

IMPLEMENTATION SCHEDULE

The implementation schedule that follows describes recovery task priorities, task numbers, task descriptions, duration of tasks, potential or participating responsible parties, total cost estimate and estimates for the next 5 years, if available, and comments. These tasks, when accomplished, will lead to recovery of bull trout in the Hells Canyon Complex Recovery Unit. Costs estimates are not provided for tasks which are normal agency responsibility under existing authorities.

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 or require that party to participate or expend any funds. However, willing participants may be able to increase their funding opportunities 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.

The following are definitions to column headings 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, habitat quality, or 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 are numbered as 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, may reduce the time needed for task completion.

Responsible or Participating Party: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding recovery task. Lead agencies are indicated in bold type. Additional identified agencies or parties are considered cooperators in conservation efforts. Identified parties include:

BLM	Bureau of Land Management
counties	Counties within the recovery unit
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDT	Idaho Department of Transportation
IPC	Idaho Power Company
NMFS	National Marine Fisheries Services
NRCS	Natural Resources Conservation Service
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODF	Oregon Department of Forestry
ODOT	Oregon Department of Transportation
COE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation

USFWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service
operators	water diversion and reservoir operators
councils	watershed councils
districts	water irrigation districts or companies

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

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Implementation schedule for the Bull Trout Recovery Plan: Hells Canyon Complex Recovery Unit, Idaho and Oregon											
Priority number	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 sediment production from roads and other sources (<i>e.g.</i> , mines, over-grazed areas) known to be contributing sediment to streams.	25	counties, IDEQ, IDT, ODEQ, ODF, ODOT, USFS	***						Ongoing ¹ . Coordinate with task 1.1.2.
1	1.1.2	Assess sediment production from roads and potential sources in areas that have not been evaluated and implement actions to reduce sediment production if appropriate.	6	counties, IDEQ, IDT, ODEQ, ODF, ODOT, USFS	*						
1	1.2.1	Identify water diversion structures and ditches affecting bull trout and implement actions to reduce negative effects.	10	councils, districts, IDFG, ODFW, operators, USFS,	750	75	75	75	75	75	Cost estimate for identification of sites and design.
1	1.2.2	Provide fish passage at water diversions known to be fish passage barriers.	10	councils, districts, IDFG, NRCS, ODFW, operators, USFS,	1,500	150	150	150	150	150	

¹Ongoing tasks are currently being implemented as part of normal agency responsibilities that may benefit bull trout. Because these actions are not specifically being done to address 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.

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Implementation schedule for the Bull Trout Recovery Plan: Hells Canyon Complex Recovery Unit, Idaho and Oregon											
Priority number	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	1.2.3	Identify dewatered areas where insufficient stream flow creates passage barriers, and develop and implement actions to provide fish passage.	25	councils, districts, IDFG , NRCS, ODFW , operators, USBR, USFS,	750	30	30	30	30	30	Cost estimate for identification of sites and development of actions.
1	1.2.4	Investigate and implement methods to provide two-way fish passage at Oxbow Dam, Thief Valley Dam, Mason Dam, and Wolf Creek Dam.	5	COE, FERC, IDFG, IPC , ODFW, USBR , USFWS	750	150	150	150	150	150	Cost estimate for investigations.
1	1.2.5	Inventory and assess road crossings to identify fish passage barriers and implement actions to provide passage where appropriate.	5	BLM , counties, IDT , ODOT , USFS	*						Ongoing.
1	1.2.6	Provide fish passage at road crossings that have been identified as fish passage barriers.	25	BLM , counties, IDT , ODOT , USFS	**						Ongoing.
1	2.5.1	Evaluate the presence of introduced fishes in bull trout core habitat and their potential interactions with bull trout, and develop and implement a plan to reduce potential negative effects.	5	IDFG , ODFW , USFWS, USFS	300	60	60	60	60	50	Cost and time estimate for evaluation.

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					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
1	2.6.1	Implement coordinated efforts among resource agencies to remove or suppress brook trout in the Indian Creek and Wildhorse River basins if determined to be feasible.	25	IDFG, ODFW, USFWS, USFS	***						Task dependent on results of task 2.5.1.
2	1.1.3	Assess mine sites for potential negative effects on bull trout and bull trout habitats and rehabilitate sites determined to be problems.	5	IDEQ, ODEQ, USFS	250	50	50	50	50	50	Cost estimate for evaluation of sites.
2	1.1.4	Assess and attempt to mitigate negative effects of nonpoint sources of pollution on bull trout and bull trout habitats.	25	EPA, IDEQ, landowners, NRCS, ODA, ODEQ, USFS	*						Ongoing.
2	1.3.1	Restore shade and canopy cover provided by riparian vegetation along select stream reaches where riparian habitats have been degraded.	25	BLM, councils, IDFG, landowners, NRCS, ODFW, USFWS, USFS	500	20	20	20	20	20	Ongoing.
2	1.3.2	Reduce degradation of aquatic and riparian habitats caused by livestock grazing.	25	BLM, councils, IDFG, landowners, NRCS, ODFW, USFWS, USFS	500	20	20	20	20	20	Ongoing.
2	1.3.3	Adjust grazing practices to prevent negative effects on streambanks and riparian areas affecting bull trout habitats.	25	BLM, councils, IDFG, landowners, NRCS, ODFW, USFWS, USFS	50	20	20	20	20	20	Ongoing.

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					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
2	1.3.4	Identify and implement actions to restore stream and riparian habitats that have been degraded.	25	BLM, councils, IDFG, landowners, NRCS, ODFW, USFWS, USFS	500	20	20	20	20	20	Cost estimate for identification of sites.
2	1.3.5	Improve degraded aquatic and riparian habitats in the Indian Creek and Wildhorse River watersheds.	25	IDFG, landowners, USFWS, USFS	*						Ongoing.
2	3.1.2	Coordinate bull trout recovery monitoring with activities conducted under management plans and adaptively integrate the results of research into management plans and programs.	25	BLM, councils, IDEQ, IDFG, IPC, NMFS, NRCS, ODEQ, ODFW, USBR, USFS	*						
2	3.1.3	Restore the historic prey base for bull trout by reestablishing viable populations of anadromous fish.	25	FERC, IDFG, IPC, NMFS, ODFW, USBR, USFWS	***						Coordinate with tasks 1.2.4.
2	4.1.1	Collect samples for genetic analysis to contribute to establishing a program to understand the genetic baseline and monitor genetic changes throughout the range of bull trout (see Chapter 1 narrative).	25	BLM, IDEQ, IDFG, IPC, ODEQ, ODFW, USFWS, USFS	**						See Chapter 1.
2	5.5.4	Conduct regular surveys in areas where bull trout status is unknown and those identified as having potential spawning and rearing habitat.	25	IDFG, ODFW, USFS	500	20	20	20	20	20	

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					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
3	1.1.5	Assess the presence of residual concentrations of fish toxicants in sediments.	3	ODEQ, ODFW	180		60	60	60		
3	1.4.1	Evaluate effects of reservoir operations on bull trout and implement operational changes to prevent negative effects and benefit bull trout if necessary.	5	IDFG, ODFW, operators, USBR	250	50	50	50	50	50	Cost estimate for evaluation.
3	1.4.2	Reduce levels of dissolved gases in water released from Brownlee Reservoir.	25	IDEQ, IDFG, IPC, ODEQ, ODFW,	**						
3	1.5.1	Evaluate potential effects of degraded upland areas on stream and riparian habitats and implement actions to restore historic vegetation and processes where appropriate.	5	BLM, councils, IDEQ, IDFG, NRCS, ODEQ, ODFW, USFS	250	50	50	50	50	50	Cost estimate for evaluation.
3	3.1.1	Incorporate bull trout recovery actions into fish and habitat management plans relevant to the Hells Canyon Complex Recovery Unit.	25	BLM, councils, IDEQ, IDFG, IPC, NMFS, NRCS, ODEQ, ODFW, USBR, USFS	*						
3	3.2.1	Develop, implement, and evaluate angling regulations intended to minimize incidental mortality of bull trout.	25	IDFG, ODFW	*						
3	3.3.1	Evaluate the effects of fish stocking and the fishery on bull trout in Cracker Creek and Phillips Reservoir.	3	ODFW, USBR, USFS	150		50	50	50		

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3	4.3.1	Develop protocols for and evaluate the feasibility of reintroducing bull trout into apparent historic or suitable habitat within the Hells Canyon Complex Recovery Unit.	5	IDFG, ODFW, USFWS, USFS	250	50	50	50	50	50	Cost estimate for protocol development.
3	5.2.1	Evaluate historic and current conditions of all habitat types in each watershed within the Hells Canyon Recovery Unit.	10	BLM, councils, IDFG, ODFW, USFS	*						
3	5.2.2	Review findings of continuing studies conducted by Idaho Power Company and others to develop additional recovery tasks for bull trout and other native fishes.	25	IDFG, councils, ODFW, USFWS, USFS	*						Ongoing.
3	5.5.1	Evaluate the ability of Brownlee Reservoir to provide foraging, migrating, and overwintering habitat for bull trout.	5	FERC, IDFG, IPC, ODFW, USFWS	150	30	30	30	30	30	
3	5.5.2	Conduct a comprehensive survey to evaluate bull trout presence and potentially suitable habitat in the Burnt River basin.	5	councils, IPC, ODFW, USFS, USBR	200	40	40	40	40	40	
3	5.5.3	Conduct studies of bull trout distribution, abundance, and life history characteristics in the Wildhorse River watershed and continue studies in the Indian Creek watershed.	5	IPC, IDFG, USFS, USBR	500	100	100	100	100	100	

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					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
3	5.5.5	Develop a process to disseminate all data collected within the Hells Canyon Complex Recovery Unit.	25	all parties	*						
3	6.1.1	Support collaborative efforts by local watershed groups to implement site specific protection and restoration activities to benefit bull trout.	25	all parties	*						
3	6.1.2	Continue cooperative efforts between states and among government agencies to implement recovery actions.	25	Idaho, Oregon, all agencies	*						
3	6.1.3	Develop educational materials on bull trout and their habitat needs.	5	IDFG, ODFW, local, State, and Federal regulatory entities	125	25	25	25	25	25	Ongoing.
3	7.1.1	Develop a participation plan to support implementation of recovery tasks in the Hells Canyon Complex Recovery Unit.	3	all parties	75	25	25	25			Cost estimate for plan development.