

Appendix E

Inventory of Management Programs

Table 1 Inventory of management programs, sponsors or agencies, area affected by the programs, goal of the programs, and a determination whether the program affects the viability of spring Chinook, steelhead, and bull trout in the Upper Columbia River basin (inventory is from Golder Associates 2004). Threats were determined by assessing if the programs affect the biology of the fish or their environment

Management Program	Sponsor/Lead Agency	Area affected by Program	Goal of the Program	Does the Program Support or Threaten ESA Species?
Water Management Program	Bonneville Power Administration	Upper Columbia Basin	Establish prescriptions that apply to watershed mitigation projects	Supports—Should improve aquatic and riparian habitats
Pollution Prevention and Abatement Program	Bonneville Power Administration	Upper Columbia Basin	Coordinate the management and disposal of wastes generated as a result of BPA work practices	Supports—Prevents pollutants and wastes from entering aquatic habitats.
Natural Resources Program	Chelan and Okanogan Counties	Upper Columbia Basin	Administer watershed planning and salmon recovery efforts in the basin.	Supports—Improves watershed condition and supports recovery of listed species.
Conservation Easement Program	Chelan County	Wenatchee and Entiat Subbasins	Implement conservation easements to protect riparian habitat and long-term agricultural leases.	Supports—Improves and protects riparian areas along salmon bearing streams.
Growth Management Habitat Protection Plan	Chelan County	Wenatchee and Entiat Subbasins	Adopt a comprehensive plan and regulations that protect riparian areas, wetland, floodplains, hazardous areas, aquifer recharge zones, and fish and wildlife habitat	Supports—Protects aquatic habitat for fish.
Water Conservation Loan Program	Chelan County and Okanogan Conservation District	Wenatchee and Entiat Subbasins	Provide incentives to install water-efficient irrigation systems.	Supports—Improves instream flow conditions for fish.
Conservation Reserve Program	NRCS	Agricultural croplands and farms in Douglas County	Reduce soil erosion on upland habitats through establishment of perennial vegetation on cropland	Benign—Should have little to no effect on habitat conditions in streams.
Conservation Innovation Grants	Douglas County	Agricultural croplands and farms in Douglas County	Voluntary program intended to stimulate the development and adoption of conservation approaches and technologies in environmental enhancement and protection	Benign—Should have little to no effect on habitat conditions in streams.

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Environmental Quality Incentives Program	NRCS	Agricultural croplands and farms in Douglas County	Provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and natural resource concerns.	Benign—Should have little to no effect on habitat conditions in streams.
Conservation Securities Program	NRCS	All agricultural operations on private croplands, rangeland, pasture land, and orchards in Douglas County	Voluntary program providing financial reward to eligible agricultural operations for stewardship and enhancement practices and activities	Benign—Should have little to no effect on habitat conditions in streams.
Watershed Management Act (2514)	Chelan, Douglas, and Okanogan Counties and Conservation Districts	WRIAs 40a, 44, 45, 46, 48, 49, and 50	Enables the development of planning units that conduct watershed planning and recommend management strategies.	Supports—Should improve aquatic habitat conditions for fish.
Critical Areas Ordinances (CAO)-Wetlands Chapter 19.18B	Chelan, Douglas, and Okanogan Counties	County building and development but not agricultural practices	Prevent cumulative adverse environmental effects on water quantity and quality, groundwater, wetlands, and rivers and streams.	Supports—Should protect aquatic habitat conditions for fish.
CAO-Fish and Wildlife Conservation Chapter 19.18B	Chelan, Douglas, and Okanogan Counties	County building and development but not agricultural practices	Protect unique, fragile, and valuable elements of the environment.	Supports—Should protect aquatic habitat conditions for fish.
CAO-Frequently Flooded Areas Chapter 15.48B	Chelan, Douglas, and Okanogan Counties	County building and development but not agricultural practices	Promotes public health, safety, and welfare by minimizing public and private losses due to flood conditions.	Benign/Threaten—May reduce habitat diversity by reducing off-channel habitat and floodplain conditions.
CAO-Geohazards Chapter 19.18D	Chelan, Douglas, and Okanogan Counties	County building and development but not agricultural practices	Protects the general public and resources from flooding, landslides, or steep-slopes failure.	Benign/Threaten—May reduce habitat diversity by reducing off-channel habitat and floodplain conditions.
Shoreline Master Plan	Chelan, Douglas, and Okanogan Counties and Cities	All shoreline lands within the counties	New program designed to conserve and enhance anadromous fish resources.	Supports—Should protect and enhance the aquatic habitat of fish.
Road Maintenance Program	Douglas County	All county roads (excluding state and private roads) in Douglas County	Minimize erosion and sediment delivery by implementing various methods.	Benign—Should prevent increase in sediment recruitment to streams.

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Stormwater Program Chapter 19.40	Chelan and Douglas Counties	Currently applies only to a portion of East Wenatchee as a utility program in Douglas County	Establish a comprehensive approach to surface and storm-water management that protects property, water quality, aquifers, fish, and increase public education, and preserve natural drainage systems.	Supports—Should improve water quality and habitat conditions for fish.
Subdivision Title 17.04.020	Chelan, Douglas, and Okanogan Counties	Rural Counties	Establishes an exemption level of administrative review of property at 20 acres.	Benign/Threaten—At the 20 acre exemption level, no environmental review occurs. Also may lead to clustering and dividing into smaller lots along shorelines (near urban-scale density development in rural areas).
Six Year Transportation Plan	Chelan, Douglas, and Okanogan Counties	Stormwater drainage and management	Review transportation programs for consistency with the Counties Comprehensive Plans.	Supports—Should protect aquatic habitat for fish.
Douglas County Agricultural HCP	Douglas County	Agricultural croplands, farms, and ranches in Douglas County	Minimize and mitigate the incidental take of threatened and endangered species as a result of typical agricultural activities.	Supports—Should improve aquatic habitat for fish.
Upper Columbia Regional Fisheries Enhancement Group (RCW 77.95)	Chelan, Douglas, and Okanogan Counties	Upper Columbia Basin	Enhance salmon and steelhead resources, maximize volunteer efforts, assist the state with achieving their fisheries goals, and help develop project designs	Supports—Should improve habitat conditions and fish abundance in the Upper Columbia Basin
Upper Columbia Salmon Recovery Board	Chelan, Douglas, and Okanogan Counties and Colville Tribes and Yakama Nation	Upper Columbia Basin	Create an ESU-level recovery plan for ESA-listed species in the Upper Columbia Basin	Supports—Reduces threats to the abundance, productivity, spatial structure, and diversity of listed species in the Upper Columbia Basin
Salmon Recovery Planning Act (Lead Entity- 2496)	Chelan, Douglas, and Okanogan Counties, and Foster Creek Conservation District, and Colville Tribes	Upper Columbia Basin	Provides a framework for identifying limiting factors, developing, and funding restoration projects.	Supports—Should improve habitat conditions for ESA-listed species in the Upper Columbia River
Habitat Conservation Plans	Chelan and Douglas County Public Utility Districts	Upper Columbia Basin (upstream from Rock Island Dam)	Achieve “no net impact” on anadromous salmonids	Supports—Should improve survival for migrating salmonids and improve watershed conditions

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Wolf Creek HCP	Wolf Creek Reclamation District	Wolf Creek drainage	Minimize impacts to spring Chinook, steelhead, and bull trout	Supports—Should improve habitat conditions for ESA-listed species.
Chewuch River HCP	Skyline Ditch Company	Chewuch River	Minimize impacts to spring Chinook, steelhead, and bull trout	Supports—Should improve habitat conditions for ESA-listed species.
Northern Pikeminnow Population Reduction Program	Chelan, Douglas, and Grant Public Utility Districts	Mainstem Columbia River	Reduce Pikeminnow predation on smolts	Supports—Reduces loss of juveniles and smolts migrating downstream through the Columbia River
Bird Harassment Program	Chelan, Douglas, and Grant Public Utility Districts	Mainstem Columbia River	Reduce bird predation on juveniles and smolts	Supports—Reduces loss of juveniles and smolts migrating downstream through the Columbia River
Colville Hatchery Program	Colville Confederated Tribes	Upper Basin	Mitigate for fish migration blockage created by Chief Joseph Dam.	Benign/Threaten— Depending on where rainbow and brook trout are planted, they may affect the survival and viability of chinook and steelhead (and bull trout).
Omak Creek Acclimation Pond	Colville Confederated Tribes	Okanogan Subbasin	Used to acclimate summer steelhead smolts from local broodstock	Supports—Should increase numbers of summer steelhead in the Okanogan Subbasin.
Wells Hydroelectric Project Wildlife Mitigation Program	Douglas County PUD	Upper Basin	Secure, protect, and restore wildlife habitat.	Supports—Protects and restores riparian habitat.
Federal Columbia River Power System Program	NOAA Fisheries	Upper Columbia Basin	Provide biological, hydrological, and engineering expertise for review and approval of dam and reservoir operations.	Supports—Intended to improve passage success and survival of fish passing through hydro projects.
Cumulative Risk Initiative	NOAA Fisheries	Upper Columbia Basin	Provide scientifically rigorous support for salmonid conservation and recovery planning.	Supports—Intended to improve life-stage survival of fish through examination of all-Hs
Ecotoxicology and Environmental Fish Health Program and Environmental Assessment Program	NOAA Fisheries	Upper Columbia Basin	Assess the effects of human activities on the health of wild fish.	Supports—Improves understanding of contaminants of fish.

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Fish Passage Program	NOAA Fisheries	Upper Columbia Basin	Assess the effects and influences of the Columbia River hydropower system on the long-term viability of fish stocks.	Supports—Improves understanding of dam operations on survival of fish stocks.
Genetics and Evolution Program	NOAA Fisheries	Upper Columbia Basin	Evaluate how genetic processes contribute to species viability and develops genetic tools for resource management	Supports—Improves understanding of genetics and effects of actions on genetics of different fish stocks.
Salmon Harvest Program	NOAA Fisheries	Upper Columbia Basin	Provide technical expertise and develop tools for management of fish harvest	Supports—Improves understanding of harvest management.
Full Utilization Program	NOAA Fisheries	Upper Columbia Basin	Develop methods to improve fish processing.	Supports—Reduces waste released into aquatic habitats.
Integrative Fish Biology Program	NOAA Fisheries	Upper Columbia Basin	Research fish development, growth, reproduction, smolt quality, fish health, and disease	Supports—Improves understanding of the biology of fish stocks.
Mathematical Biology and Systems Monitoring Program	NOAA Fisheries	Upper Columbia Basin	Research methods to effectively monitor populations that are part of large scale environments.	Supports—Improves understanding of the status and trends of populations.
Migration Behavior Program	NOAA Fisheries	Upper Columbia Basin	Assess the effects and influences of the Columbia River hydropower system on the long-term viability of fish stocks.	Supports—Improves understanding of migration behavior of fish passing dams.
Northwest Salmon Recovery Planning Program	NOAA Fisheries	Upper Columbia Basin	Implement and plan salmon and steelhead recovery	Supports—Increases the long-term viability of listed fish stocks
Population Biology Program	NOAA Fisheries	Upper Columbia Basin	Develop the foundation for conservation and recovery efforts of listed stocks.	Supports—Implements conservation and recovery efforts for listed stocks.
Riverine Survival Program	NOAA Fisheries	Upper Columbia Basin	Assess the effects and influences of the Columbia River hydropower system on the long-term viability of fish stocks.	Supports—Increases understanding of hydropower effects on survival of fish stocks.
Salmon Enhancement Program	NOAA Fisheries	Upper Columbia Basin	Develop hatchery and cultural programs to rebuild endangered or depleted fish stocks.	Supports—Increases population abundance through the use of appropriate hatchery and cultural techniques.

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Watershed Program	NOAA Fisheries	Upper Columbia Basin	Conduct research on physical and biological processes that affect aquatic ecosystems.	Supports—Increases understanding of watershed processes.
Conservation Securities Program	Natural Resource Conservation Service	Upper Columbia Basin	Reward landowners who demonstrate good land stewardship	Supports—Should improve riparian condition and stream flows.
Conservation Technical Assistance Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide conservation technical assistance to landowners and agencies on planning and natural resource conservation.	Supports—Should improve riparian condition and stream flows through conservation of resources.
Emergency Watershed Protection Program	Natural Resource Conservation Service	Upper Columbia Basin	Undertake emergency measures to protect life and property from floods, drought, and products of erosion.	Benign/Threaten—Could decrease riparian conditions and result in loss of channel complexity.
Environmental Quality Incentive Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide conservation programs for farmers and ranchers.	Supports—Should improve environmental quality on farms and ranches thereby reducing negative effects to streams.
Farm and Rangeland Protection Program	Natural Resource Conservation Service	Upper Columbia Basin	Protect farm and rangeland and create an easement	Supports—Should protect riparian corridors from development
Forestry Incentives Program	Natural Resource Conservation Service	Upper Columbia Basin	Support good forest management practices on private lands	Supports—Should protect riparian habitats from timber harvest
Grassland Reserve Program	Natural Resource Conservation Service	Upper Columbia Basin	Protect range and pasture lands from development (subdivision)	Supports—Should protect riparian habitats from development
Grazing Lands Conservation Initiative	Natural Resource Conservation Service	Upper Columbia Basin	Maintain and improve management, productivity, and health of privately-owned grazing lands	Supports—Should reduce soil erosion and recruitment of fine sediments to streams.
Resource Conservation and Development Program	Natural Resource Conservation Service	Upper Columbia Basin	Accelerate resource conservation and development	Supports—Should enhance the environment, including stream and riparian habitat.
Soil Survey Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide soil survey information necessary for understanding, managing, conserving, and sustaining soil resources	Supports—Should reduce soil erosion and recruitment of fine sediments to streams.

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Soil and Water Conservation Assistance Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide cost share and incentive payments to farmers and ranchers to address threats to soil, water, and natural resources	Supports—Should reduce agricultural impacts to stream and riparian habitats
Snow Survey and Water Supply Forecasting Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide information on future water supply.	Supports—Should provide information needed to maintain suitable stream flows
Stewardship Incentive Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide technical and financial assistance to private forest landowners to keep lands and natural resources productive and healthy	Supports—Should improve riparian conditions on private lands.
Watershed Protection, Watershed Surveys, and Flood Prevention Program	Natural Resource Conservation Service	Upper Columbia Basin	Assist agencies and participants to protect and restore watersheds from erosion, floodwater, and sediments.	Benign/Threatens—Could decrease riparian conditions and result in loss of channel complexity.
Wetlands Reserve Program	Natural Resource Conservation Service	Upper Columbia Basin	Offers landowners opportunities to protect, restore, and enhance wetlands on their properties.	Supports—Should improve water quantity and quality
Wildlife Habitat Incentives Program	Natural Resource Conservation Service	Upper Columbia Basin	Provide incentives to develop and improve wildlife habitat on private lands.	Supports—Should improve riparian habitat
Conservation Loan Program	Okanogan County	Okanogan and Methow Subbasins	Promote the use of energy-efficient products and services.	Benign—Energy conservation measures for buildings should have no effect on fish and their habitats
Appliance Rebate Program	Okanogan County	Okanogan and Methow Subbasins	Provide rebates for customers that purchase energy efficient appliances	Benign—Rebates should have no effect on fish and their habitats
Abandoned Mine Land Program	Bureau of Land Management	Upper Columbia Basin	Identify and clean-up abandoned mines	Supports—Should reduce historic mining effects on fish and their habitats
Environmental Education Information	Bureau of Land Management	Upper Columbia Basin	Educate the public on environmental issues	Supports—Should improve and protect aquatic habitats through public understanding of healthy and productive ecosystems.
Federal Recreation Pass Program	Bureau of Land Management	Upper Columbia Basin	Require recreation fees in some parks, forests, wildlife refuges, and recreation areas.	Benign—Requiring fees should not harm fish and their habitats.

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Interior Columbia Basin Ecosystem Management Project	Bureau of Land Management and U.S. Forest Service	Upper Columbia Basin	Develop a scientifically sound and ecosystem-based strategy for management of forests.	Supports—Should lead to protected and improved habitat conditions for fish.
Integrated Weed Management Program	Bureau of Land Management	Upper Columbia Basin	Inventory and complete ecological assessments for noxious weeds.	Benign—Inventory and EA for weeds should not negatively affect fish and their habitats.
Land Exchange Program	Bureau of Land Management	Upper Columbia Basin	Provide for acquisition, use, disposal, and adjustment of land resources.	Supports—Should place lands supporting important fish species in public ownership.
Leave No Trace Program	Bureau of Land Management	Upper Columbia Basin	Promote responsible use of public lands to recreationists participating in human-powered activities	Supports—Should lead to activities that protect riparian habitat
Watchable Wildlife Initiative	Bureau of Land Management	Upper Columbia Basin	Provide wildlife viewing opportunities	Benign—Providing wildlife viewing opportunities should not effect fish and their habitat
Chief Joseph Dam Project	U.S. Bureau of Reclamation	Upper Columbia Basin	Provide present and future irrigation development	Benign/Threaten—Has the potential to reduce stream flows below minimum flows needed for rearing and spawning.
Okanogan Project	U.S. Bureau of Reclamation	Okanogan Subbasin	Provide present and future irrigation development	Benign/Threaten—Has the potential to reduce stream flows below minimum flows needed for rearing and spawning.
Federal Columbia River Power System Program BiOp Habitat Mitigation Program	U.S. Bureau of Reclamation	Upper Columbia Basin	Improve stream flows, channel complexity, fish passage at diversion dams, and screen diversion intakes	Supports—Should improve stream flows, habitat conditions, fish passage, and prevent loss of fish in diversions.
Research, Monitoring, and Evaluation Program	U.S. Bureau of Reclamation	Upper Columbia Basin	Develop and implement a monitoring program to assess status, trend, and effectiveness of management actions.	Supports—Provides information on the status and trend of populations and their habitats, and assesses effects of management actions.
Farm Service Agency Conservation Reserve Program	U.S. Department of Agriculture	Upper Columbia Basin	Help agricultural producers to protect environmentally sensitive lands.	Supports—Should prevent erosion and protect riparian areas.

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Advanced Hydropower Turbine Systems Program	U.S. Department of Energy	Upper Columbia Basin	Develop technology to maximize the use of hydropower resources while minimizing adverse environmental effects	Supports—Should improve survival of fish passing through turbines
Environmental Monitoring and Assessment Program	U.S. Environmental Protection Agency	Upper Columbia Basin	Assess the condition of ecological resources	Supports—Increases understanding of status and trends of populations and aquatic habitats.
Total Maximum Daily Load Program	U.S. Environmental Protection Agency	Upper Columbia Basin	Specify the maximum amount of a pollutant that a water body can receive and still meet water quality standards.	Supports—Improves and maintains water quality
Fish and Wildlife Assistance Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Restore and maintain the health of fish and wildlife resources	Supports—Should improve habitat conditions and population health
Partners for Fish and Wildlife Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Assist private landowners restore wetlands and other important fish and wildlife habitats	Supports—Should improve habitat conditions and population health
Fishery Resource Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Provide policy guidance, budget, planning, oversight, and coordination of diverse activities.	Supports—Should help improve habitat conditions
Entiat National Fish Hatchery Program	U.S. Fish and Wildlife Service	Entiat Subbasin	Produce and release spring chinook and coho salmon into the Entiat River	Threaten—Depending on the stock of chinook released, the program can threaten the viability of wild spring chinook (see Factors for Decline)
Winthrop National Fish Hatchery Program	U.S. Fish and Wildlife Service	Methow Subbasin	Produce and release spring chinook, summer steelhead, and coho salmon into the Methow River	Supports/Threatens—Supports abundance but may threaten diversity.
Leavenworth National Fish Hatchery Program	U.S. Fish and Wildlife Service	Wenatchee Subbasin	Produce and release spring chinook and coho salmon into the Wenatchee River	Threatens—Depending on the stock of chinook released, the program can threaten the viability of wild spring chinook (see Factors for Decline)
Hatchery Assessment Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Conduct production planning, marking, monitoring, and post-stocking evaluations for National Fish Hatcheries	Supports—Increases understanding of status and trends of hatchery fish

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Native American Tribal Assistance Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Work with tribes to conserve and manage fish and wildlife resources on Tribal lands and ceded territories	Supports—Should protect and improve aquatic habitat conditions on Tribal lands
Habitat and Population Evaluation Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Conduct surveys to describe fish populations and other aquatic organisms and their habitats	Supports—Increases understanding of fish populations and their habitats
Conservation Assessment Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Conduct analytical evaluations of stock assessments, extinction probabilities, and develop sound biological and technical recovery strategies	Supports—Should improve habitat conditions and population health
Water Management and Evaluation Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Coordinate and manage flow conditions in the Columbia Basin	Supports—Should improve habitat conditions by increasing stream flows
Fish and Wildlife Mitigation Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Advocate fish and wildlife habitat needs within the basin	Supports—Should protect and restore aquatic habitat conditions
Information, Education, and Outreach Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Promote public stewardship of fish and wildlife resources and foster support for conservation through outreach strategies.	Supports—Should protect and restore aquatic habitat conditions and lead to wise use of resources
Partners in Flight Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Manage and conserve neotropical birds	Benign—Managing neotropical birds should have no effect on fish and their habitats
Conservation Planning Program	U.S. Fish and Wildlife Service	Upper Columbia Basin	Work with private landowners, local and state governments, corporations and others to conserve and protect listed and unlisted species on non-Federal lands	Supports—Should protect and improve aquatic habitat conditions on non-Federal lands
PACFISH/INFISH Program	U.S. Forest Service	Upper Columbia Basin	Develop an ecosystem-based aquatic habitat and riparian-area management strategy	Supports—Should protect and improve stream and riparian habitat conditions
Pacific Northwest Fisheries Program	U.S. Forest Service	Upper Columbia Basin	Develop programs to protect riparian reserves, protect key watersheds, and to restore watershed health.	Supports—Should protect and improve stream and riparian habitat conditions
Respect the River Program	U.S. Forest Service	Upper Columbia Basin	Restore and preserve riparian and flood prone areas and balance those needs with public needs	Supports—Should protect and restore riparian areas

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Northwest Forest Plan	U.S. Forest Service	Upper Columbia Basin	Restore and maintain the ecological health of watersheds within the range of the northern spotted owl	Supports—Should improve aquatic and riparian habitat
National Streamflow Information Program	U.S. Geological Survey	Upper Columbia Basin	Provide long-term, accurate, and unbiased streamflow information	Supports—Monitoring streamflows will increase understanding of flow regimes
Lake Chelan National Recreation Area Forest Fuel Reduction/Firewood Management Plan	U.S. National Park Service	Chelan Subbasin	Reduce forest fuel accumulation in selected timber stands in the Stehekin Valley	Benign—Reducing fuel accumulation in the Stehekin Valley should have no effect on chinook and steelhead and their habitat in the Upper Columbia region
Lake Chelan NRA Management Plan	U.S. National Park Service	Chelan Subbasin	Manage visitor use, natural and cultural resources, development, and operation of the Lake Chelan Natural Recreation Area	Benign—Management of the Lake Chelan NRA should have no effect on chinook and steelhead and their habitat in the Upper Columbia region
Mountain Lake Fisheries Management Plan	U.S. National Park Service	Upper Columbia Basin	Develop and implement a conservation planning and environmental impact analysis process for mountain lake fisheries in the North Cascades National Park Service Complex	Benign—Conservation planning for mountain lake fisheries should have no effect on chinook and steelhead and their habitat in the Upper Columbia region
Columbia River Regional Initiative/Water Resource Program	Washington State Department of Ecology	Upper Columbia Basin	Develop an integrated state program for managing water resources--to allow access to new water withdrawals while providing support for salmon recovery	Benign/Supports—Should allow for water withdrawal without harming the survival of salmon and steelhead
Environmental Assessment Program	Washington State Department of Ecology	Upper Columbia Basin	Provide objective, reliable information about environmental conditions used to measure effectiveness of the program and to inform the public	Supports—Should increase understanding of status and trends of aquatic resources
Flood Control Assistance Program	Washington State Department of Ecology	Upper Columbia Basin	Work in partnership with communities to support healthy watersheds and promote environmental interests	Supports—Should preserve and improve aquatic habitat conditions

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Water Quality Program	Washington State Department of Ecology	Upper Columbia Basin	Protect, preserve, and restore water quality	Supports—Should improve habitat conditions by protecting and restoring water quality
Water Resource Program	Washington State Department of Ecology	Upper Columbia Basin	Manage watersheds, administer water rights, and restore and maintain stream flows.	Supports—Should improve aquatic and riparian habitat
Columbia River Instream Resource Protection Program	Washington State Department of Ecology	Upper Columbia Basin	Insure the future viability of instream resource values of the mainstem Columbia River, including fish, wildlife, aesthetics, navigation, and hydropower resource values	Supports—Should improve the habitat characteristics of the mainstem Columbia River
Trust Water Rights Program	Washington State Department of Ecology	Upper Columbia Basin	Develop and test means to facilitate the voluntary transfer of water and water rights, including conserved water, to provide water for presently unmet and emerging needs	Supports—If water is transferred back to streams with flows less than minimum levels for salmon and steelhead.
Water Acquisition Program	Washington State Department of Ecology	Upper Columbia Basin	Increase stream flows in watersheds with vulnerable salmon and trout populations	Supports—Increases stream flows in important watersheds
Aquatic Education Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Educate the public on environmental and salmon issues	Supports—Should help improve and protect fish and their habitats
Aquatic Habitat Guidelines Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Develop technical assistance guidance for those who want to protect and restore salmonid habitat	Supports—Should protect and restore aquatic and riparian habitats
WDFW Hatcheries Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Mitigate for chinook, steelhead, and sockeye salmon lost by the operations of Upper Columbia dams	Supports/Threatens—Supports abundance but may threaten diversity. Based on current operations and use of brood stock, this program should increase the production of chinook and steelhead in the Upper Columbia region (See Reasons for Decline)
Hydraulic Approval Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Regulate activities that affect the bed or flow of waters for the protection of fish life	Supports—Should protect aquatic habitat conditions

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Lead Entity Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Solicit, develop, prioritize, and submit habitat protection and restoration projects for funding to the Salmon Recovery Funding Board	Supports—Should protect and restore aquatic habitats
Nature Mapping Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Promote biodiversity studies through citizens and school-based data collection and research	Supports—Should preserve and protect fish and their habitats
Priority Habitats and Species Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Provide comprehensive information on important fish, wildlife, and habitat resources	Supports—Should increase understanding and proper management of fish and their habitats
Salmonid Stock Inventory Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Identify and monitor the status of salmonid fish stocks	Supports—Increases understanding of the status and health of salmonids
Salmon and Steelhead Habitat Inventory and Assessment Program	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Characterize freshwater and estuary habitat conditions and distributions of salmonid stocks	Supports—Increases understanding of the status and distribution of salmonids and their habitats
Watershed Recovery Inventory Project	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Develop a comprehensive inventory of watershed restoration projects and watershed information	Supports—Increases understanding of watershed processes and restoration projects
Wildlife Research	Washington State Department of Fish and Wildlife	Upper Columbia Basin	Conduct scientific investigations of priority wildlife species and habitats	Benign—Wildlife research should not effect salmon and steelhead in the Upper Columbia region
Aquatic Lands Enhancement Account	Washington State Department of Natural Resources	Upper Columbia Basin	Invest in projects that enhance and protect wildlife and fish habitat	Supports—Should improve aquatic and riparian habitat
Washington Natural Heritage Program	Washington State Department of Natural Resources	Upper Columbia Basin	Collect data and develop strategies for protection of native ecosystems and species most threatened	Supports—Should protect and restore aquatic and riparian habitats and threatened species
Washington State Natural Areas Program	Washington State Department of Natural Resources	Upper Columbia Basin	Protect the best remaining examples of many ecological communities and outstanding examples of native ecosystems, habitat for listed species, and scenic landscapes	Supports—Should protect important aquatic and riparian habitats from future development

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Agriculture, Fish and Water Program	Washington State Conservation Commission	Upper Columbia Basin	Negotiate changes to the existing Technical Guide and develop guidelines to be used to enhance, restore, and protect habitat for endangered fish and wildlife species	Supports—Should protect and restore aquatic and riparian habitats
Conservation Reserve Enhancement Program	Washington State Conservation Commission	Upper Columbia Basin	Provide incentives to restore and improve salmon and steelhead habitat on private lands	Supports—Should improve aquatic and riparian habitat on private lands
Salmon Habitat Limiting Factors	Washington State Conservation Commission	Upper Columbia Basin	Assess the habitat-based factors limiting the success of salmonids	Supports—Should increase understanding of limiting factors
Wetland and Fish and Wildlife Activities	Washington State Department of Transportation	Upper Columbia Basin	Maintain or implement activities that limit or reduce impacts to fish and wildlife and their habitats	Supports—Activities should improve connectivity and reduce sediment delivery to channels
State Parks Program	Washington State Parks and Recreation Commission	Upper Columbia Basin	Acquire, operate, manage, enhance, and protect a diverse system of recreational, cultural, historical, and natural sites	Supports—Should protect and enhance aquatic and riparian habitats
Coho Salmon Reintroduction Program	Yakama Indian Nation	Upper Columbia Basin	Assess the feasibility of re-establishing coho salmon in tributaries to the Upper Columbia River	Benign/Threatens—The reintroduction of coho should have little to no effect on production of chinook and steelhead (see Factors for Decline)