

Fisheries information for the Otter Creek watershed includes fish surveys on the main stem, and genetic analysis of Yellowstone cutthroat trout in Wheeler Creek. Genetic testing found these to be hybrids, with 93.4% of alleles being Yellowstone cutthroat trout in origin, making this a conservation population. In 2004, seining in the lower portion of Otter Creek yielded only suckers and members of the minnow family (Table 6-41). A record of westslope cutthroat trout is probably an error. Securing the remaining Yellowstone cutthroat trout population in Wheeler Creek is a conservation priority. FWP will investigate potential projects, such as removal of nonnatives, and construction of a barrier to prevent further invasion.

As a chronically dewatered stream, Otter Creek probably has limited potential to support a spawning run of Yellowstone cutthroat trout from the Yellowstone River. Nonetheless, opportunities may exist to work with water users to improve efficiency and promote in-stream flow. FWP will seek to identify willing partners in implementing associated conservation actions.

Table 6-41: Distribution and abundance of fishes in Otter Creek (MFISH database).

<i>Begin Mile</i>	<i>End Mile</i>	<i>Species</i>	<i>Abundance</i>	<i>Data Quality</i>	<i>Life History</i>	<i>Genetic Status</i>
0	1	Fathead minnow	Unknown	EFSSO	Unknown	N/A
						N/A
0	1	Lake chub	Rare	EFSSO	Unknown	N/A
0	1	Longnose dace	Rare	EFSSO	Unknown	N/A
0	1	Mountain sucker	Unknown	EFSSO	Unknown	
0	17	Rainbow trout	Unknown	NSPJ	Year-round resident	Tested conservation
14	15	Westslope cutthroat trout	Common	EFSSO	Unknown	Unknown
0	1	White sucker	Unknown	EFSSO	Unknown	N/A
7	15	Yellowstone cutthroat trout	Common	EFSSO	Year-round resident	Tested conservation

6.2.40 Sweet Grass Creek

Sweet Grass Creek (Figure 6-18) originates in the Crazy Mountains, and flows for 75 miles before its confluence with the Yellowstone River. Its headwaters are in the GNF. The valley portions of the watershed are mostly under private ownership, although state and BLM lands occur throughout the watershed.

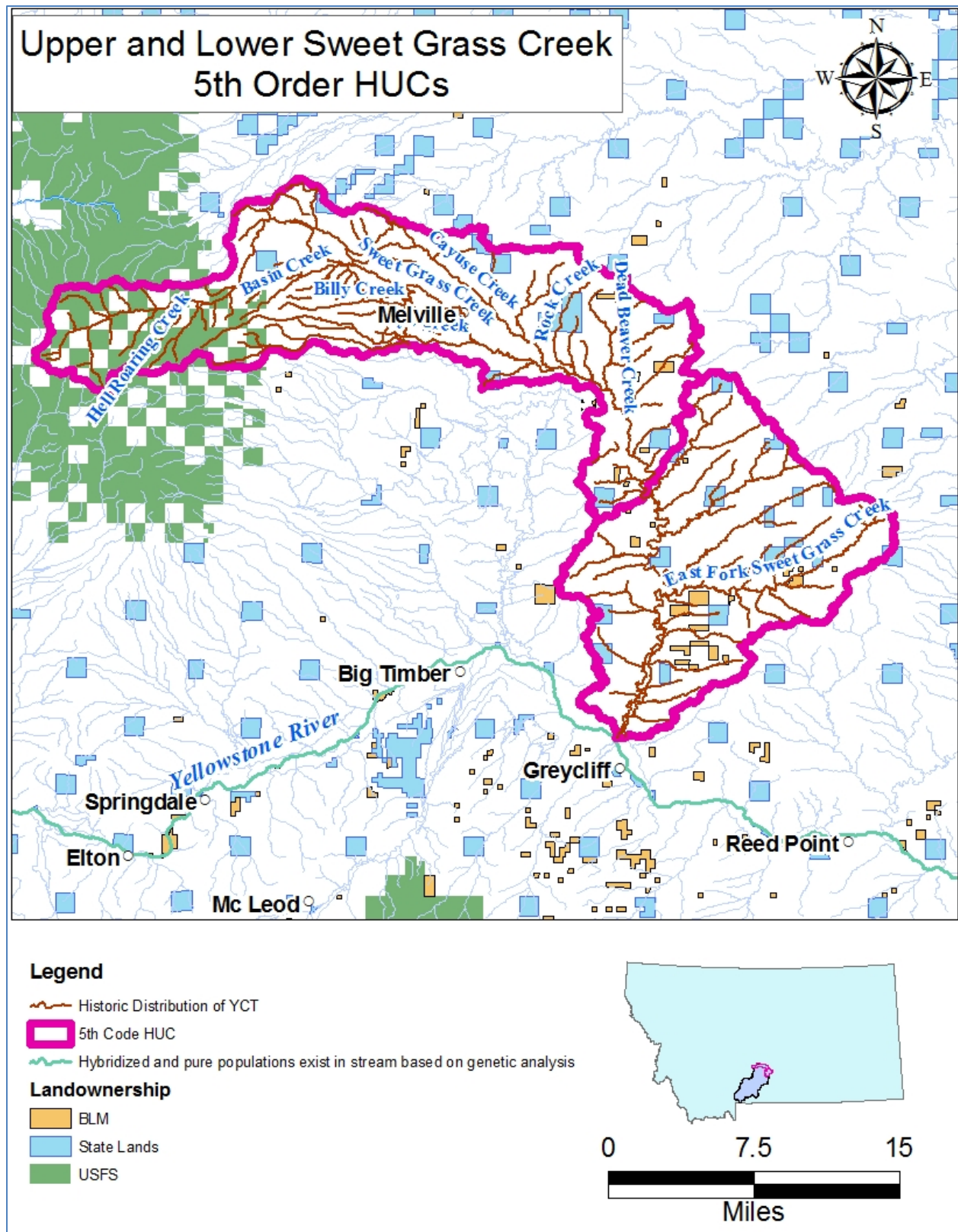


Figure 6-18: Historic distribution of Yellowstone cutthroat trout in the upper and lower Sweet Grass Creek watersheds (FWP GIS database).

Fish community composition is variable along the length of Sweet Grass Creek (Table 6-42). The upper portions support a cold-water fishery, with nonnative salmonids such as brook trout, rainbow trout, and brown trout ranking as common. Presence of emerald shiners, shorthead redhorse, stonecat, and fathead minnows in the lower reaches indicate a transition to a warm-water fishery occurs in the lower reaches.

Table 6-42: Distribution and abundance of fishes in Sweet Grass Creek (MFISH database).

<i>Begin Mile</i>	<i>End Mile</i>	<i>Species</i>	<i>Abundance</i>	<i>Life History</i>	<i>Genetic Status</i>	<i>Data Rating</i>
0	10	Brook stickleback	Unknown	N/A	N/A	EFMSO
41	51	Brook trout	Rare	N/A	N/A	EFMSO
51	67	Brook trout	Common	N/A	N/A	EFMSO
0	60	Brown trout	Common	N/A	N/A	EFMSO
0	01	Emerald shiner	Unknown	Unknown	N/A	EFSSO
0	25	Fathead minnow	Unknown	N/A	N/A	EFMSO
0	25	Lake chub	Unknown	N/A	N/A	EFMSO
0	25	Longnose dace	Common	N/A	N/A	EFMSO
41	75	Longnose dace	Rare	N/A	N/A	EFMSO
13	14	Longnose sucker	Unknown	N/A	N/A	EFMSO
41	75	Longnose sucker	Rare	N/A	N/A	EFMSO
0	1	Mottled sculpin	Unknown	N/A	N/A	EFMSO
0	25	Mountain sucker	Common	N/A	N/A	EFMSO
41	75	Mountain sucker	Rare	N/A	N/A	EFMSO
0	25	Mountain whitefish	Rare	N/A	N/A	EFMSO
0	41	Rainbow trout	Rare	N/A	N/A	NSPJ
41	75	Rainbow trout	Common	N/A	N/A	NSPJ
0	5	Shorthead redhorse	Rare	N/A	N/A	EFMSO
0	25	Stonecat	Rare	N/A	N/A	EFMSO
0	25	White sucker	Common	N/A	N/A	EFMSO
41	75	White sucker	Rare	N/A	N/A	EFMSO

Historically, Yellowstone cutthroat trout occurred throughout the Sweet Grass Creek watershed, although the montane and foothill portions likely had the most suitable habitat. Yellowstone cutthroat trout have been extirpated, making reintroduction into reclaimed waters a potential conservation action for the watershed. Given the wide distribution of nonnatives, reintroduction would need to be associated with nonnative removal and barrier construction to protect restored Yellowstone cutthroat trout populations.

Establishment of a spawning run from the Yellowstone River is another potential conservation priority for Sweet Grass Creek, although the suitability of the habitat for spawning is unknown. Sweet Grass Creek may have prairie stream affinities, such as warmer water temperatures and finer substrate near its confluence with the Yellowstone River. Dewatering presents another constraint to support of a spawning run. If the habitat is otherwise suitable for Yellowstone

cutthroat trout spawning, FWP will seek opportunities to work with landowners on practices that will maintain in-stream flow.

6.2.41 Boulder River

The Boulder River (Figure 6-19) originates in the Absaroka and Beartooth mountain ranges in south central Montana and flows north-northeast approximately 60 miles before joining the Yellowstone River in the town of Big Timber. The Boulder River has two major tributaries, the West Boulder River and the East Boulder River, as well as a large number of small tributaries and numerous lakes. The majority of the land on the main Boulder downstream of Natural Bridge Falls is under private ownership. Upstream of the falls, most of the land is within the GNF, with the exception of a number of small in-holdings containing private camps and residences. A large proportion of the GNF is also within the Absaroka-Beartooth Wilderness.

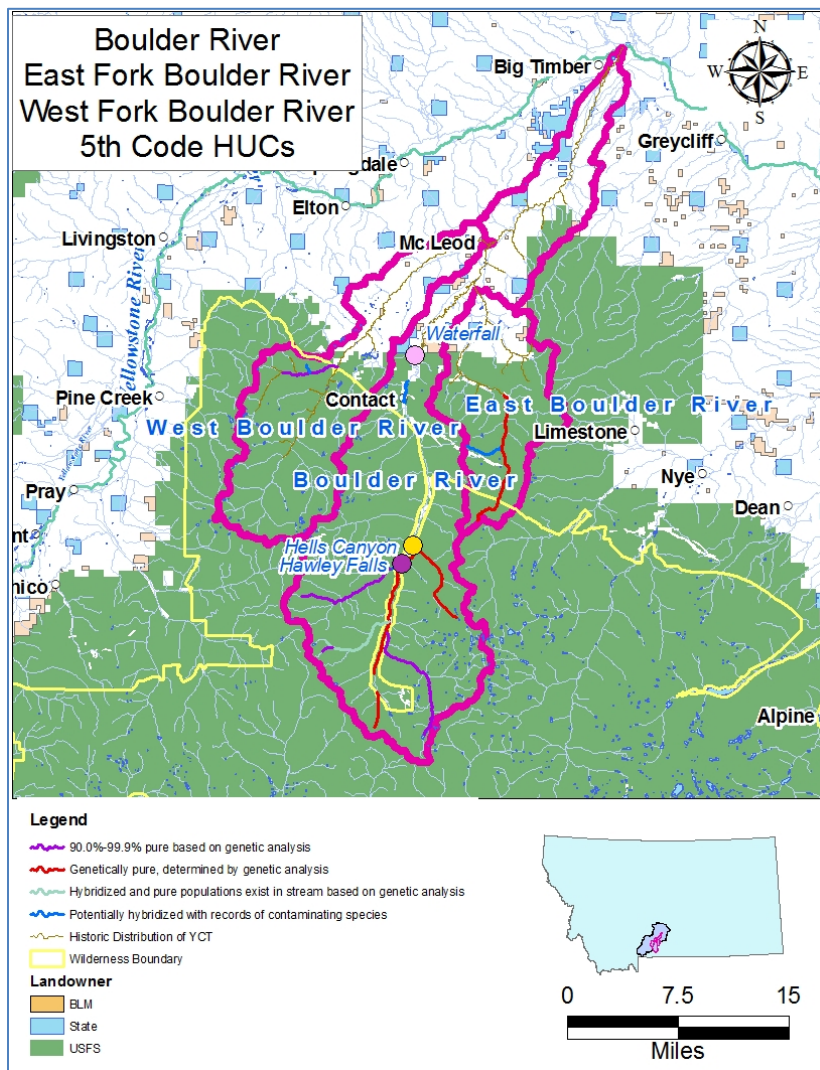


Figure 6-19: Distribution of Yellowstone cutthroat trout in the Boulder River watershed (FWP GIS database).