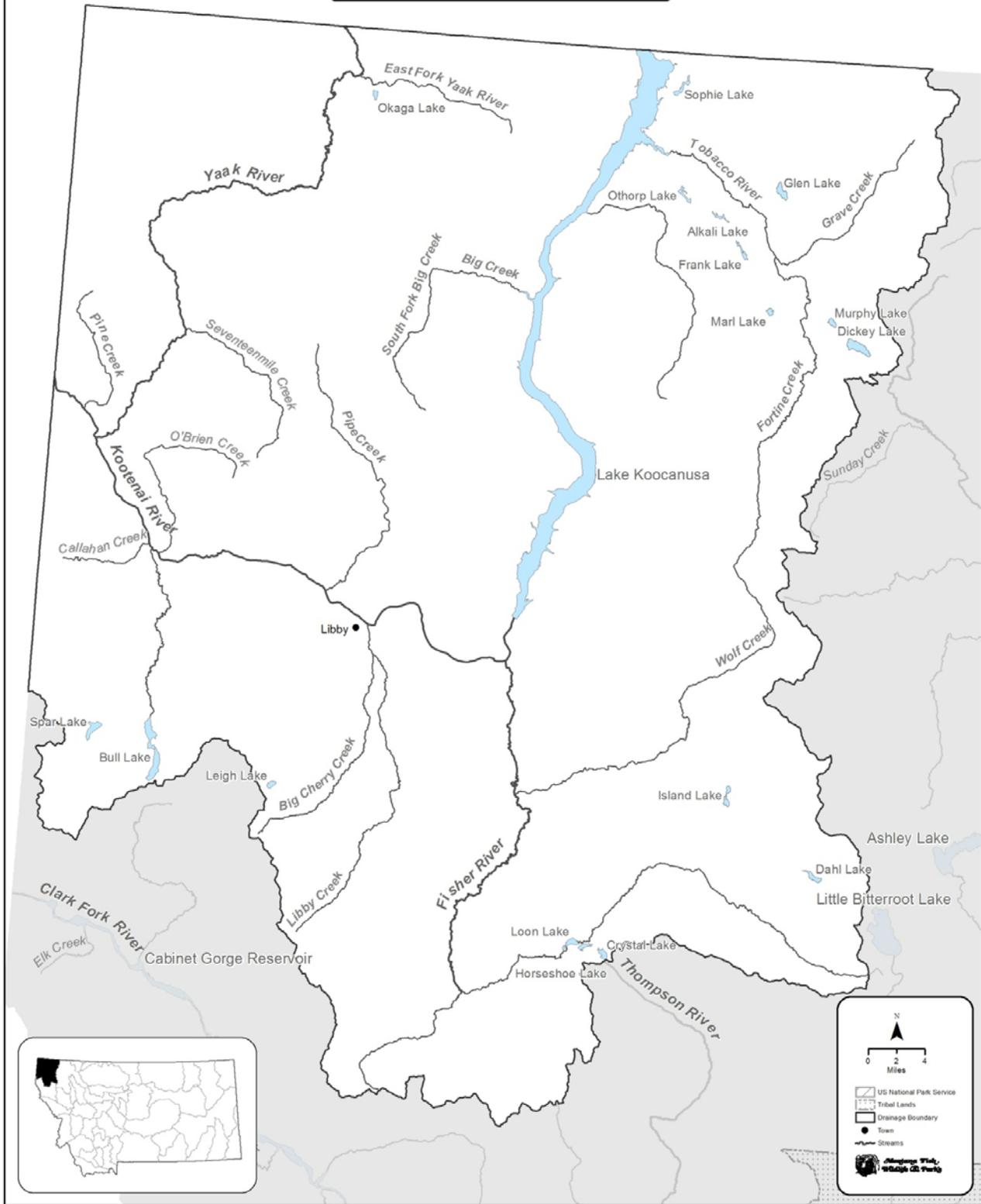


# Kootenai River Drainage



## **KOOTENAI RIVER DRAINAGE**

### **PHYSICAL DESCRIPTION**

The Kootenai River drainage is located in the extreme northwest corner of Montana and is entirely in Lincoln County. It originates in southeastern British Columbia (BC), flows south and west through Montana, and northwest through Idaho, then returns to Canada where it flows through Kootenay Lake and joins the Columbia River at Castlegar, BC. At the Idaho border near Leonia (lowest point in Montana 1820 ft above sea level), it drains approximately 13,000 square miles with an average discharge of 16,100 cfs. There are 110 lakes or reservoirs in the Kootenai River Drainage, totaling 34,869 surface acres.

Libby Dam was completed in 1972 and created Lake Koocanusa which inundated and eliminated 109 miles of the mainstem Kootenai River and 40 miles of critical, low-gradient tributary habitat in Montana and BC. At full pool, Lake Koocanusa covers 46,500 acres total and 28,723 acres in Montana. A selective withdrawal system was installed on Libby Dam to control the temperature of water releases from the dam. The operation of Libby Dam for flood control and power production has changed the natural seasonal and daily flow, temperature, and productivity regimes in the Kootenai River. Mean flows during spring runoff have declined 50 percent and wintertime flows have increased substantially. Average wintertime water temperatures have increased by about 7° F, resulting in the river remaining virtually ice free. The 104 miles of Kootenai River in Montana can be divided into two distinct reaches, the 54-mile section downstream of Libby Dam (Lower Kootenai) and the 50-mile section upstream of Libby Dam (Lake Koocanusa).

### **LOWER KOOTENAI RIVER**

The 54-mile section of Kootenai River downstream of Libby Dam is characterized by a complex combination of riffles, pools and slow moving, broad, meandering river sections. About 28 miles downstream of Libby Dam the river cascades 30 feet over the main Kootenai Falls and then drops another 60 feet through smaller falls in just less than a mile. Downstream of Kootenai Falls the river flows through a canyon which forms pools as deep as 100 feet. From there it flows similarly to the river upstream of Kootenai Falls but with more deeper, slower moving runs to the Montana/Idaho border.

Numerous tributaries drain the Cabinet, Selkirk and Purcell mountain ranges and enter the Kootenai River directly or through larger tributaries. Due to past glaciations, some Kootenai River tributaries are blocked by falls near their mouths, and recruitment of fish to and from those tributaries is limited. The majority of waters in the Kootenai River produce fishing for trout. The Kootenai River and its tributaries, mountain lakes (including those in the Cabinet Wilderness and Northwest Peaks), lowland lakes (including portions of the Thompson Chain of Lakes), Bull, Spar, Island and Kilbrennan Lakes and Fisher River, Yaak River and Libby Creek all provide some type of recreational fishing.

## **LAKE KOOCANUSA**

The approximately 50-mile section of Kootenai River upstream of Libby Dam is completely inundated by Lake Koocanusa. Tributaries drain the Whitefish, Salish and Purcell mountain ranges and Southern Continental Range and enter the Kootenai River in British Columbia or Lake Koocanusa directly or through larger tributaries. The majority of streams that flow into Lake Koocanusa provide fishing for trout. Lake Koocanusa and its tributaries (most notably the Tobacco River and Big Creek), mountain lakes (including in and around the Ten Lakes Scenic Area), lowland lakes (including the Eureka Chain Lakes) and Dickey and Murphy Lakes all provide some type of recreational fishing.

## **FISHERIES MANAGEMENT**

The Kootenai River and all its tributaries are managed as wild trout fisheries, emphasizing natural reproduction. The basin is also the focus of native fish recovery efforts. There are over 60 mountain and valley lakes and reservoirs in the Kootenai drainage that consistently provide more than 100,000 angler days of fishing for trout, salmon and other species of fish. There are sixteen native fish species in the Kootenai River drainage including bull trout, white sturgeon, redband trout, westslope cutthroat trout, burbot, kokanee salmon, mountain and pygmy whitefish, northern pike minnow, peamouth chub, longnose dace, redband shiner, longnose and largescale suckers, and torrent and Columbia slimy sculpins. Eleven nonnative fish species inhabit the Kootenai including brook trout, brown trout, rainbow trout, lake trout, northern pike, smallmouth and largemouth bass, yellow perch, black crappie, pumpkinseeds and black bullheads.

Inland redband trout (Montana's only native rainbow trout) are found in the Kootenai River drainage in the mainstem Kootenai River downstream of Libby Dam and above barriers in some tributaries (primarily in the Yaak and Fisher rivers and Libby and Callahan creeks).

Unfortunately, hatchery rainbow trout have been widely introduced throughout the drainage since before the turn of the last century. Genetics work indicates that pure-strain redband populations are rare and historic stocking of coastal strains of rainbow trout have produced a naturalized wild hybridized population and has caused loss of much of the original distribution for redband trout. Though several tributaries to the Kootenai River have relatively low levels of hybridization, the only truly secure pure-strain redbands are in Callahan Creek and East Fork Yaak River, where barrier falls stop access of hybridizing species.

Large (up to 30 lbs) rainbow trout exist downstream of Libby dam to near the Fisher River (3.5 river miles). The trout grow large because kokanee salmon from Lake Koocanusa are entrained through the dam and provide an excellent food source on which to grow. These rainbow trout migrate very little and through the years appear to have created a genetically unique population. Restrictive regulations have been in place since 1994 to protect and enhance this population.

Bull trout are found throughout the Kootenai River drainage, with fluvial populations moving throughout the Lower Kootenai and the major tributaries of the Fisher River, Libby Creek and

Quartz Creek upstream of Kootenai Falls and Callahan Creek and O'Brien Creek downstream of the Falls. Two adfluvial populations exist: 1) Lake Koocanusa where some spawn in Grave Creek, but the vast majority spawn and rear in British Columbia tributaries, especially the Wigwam River; and 2) Bull Lake, a disjunct population separated from the main Kootenai by a falls on Lake Creek. Resident life forms likely exist in many smaller tributaries throughout the drainage, although the only confirmed resident population exists in Libby Creek upstream of Libby Falls. Special fishing regulations (timing closures, complete closures) exist on some spawning streams to protect bull trout. The fishing closure between Libby Dam and Fisher River to protect spawning rainbow trout also serves to protect bull trout during that time.

In 2004, the FWS authorized limited sport fishing for bull trout on Lake Koocanusa as requested by FWP after those fisheries were deemed to have reached recovery goals. This activity was intended to benefit the species by researching the effects of restoring recreational fishing. In addition, allowing angling for bull trout increased public support for management of a stable bull trout population in Lake Koocanusa. One condition of the permit from the USFWS called for a bull trout permit and catch card system, angler survey, and development of educational information pertaining to the new fishery. The seventh year of the angling for bull trout in Lake Koocanusa concluded in 2011. Since 2004, just over 12,000 anglers obtained catch cards; they spent over 28,000 days fishing for bull trout, caught more than 14,000 and harvested 2,182 bull trout. Anglers released nearly 90 percent of the bull trout they caught at Lake Koocanusa. In 2012, MFWP determined that harvest (both in Montana and British Columbia) had negatively affected the bull trout population enough to warrant changing the regulation to catch and release. The regulation will remain in effect while FWP determines the most prudent way to re-establish the harvest fishery. This will include efforts to work with British Columbia to create commensurate regulations.

Burbot (ling) are native to the Kootenai River drainage, upstream of Libby dam in Lake Koocanusa and Sophie and Glen Lakes, and downstream in the mainstem Kootenai River. Since the creation of Libby Dam, the downstream population has decreased substantially from historic levels. Over-fishing and lack of successful reproduction are considered to be the main reasons for the population decline. This is likely caused by alteration of the natural flow regime for flood control and power production, and the changes to the river ecosystem in terms of flow, substrate, temperature and nutrients. Elimination of former sloughs and backwaters from decades of diking (in Idaho) are also suspected of contributing to their decline. Though fishing regulations still allow for harvest of burbot in the Kootenai River, the angling effort has dropped to near zero. The burbot population in Lake Koocanusa has fared slightly better. Burbot numbers expanded substantially after Lake Koocanusa was initially formed. As the reservoir has aged, numbers and fishing pressure have waned, although there is still a stable population. A fishing closure during spawning (January 15 through February 28) was enacted in 1992 at the request of local anglers.

The Kootenai downstream of Kootenai Falls is also home to a genetically distinct population of white sturgeon. The fishery for white sturgeon has been closed for conservation purposes since 1979 in response to major declines in this population. The Kootenai River white sturgeon was listed as an Endangered Species in 1994. The Kootenai River White Sturgeon Recovery Strategy

is currently guiding recovery actions in the basin including flow manipulation, habitat improvement and hatchery supplementation.

Other native salmonids include westslope cutthroat trout and mountain whitefish. Non-native brook trout are present throughout the drainage. Brown trout were illegally introduced and first discovered in Lake Creek, but are now found in the Kootenai River downstream of Kootenai Falls. Kokanee salmon from Lake Koocanusa--entrained through Libby Dam--also enter the Kootenai River. Nonnative lake trout are found in Spar Lake (closed basin) and have also been found downstream of Libby Dam. While the origin of these fish in the Kootenai River is unknown, it is probably from an illegal plant.

## **HABITAT**

The Kootenai River basin has annual precipitation ranging from 20-80 inches and snowfall from 40-300 inches. Except during spring runoff when the river and reservoir experience increased turbidity, suspended sediment in the river is generally minimal, making the Kootenai River and Lake Koocanusa clear with good visibility for most of the year.

Roughly 90 percent of the drainage is forested and logging and associated road building has occurred in nearly all of the lower-elevation valleys and on many higher-elevation ridges. The combination of legacy of land management, roading and some large flood events have altered many streams and led to over-widened and braided sections. Streams in this condition tend to have mobile substrates that are less hospitable for insects and therefore numbers of salmonids.

Coal and hard rock mining are prominent activities in the Kootenai basin, particularly along the Elk and St. Mary rivers in BC and in the northern Cabinet Mountains. Recently proposed additional open pit coal mining has led the Montana Department of Environmental Quality to list Lake Koocanusa as threatened due to selenium. The Sullivan Mine at Kimberley, BC has been the largest metal producer in the basin and in 1981 it was one of the two largest lead-zinc mines in the world. From 1981 to the present, a large copper and silver mine and chemical floatation mill has operated in the Lake Creek watershed south of Troy, MT. Another copper silver mine (Montanore) is proposed in the headwaters of the Libby Creek drainage.

Dam operations represent the greatest impact to habitat in the Kootenai River because of the biological effects associated with unnatural flow fluctuations, reversed hydrograph (high flows in winter, low flows in summer), and real potential for gas supersaturation problems arising from spilling water. Water temperatures and seasonal thermal regimes of the Kootenai River have been unnaturally altered by the construction of Libby Dam. The selective withdrawal system which was installed on Libby Dam to control water temperatures has provided for the release of more natural water temperatures from late spring through fall; however, the system does not operate during winter months due to isothermal conditions of the reservoir and consequently, winter water temperatures remain warmer than prior to closure of Libby Dam.

Dam operations also impact fish populations in Lake Koocanusa. After an initial surge of productivity when the reservoir was first formed, there has been a slow decline in productivity toward oligotrophy (very low productivity). Between 1977 and 2000, reservoir drawdowns

averaged 111 feet, and although they have not been as dramatic since then, they still affect all biological trophic levels and influence the probability of subsequent refill during spring runoff. The reservoir has shifted from a westslope cutthroat/mountain whitefish dominated system to one dominated by northern pike minnow, peamouth chub and kokanee salmon.

The Bonneville Power Administration is required to mitigate for the construction and operation of Libby Dam, and accomplishes much of this by funding the FWP fisheries mitigation program. Mitigation efforts, both onsite (operational) and off-site, are underway to protect, reopen, or reconstruct habitat to partially offset the loss.

#### **FISHING ACCESS**

There are 6 publicly owned or managed access sites along the Kootenai River. Acquiring additional access sites along the Kootenai River is a goal, especially downstream of Libby. There are seven (plus one proposed) publicly owned accesses on Lake Koocanusa that access the reservoir at various drawdown levels. The Koocanusa access sites also provide convenient land-based recreation opportunities. None of the Koocanusa or Kootenai River sites are owned by FWP. There are also more than 30 publicly owned/operated boating access sites at many of the larger valley lakes in the drainage.

#### **SPECIAL MANAGEMENT ISSUES**

Rainbow trout numbers and mean relative weights directly downstream of Libby Dam have decreased dramatically in recent years and are lower than rainbow trout collected historically and in other downstream sections of the Kootenai River. Possible reasons for the lower condition near Libby Dam include water temperatures, an altered invertebrate community, and presence of a nuisance diatom, *Didymosphenia geminata* that has affected the Kootenai River since 2000. Commonly referred to as "Didymo" or "rock snot", this diatom is found mostly in cold clear streams and rivers including downstream of dams in much of North America. Didymo attaches itself to the streambed by a long stalk and poses a threat to the aquatic ecosystem because it forms extensive mats on stream beds. Those mats exclude many aquatic insect species important to salmonids. Mat production by Didymo is lowest in the summer and early fall months following elevated discharges from Libby Dam. The mats begin to die off in late March and early April and elevated discharges for white sturgeon recovery will remove varying amounts of mat material but never all of the diatoms. During peak mat production, Didymo has the potential to exclude important aquatic invertebrate species including mayflies and caddisflies.

### Fisheries Management Direction for Kootenai River Drainage

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Lake Koocanusa	46,500 acres total 28,723 acres in Montana	Bull trout	Wild	Conservation	Provide catch-release recreational opportunity and reinstate limited harvest if compatible. Monitor recreational fishery including by-catch by anglers fishing for large rainbow trout and during derbies. Monitor population in Montana and work with British Columbia counterparts to establish adequate protection to insure opportunity for angling on both sides of the border.
		Rainbow trout	Wild	Quality	Manage harvest to promote trophy fishery opportunity. Monitor recreational fishery all year including during derbies.
		Gerrard rainbow trout	Hatchery	Put-Grow-Take/ Quality	Provide trophy harvest and recreational fishery. These are sterile progeny of trout known to reach trophy size. Maintain no- take regulations for marked fish less than 22 inches to promote growth to trophy size.
		Kokanee salmon	Wild	Special Regulations	Manage harvest to enhance numbers and sizes. Monitor population in Montana and British Columbia to identify population structure and opportunities to improve length at harvest for angling on both sides of the border.
		Burbot	Wild	Special Regulations	Manage harvest to protect spawning adults. Monitor population in Montana and British Columbia to identify population structure and opportunities to improve length at harvest for angling on both sides of the border. Identify potential for population enhancement through hatchery augmentation
<p>Habitat needs and activities: In cooperation with MDEQ, monitor lake water and sediment quality and fish to determine effects of selenium produced from British Columbia open-pit coal mines. Identify reservoir operations that improve reservoir productivity and quality angling.</p>					

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Tobacco River and Tributaries - Headwaters downstream to Lake Kooconusa	22.9 miles	Bull trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies to improve habitat in core areas. Work with irrigators and agencies to eliminate adult loss and reduce/eliminate fry loss in system
		Westslope cutthroat trout	Wild	General	Enhance fluvial populations for conservation and angling opportunities.
		Rainbow trout	Wild	General	Maintain current angling opportunity and harvest level.
		Brook Trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Habitat needs and activities: Water rights are over allocated in Grave Creek; work with irrigators to maintain/improve flows to support native species.					
Eureka Chain Lakes	149 acres	Rainbow trout, (Gerrard, Eagle Lake, Redband)	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level. For Lost Lake, manage trout harvest to enhance size. Do strain evaluation to determine age class success and return to creel.
Frank	35 acres	Kokanee salmon	Hatchery	Put-Grow-Take	Where and when feasible (Frank Lake) based on hatchery availability and water quality (alkalinity levels), provide opportunity for recreational harvest
Lost	31 acres				
Timber	37 acres				
Rock		Brook trout	Hatchery	Put-Grow-Take	Conduct EA on feasibility of re-introducing brook trout into selected closed basin lakes
Other Small Lakes					
Habitat needs and activities: Monitor total alkalinity, dissolved oxygen levels and lake elevations to help determine stocking success					
Glen Lake	301 acres	Kokanee	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level. Continue to monitor population and determine stocking rates that promote opportunity for larger kokanee.
Continued on next page		Rainbow trout (Gerrard)	Hatchery	Quality	Explore opportunity to stock limited number of gerrard rainbow trout to produce trophy fishery

Water	Miles/acres	Species	Origin	Management Type	Management Direction
		Burbot	Wild	General	Identify source of burbot. Maintain limited harvest and recreational opportunity. Monitor population to identify population structure and opportunities to improve length at harvest for quality angling through regulation. Identify potential for population enhancement through hatchery augmentation
Habitat needs and activities: Work with Lincoln County to reduce impacts of shoreline construction. Lake elevations are controlled by Glen Lake irrigation district.					
Ten Lakes Scenic area lakes:  Upper Wolverine Lower Wolverine Rainbow Blue Bird Bat Big Therriault Little Therriault	8 acres 5 acres 9 acres 3 acres 5 acres 56 acres 28 acres	Westslope cutthroat trout	Wild/Hatchery	Put-Grow-Take/ General	Maintain current angling opportunity and harvest level. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with natural reproduction.
Tetrault (Carpenter) Lake	96 acres	Rainbow trout (Gerrard), Eagle Lake, redband), Westslope cutthroat trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level.
Sophie Lake	221 Acres	Rainbow trout (Gerrard, Eagle Lake, Redband) Westslope cutthroat trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level.
Continued on next page		Kokanee salmon	Hatchery	Put-Grow-Take	When feasible based on hatchery availability, provide opportunity for recreational harvest

Water	Miles/acres	Species	Origin	Management Type	Management Direction
		Burbot	Wild	General	Identify source of burbot. Maintain limited harvest and recreational opportunity. Monitor population to identify population structure and opportunities to improve length at harvest for quality angling through regulation. Identify potential for population enhancement through hatchery augmentation
Kootenai River and Tributaries - Libby Dam Downstream to Fisher River	3.5 miles	Bull Trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
		Rainbow trout	Wild	Quality/ Special Regulations	Continue to improve fishery through restrictive regulations to promote trophy sizes. Identify limiting factors leading to recent declines.
		Mountain whitefish	Wild	General	Maintain numbers. Continue to monitor population size and trend.
Habitat needs and activities: Identify limiting factors associated with <i>Didymosphenia geminata</i> and determine if blooms/mats can be reduced to improve fishery.					
Fisher River and Tributaries - Headwaters to Kootenai River	33.2 miles	Bull trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
		Redband trout, Westslope cutthroat trout	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations
		Rainbow trout	Wild	General/ Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals
Continued on next page					

Water	Miles/acres	Species	Origin	Management Type	Management Direction
		Brook trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Habitat needs and activities: Fisher River impacted by road and railroad construction. Investigate methods to improve habitat.					
Happy's Inn Small Lakes: Leon Bootjack Cibid Topless Cad	19 acres 12 acres 11 acres 9 acres 4 acres	Rainbow trout (Redband, Arlee) and Westslope cutthroat trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level. In Cibid Lake, promote redband trout. In Cad Lake promote westslope cutthroat trout. In other lakes, stock rainbow trout and westslope cutthroat trout on alternate years.
Crystal Lake Lavon Lake	184 acres 17 acres	Kokanee salmon	Hatchery/ Wild	Put-Grow-Take	Manage harvest and stocking levels to enhance numbers and sizes. Continue to monitor contribution to population of hatchery versus wild kokanee and determine stocking rates that promote opportunity for larger kokanee.
		Redband trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level. Continue to monitor population to determine if redbands will switch to piscivorous diet of kokanee and produce opportunity for larger trout.
		Yellow Perch	Wild	General	Reduce or eliminate yellow perch to benefit recreationally important kokanee salmon
Horseshoe Lake	138 acres	Tiger muskellunge	Hatchery	Quality/ Special Regulations	Manage for trophy opportunity and to maintain pressure on northern pikeminnow and sucker populations to improve opportunity to establish a limited salmonid fishery. Stock limited numbers on alternate years.
		Kokanee salmon	Hatchery	Put-Grow-Take	Manage harvest and stocking levels to enhance numbers and sizes. Establish and monitor success of stocking in this high predator system

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Loon Lake Little Loon Lake	222 Acres 9 Acres	Northern pike (Illegally introduced)	Wild	General	Continue to provide for liberal harvest to provide for recreational opportunity and decrease predation on yellow perch and bass.
		Largemouth bass	Wild	Quality	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes.
		Smallmouth bass	Hatchery	Quality/ Put-Grow-Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Determine if continued stocking is warranted.
Island Lake Lynch Lake	221 Acres 41 Acres	Yellow perch	Wild	Quality	Maintain current angling opportunity and harvest level. Monitor population structure to determine if quality perch population can be sustained.
		Largemouth bass	Wild/ Hatchery	Quality/ Put-Grow-Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Identify if continued stocking is warranted
		Northern pike (illegally introduced)	Wild	General/ Suppression	Provide for liberal harvest to provide for recreational opportunity and decrease predation on yellow perch and bass.
Kootenai River and Tributaries (Fisher River to Kootenai Falls.)	28.6 Miles	Bull trout, Westslope cutthroat trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas. Enhance fluvial populations for conservation and WCT angling.
		Rainbow trout	Wild	Special Regulations	Manage harvest to enhance numbers and sizes
		Mountain whitefish	Wild	General	Maintain numbers. Continue to monitor population size and trend.
<p>Habitat needs and activities: Improve habitat to support ecosystem function and production of trout and whitefish. Identify limiting factors associated with <i>Didymosphenia geminata</i> and determine if blooms/mats can be reduced to improve fishery</p>					

<b>Water</b>	<b>Miles/acres</b>	<b>Species</b>	<b>Origin</b>	<b>Management Type</b>	<b>Management Direction</b>
Libby Creek and Tributaries (Headwaters to Kootenai River)	29.2 Miles	Bull trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
		Redband trout	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals.
		Westslope cutthroat trout	Wild	Conservation	Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations
		Rainbow trout	Wild	General/Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals
		Brook trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Cabinet Wilderness Lakes Baree Big Bear Upper Geiger Lower Geiger Bramlet Leigh Granite Double Wishbone Upper Hanging Valley Lower Hanging Valley	10 Acres 9 Acres 13 Acres 34 Acres 9 Acres 129 Acres 57 Acres 37 Acres 16 Acres 53 Acres 21 Acres	Redband trout, Westslope cutthroat trout     Brook trout	Wild/ Hatchery     Wild	Put-Grow-Take/ General     General/ Suppression	Maintain current angling opportunity and harvest level for high mountain lake angling opportunity. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction.     Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate competing populations to meet native species goals

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Continued on next page Lower Sky Minor Upper Cedar Lower Cedar	23 Acres 20 Acres 63 Acres 19 Acres				
Kootenai River and Tributaries (Kootenai Falls to Idaho Border).	21.7 Miles	Bull trout, Westslope cutthroat trout	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas. Enhance fluvial populations for conservation and WCT angling.
		Rainbow trout	Wild	General	Manage harvest to enhance numbers and sizes.
		Brown trout	Wild	Suppression	Identify status of this recently illegally introduced species. Identify opportunities to reduce or eliminate to benefit native fish and recreationally important rainbow trout
		Mountain whitefish	Wild	General	Maintain numbers. Survey population size and trend.
Yaak River and Tributaries (Headwaters to Kootenai River)	53.4 Miles	Redband trout, Westslope cutthroat trout	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations
		Rainbow trout	Wild	General/Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals
		Brook trout	Wild	General/Suppression	Maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Bull Lake	1162 Acres	Bull trout	Wild	Conservation	Closed to angling. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies to improve habitat in core area
		Westslope cutthroat trout	Wild	General	Maintain current angling opportunity and harvest level. Consider regulations that better promote native species goals.
		Kokanee salmon	Hatchery	Put-Grow-Take/Wild	Manage harvest and stocking levels to enhance numbers and sizes. Monitor contribution to population of hatchery versus wild kokanee and determine stocking rates that promote opportunity for larger kokanee.
		Northern pike Largemouth bass smallmouth bass (all illegally introduced)	Wild	Suppression	If feasible reduce/eliminate populations by liberalizing regulations to meet native species and recreational kokanee fishing goals.
Habitat needs and activities: Work with agencies and others to protect/maintain/enhance Keeler Creek spawning and rearing habitat for bull trout. Monitor lake for Eurasian water milfoil known in the vicinity (Clark Fork drainage)					
Spar Lake	383 Acres	Lake trout	Wild	General	Maintain current angling opportunity and harvest level. Consider liberalizing limits to reduce numbers to improve size and benefit Put-Grow-Take fisheries.
Little Spar Lake	37 Acres	Westslope cutthroat trout, Rainbow trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level. In Little Spar Lake promote westslope cutthroat trout exclusively. In Spar Lake determine stocking rates and species/strains to best promote return to creel in a lake dominated by lake trout.
		Kokanee salmon	Hatchery	Put-Grow-Take	Manage harvest and stocking levels to enhance numbers and sizes. (Spar Lake).

Water	Miles/acres	Species	Origin	Management Type	Management Direction
Savage Lake	71 Acres	Largemouth bass	Hatchery/Wild	Put-Grow-Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Identify if continued stocking is warranted.
		Yellow perch	Wild	Quality	Maintain current angling opportunity and harvest level. Monitor population structure to determine if quality perch population can be sustained.
Grouse Lake	10 Acres	Westslope cutthroat trout	Hatchery	Put-Grow-Take	Maintain current angling opportunity and harvest level
Kilbrennan Lake	55 Acres	Redband trout	Hatchery/ Wild	Put-Grow-Take	Maintain current angling opportunity and harvest level. Determine stocking rates to best promote return to creel in a lake dominated by brook trout.
		Brook trout	Wild	General	If practical, maintain current angling opportunity and harvest level. If feasible, reduce numbers to improve size and benefit the Put-Grow-Take and wild redband population.
Alvord Lake	53 Acres	Largemouth bass	Wild	Quality	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes.
		Yellow perch	Wild	General	Maintain current angling opportunity and harvest level. Monitor population structure as part of effort to sustain perch population
Vinal Lake	16 Acres	Westslope cutthroat trout	Wild	Put-Grow-Take	Maintain current angling opportunity and harvest level.
Hoskins Lake	35 Acres				
Northwest Peaks Lakes	14 Acres 7 Acres 14 Acres 5 Acres	Westslope cutthroat trout	Hatchery/ Wild	Put-Grow-Take/ General/ Conservation	Maintain current angling opportunity and harvest level for high mountain lakes. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction.
Upper Hawkins					
Lower Hawkins					
Burke					
Davis					
Continued on next page					

<b>Water</b>	<b>Miles/acres</b>	<b>Species</b>	<b>Origin</b>	<b>Management Type</b>	<b>Management Direction</b>
		Brook trout	Wild	Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate competing populations to meet native species goals.
Fish Lakes North Middle South	9 Acres 3 Acres 16 Acres	Westslope cutthroat trout	Hatchery/ Wild	Put-Grow-Take/ General/ Conservation	Maintain current angling opportunity and harvest level for mountain lakes. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction.