

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, estimates for the next five years, if available, and comments. These tasks, when accomplished, are expected to lead to recovery of bull trout in the Imnaha-Snake Rivers 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 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 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.

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|-------|--|
| BPA | Bonneville Power Administration |
| BLM | Bureau of Land Management |
| BOR | Bureau of Reclamation |
| IDFG | Idaho Fish and Game |
| NMFS | National Marine Fisheries Service |
| NPT | Nez Perce Tribe |
| NPPC | Northwest Power Planning Council |
| ODEQ | Oregon Department of Environmental Quality |
| ODFW | Oregon Department of Fish and Wildlife |
| ODOT | Oregon Department of Transportation |
| OSP | Oregon State Police |
| USACE | U.S. Army Corp of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| USFS | U.S. Forest Service |

Bolded type indicates 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 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 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.

| Implementation schedule for the bull trout recovery plan: Imnaha-Snake Rivers Recovery Unit | | | | | | | | | | | |
|---|-------------|--|-----------------------|--|--------------------------|--------|--------|--------|--------|----------|--|
| 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 | 1.2.1 | Assess the feasibility of installing appropriate fish passage structures around diversions or removing related migration barriers. | 2 | ODFW, USFS, USFWS | 100 | 50 | 50 | | | | If necessary, install appropriate fish passage structures around diversions or remove related migration barriers. Actions 1.2.1 and 1.2.2 should be considered simultaneously. |
| 1 | 1.2.3 | Restore connectivity and opportunities for migration. | 5 | ODFW, USFS, USFWS, Wallowa Valley Irrigation District | 500 | 50 | 100 | 200 | 100 | 50 | Pending the assessments of 1.2.1 and 1.2.2. |
| 1 | 1.3.1 | Restore riparian zones associated with bull trout habitat. | 25 | BLM , IDFG, NPT, ODFW, USFS | 375 | 15 | 15 | 15 | 15 | 15 | |

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| 1 | 1.3.2 | Maintain riparian zones associated with bull trout habitat. | 25 | BLM, IDFG, NPT, ODFW, USFS | * | | | | | | |
| 1 | 1.4.1 | Evaluate the impacts of Lower Granite Dam and Hells Canyon Dam. | 5 | IDFG, ODFW, USACE, USFS, USFWS | 1000 | 200 | 200 | 200 | 200 | 200 | |
| 1 | 1.4.2 | Review reservoir operations at Federal Columbia River Power System facilities. | 5 | IDFG, USACE, ODFW, USFWS | 250 | 50 | 50 | 50 | 50 | 50 | Recommendations should be provided through the FERC, state relicensing processes, and Federal consultations. |
| 1 | 2.3.1 | Provide information to the public about introduced fishes. | 5 | IDFG, ODFW, USFWS | 50 | 10 | 10 | 10 | 10 | 10 | |

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| 1 | 3.1.1 | Coordinate plans associated with fish management. | 25 | BPA, IDFG, ODFW, Northwest Power Planning Council, NPT, USACE, USFS, USFWS | 250 | 10 | 10 | 10 | 10 | 10 | |
| 1 | 5.2.2 | Determine range of temperature tolerances for bull trout life stages in different habitats. | 5 | IDFG, ODFW, USFS, USFWS | 75 | 15 | 15 | 15 | 15 | 15 | |
| 1 | 5.2.3 | Determine the seasonal movement patterns of adult and sub-adult, migratory bull trout. | 5 | IDFG, ODFW, USACE, USFS, USFWS | 750 | 150 | 150 | 150 | 150 | 150 | |

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| 1 | 5.4.2 | Provide information to the public about whirling disease. | 5 | IDFG, ODFW | 50 | 10 | 10 | 10 | 10 | 10 | |
| 1 | 5.5.1 | Determine life history requirements. | 10 | BPA, BOR, BLM, IDFG, NPT, ODFW, USACE, USFS, USFWS | 1500 | 150 | 150 | 150 | 150 | 150 | |
| 1 | 5.5.3 | Continue to survey for bull trout. | 25 | BPA, IDFG , NPT, ODFW , USFS, USFWS | 625 | 25 | 25 | 25 | 25 | 25 | |
| 1 | 5.6.1 | Determine the consequences of genetic fragmentation and isolation. | 10 | BPA, IDFG , ODFW , USACE, USFS, USFWS | 500 | 50 | 50 | 50 | 50 | 50 | |

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| 1 | 5.6.2 | Investigate use of the mainstem Snake River by Imnaha-Snake Rivers bull trout. | 5 | IDFG, ODFW, USACE, USFWS | 750 | 150 | 150 | 150 | 150 | 150 | |
| 1 | 5.6.3 | Evaluate the population structure of bull trout in the recovery unit. | 3 | BPA, IDFG, ODFW, USFS, USFWS | 500 | 100 | 200 | 200 | | | |
| 1 | 5.6.5 | Evaluate survival rates (by life stage). | 10 | BPA, IDFG, ODFW, USFS, USFWS | 1000 | 100 | 100 | 100 | 100 | 100 | |
| 1 | 6.1.1 | Provide long-term habitat protection. | 25 | BLM, BOR, BPA, IDFG, ODFW, USFS, USFWS | 500 | 25 | 25 | 25 | 25 | 25 | |
| 1 | 6.1.3 | Provide information to the public about habitat. | 5 | IDFG, ODFW, USFWS | 50 | 10 | 10 | 10 | 10 | 10 | |

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| | | | | | Total cost | Year 1 | Year 2 | Year 3 | Year 4 | | Year 5 |
| 2 | 1.1.1 | Identify sources of sediment delivery. | 3 | BLM, BOR, IDFG , ODFW , USFS | 45 | 15 | 15 | 15 | | | Take corrective action if necessary and appropriate. |
| 2 | 1.1.2 | Assess effects on bull trout from nonpoint source pollution. | 5 | BLM, BOR, IDFG , ODEQ, ODFW , ODOT, USFS | 75 | 15 | 15 | 15 | 15 | 15 | Implement the Water Quality Management Plan for the Imnaha River subbasin. Development of the Water Quality Management Plan was scheduled to have begun in 2001. |
| 2 | 1.1.3 | Conduct a trail assessment in the Sheep and Granite creek watersheds. | 2 | USFS | 30 | 15 | 15 | | | | Implement maintenance and repair as necessary. |

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| 2 | 1.2.2 | Assess the feasibility of installing appropriate fish screening structures in the Wallowa Valley Improvement Canal. | 3 | ODFW, USFS | 45 | 15 | 15 | 15 | | | Take action based on assessment. The provisions of passage and need for screening in the canal are complimentary. Thus, actions 1.2.1 and 1.2.2 should be considered simultaneously. |
| 2 | 1.2.4 | Assess whether hatchery weirs are impacting bull trout. | 5 | NPT, ODFW, USFWS | 125 | 25 | 25 | 25 | 25 | 25 | If significant impacts are found they should be addressed. |
| 2 | 1.3.3 | Reduce grazing impacts. | 10 | BLM, BOR, IDFG, ODFW, USFS | 200 | 10 | 15 | 20 | 15 | 10 | |

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| 2 | 1.3.6 | Conserve existing high quality bull trout habitat in Sheep Creek, Granite Creek and the Snake River. | 25 | IDFG, ODFW, USFS | * | | | | | | |
| 2 | 1.3.7 | Conduct a stream assessment in Sheep and Granite creeks. | 3 | IDFG, USFS | 90 | 30 | 30 | 30 | | | |
| 2 | 2.5.1 | Assess the interactions between bull trout and introduced fishes. | 5 | BPA, IDFG, ODFW, USFWS | 125 | 25 | 25 | 25 | 25 | 25 | If appropriate, design and implement programs to control or extirpate nonnative fishes. |
| 2 | 5.4.1 | Maintain fish health screening and transplant protocols. | 25 | IDFG, ODFW | * | | | | | | |
| 2 | 5.5.2 | Investigate the relationship between bull trout and anadromous species. | 3 | BPA, IDFG, NMFS, ODFW, USFS, USFWS | 150 | 50 | 50 | 50 | | | |

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| 2 | 5.5.4 | Compare weak and strong populations. | 10 | BPA, IDFG, ODFW, USACE, USFS, USFWS | 250 | 25 | 25 | 25 | 25 | 25 | |
| 2 | 5.6.4 | Evaluate basic life history characteristics. | 10 | BPA, IDFG, ODFW, USACE, USFS, USFWS | 1000 | 100 | 100 | 100 | 100 | 100 | |
| 3 | 1.2.5 | Assess whether hatchery intakes are impacting bull trout. | 2 | NPT, ODFW, USFWS | 30 | 15 | 15 | | | | Insure that intakes are screened properly. |
| 3 | 1.2.6 | Salvage stranded bull trout. | 25 | IDFG, ODFW | 125 | 5 | 5 | 5 | 5 | 5 | |
| 3 | 1.3.4 | Assess the need for stream channel restoration activities. | 3 | ODFW | 30 | 10 | 10 | 10 | | | Implement if necessary. |

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| 3 | 1.3.5 | Maintain long-term wood recruitment in the Imnaha River subbasin. | 25 | USFS | 250 | 10 | 10 | 10 | 10 | 10 | |
| 3 | 1.3.8 | Protect, maintain, and enhance anadromous fish habitats to increase available forage species for bull trout. | 25 | IDFG, ODFW, USFS, USFWS | * | | | | | | |
| 3 | 1.5.1 | Assess current risk of catastrophic fire to bull trout populations. | 3 | USFS | 45 | 15 | 15 | 15 | | | Take corrective action to reduce risks. |
| 3 | 2.2.1 | Evaluate enforcement of fish stocking regulations. | 25 | IDFG, ODFW, OSP | * | | | | | | |
| 3 | 2.6.1 | Implement management actions to reduce nonnatives where bull trout will benefit. | 5 | IDFG, ODFW, USFS | 50 | 10 | 10 | 10 | 10 | 10 | |
| 3 | 2.6.2 | Investigate feasibility of screening the outlet at Twin Lakes. | 1 | ODFW | 5 | 5 | | | | | |

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| 3 | 3.B2.2 | Coordinate recovery efforts on bull trout, salmon and steelhead. | 25 | NMFS, USFWS | * | | | | | | |
| 3 | 3.1.4 | Evaluate and improve fisheries management guidelines and policies designed to protect native species. | 25 | IDFG, ODFW, USFS, USFWS | * | | | | | | |
| 3 | 3.1.5 | Comply with management plans that improve Snake River anadromous fish smolt:adult return ratios or fish production for the upper Snake River basin. | 25 | IDFG, ODFW | * | | | | | | |
| 3 | 5.2.1 | Conduct watershed assessments. | 3 | ODEQ | 225 | 75 | 75 | 75 | | | |
| 3 | 5.2.4 | Evaluate food web interactions. | 4 | IDFG, ODFW | 300 | 100 | 100 | 100 | | | |
| 3 | 5.4.3 | Monitor for effects of fish pathogens on bull trout populations. | 25 | ODFW | 125 | 5 | 5 | 5 | 5 | 5 | |

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| | | | | | Total cost | Year 1 | Year 2 | Year 3 | Year 4 | | Year 5 |
| 3 | 6.1.2 | Work cooperatively with neighboring states and governments. | 25 | ALL | * | | | | | | |
| 3 | 7.1.1 | Develop a participation plan to support implementation in the recovery unit. | 25 | USFWS | * | | | | | | |