Dam (river mile 189). There is a thermally unique sixth river segment created by hypolimnetic releases out of Tongue River Reservoir. This cold water segment is approximately ten river miles long and ends downstream of the dam near the Rosebud/Big Horn County line (river mile 179).

No natural lakes are found within the drainage. There are, however, numerous stock ponds and some are managed as fisheries with public access and are stocked by FWP. For the rivers and streams, Hanging Woman Creek, Otter Creek, and Pumpkin Creek have game fish that include native and introduced species.

FISH MANAGEMENT

The Tongue River and its tributaries are home to many warmwater and a few coldwater fish species. Native fish species include; sauger, shovelnose sturgeon, channel catfish, burbot, freshwater drum, goldeye, smallmouth buffalo, bigmouth buffalo, blue sucker, river carpsucker, shorthead redhorse sucker, white sucker, longnose sucker, longnose dace, creek chub, lake chub, brassy minnow, fathead minnow, sturgeon chub, flathead chub, western silvery minnow, sand shiner, emerald shiner, and stonecat. Common carp, plains killifish, black bullhead, yellow bullhead, and green sunfish are introduced species that can be found in parts or all of the Tongue River drainage. Largemouth bass, smallmouth bass, walleye, white crappie, black crappie, northern pike, yellow perch, rock bass, pumpkinseed, and spottail shiner have been stocked or illegally introduced in Tongue River Reservoir. Brown and rainbow trout have been stocked in the Tongue River in the tail water below Tongue River Dam.

Trend electrofishing is conducted on six reaches of the Tongue River each year to assess the current relative abundance, population structure, and body condition of fish populations in the Tongue River and monitor changes over time. Trend sampling on Tongue River Reservoir includes gillnet, trap net, and seining methods and is conducted to assess catch rates, condition, and length frequency of game fish in the reservoir. Stock ponds are sampled at least every three years to evaluate the status of the fisheries and ensure a catchable stock of fish is present.

A variety of fish species are available for stocking into ponds and the Tongue River Reservoir from FWP hatcheries including walleye, rainbow trout, smallmouth bass, and largemouth bass. Catchable size trout are stocked annually in the coldwater stretch of the Tongue River below Tongue River Reservoir. The statewide wild fish transfer policy allows regional staff to transfer a variety of species from source ponds with good populations to receiving ponds with fisheries that have suffered due to winterkill or drought. Species stocked in this way include northern pike, yellow perch, black crappie, white crappie, and bluegill.

The Tongue River drainage offers many public ponds and private ponds with public access that are managed as a fishery in the Regional Pond Fishing Program. The program is offered to landowners as a public relations opportunity to provide a fishery for the surrounding community. As long as 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 want to access the fishery. Rainbow trout, largemouth bass, yellow perch, northern pike and crappie dominate the species available in these systems. The fisheries are inspected 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 fishery within the region.

There is a reduced limit on sauger in the Tongue River above the reservoir to help preserve a remnant population while still allowing for some consumptive harvest. Overall fishing pressure is relatively low on the Tongue River due in large part to lack of public access to the river. Twelve Mile Fishing Access Site (river mile 20) is one of the few publically accessible sites on the Tongue River and is a popular destination for local and out of state anglers. Due to crowding issues at Twelve Mile FAS there is a special regulation limiting the number of lines an individual angler can fish. Stock ponds and prairie streams in the Tongue River drainage have fairly low angling pressure. Tongue River Reservoir ranks 30th in the state and 1st in Region 7 for angler pressure. Due to congestion during holiday weekends, weekend fishing tournaments at Tongue River Reservoir are restricted from the week before and after the following weekends: Memorial Day, Fathers Day, Fourth of July, and Labor Day.

HABITAT

The Tongue River has a constrained riparian corridor with much of the floodplain developed for irrigated agriculture. The river above and below the reservoir has more rocky substrates than downstream reaches and is influenced directly by development of the area's coal resources, a major industry in the watershed. Numerous sites in the Tongue River watershed have been permitted for the development of coal bed methane extraction. The extraction of coal bed methane involves pumping methane and groundwater from coal seams. Much of this water, that is high in salt, is discharged into the Tongue River above Tongue River Reservoir.

The upstream end of Tongue River Reservoir has abundant submerged woody vegetation as a result of the dam rebuild in 1998 that raised the water level of the reservoir. The upstream end has increased turbidity as a result of the river influence. The middle to lower end have abundant rocky habitats and increased water clarity. Submerged aquatic vegetation is common in the bays throughout the reservoir.

The approximately ten river miles downstream of the dam, is a thermally unique river segment created by hypolimnetic releases out of Tongue River Reservoir that supports a stocked rainbow trout and naturally-reproducing brown trout population. The Tongue River in the Birney and Brandenburg area is characterized by a dense cottonwood riparian corridor and has deeper holes that are believed to overwinter resident Tongue River fish. Downstream of Brandenburg, irrigation has an increasing influence on instream flows and riparian habitat. Below T&Y Diversion dam, chronic dewatering is a major habitat concern for Tongue and Yellowstone River fishes.

Irrigation diversion dams have been barriers to fish movement and have fragmented fish populations in the Tongue River for the last 100 years. In addition, the irrigation canals are responsible for entraining fish. The T & Y canal has a modified headworks structure with louvers to minimize fish entrainment. The SH diversion dam (removed fall 2009) and the Muggli bypass channel (constructed fall 2008) around T & Y Diversion Dam has provided successful passage of many native fish species upstream and restored some connectivity between the Tongue and Yellowstone Rivers, but water and passage continue to be the primary fisheries needs of the Tongue River.

Although the drainage is predominately rural, habitat changes have impacted the system since human settlement. Developments include the construction of railroads, and roads to accommodate vehicle travel (county roads, state highways and a federal interstate highway). All of these developments have impacted the river and streams ability to migrate laterally and interact with its historic floodplain. The use of rock or concrete rip rap to protect city 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 has similar impacts on the function of the waterways and upstream migration of fish.

The vast majority of 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 severity and prevalence of winterkills has been and can be reduced by installing windmill aerators. Some landowners and the BLM have installed aerators at their expense in order to reduce winterkill occurrences at ponds they own. FWP has refrained from installing aerators because of the time and expenses required to service and maintain the structures.

FISHING ACCESS

There is currently public access to the Tongue River through Tongue River Reservoir State Park and Twelve Mile Dam FAS. Additional limited access is also provided at county bridges and through landowner agreements. Developing more access for ice fishing on the Tongue River Reservoir is a high priority; of particular interest is State land under DNRC management that would provide access to the upper portion of the reservoir. Other high priority areas for

development include sites downstream of Tongue River Reservoir and Twelve Mile Dam FAS that would be within a day's floating distance from those access points. The Birney and Brandenburg reaches, of the Tongue River, would also provide valuable angling opportunity if access was available.

SPECIAL MANAGEMENT ISSUES

Resource management in the Tongue River drainage requires involvement with many agencies, entities, and user groups. Reservoir issues may include involvement with DNRC, the Decker Coal Mine, and adjacent landowners. The Tongue River water users group (representatives from agencies and irrigation districts), Bighorn, Rosebud, and Custer county conservation districts, Northern Cheyenne and Crow Indian Reservations as well as ranchers and farmers are all stakeholders in resource management decisions in the Tongue River drainage. Land use, energy development, and water allocation are special management issues that affect multiple stakeholders in the drainage.

Construction of a Tongue River Railroad has been proposed to facilitate increased coal extraction available from opening Otter Creek coal mine and expansion of Decker and Spring Creek coal mines. The railroad would be constructed along the banks of the Tongue River for much of its course.

Securing appropriate instream flow rights is a special management concern for the Tongue River. The lower stretch of the Tongue River downstream of the T & Y diversion dam is chronically de-watered. Instream flow needs have been determined by FWP for sauger, shovelnose sturgeon and channel catfish in the Tongue River. These species need a minimum of 190 cfs in the river in the months of September to February, 525-600 cfs from March through June to facilitate spawning runs and rearing, and 225 cfs from July to August. Securing adjudicated water rights for instream flow in the Tongue River according to these guidelines is a special management concern.

FISHERIES MANAGEMENT DIRECTION FOR TONGUE RIVER DRAINAGE

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Tongue River - Wyoming State Line to Tongue River Reservoir headwaters	10 miles	Sauger	Wild	Conservation/ Special Regulations	Reduced daily bag and possession limit implemented to protect remnant population.
		Channel catfish	Wild	General	Maintain fishery through regulations.
		Smallmouth bass, Walleye	Wild	General	Maximize harvest and fishing opportunity to reduce competition with sauger.
		Multi species	Wild	General/ Conservation	Manage for recreational fishing opportunity where applicable. Monitor non-game fish species for native fish assemblage and overall ecosystem health.
Habitat needs and activities: Dewatering is a threat to game and nongame fish, work with Wyoming adjudication process to evaluate Interstate water compact interpretation.					
Tongue River Reservoir	3700 acres	Black crappie, white crappie	Wild	Special Regulations	Manage for recreational family fishing opportunity for crappie. Because of congestion during holiday weekends tournaments will be restricted from the week before and after the following weekends: Memorial Day, Fathers Day, Fourth of July, Labor Day.
		Sauger	Wild	Conservation/ Special Regulations	Reduced daily bag and possession limit to protect remnant population
		Walleye	Hatchery	Put-Grow-Take	Manage as recreational fishery with emphasis on harvest. Maintain population through annual stocking to provide additional fishing opportunity.
		Smallmouth bass, Largemouth bass, Channel Catfish Northern pike, Yellow perch	Hatchery/ Wild	General/ Put-Grow-Take	Maintain fishery through regulations and stocking.
Habitat needs and activities: work with reservoir operators to regulate water levels with consideration for fishery benefit.					

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Tongue River - Reservoir tailwater to Yellowstone River	189 miles	Sauger, Channel catfish	Wild	General	Maintain fishery through regulations and habitat projects
		Rainbow trout	Hatchery	Put-Take	Put and take fishery to maximize fishing opportunity in a thermally altered stream reach
		Brown trout	Wild	General	One time stocking to establish self sustaining population in order to maximize fishing opportunity in a thermally altered stream reach
		Shovelnose sturgeon	Wild	General	Monitor usage of Tongue River and potential for species to successfully utilize Muggli Bypass and reestablish upstream portion of Tongue River.
		Blue sucker, Sturgeon chub	Wild	Conservation	Montana Species of Concern, monitor use and potential for spawning activity in Tongue River. Continue to monitor passage of blue sucker through the Muggli Bypass and use of river upstream.
		Walleye, Smallmouth bass, Northern pike	Wild	General	Maximize harvest and fishing opportunity to reduce competition with sauger.
		Multi species	Wild	Conservation/ General	Manage for recreational fishing opportunity where applicable. Monitor non-game fish species for native fish assemblage and overall ecosystem health.

Habitat needs and activities: Work with reservoir operator to manage water releases to mimic natural hydrograph and manage flow to avoid stranding fish. Reduce fish entrainment into irrigation intakes. Maintain/restore river ecosystem health and function by minimizing or removing stream bank stabilization projects thereby decreasing channel confinement.

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Water	Miles/acres	Species	Origin	Management Type	Management Direction
Intermittent Streams: Hanging Women Creek, Otter Creek, Pumpkin Creek Ephemeral Streams: 9 with documented fish populations	48 miles 103 miles 171 miles Various	Multi Species	Wild	General/ Conservation	Maintain fishery through habitat protection and restoration. Maintain or increase connectivity. Opportunistic monitor to further understand system and population dynamics.
Habitat needs and activities: Improve fish passage at current restrictions (culverts, fords, dams) and ensure future structures provide for adequate creek flow and fish passage.					
Small Private Ponds/Reservoirs	Various	Trout Bass, Walleye, Northern pike Crappie, Yellow perch, Bluegill	Hatchery Wild/ Hatchery Wild/ Transfer	Put-Take General/ Put-Grow-Take General	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking. Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and stocking when necessary. Public relations 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 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.					
Public Trout Ponds: Blacks Sawmill, Mud Turtle, Dean S	1 acre 2 acres 1 acre	Trout	Hatchery	Put-Take	Annual stocking of trout for angler opportunity.
Habitat needs and activities: water depth (ponds less than 12 feet deep) is a common limitation that leads to frequent winterkills; limitation offset by annual stocking.					

