

IMPLEMENTATION SCHEDULE

The following implementation schedule describes recovery task priorities, task numbers, task descriptions, duration of tasks, potential or participating responsible parties, estimated costs, and cost estimates for the next five years, if available, and comments. These tasks, when accomplished, will lead to recovery of bull trout in the Clearwater River Recovery Unit, and ultimately to recovery of bull trout in the coterminous United States.

Parties with authority, responsibility, or expressed interest to implement a specific recovery task are identified in the implementation schedule. Listing a responsible party does not imply that prior approval has been given, nor does it require that party to participate or expend funds. However, willing participants will benefit by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan, and is therefore part of a coordinated effort to recover bull trout. In addition, section 7 (a)(1) of the Endangered Species Act directs all Federal agencies to use their authorities to further the purposes of the Endangered Species Act by implementing programs for the conservation of threatened or endangered species.

Following are definitions to column headings and keys to abbreviations and acronyms used in the Implementation Schedule:

Priority Number: All priority 1 tasks are listed first, followed by priority 2 and priority 3 tasks.

Priority 1 - All actions that must be taken to prevent extinction or to prevent the species from declining irreversibly in the foreseeable future.

Priority 2 - All actions that must be taken to prevent a significant decline in species population or habitat quality or to prevent some other significant negative effect short of extinction.

Priority 3 - All other actions necessary to provide for full recovery (or reclassification) of the species.

Task Number and Task Description: Recovery tasks as numbered in the recovery outline. Refer to the action narrative for task descriptions.

Task Duration: Expected number of years to complete the corresponding task. Study designs can incorporate more than one task, which when combined can reduce the time needed for task completion.

Responsible or Participating Parties: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding task. Bold type indicates the agency or agencies that have the lead role for task implementation and coordination, though not necessarily sole responsibility. Additional identified agencies or parties are considered cooperators in conservation efforts. Identified parties include the following.

BOR	U.S. Bureau of Reclamation
BPA	Bonneville Power Administration
BLM	Bureau of Land Management
COE	Corps of Engineers
EPA	Environmental Protection Agency
IBODS	Idaho Bureau of Disaster Service
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
ITD	Idaho Department of Transportation
IDWR	Idaho Department of Water Resources
ISCC	Idaho Soil Conservation Commission
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NPT	Nez Perce Tribe
PCTC	Plum Creek Timber Company
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service

USFS U.S. Forest Service

Many of the tasks necessary for bull trout recovery are related to restoration of the watershed(s), and as such are currently being implemented to some degree through existing programs and mandates. These tasks are designated in the “comments” column as “ongoing.” However, current implementation is typically being carried out at limited funding levels and/or in only a portion of the watershed, and will need to be expanded to result in measurable gains toward the bull trout recovery goal and objectives. Most of these restoration tasks are strongly interrelated, and separate cost estimates in the accompanying implementation schedule represent rough approximations.

Cost Estimates: Cost estimates are rough approximations and provided only for general guidance. Total costs are estimated for both the duration of the task, are itemized annually for the next five years, and includes estimates of expenditures by local, Tribal, State, and Federal governments and by private business and individuals.

An asterisk (*) in the total cost column indicates ongoing tasks that are currently being implemented as part of normal agency responsibilities under existing authorities. Because these tasks are not being done specifically or solely for bull trout conservation, they are not included in the cost estimates. Some of these efforts may be occurring at reduced funding levels and/or in only a small portion of the watershed.

Double asterisk (**) in the total cost column indicates that estimated costs for these tasks are not determinable at this time. Input is requested to help develop reasonable cost estimates for these tasks.

Triple asterisk (***) indicates costs are combined with or embedded within other related tasks.

Chapter 16 - Clearwater River

CLEARWATER RIVER RECOVERY UNIT - IMPLEMENTATION SCHEDULE											
Task priority	Task number	Task description	Task duration (years)	Responsible parties (Alphabetical)	Cost estimates (\$1,000)					Comments	
					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
1	1.1.1	Reduce fine sediment production	25	IDL, USFS, BLM, County, COE, IDEQ, ISCC, ITD, IDWAG, PCTC, NRCS, USFWS	*						
1	1.1.2	Address forest road maintenance and areas with high sediment loading	25	IDL, USFS, BLM, NPT, PCTC, USFWS	*						
1	1.1.1	Eliminate or reduce the number and length of stream segments with impaired water quality	25	IDEQ, Counties, EPA, USFS, USFWS	*						
1	1.2.1	Identify culverts and other man-made barriers inhibiting fish passage	5	IDL, ITD, USFS, BLM, County, IDFG, PCTC, USFWS	400	80	80	80	80	80	Increase ongoing surveys
1	1.2.2	Eliminate known culvert and other passage barriers (including those identified by task 1.2.1)	25	IDL, ITD, USFS, County, IDFG, PCTC, USFWS	**						Cost depends on results of Task 1.2.1
1	1.3.1	Conduct watershed assessments in the North Fork, South Fork, and Middle/Lower Clearwater River, and Lochsa Core Areas	25	IDFG, NPT, USFS, IDL, IDEQ, NRCS, PCTC, USFWS	*						
1	1.3.3	Restore stream reaches degraded by dredge and placer mining	25	USFS, IDEQ, IDL, BLM, NPT, USFWS	*						

Chapter 16 - Clearwater River

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					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
1	1.3.13	Evaluate overwintering habitat in the mainstem rivers	5	BLM, IDFG, NPT, USFS, COE, IDL, IDEQ, USFWS	200	40	40	40	40	40	
1	1.3.14	Implement restoration of overwintering habitat in the mainstem rivers, if needed	15	BLM, IDFG, NPT, USFS, COE, IDL, IDEQ, USFWS	**						Total cost depends on restoration needs
1	3.2.3	Continue enforcement of current fishing regulations. Consider regulation changes such as tributary closures to protect bull trout	25	IDFG, NPT, USFS	*						
1	3.2.4	Increase enforcement activities relating to the no bull trout harvest regulations	25	IDFG, USFS, BLM, NPT, USFWS	750	30	30	30	30	30	
1	4.2.1	Investigate additional opportunities to improve passage	25	IDL, USFS, BLM, County, COE, IDEQ, ISCC, ITD, NPT, PCTC, NRCS, USFWS	500	20	20	20	20	20	
2	1.1.3	Identify areas of excess fine sediment delivery due to trail use and implement actions to reduce or eliminate fine sediment delivery	25	IDL, USFS, BLM, NPT, USFWS	*						

Chapter 16 - Clearwater River

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2	1.1.4	Improve maintenance along transportation corridors	25	ITD, USDOT, County, IDL, USFS	500	20	20	20	20	20	
2	1.1.5	Decrease the potential of, and improve quick response capability for, dealing with potential hazardous material spills	5	ITD, USDOT, IDEQ, County, USFS	50	10	10	10	10	10	
2	1.1.6	Restore areas degraded by historic timber harvest	25	IDL, USFS, BLM, NPT, PCTC, USFWS	*						See associated Task 1.5.3
2	1.1.7	Identify problem mine sites and remediate tailings, ponds, and other associated waste	25	IDL, USFS, IDEQ, USFWS	*						
2	1.1.8	Assess and mitigate point and nonpoint thermal pollution	25	EPA, IDEQ, ISCC, NRCS	*						
2	1.1.9	Reduce nutrient input	25	EPA, IDEQ, BLM, ISCC, NPT, NRCS, PCTC, USFS, USFWS	*						
2	1.3.2	Revegetate denuded riparian areas	25	BLM, IDL, NRCS, PCTC, USFS, IDOT, NPT, USFWS	375	15	15	15	15	15	Increase ongoing restoration activities

Chapter 16 - Clearwater River

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2	1.3.4	Improve instream habitat	25	IDL, USFS, PCTC, BLM, IDFG, NPT, NRCS, USFWS	*						
2	1.3.5	Evaluate and implement actions to restore areas of Fish Lake Creek (Lochsa River) degraded by channelization and excessive bank erosion associated with the Fish Lake airstrip and campsites	10	USFS, IDFG, USFWS	*						
2	1.3.7	Identify and restore riparian areas where livestock grazing is impacting bull trout habitat	25	BLM, IDL, USFS, ISCC, NPT, NRCS, USFWS	*						
2	1.3.8	Identify riparian areas threatened by nonnative plant invasion, and evaluate and implement actions to restore native vegetation.	25	BLM, IDL, IDOT, USFS, County, NPT, NRCS, PCTC, USFWS	500	20	20	20	20	20	
2	1.3.9	Improve stream channels near transportation corridors	25	ITD, USDOT, County, IDFG, USFS	**						
2	1.3.10	Identify areas in which secondary roads have been constructed in floodplain and implement restoration actions	25	ITD, County, IDFG, USFS, BLM, IDL, NPT, PCTC, USFWS	**						

Chapter 16 - Clearwater River

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2	1.4.1	Evaluate direct losses of bull trout through Dworshak Dam	5	COE, IDFG, IDWR, USFWS	100	20	20	20	20	20	
2	1.4.2	Operate Dworshak Dam to reduce losses of kokanee salmon	25	COE, IDFG, IDWR, USFWS	*						
2	1.4.3	Evaluate the impact of summer drawdowns of Dworshak reservoir on upstream migration of bull trout	5	COE, IDFG, IDWR, USFWS	50	10	10	10	10	10	
2	1.5.1	Monitor and mitigate fire effects, where necessary	25	IDL, USFS, BLM, NPT	*						
2	1.5.2	Compensate for legacy timber harvest and associated roading practices	25	BLM,IDL, USFS, NPT, PCTC, USFWS	1,000	40	40	40	40	40	Some funding covered by another program or agency
2	2.3.2	Develop a bull trout education program	15	IDFG,USFWS, BLM, NPT, USFS	375	15	15	15	15	15	Continue ongoing efforts; develop new programs
2	2.4.1	Identify overlap in bull trout and nonnative fish (brook trout) distribution in all core areas	10	IDFG, USFS, USFWS, BLM, NPT	300	30	30	30	30	30	Cost could increase if extensive surveys required

Chapter 16 - Clearwater River

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2	2.4.2	Develop protocols for suppressing nonnative fish and monitor impacts of ongoing actions	10	IDFG, USFS, USFWS, NPT	150	15	15	15	15	15	Continue ongoing efforts
2	2.5.2	Experimentally remove established brook trout populations from priority streams	10	IDFG, USFS, BLM, NPT, USFWS	200	20	20	20	20	20	Some funding covered by another program or agency(s)
2	2.5.3	Monitor brook trout expansion and prevent brook trout from entering areas that overlap with occupied and unoccupied bull trout habitat, wherever possible	25	IDFG, USFS, BLM, NPT, USFWS	250	10	10	10	10	10	Some costs covered by another program or agency, and/or other tasks (2.4.3, 2.5.1, 2.5.2)
2	3.1.1	Develop a comprehensive fishery management plan for the Clearwater River Recovery Unit incorporating bull trout recovery and utilizing adaptive management	25	IDFG, NPT, USFWS	250	10	10	10	10	10	Costs partially covered by ongoing agency funding for existing programs
2	3.2.1	Evaluate the amount and relative threat of illegal bull trout harvest and incidental fishing mortality	5	IDFG, NPT, USFWS	***						Cost covered under Task 5.2.1 and 5.2.2

Chapter 16 - Clearwater River

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2	3.3.1	Evaluate the potential for release of excess hatchery stock of anadromous fish into occupied bull trout habitat	10	IDFG, NPT, USFWS	100	10	10	10	10	10	Some funding covered by other programs
2	3.4.1	Evaluate effects of existing and proposed angling regulations on bull trout	10+	IDFG, NPT	100	10	10	10	10	10	Some funding covered by another program or agency
2	3.4.2	Evaluate the impact of the sport fishing season in the two Fish Lake core areas on the adfluvial bull trout populations	5	IDFG, USFS	50	10	10	10	10	10	Ongoing in North Fork Fish Lake
2	4.1.1	Conduct a genetic inventory	10	IDFG, NPT, USFS, USFWS	250	25	25	25	25	25	Ongoing
2	4.1.2	Describe and monitor genetic and phenotypic characteristics of bull trout, and incorporate information into management strategies	25	IDFG, NPT, USFWS, USFS	375	15	15	15	15	15	Funding covered by other programs and other Tasks (see 4.1.1)
2	4.3.1	Evaluate the need for re-establishing genetic connectivity between the North Fork Clearwater River and the remainder of the recovery unit	10	IDFG, NPT, USFS, USFWS	100	10	10	10	10	10	Some funding covered under other programs and Tasks (see 4.1.1)

Chapter 16 - Clearwater River

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2	5.1.1	Develop coordination infrastructure to facilitate restoration	25	IDWAG, USFWS, BLM, Counties, COE, IDL, IDEQ, IDFG, ITD, NPT, NRCS, PCTC, USFS	125	5	5	5	5	5	Some funding covered by another program or agency
2	5.2.1	Determine the abundance of fluvial, adfluvial, and resident bull trout and habitat used in the Clearwater River Recovery Unit	25	IDFG, NPT, USFS, BLM, USFWS	1,250	50	50	50	50	50	Ongoing. Some funding covered under other programs, agencies, and Tasks
2	5.2.2	Develop and implement protocol to estimate the mortality factors for local populations	25	IDFG, NPT, USFS, BLM, USFWS	625	25	25	25	25	25	Funding partially covered by Task 5.2.1
2	5.2.4	Conduct presence/absence surveys in previously uninventoried areas	25	IDFG, NPT, USFS, BLM, USFWS	625	25	25	25	25	25	Ongoing. Some funding covered by other programs, and Tasks
2	5.2.5	Evaluate water temperature as a limiting factor	10	IDFG, EPA, IDEQ, BLM, USFS, USFWS	50	5	5	5	5	5	Ongoing. Some funding covered by other programs and/or Tasks
2	5.2.6	Identify suitable unoccupied habitat	10	IDFG, NPT, USFS, BLM, USFWS	*						

Chapter 16 - Clearwater River

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2	5.6.1	Determine the life history requirements of resident and migratory bull trout populations	10	IDFG, NPT, USFS, USFWS	200	20	20	20	20	20	Some funding covered by other programs and other Tasks
2	6.1.2	Work collaboratively with county and city land use planners to minimize urbanization impacts on bull trout recovery	25	IDFG, USFWS, IDWAG, County	*						
2	6.1.3	Identify opportunities for habitat restoration and provide assistance to landowners	25	NRCS, IDFG, BLM, Counties, ISCC, UFS, USFWS	*						
2	6.1.5	Encourage floodplain protection	25	County, COE, EPA, IDFG, IDEQ, IDL	*						
2	6.2.1	Implement the Plum Creek Habitat Conservation Plan	25	PCTC, USFWS,	*						
2	6.3.1	Ensure restrictions on suction dredge mining in bull trout habitat are effective	25	BLM, IDWR, USFS, IDFG, USFWS	*						
2	6.3.2	Ensure current mining regulations are effective	25	BLM, IDEQ, IDWR, USFS, IDFG, USFWS	*						

Chapter 16 - Clearwater River

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3	1.1.10	Minimize recreational development in bull trout spawning and rearing habitat	25	County, IDL, USFS, IDFG, USFWS	*						
3	1.2.3	Consider providing passage around natural barriers	10	IDFG, USFWS, USFS	***						See related task 1.3.1
3	1.3.6	Evaluate and implement actions to restore degraded riparian habitat at Fish Lake (North Fork core area)	5	USFS, IDFG	10	2	2	2	2	2	
3	1.3.11	Reduce campsite impacts	10	IDL, USFS, County, IDFG, NPT	50	5	5	5	5	5	
3	1.3.12	Minimize potential stream channel degradation from flood control and response actions	25	County, IBODS, COE, IDEQ	*						
3	2.5.1	Reduce brook trout competition with bull trout where they are known to coexist, and where brook trout numbers are relatively low	10	IDFG, USFS, BLM, NPT, USFWS	200	20	20	20	20	20	Some funding covered by another program or agency(s)
3	2.3.1	Discourage unauthorized fish introductions	25	IDFG, USFWS, USFS, NPT	***						Funding covered under Task 2.3.2

Chapter 16 - Clearwater River

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3	2.5.4	Evaluate extent of hybridization between bull and brook trout in areas where brook trout are firmly established and eradication is not possible.	25	IDFG, USFS, BLM, NPT, USFWS	125	5	5	5	5	5	Some costs covered by another program or agency, and/or other tasks (2.4.3, 2.5.1, 2.5.2, 2.5.3).
3	3.2.2	Continue public outreach about fishing regulations, bull trout identification, and proper handling / release techniques	25	IDFG, USFWS, USFS, BLM, NPT	*						
3	3.2.5	Inform the public about bull trout issues and general fisheries biology and management issues	10	IDFG, USFWS, USFS, NPT	***						Funding covered under Task 2.3.2
3	3.4.3	Evaluate the impact of the bonus brook trout limit in the Clearwater River Recovery Unit and increase the limit, if possible	10	IDFG, USFS, BLM	*						
3	5.1.2	Develop standardized population monitoring techniques and procedures	25	IDFG, NPT, USFWS, BLM, USFS	250	10	10	10	10	10	Some funding covered by other programs and other Tasks
3	5.2.3	Map spawning habitat	5	IDFG, NPT, USFS, USFWS	25	5	5	5	5	5	Ongoing

Chapter 16 - Clearwater River

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3	5.2.7	Evaluate importance of contributing waters	15	IDFG, USFS, USFWS	150	10	10	10	10	10	Funding covered by other programs and/or Tasks
3	5.3.1	Evaluate existing Best Management Practices to determine if they provide for conditions necessary for bull trout recovery	25	IDL, ISCC	*						
3	5.4.1	Maintain fish health screening and transplant protocols to reduce risk of disease transmission.	25	IDFG, NPT, USFWS	*						
3	5.5.2	Conduct migrational studies for the Clearwater River Recovery Unit and coordinate with the Hells Canyon Complex, Grande Ronde, Imnaha, and Salmon River recovery units	25	IDFG, NPT, USFWS, USFS	250	10	10	10	10	10	Costs partially covered under other research tasks
3	6.1.1	Provide long-term protection of perennial stream reaches	25	BLM, IDFG, USFS, USFWS	*						

Chapter 16 - Clearwater River

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3	6.1.4	Integrate watershed restoration efforts on public and private lands	25	IDWAG, BLM,, Counties, USFS, COE, IDL, IDEQ, IDFG, ISCC, PCTC, NPT, NRCS, USFWS	*						
3	6.2.2	Coordinate bull trout recovery with listed anadromous fish species recovery.	25	IDFG, NMFS, USFS, USFWS, BLM, IDL, NPT	*						
3	7.1.1	Develop a participation plan	2	IDWAG, USFWS, BLM, Counties, IDEQ, IDFG, EPA, NPT, NRCS, USFS, PCTC	15	10	5				Coordinated with Task 5.1.1
3	7.3.1	Periodically review progress toward recovery goals and assess recovery task priorities	25	IDWAG, USFWS, BLM, Counties, IDEQ, IDFG, EPA, NPT, NRCS, USFS, PCTC	*						