

IMPLEMENTATION SCHEDULE

The Implementation Schedule that follows lists recovery task priorities; task numbers; task descriptions; duration of tasks; potential or participating responsible parties; total cost estimate and estimates for the next five years, if available; and comments. These tasks, when accomplished, will lead to recovery of bull trout in the coterminous United States as discussed in Part II of this recovery plan.

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 will benefit by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan and is part of a coordinated recovery 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 Act by implementing programs for the conservation of threatened or endangered species.

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

Priority No.: 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 Party: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding recovery task.

Federal Agencies:

(BLM) Bureau of Land Management
(NPS) National Park Service
(USFS) U.S. Forest Service
(USFWS) U.S. Fish and Wildlife Service.

State Agencies:

(ODF) Oregon Department of Forestry
(ODFW) Oregon Department of Fish and Wildlife

Others:

(KBBTWG) Klamath Basin Bull Trout Working Group (includes the Klamath Tribes, National Park Service, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, U.S. Forest Service [Fremont and Winema National Forests], and U.S. Timberlands)
(KT) Klamath Tribes
(TNC) The Nature Conservancy

Bolded type indicates the agency or agencies that have the lead role for task implementation and coordination, though not necessarily sole responsibility.

Cost Estimates: Cost Estimates are rough approximations and provided only for general guidance. Total costs are estimated for both the duration of the task and also itemized annually for the next five years.

Implementation schedule for the bull trout recovery plan: Klamath River Recovery Unit											
Priority number	Task number	Task description	Task duration (years)	Responsible parties	Cost estimates (\$1,000)					Comments	
					Total cost	Year 1	Year 2	Year 3	Year 4		Year 5
1	1.1.1	Conduct watershed assessments	5	LRMA ¹	500	100	100	100	100	100	Ongoing ²
1	1.1.2	Monitor sediment loading in current and potential bull trout habitat	25	LRMA	2,500	100	100	100	100	100	Ongoing
1	1.1.4	Modify roads and trails to allow natural drainage patterns	25	LRMA	1,250	50	50	50	50	50	Ongoing
1	1.1.5	Conduct limiting factors analysis for impact of roads	25	LRMA	2,500	100	100	100	100	100	Ongoing

¹ LRMA – All resource and land management agencies, private landholders, Tribal entities, and nongovernment organizations affected by or responsible for conservation of bull trout (e.g., BLM, NPS, ODF, USFS, etc.).

² Ongoing Tasks are currently being implemented, typically at reduced funding levels and/or in only a small portion of the watershed.

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1	1.2.3	Monitor all road crossings	25	LRMA	100	10	10	10	10	10	Ongoing
1	1.2.4	Eliminate culvert barriers	10	LRMA	1,000	100	100	100	100	100	Ongoing
1	1.2.6	Provide fish passage at water diversions	10	LRMA	1,000	100	100	100	100	100	
1	1.2.7	Eliminate entrainment in diversions	10	LRMA	1,000	100	100	100	100	100	
1	1.3.1	Identify areas in and along streams for restoration	5	LRMA	50	10	10	10	10	10	
1	1.3.2	Revegetate denuded riparian areas	10	LRMA	1,000	100	100	100	100	100	Ongoing
1	1.3.3	Improve grazing practices	5	LRMA	500	100	100	100	100	100	Ongoing
1	1.3.5	Improve instream habitat	10	LRMA	1,000	100	100	100	100	100	

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1	2.5.1	Evaluate impacts of nonnative fish species in all bull trout-occupied waters and streams where reestablishment may occur	5	KBBTWG Research ³	250	50	50	50	50	50	
1	2.5.2	Design measures to control nonnative fish	5	KBBTWG LRMA	50	10	10	10	10	10	
1	3.2.1	Assess existing and potential impacts of angling on bull trout populations	3	NPS ODFW	60	20	20	20			Every 4 years based on regulatory process

³ Research – KBBTWG, ODFW, Universities, USFWS, U.S. Geological Service, Biological Research Division (BRD)

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1	3.2.2	Continue to implement and monitor compliance with protective angling regulations	25	NPS ODFW	1,250	50	50	50	50	50	Ongoing
1	5.6.2	Assess severity of threat due to hybridization with brook trout	5	KBBTWG Research	100	20	20	20	20	20	Ongoing
2	1.1.3	Reduce general sediment sources	10	LRMA	1,000	100	100	100	100	100	Ongoing
2	1.1.6	Monitor baseline instream habitat and watershed conditions	25	LRMA	2,500	100	100	100	100	100	Ongoing
2	1.1.7	Assess nutrient input from forestry and agriculture	10	LRMA	100	10	10	10	10	10	

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2	1.1.8	Implement measures to reduce nutrient input	5	LRMA	50	10	10	10	10	10	
2	1.1.9	Implement water quality regulations	5	LRMA	50	10	10	10	10	10	
2	1.1.10	Increase water quality monitoring	5	LRMA	50	10	10	10	10	10	
2	1.1.11	Increase enforcement of water quality standards	25	LRMA	100	10	10	10	10	10	Ongoing
2	1.2.1	Investigate methods to improve instream flows	10	LRMA	1,000	100	100	100	100	100	
2	1.2.2	Implement measures to improve instream flows	5	LRMA	500	100	100	100	100	100	Ongoing
2	1.2.5	Analyze watercourses for ability to pass bull trout	10	LRMA	1,000	100	100	100	100	100	
2	1.2.8	Assess manmade barriers	3	LRMA	30	10	10	10			

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2	1.3.4	Develop cooperative efforts with permittees and private landowners in the Upper Klamath Lake, Sycan River, and Upper Sprague River core areas to address riparian restoration and grazing issues	10	ODFW USFWS	1,000	100	100	100	100	100	Ongoing
2	1.5.1	Assess watershed uplands for high runoff	10	LRMA	100	10	10	10	10	10	
2	1.5.2	Implement measures to increase water retention and slow runoff in watersheds exhibiting low or intermittent stream flows	10	LRMA	200	20	20	20	20	20	

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2	2.6.1	Assess effectiveness of removing nonnative salmonids in bull trout streams	5	KBBTWG LRMA	100	20	20	20	20	20	
2	3.2.3	Continue to provide information to anglers about bull trout identification and special regulations	25	NPS ODFW	250	10	10	10	10	10	Ongoing
2	5.2.1	Determine range of temperature tolerances for bull trout life stages in different habitats	5	KBBTWG Research	100	20	20	20	20	20	
2	5.4.1	Research the effects of <i>Ceratomyxa shasta</i> on bull trout	5	ODFW Research USFWS	250	50	50	50	50	50	

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2	5.4.2	Monitor presence of <i>Ceratomyxa shasta</i> in bull trout habitat	25	KBBTWG	500	20	20	20	20	20	Ongoing
2	5.4.3	Assess fisheries and habitat management activities to reduce the risk of disease transmission	5	ODFW USFWS	50	10	10	10	10	10	
2	5.6.1	Delineate important migratory habitat	5	KBBTWG LRMA	50	10	10	10	10	10	
2	6.1.3	Promote collaborative efforts by supporting existing local watershed working groups in developing and accomplishing site-specific protection and restoration activities	5	KBBTWG LRMA ODFW USFWS	50	10	10	10	10	10	Ongoing

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3	3.1.1	Integrate bull trout recovery monitoring in the Klamath River basin into the Oregon Plan for Salmon and Watersheds	3	ODFW	30	10	10	10			
3	4.1.1	Determine genetic relationships among bull trout populations in the Klamath River Recovery Unit	5	LRMA USFWS	50	10	10	10	10	10	
3	5.2.2	Assess current and historical effects of upland management on changes to the hydrograph	5	LRMA	50	10	10	10	10	10	
3	6.1.1	Encourage floodplain protection	15	KBBTWG LRMA USFWS	3,000	200	200	200	200	200	