

#### **6.11.4 Lime Kiln Creek**

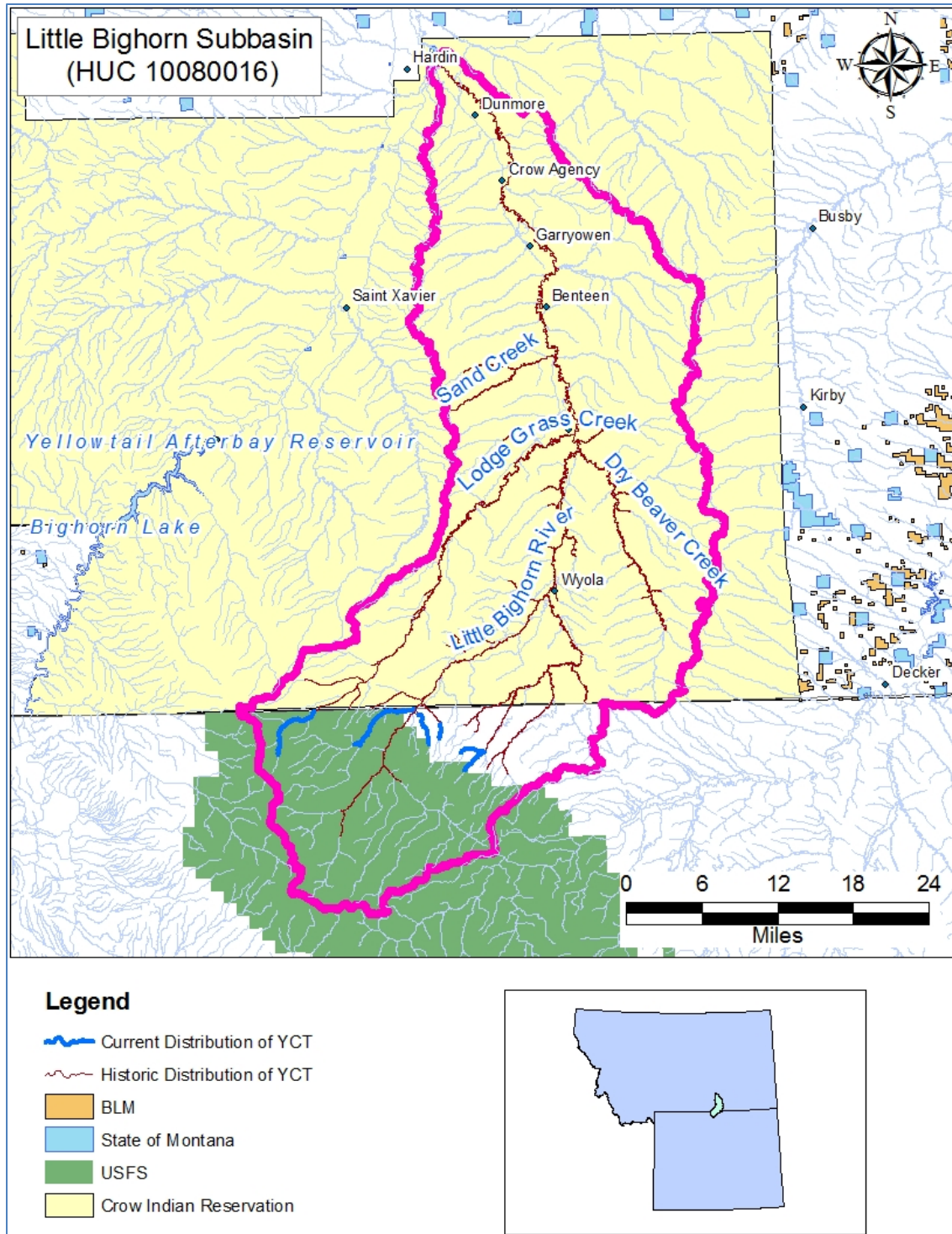
Lime Kiln Creek (Figure 6-47) is a small stream that enters the Bighorn River just below Yellowtail Dam. No data are available to describe the fishery or its potential. If this stream does support a fishery, species present likely reflect those present in the adjacent Bighorn River, which include nonnative rainbow and brown trout. Determining the potential for Lime Kiln Creek to provide sufficient habitat of suitable quality and identification of a potential barrier site are data needs.

#### **6.11.5 Grapevine Creek**

Grapevine Creek (Figure 6-47) is an 8-mile long tributary of the Bighorn River that joins the river downstream of Yellowtail Dam. No data are available to evaluate its current fishery or potential. Baseline surveys are necessary to determine if reestablishment of Yellowstone cutthroat trout is possible in Grapevine Creek.

### **6.12 Little Bighorn Subbasin (HUC 10080016)**

The Little Bighorn HUC (Table 6-67) originates in Wyoming, but most of its area is in Montana. The Montana portion of the watershed is entirely within the Crow Reservation. Livestock grazing and irrigated crop production are the primary land uses.



**Table 6-67: Little Bighorn River Subbasin (HUC 10080016)**

Historically, Yellowstone cutthroat trout occurred throughout the watershed; however, cutthroat trout are now present in several isolated streams in the Wyoming portion of the drainage (Table 6-67). Although Yellowstone cutthroat trout were presumed present in much of the basin,

streams within the Bighorn Mountains were the most likely to provide substantial habitat for Yellowstone cutthroat trout historically. This watershed also supports warm-water prairie fish communities, and these streams have low potential for Yellowstone cutthroat trout restoration. Fish distribution and abundance data from MFISH (Table 6-68) illustrate the tendency for cold-water species to occupy higher elevation reaches and for warm-water species to be most abundant in the downstream portions of the watershed.

**Table 6-68: Distribution and abundance of fishes in the Little Bighorn River (data from MFISH).**

<i>Begin Mile</i>	<i>End Mile</i>	<i>Species</i>	<i>Abundance</i>	<i>Data Rating</i>
0	32	Brassy minnow	Unknown	EFMSO
0	31	Brown trout	Rare	NSPJ
31	118	Brown trout	Common	NSPJ
0	31	Channel catfish	Common	EFMSO
0	31	Common carp	Unknown	EFMSO
0	32	Fathead minnow	Common	EFMSO
0	32	Flathead chub	Common	EFMSO
0	32	Longnose dace	Common	EFMSO
0	118	Longnose sucker	Common	NSPJ
0	32	Mountain sucker	Common	EFMSO
31	118	Mountain whitefish	Common	NSPJ
31	118	Rainbow trout	Common	NSPJ
0	32	River carsucker	Rare	EFMSO
0	32	Shorthead redhorse	Abundant	EFMSO
0	31	Smallmouth bass	Common	NSPJ
28	29	Stonecat	N/A	EFSSO
0	31	White sucker	Common	EFMSO

A lack of fish survey data is a major constraint in developing a specific strategy for Yellowstone cutthroat trout in the Montana portions of the Little Bighorn watershed. Biologists from the USFWS and BIA began survey efforts in 2010. Subsequent iterations of this strategy will include their findings and recommendations.

## 7.0 Summary

Conservation of Yellowstone cutthroat trout in Montana will require an integrated approach that addresses the various threats to the species. The Agreement for cutthroat trout conservation establishes goals, objectives, and priorities for cutthroat trout conservation (MCTSC 2007), and this strategy provides a framework for meeting these goals and objectives

The available information on waters within the historic range of Yellowstone cutthroat trout in Montana provides an initial screen in evaluating potential conservation needs. The identified needs relate to goals and objectives of the Agreement, and conservation priorities (Table 7-1). Review of the available information for each body of water or sub-watershed allowed generation of a list of potential conservation needs. This analysis provides the basis for prioritizing potential