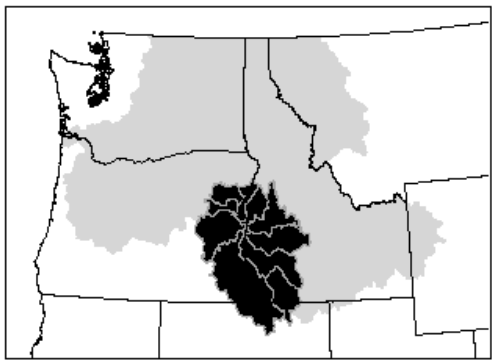
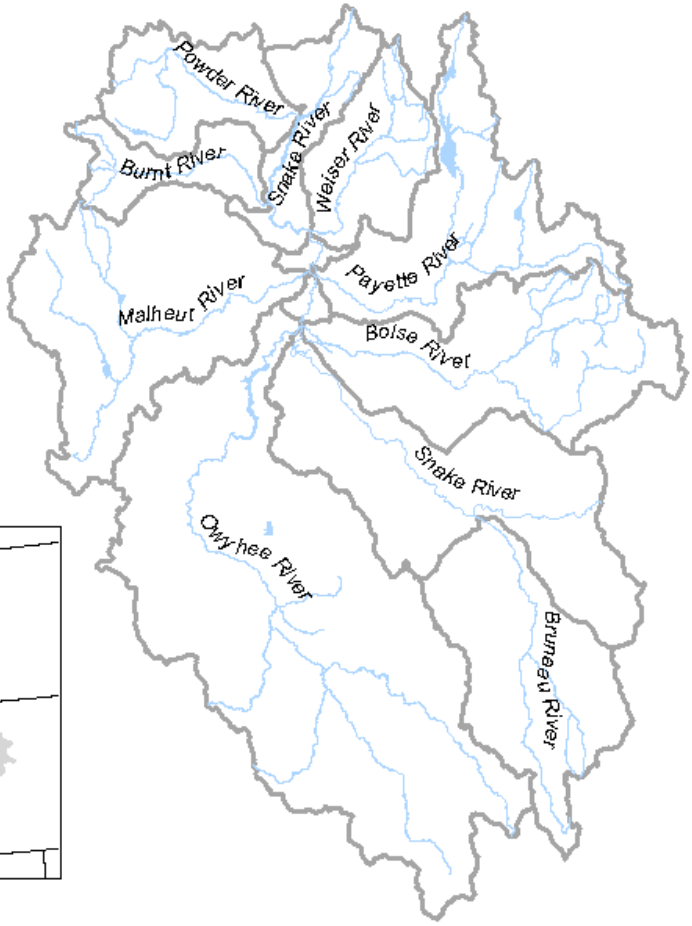
Draft FY 2003-2005 Middle Snake River Province Work Plan

Middle Snake Province





Prepared for the
Northwest Power Planning Council

by the
Columbia Basin Fish and Wildlife Authority

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Introduction

The Rolling Provincial Review process was developed by the Northwest Power Planning Council (NWPPC) in February 2000 in response to recommendations by the Independent Scientific Review Panel (ISRP) and the Columbia Basin Fish and Wildlife Authority (CBFWA). Under this new province based process each individual project proposal within a province will be reviewed for technical merit and management relevance every three years. Under the previous process all project proposals for Bonneville Power Administration (BPA) funding under the Fish and Wildlife Program were reviewed annually. The purpose of the NWPPC's new multi-year process is to reduce the burden of reviewing large numbers of proposals, most of which had been reviewed just one year before, and to provide for a more thorough review of the project proposals in the context of a subbasin summary. Additionally, the process is intended to provide the opportunity for site visits by reviewers, project presentations with a question and answer period, and provide reviewers with more detailed background and planning documents which will reduce the reviewer's reliance strictly on the proposal form.

The subbasin summaries developed under this process are intended to be interim and will be replaced by subbasin plans developed to meet requirements of the recently amended Fish and Wildlife Program. The Middle Snake River Province was the seventh province to be reviewed under this new process. The results of this review are summarized here.

This document was developed collaboratively by the NWPPC staff, ISRP, fish and wildlife managers, other stakeholders, and CBFWA staff, culminating in project and budget recommendations for FY 2003-2005. The subbasin summaries are provided only as context for the project recommendations.

The CBFWA process for providing these recommendations utilized the ISRP preliminary findings and integrated manager evaluations of the technical and management merits of the project proposals relative to anadromous fish, resident fish and wildlife management needs, and the goals and objectives identified in the subbasin summaries. A total of 33 project proposals were submitted and reviewed with two proposals (i.e., 32014 and 32017) receiving a "Do Not Fund" recommendation. The recommended projects address needs identified in the subbasin summaries and include nine new and three ongoing projects totaling $13.2 million.

This draft work plan includes the subbasin summaries, which describe the physical and biological characteristics of each subbasin within the Middle Snake River Province. The summaries also identify past accomplishments, limiting factors, management objectives and strategies, current needs and recommended budgets for project implementation.

Geographic Description

The Middle Snake River Province (Figure 1) is located in eastern Oregon, central and southwestern Idaho, and extends into Nevada. It includes the Snake River and all tributaries from Hells Canyon Dam to Shoshone Falls.

Figure 1. Middle Snake River Province

Project Review Process

Subbasin Summaries

The Middle Snake River Province Review was initiated at an August 2, 2001, meeting in Boise, Idaho. An invitation was sent to an extensive distribution list to encourage all interested parties (i.e. land and water managers, representatives of watershed councils, etc.) to attend and provide input. The purpose of this first meeting was to provide all interested parties with the opportunity to identify sources of information necessary for the development of subbasin summaries for this province (i.e. monitoring data, habitat restoration results, existing assessments, etc.). The intent was to ensure BPA expenditures for fish and wildlife projects compliment and enhance existing efforts and ensure that priority needs are addressed. Subsequent meetings were held to review draft summaries and identify goals and objectives.

Previously, ecosystem summaries for each subbasin were developed as a means of providing context for project proposals. Under the new process, a more formal structure with subbasin teams was formed to develop the more comprehensive subbasin summaries of the newly identified provinces. Other local interested parties also provided input to and participated on the subbasin teams (i.e. other land and water managers, representatives from watershed councils, etc.).

Subbasin summaries for the Middle Snake River Province were completed in October 2001. The BPA issued the solicitation for project proposals for the Middle Snake River Province on November 8, 2001, with project proposals due December 21, 2001. The project sponsors were asked to show a direct tie between their projects and the needs identified in the subbasin summaries.

Review by the ISRP

The ISRP reviewed 32 project proposals for the Middle Snake River Province. To ensure a consistent and fair evaluation, standard formats and criteria were applied to all proposals to generate comments and scores prior to the proposal review workshop. These scores and comments were not made available to the project sponsors at the workshop, but were used by the ISRP to develop questions for the site visits and workshop presentations. The workshops consisted of site visits and project presentations.

Site Visits (October 9-10, 2001)

The ISRP, subbasin teams, fish and wildlife managers, the CBFWA province review team and other stakeholders toured the province to gain a better understanding of the existing ecological conditions and limiting factors as well as view some ongoing projects in each subbasin. During the tour, managers provided oral presentations for areas/projects within the province that the group was unable to visit.

Project Presentation (January 22-23, 2002)

Prior to the presentation of individual project proposals, subbasin team leaders provided a general overview for their respective summaries. Following each subbasin summary

presentation, project proposals relative to that subbasin were presented to the ISRP, CBFWA province review team, fish and wildlife managers, NWPPC staff, CBFWA staff and other stakeholders. All project sponsors were provided 15 minutes to present their proposal and answer questions. During this review, the CBFWA province review team applied Subbasin Project Review Criteria (Table 1) to each project. Every effort was made to be consistent among all project proposals reviewed.

Table 1. The CBFWA subbasin project review criteria.

Technical Criteria	
1. Does the proposal demonstrate that the project uses appropriate scientifically valid strategies or techniques and sound principles (best available science)?	**Y or N**
2. Are the objectives clearly defined with measurable outcomes and tasks that contribute toward accomplishment of the objectives?	**Y or N**
3. Are the resources proposed (staff, equipment, materials) appropriate to achieve the objectives and time frame milestones?	**Y or N**
4. Does the proposal include monitoring and evaluation to determine whether objectives are being achieved (including performance measures/methods) at the project level?	**Y or N**
5. Will the proposed project significantly benefit the target species/ indicator populations?	**Y or N**
6. Does the proposal demonstrate that project benefits are likely to persist over the long term and will not be compromised by other activities in the basin?	**Y or N**
7. Does the proposal demonstrate that all reasonable precautions have been taken, to not adversely affect habitat/populations of wildlife, native resident and anadromous fish?	**Y or N**
8. Are there explicit plans for how the information, technology etc. from this project will be disseminated or used?	**Y or N**
Management Criteria	
1. Does the proposed project address fish and wildlife related objectives, strategies, needs and actions as identified in the subbasin summaries?	**Y or N**
2. Does the project address an urgent requirement or threat to population maintenance and/or habitat protection (i.e., threatened, endangered or sensitive species)?	**Y or N**
3. Does the project promote/maintain sustainable and /or ecosystem processes or maintain desirable community diversity?	**Y or N**
4. Is there cost share for the construction/implementation and/or monitoring and evaluation of the project?	**Y or N**
5. Will the project complement management actions on private, public and tribal lands and does the project have demonstrable support from affected agencies, tribes and public?	**Y or N**
6. Will the project provide data critical for in season, annual and/or longer term management decisions?	**Y or N**
7. Will this project provide or protect riparian or other habitat that may benefit both fish and wildlife?	**Y or N**

Preliminary ISRP Report

On March 1, 2002, the ISRP released a *Preliminary Review of Fiscal Year 2003 Project Proposals for the Upper and Middle Snake, Columbia Cascade, and Lower Columbia and Estuary Provinces* (ISRP 2002-2 at NWPPC). This report summarized the ISRP's preliminary review of each project proposal and identified areas of concern where they had requested a written response to questions. The due date for written responses to this report was March 15, 2002.

CBFWA Province Review Group

During April 3-4, 2002, the CBFWA Province Review Group reviewed all project proposals within the province using criteria listed in Table 1 which resulted in a consensus Yes or No. Subbasin team members also participated in the review of the project proposals. The following elements were considered during the review:

- How well does the project relate to the criteria (Table 1)
- Validation of existing work- is the current funding level appropriate (Section 6 O&M and Section 7 M&E of existing projects)? Is it appropriate to continue implementation of existing work (Section 4 P&D and Section 5 C&I of existing projects)?
- Evaluation of proposed new work- does a new project proposal demonstrate a priority need over implementation strategies within existing projects (Sections 4 and 5 of existing projects)?

Project proposals were grouped by subbasin during their review. The preliminary ISRP technical review of all proposals was utilized while discussing the technical merits of each project. Following the technical and management review, the project proposals were prioritized within each subbasin according to the fish and wildlife needs within that subbasin. The following definitions were used for the subbasin prioritization:

- High Priority - These projects or tasks within a project are high priority within the subbasin. The project addresses a specific need within the subbasin summaries.
- Recommended Actions - These are good projects that cannot demonstrate a significant loss by not funding this year. These projects should be funded, but under a limited budget could be delayed temporarily without significant loss.
- Do not fund - These projects are either technically inadequate or do not address a need within the subbasin summaries. These projects may be inappropriate for BPA funding.

CBFWA Review and Approval of Project Recommendations and Subbasin Summaries

The final step in the project proposal review process was the consensus approval of the project recommendations by CBFWA Members. The CBFWA Members Review and the recommendations in the subbasin summaries and province work plan demonstrate regional support by the fish and wildlife managers.

On April 22, 23, and 24, 2002, the province recommendations and subbasin summaries were discussed in the CBFWA Wildlife, Resident Fish, and Anadromous Fish committees, respectively. The committees made some modifications to the province recommendations based on technical or regional management concerns.

Proposal Review Results

A total of 32 project proposals were reviewed in the Middle Snake River Province (11 ongoing projects and 21 new proposals, (Appendix A)). Two proposals (i.e., 32014 and 32017) were categorized as "Do Not Fund". Project Proposal 32017, *Suppress Brook Trout Populations in the Upper Malheur Subbasin*, proposed questionable suppression techniques (i.e., pheromone-based trapping, angling, and gillnetting), especially given that the entire headwater lake (High Lake) and river (Lake Creek) system is inhabited exclusively by brook trout.

Three-year Budget Recommendation

Appendix B provides a three-year funding recommendation for the Middle Snake River Province that strives to meet the goals, objectives and needs of the Province. A total of 30 projects that address needs identified in the subbasin summaries are recommended for funding and include new and ongoing projects totaling $13.2 million for Fiscal Year 2003. All of the projects recommended here should be initiated within the next three years.

Owyhee River Subbasin

Four existing projects are recommended for continued funding in the Owyhee River Subbasin (Table 2). Project 198815600, *Implement Fishery Stocking Program Consistent with Native Fish Conservation,* will continue to enhance fisheries on the DVIR by stocking three reservoirs (closed systems) with rainbow trout. This project supports a sustainable (put-and-take) harvest by Shoshone-Paiute tribal members and non-Indian anglers without impacting native trout. Project 199501500*, Lake Billy Shaw Operations and Maintenance and Evaluations (O&M, M&E)*, will continue to enhance and develop the Billy Shaw fishery as a premier fishery by stocking native fish (or suitable species) and performing shoreline and water quality enhancement/monitoring. Project 199505703, *Southern Idaho Wildlife Mitigation – Middle Snake*, will continue to acquire, enhance and protect wildlife habitat to mitigate for the construction of Anderson Ranch, Deadwood, and Black Canyon hydroelectric facilities. Project 199701100, *Enhance and Protect Habitat and Riparian Areas on the DVIR,* will continue to increase critical riparian areas of the Owyhee River and its tributaries as well as preserve the numerous natural springs located on the Duck Valley Indian Reservation.

Two new project proposals are recommended for funding in this subbasin (Table 2). Project Proposal 32001, *Evaluate Feasibility Artificial Production Facility DVIR,* will allow for the evaluation of the feasibility of an artificial production facility. Project Proposal 32008, *Wildlife Inventory and habitat Evaluation of Duck Valley Indian*

Reservation, will allow for the initiation of wildlife surveys to determine species composition and relative abundance on the Duck Valley Indian Reservation. HEP analyses will be conducted to determine habitat suitability index for target wildlife species.

Table 2. Projects recommended for funding in the Owyhee River Subbasin

ProjectID	Title	Sponsor
198815600	*Implement Fishery Stocking Program Consistent with Native Fish Conservation*	SPT
199501500	*Lake Billy Shaw Operations and Maintenance and Evaluations (O&M, M&E)*	SPT
199505703	*Southern Idaho Wildlife Mitigation – Middle Snake*	SPT
199701100	*Enhance and Protect Habitat and Riparian Areas on the DVIR*	SPT
32001	*Evaluate Feasibility Artificial Production Facility DVIR*	SPT
32008	*Wildlife Inventory and habitat Evaluation of Duck Valley Indian Reservation*	SPT

This suite of recommended project proposals addresses the key needs identified in the Oywhee Subbasin Summary including:

- Inventory native salmonids in the Owyhee subbasin to determine current status and major factors limiting their distribution and abundance, and based on these findings, develop and implement plans and strategies for recovery where populations are at risk of extirpation
- Use genetic markers to detect and quantify levels of hatchery produced *O. mykiss* introgression within native redband trout populations and to delineate genetic population structure of redband trout throughout their historic range. This fundamental genetic information is needed to identify remaining pure populations, to preserve existing genetic variability, to identify population segments for the development of management plans, and to designate conservation units/management units
- Compare rates of hybridization and introgression between hatchery produced *O. mykiss* and native populations of Yellowstone cutthroat, redband trout, and westslope cutthroat trout. A greater understanding of the phenomenon of hybridization and introgression observed within *Oncorynchus* populations throughout the Middle and Upper Snake River Provinces should allow a better assessment of the impacts of past hatchery produced *O. mykiss* introductions and allow a better evaluation of possible future genetic risks
- Continue coordinated collection of water temperature data throughout the Lower Middle Snake River Province.
- Determine minimum flows necessary for aquatic life downstream of irrigation storage reservoirs
- Provide fish screening and passage at diversions
- Protect riparian and wetland areas from grazing impacts
- Survey habitat in DVIR, the upper North Fork Owyhee River, the South Fork Owyhee River and in Oregon to determine status of redband populations in areas that are currently data gaps
- Determine degree of isolation and connectivity between salmonid populations and identify and implement strategies for increasing connectivity

- Investigate feasibility and implement if possible, genetic preservation actions for South Fork Owyhee River populations of redband trout and other populations identified in high risk of local extirpation
- Model historic redband population to determine ranges of variability in abundance and distribution within the subbasin
- Develop GIS/data repository for fish and wildlife information generated about subbasin
- Protect, enhance, and/or restore riparian habitats on public/private lands by working cooperatively with private landowners
- Conduct inventory of sensitive and rare plants in Owyhee Canyonlands, and Duck Valley Indian Reservation
- Continue to collect life history, distribution, movement and habitat data for Sage Grouse populations in subbasin
- Conduct comprehensive survey of avian species across the subbasin (DVIR)

Malheur River Subbasin

Three existing projects are recommended for continued funding in the Malheur River Fork Subbasin (Table 3). Project 199701900, *Evaluate the Life History of Native Salmonids in the Malheur Basin* will continue to evaluate and determine the life history, distribution, and critical habitats pertinent to populations of bull trout and other salmonids within the Malheur Subbasin. Project 200000900*, Logan Valley Wildlife Mitigation Project O&M*, will continue to restore and enhance critical fish and wildlife habitat, enhance historic home range and seasonal habitat for resident and migratory species, control weeds, and improve water quality for headwaters of the Malheur River Basin. Project 200002700, *Malheur River Wildlife Mitigation Project*, will continue to restore and enhance critical fish and wildlife habitat, maintain BLM allotments, enhance historic home range and wintering habitat for resident and migratory species, control weeds, and improve water quality along the Malheur River.

Four new project proposals are recommended for funding in the Malheur River Subbasin (Table 3). Project Proposal 32005, *Burns Paiute Fish and Wildlife Mitigation Coordinator*, will allow for the development of wildlife mitigation strategies consisting of selection, scientific analysis, implementation (acquisition, enhancement, etc.), O&M, and evaluation of wildlife mitigation projects for the Burns Paiute Tribe. Project Proposal 32016, *Assess the Feasibility of the Upper Malheur Watershed to Support the Reintroduction of Anadromous Populations above the Beulah and Warmsprings Reservoirs*, will allow for the initiation of a feasibility study to evaluate reintroduction of anadromous fish in the Malheur Subbasin. Project Proposal 32018, *Williams Ranch Fish and Wildlife Acquisition Project*, is an acquisition that will expand, restore and enhance habitat for the purpose of fish and wildlife management and will replace critically important habitat for the persistence of T&E, sensitive and culturally important fish, wildlife and plant species. Project Proposal 32019, *Logan Valley Fish and Wildlife Project – Stanbro Ranch Acquisition*, is an acquisition that will expand, restore, and enhance habitat for the purpose of fish and wildlife management and will replace

critically important habitat for the persistence of T&E, sensitive, and culturally important fish, wildlife, and plant species.

Table 3. Projects recommended for funding in the Malheur River Subbasin.

ProjectID	Title	Sponsor
199701900	*Evaluate the Life History of Native Salmonids in the Malheur Basin*	BPT
200000900	*Logan Valley Wildlife Mitigation Project O&M*	BPT
200002700	*Malheur River Wildlife Mitigation Project*	BPT
32005	*Burns Paiute Fish and Wildlife Mitigation Coordinator*	BPT
32016	*Assess the Feasibility of the Upper Malheur Watershed to Support the Reintroduction of Anadromous Populations above the Beulah and Warmsprings Reservoirs*	BPT
32018	*Williams Ranch Fish and Wildlife Acquisition Project*	BPT
32019	*Logan Valley Fish and Wildlife Project – Stanbro Ranch Acquisition*	BPT

This suite of recommended project proposals addresses the key needs identified in the Malheur River Subbasin Summary including:

- Continue monitoring and investigations into the distribution and abundance of known populations, e.g., estimates of abundance to establish trends and measure population response to restoration efforts; extent and magnitude of nonnative species interaction and hybridization to better define treatment options
- Provide fish passage at all reservoir dams and irrigation diversion dams in the Subbasin, including Agency Dam, Warm Springs Dam, Nevada diversion dam, Vale-Oregon diversion dam, Harper diversion dam, Bully Creek reservoir dam, and Willow Creek dams
- Conduct studies and analyses to determine feasibility of restoring passage at Warm Springs and Agency Dams, and other dams as necessary
- Restore anadromous and resident fish to their historic habitats within the watershed
- Restore migration routes and connectivity of now isolated populations of bull trout and redband trout within the Subbasin and between the Subbasin and the Snake River
- Reduce or eliminate the possible hybridization of 1) native chars with introduced species, and 2) redband trout with hatchery rainbow trout
- Protect current refugia for bull trout
- Protect, restore, and enhance habitat for all redband trout and bull trout life history stages
- Improve water quality, with emphasis on reducing summer stream temperature;
- Protect and restore riparian zones from excessive livestock grazing, timber harvest, and road building
- Conduct habitat restoration studies and projects to address riparian habitat, flow issues, and water quality problems
- Conduct habitat protection efforts to avoid future cumulative impacts;
- Continue efforts to educate anglers and the general public as to the importance of bull trout and the need to protect them.
- Implement proposed wildlife mitigation projects to begin the needed protection of critical wildlife habitat

- Work with state and federal agencies as well as neighboring landowners to complete a wildlife mitigation plan to fulfill the mitigation projects obligations toward wildlife
- Protect and restore riparian zones from excessive livestock grazing, timber harvest, and road building
- Encourage a long term increase in the sage grouse population and suitable habitat
- Increase native shrub and grass cover in deer and elk winter range;
- Reduce noxious weeds in big game summer and winter ranges and in riparian areas;
- Manage upland habitat through the measurement and evaluation of indicators such as a) soil stability and watershed function, b) distribution of nutrients and energy, and c) recovery mechanisms (i.e. plant demography and vigor) (National Research Council 1994).

Upper Middle Snake River Subbasin

One new project proposal is recommended for funding in the Upper Middle Snake River Subbasin (Table 4). Project Proposal 32002*, Implement Best Management Practices to Improve Riparian Habitat and Upland Conditions within the Billingsley Creek Watershed*, will enhance riparian habitat and reduce nonpoint source pollution within the Billingsley Creek watershed through the development and implementation of conservation plans on private lands, coordinated with state owned and managed lands within the watershed.

Table 4. Projects recommended for funding in the Upper Middle Snake River Subbasin.

ProjectID	Title	Sponsor
32002	*Implement Best Management Practices to Improve Riparian Habitat and Upland Conditions within the Billingsley Creek Watershed*	GSCD

The recommended project proposal address the following need that was identified in the Upper Middle Snake River Subbasin Summary:

- Develop and implement BMPs on agricultural, mining, grazing, logging and development activities to protect, enhance, and/or restore fish and wildlife habitat, streambank stability, watershed hydrology, and floodplain function.

Lower Middle Snake River Subbasin

One existing project is recommended for continued funding in the Lower Middle Snake River Subbasin (Table 5). Project 199800200, *Snake River Native Salmonid Assessment*, will continue to investigate population status and trends, life histories, habitat needs, limiting factors, and threats to persistence of native salmonids in the Snake River and tributaries upstream of Hell's Canyon Dam in Idaho, and implement recovery/protection plans.

Two new project proposals are recommended for funding in the Lower Middle Snake River Subbasin (Table 5). Project Proposal 32003, *White Sturgeon Put, Grow, and Take*

Fishery Feasibility Assessment, *Oxbow/Hells Canyon Reservoirs*, will to determine the feasibility of a put, grow, and take white sturgeon fishery in Oxbow and Hells Canyon reservoirs. Project Proposal 32010, *Lookout Mountain Road Decommissioning*, will decommission a portion of the Sisley Creek and Fox Creek roads totaling approximately two and a half miles, resulting in a reduction of sedimentation, enhancement of riparian vegetation, and reducing the number of stream and spring crossings in the area.

Table 5. Projects recommended for funding in the Lower Middle Snake River Subbasin.

ProjectID	Title	Sponsor
199800200	*Snake River Native Salmonid Assessment*	IDFG and IOSC
32003	*White Sturgeon Put, Grow, and Take Fishery* Feasibility Assessment, *Oxbow/Hells Canyon Reservoirs*	NPT
32010	*Lookout Mountain Road Decommissioning*	BLM

This suite of recommended project proposals addresses the key needs identified in the Lower Middle Snake River Subbasin Summary including:

- Assess the status of native species. In particular, bull trout and white sturgeon appear to be well below historic population levels. Collect life history, distribution, abundance by life stage, genetic and homing behavior attributes. Determine current status and major factors limiting their distribution and abundance
- Develop and implement plans and strategies for recovery where populations of native fish are at risk of extirpation.
- Compare rates of hybridization and introgression between hatchery produced *O. mykiss* and native populations of Yellowstone cutthroat, redband trout, and westslope cutthroat trout. A greater understanding of the phenomenon of hybridization and introgression observed within *Oncorhynchus* populations throughout the middle and upper Snake River provinces should allow a better assessment of the impacts of past hatchery produced *O. mykiss* introductions and allow a better evaluation of the possible future genetic risks native *Oncorhynchus* populations face with regards to hybridization and introgression.
- Monitor impacts of illegal, incidental, sport and tribal harvest on resident native populations. Determine distribution of introduced non-native species and their effects on native fish, including predation and competition. Control numbers and distribution of exotic species where feasible.
- Evaluate the potential for hatchery-based sturgeon fisheries in Hells Canyon and Oxbow Reservoirs.
- Reduce road densities through closures, obliteration, and reduced construction.

Boise/Payette/Weiser Subbasin

One existing project is recommended for continued funding in the Boise/Payette/Weiser Subbasin (Table 6). Project 199505701, *Southern Idaho Wildlife Mitigation – Middle Snake,* will continue to protect, enhance, restore and maintain wildlife habitats to mitigate for construction losses at Anderson Ranch, Black Canyon and Deadwood dams.

Eight new project proposals are recommended for funding in the Boise/Payette/Weiser Subbasin (Table 6). Project Proposal 32004, *Effects of Culverts on Fish Population Persistence: Tools for Prioritizing Fish Passage Restoration Projects in the Middle Snake Province*, will develop quantitative tools to evaluate risks that stream culverts pose to fish populations. Products from the research would be used in prioritizing fish passage restoration projects to provide maximum benefits to fish populations. Project Proposal 32006, *Compare the Parr-Smolt Transformation of Non-anadromous and Anadromous Populations of Oncorhynchus mykiss,* will determine if *O. mykiss* populations that were historically accessible to the ocean but are now blocked by dams can produce smolts. Project Proposal 32009, *Squaw Creek Cooperative Fisheries Restoration Project*, will assess and ameliorate the significant factors that have resulted in a severely depressed bull trout metapopulation within the major streams of the Squaw Creek drainage. Project Proposal 32011, *Mitigation of Marine-derived Nutrient Loss in the Boise-Payette-Weiser Subbasin*, will replaces marine derived nutrients using salmon analogs and salmon carcasses in the Boise-Payette-Weiser subbasin. Aquatic and terrestrial effects of nutrient treatments will be monitored using isotope and lipid analysis. Project Proposal 32013, *Fishery Restoration of the Gold Fork River, Idaho*, will recover fish populations in the Gold Fork River by reconnecting the habitat and expanding the range of bull trout and redband trout populations. By creating fish passage in the drainage, 44 miles of resident fish habitat will be reconnected. Project Proposal 32015, *Deadwood River and Clear Creek Drainages Roads Analysis and Repair,* will Inventory, analyze, identify and repair road problems (road segments contributing sediment, culverts blocking fish passage, or culverts at high risk of failure) in the Deadwood River and Clear Creek drainages. Project Proposal 32020, *Inventory and Assessment of Stream/Riparian Resources, Upper Boise and Upper Payette River Subbasins, Idaho*, will apply a hierarchical classification to identify complexes of stream/riparian resources with distinctive ecological potential and divide the complexes into more discrete areas based on condition relative to a progression of states. Project Proposal 32021, *Lower Boise River Wetlands Restoration Project,* will Restore wetlands in the Lower Boise River watershed in order to mitigate the inundation of wetland habitats caused by the construction of Anderson Ranch Dam. Improvements in water quality will be an integral part of restoration of the wetlands.

Table 6. Projects recommended for funding in the Boise/Payette/Weiser Subbasin.

ProjectID	Title	Sponsor
199505701	*Southern Idaho Wildlife Mitigation – Middle Snake*	IDFG and IOSC
32004	*Effects of Culverts on Fish Population Persistence: Tools for Prioritizing Fish Passage Restoration Projects in the Middle Snake Province*	USFS
32006	*Compare the Parr-Smolt Transformation of Non-anadromous and Anadromous Populations of Oncorhynchus mykiss*	IDFG
32009	*Squaw Creek Cooperative Fisheries Restoration Project*	CHRCDC
32011	*Mitigation of Marine-derived Nutrient Loss in the Boise-Payette-Weiser Subbasin*	IDFG, WSU, UI, PNRS, IOSC
32013	*Fishery Restoration of the Gold Fork River, Idaho*	IDFG and IOSC
32015	*Deadwood River and Clear Creek Drainages Roads Analysis and Repair*	USFS
32020	*Inventory and Assessment of Stream/Riparian Resources, Upper Boise and Upper Payette River Subbasins, Idaho*	WHA
32021	*Lower Boise River Wetlands Restoration Project*	PID

This suite of recommended project proposals addresses the key needs identified in the Boise/Payette/Weiser Subbasin Summary including:

- Acquire lands when opportunities arise for improved habitat protection, restoration, and connectivity and for mitigation of lost fish and wildlife habitat (land purchases, land trusts, conservation easements, landowner cooperative agreements, exchanges).
- Protect existing pristine and key fish and wildlife habitats directly threatened by subdivision, recreation, or extractive resource uses.
- Synthesize historic and existing fish and wildlife resource data to determine what is known about the subbasin, and identify gaps for more efficient and meaningful assessment, monitoring and evaluation work.
- Continue ongoing, and establish new, monitoring and evaluation programs for population supplementation, habitat restoration and improvement, and understanding population and habitat baseline condition. Efforts should be consistent and repeatable between entities and coordinated at a subbasin scale so as to maximize effectiveness and minimize redundancy. Continue and enhance the cooperative/shared approach in research, monitoring and evaluation between tribal, federal, state, local and private entities to facilitate restoration and enhancement measures.
- Investigate effects of potential loss or lack of nutrients due to declines in anadromous salmonid populations, and coordinate and evaluate nutrient enhancement alternatives.
- Replace or remove passage problems
- Continue coordinated collection of water temperature data throughout the Middle Snake River Province.
- Restore, protect, and create riparian, wetland and floodplain areas within the subbasin
- Restore in-stream habitat to conditions that provide suitable holding, spawning, and rearing areas for anadromous and resident fish
- Reduce stream temperature, sediment and embeddedness levels to levels meeting appropriate state standards
- Restore and augment streamflows at critical times using (but not limited to) water right leases, transfers, or purchases, and improved irrigation efficiency
- Reduce stream temperatures where appropriate and feasible
- Reduce impacts from agricultural practices and irrigation return flows
- Reduce the impacts of confined animals with regard to waste and sediment production
- Address streambank instability issues
- Investigate connectivity between populations and the role of natural and artificial barriers in population isolation.
- Assess the status of native species. Collect life history, distribution, abundance by life stage, genetic and homing behavior attributes. Determine current status and major factors limiting their distribution and abundance
- Develop and implement plans and strategies for recovery where populations of native fish are at risk of extirpation.

- Construct a detailed GIS-based wildlife habitat map by watershed for the entire subbasin. This would include providing personnel and equipment to search available databases for existing coverages, digitizing existing wildlife information currently not available in GIS format, and identifying key areas.
- Continue to research methods for effectively controlling, the spread of noxious weeds, exotic annuals and juniper expansion
- Research broad ecological relationships and identify limiting factors for sensitive and other wildlife species within the subbasin.
- Address and mitigate hydropower impacts on loss of wildlife and wildlife habitat within the basin, based on species-specific habitat units.
- Continue long-term landbird monitoring.
- Acquire lands when opportunities arise for improved habitat protection, restoration, and connectivity and for mitigation of lost wildlife habitat (land purchases, land trusts, conservation easements, landowner cooperative agreements, exchanges).
- Implement and (where applicable) continue noxious weed control programs.
- Assist landowners with land holdings and easements for restoration and enhancement of wildlife habitat.
- Mitigate hydropower impacts on loss of wildlife and wildlife habitats.
- Implement programs to reintroduce anadromous fish carcasses to the ecosystem.
- Support cooperative efforts that benefit both anadromous fish and wildlife populations.

Bruneau River Subbasin

One existing project is recommended for continued funding in the Bruneau Subbasin (Table 7). Project 200007900, *Assess Resident Fish Stocks of the Owyhee/Bruneau Basin, D.V.I.R.*, will continue to conduct a systematic resident fish species inventory & stock assessment in the Owyhee/Bruneau River Basin, DVIR component.

Two new project proposals are recommended for funding in the Bruneau Subbasin (Table 7). Project Proposal 32007, *Bull Trout Habitat Restoration/Protection Program-Bruneau Subbasin*, will implement habitat enhancement/restoration/protection measures in the Bruneau Subbasin to assist in recovery of threatened bull trout populations in the Jarbidge and Bruneau River systems. Project Proposal 32012, *Implement Best Management Practices to Improve Riparian Habitat and Upland Conditions in the Clover Creek Watershed*, will enhance riparian and upland habitat and reduce nonpoint source pollution within the Clover Creek watershed through the development of a Coordinated Resource Management Plan on private, state, and federal land, focussing on private land improvements.

Table 7. Projects recommended for funding in the Bruneau River Subbasin.

ProjectID	Title	Sponsor
200007900	*Assess Resident Fish Stocks of the Owyhee/Bruneau Basin, D.V.I.R*	SPT
32007	*Bull Trout Habitat Restoration/Protection Program-Bruneau Subbasin*	SPT
32012	*Implement Best Management Practices to Improve Riparian Habitat and Upland Conditions in the Clover Creek Watershed*	BRSCD

This suite of recommended project proposals addresses the key needs identified in the Bruneau River Subbasin Summary including:

- Collect life history, distribution, and homing behavior information of bull trout within the subbasin, and relevant core areas.
- Evaluate connectivity and the degree of interchange between populations throughout the subbasin.
- Monitor core populations to establish trends and measure population response to restoration.
- Continue presence/absence surveys to locate bull trout populations.
- Determine survival rates of different life stages and assess productivity.
- Research the affects of U.S. Air force training missions on the productivity, behavior and survival of bull trout in the subbasin.
- Use genetic markers to detect and quantify levels of hatchery produced *O. mykiss* introgression within native redband trout populations and to delineate genetic population structure of redband trout throughout their historic range. This fundamental genetic information regarding introgression and genetic population structure is needed to identify remaining pure populations, preserve existing genetic variability, and identify population segments for the development of management plans and the designation of conservation units/management units.
- Compare rates of hybridization and introgression between hatchery-produced *O. mykiss* and native populations of redband trout. A greater understanding of the phenomenon of hybridization and introgression observed within *Oncorynchus* populations throughout the Middle and Upper Snake Provinces should allow a better assessment of the impacts of past hatchery produced *O. mykiss* introductions and allow a better evaluation of the possible future genetic risks native redband populations face with regards to hybridization and introgression.
- Develop and implement BMPs on agricultural, mining, grazing, logging and development activities to protect, enhance, and/or restore fish and wildlife habitat, streambank stability, watershed hydrology, and floodplain function.

Powder River Subbasin

One existing project is recommended for continued funding in the Powder River Subbasin (Table 8). Project 199405400, *Tools for Managing Bull Trout Populations Influenced by Nonnative Brook Trout Invasions*, will continue to develop models of

ecological and genetic effects of nonnative brook trout on bull trout as well as monitor population abundance and habitat.

Table 8. Projects recommended for funding in the Powder River Subbasin.

ProjectID	Title	Sponsor
199405400	*Tools for Managing Bull Trout Populations Influenced by Nonnative Brook Trout Invasions*	ODFW

This suite of recommended project proposals addresses the key needs identified in the Powder River Subbasin Summary including:

- Continue monitoring and investigations into the distribution and abundance of known populations of bull trout (e.g., estimates of abundance to establish trends and measure population response to restoration efforts; extent and magnitude of nonnative species interaction and hybridization to better define treatment options).
- Conduct feasibility analyses to determine potential for restoration of bull trout populations into historic habitat in the subbasin.
- Develop and implement, if appropriate, a plan to restore bull trout into historic habitats including establishment of a fluvial population in Eagle Creek.
- Continue efforts to educate anglers and the general public as to the importance of bull trout and the need to protect them.
- Reconnect resident fish populations within the Powder subbasin through habitat and passage improvements.

Appendix A. Results from the CBFWA Project Proposal Review for the Middle Snake Province*

*Note: Due to space constraints, text in the criteria fields shown as "n" over "a" should be interpreted as "n/a".

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
Boise																				
32004	Effects of culverts on fish population persistence: tools for prioritizing fish passage restoration projects in the Middle Snake Province	USDA Forest Service, Rocky Mountain Research Station	Boise	y	y	y	n a	n a	n a	n a	y	y	n	n a	y	y	n	n a	Reviewers question whether it is a BPA responsibility to pay for the removal of culverts. CBFWA found that the proposed work is potentially interesting: however, CBFWA questions whether it is needed. CBFWA found that the methods are more of a discussion and that specific methods for fieldwork and modeling are lacking. In addition, CBFWA is uncertain if this approach would provide additional information beyond the WDFW protocol manual (i.e., Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual).	Recommended Action
32011	Mitigation of marine-derived nutrient loss in the Boise-Payette-Weiser subbasin.	Idaho Department of Fish and Game, Washington State University, University of Idaho, Pacific Northwest Research Station, Idaho Office of Species Conservation	Boise	y	y	y	y	n a	n a	y	y	y	y	y	y	y	y	y	The loss of marine derived nutrients has been identified as a factor limiting the productivity of bull trout in Idaho and Oregon and is viewed as an issue that should be a region-wide concern/investigation. Reviewers believe that results from this study could likely be applied throughout the range of distribution for bull trout where anadromous fish have been removed. Reviewers suggested that the proposed work, as it relates to bull trout, should be implemented in a basin-wide approach; however, reviewers questioned whether the work should be initiated now or wait until results become available from some of the nutrient projects that were funded through the 2001 Innovative process. The reviewers suggested that pursuing this work is a High Priority; however, review of data from the innovative projects may be useful before the implementation of this project thus coordination with ongoing projects is essential.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
32020	Inventory and Assessment of Stream/Riparian Resources, upper Boise and upper Payette River Subbasins, Idaho	White Horse Associates, Inc.	Boise	y	y	y	na	na	na	y	y	y	n	na	y	y	y	na	CBFWA found that the proposed work is similar to the mapping effort submitted by the Northwest Habitat Institute in previous provinces. This may be useful when subbasin planning begins in this province and needs to be coordinated with EDT. CBFWA questions the specific need for this project and suggests the benefits to fish and wildlife are low. The proposal states the "proposed inventory and assessment can be used to enhance both completed and ongoing TMDL efforts, and as a basis for remediation to achieve TMDLs." CBFWA expressed concern regarding the appropriateness of funding TMDL's through the NWPPC Program.	Recommended Action
32021	Lower Boise River Wetlands Restoration Project	Pioneer Irrigation District	Boise	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	This project will provide for the removal of phosphorous and sediment from the lower portion of the Boise River. The IDEQ has identified phosphorous and sediment as having negative effects on the white sturgeon population in the Hells Canyon reach of the Snake River. Although the sponsors suggested the project would provide for sensitive species, the reviewers question the benefits to sensitive species. Reviewers indicated that there are nine target species in this area and that the proposed work would provide habitat only for mink and waterfowl. CBFWA found that this proposal does not provide enough detail to determine if the construction phase should be funded and suggest that the proposal be reviewed after the design phase is completed. Wildlife would likely benefit from the wetland creation, but dredging and removal of vegetation to remove accumulated silts and nutrients would cause disturbances approximately every five years. It is unclear if fisheries benefits would result. In fact, CBFWA suggests that thermal heating in the settling cells and wetlands could lead to elevated water temperatures downstream. CBFWA suggests that the proposed project is primarily a water quality project, with potential side benefits to wildlife. Monitoring and evaluation for water quality was included in the original proposal, but monitoring and evaluation for wildlife resources was not. A wildlife	Recommended Action

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			monitoring and evaluation plan still is yet to be developed. The project would benefit from cost-share arrangements for funding from other sources. All listed cooperators are shown to contribute "in-kind" services or funds. Although the benefit of this project, combined with others throughout the basin, could have lasting benefits, impacts addressed are not entirely attributable to the Federal Columbia River Power System (FCRPS). CBFWA was unclear as to how this project qualifies as offsite mitigation for impacts caused by the FCRPS. Due to the relatively minor impacts associated with power operations, it seems the Corps of Engineers, Bureau of Reclamation, State of Idaho and the counties would have greater responsibilities to provide funding to mitigate for these impacts, rather than BPA. The proposed conservation easements or land acquisitions appear to be very high cost at $5000/acre and $10,000/acre, respectively. The proposal does not describe how wildlife benefits will be calculated and credited. CBFWA found that coordination with BPA and the fish and wildlife managers appears to have been inadequate.	
199505701	Southern Idaho Wildlife Mitigation - Middle Snake	Idaho Department of Fish and Game and Idaho Office of Species Conservation	Boise	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	The proposed work provides the initiation of O&M. Project sponsors indicate credits will be applied to Anderson Ranch, Deadwood, or Black Canyon.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
Bruneau																				
32007	Bull trout habitat restoration/protection program - Bruneau Subbasin	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Bruneau	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	The objective of this project is to improve stream and riparian habitat conditions for the Jarbidge bull trout population. CBFWA agrees with the sponsor's decision to consider only the Dave Creek project under the project request. The objectives are clearly defined and attainable in the stated time frame. The habitat analysis was comprehensive and nicely demonstrated the benefit of acquiring a Temporary Conservation Easement on critical bull trout spawning habitat to restrict livestock grazing and other streamside development and the need for habitat improvements. Although the proposal lacks an M&E plan, the plan is being developed with the BLM. The sponsors indicated that the BLM plan would be adopted when completed.	High Priority
32012	Implement Best Management Practices to improve riparian habitat and upland conditions within the Clover Creek watershed.	Bruneau River Soil Conservation District	Bruneau	y	y	y	y	y	y	y	y	y	n	y	y	y	na	y	Proposed work will cover 1/3 of all the private acres on Clover Creek, a location which has been identified as a TMDL stream segment. Reviewers suggest that due to the respect that other landowners have for the individual that has volunteered his land, this project could serve as a demonstration project that could lead other landowners, that are currently reluctant, to become willing to participate in similar activities. Although the proposed concept is valid, CBFWA questions the priority status of this project since the perception is that the ongoing work will continue regardless of whether BPA funds are secured. CBFWA found that most of the monitoring activities are being completed through various processes (e.g., TMDL) as well as general fish, wildlife and habitat monitoring by IDFG. CBFWA questions the appropriateness of allocating BPA funds to this proposal.	Recom-mended Action

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
200007900	Assess Resident Fish Stocks Of The Owyhee/Brunea u Basin, D.V.I.R.	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Bruneau	y	y	y	na	na	na	y	y	y	n	na	n	y	y	na	CBFWA recommends that this project should be closely coordinated with Project 199800200 "Snake River Native Salmonid Assessment". CBFWA was unable to determine if much coordination is taking place. CBFWA believes that this project is a High Priority and should be completed as soon as possible as results of this project are needed for other projects.	High Priority
Malheur																				
32005	Burns Paiute Fish and Wildlife Mitigation Coordinator	Burns Paiute Fish and Wildlife Department	Malheur	na	na	y	na	na	na	na	na	n	na	na	na	na	na	na		Recom-mended Action
32016	Assess the feasibility of the Upper Malheur Watershed to support the reintroduction of anadromous populations above the Beulah & Warmsprings Reservoir	Burns Paiute Tribe	Malheur	y	y	y	na	na	na	na	y	y	y	na	n	y	y	na	The proposed budget has been reduced to $49,000 to allow for a literature search and subsequent report. Following the completion of this effort, the product should be sent back the CBFWA for review prior to the initiation of the next phase.	High Priority
32017	Suppress Brook Trout Populations in the Upper Malheur Subbasin.	Burns Paiute Tribe	Malheur	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	Reviewers suggest the removal of Objective 1 ($25,000) since it is included in 199701900. In addition, the reviewers question whether complete removal is possible and expressed concern over the persistence of hybridization despite suppression activities. CBFWA recommends that this proposal, in its current state, should not be funded. Although the overall goal of the project is important to bull trout recovery in the Upper Malheur Subbasin, CBFWA believes the likelihood that the proposed suppression projects will be successful is minimal using the proposed strategies and under the existing ecological situation. The project proposal is well written and the project objectives are biologically appropriate. However, the proposal does not demonstrate that the project benefits (i.e., brook trout suppression) are likely to persist over the long term because they will be compromised by a source population of brook	Do Not Fund

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			trout occupying the headwater lake and river system. Further, the effectiveness of the proposed suppression techniques (i.e., pheromone-based trapping, angling, and gillnetting) is questionable, especially given that the entire headwater lake (High Lake) and river (Lake Creek) system is inhabited exclusively by brook trout. Chemical eradication of the headwater lake source population of brook trout should be considered to ensure successful long-term brook trout suppression efforts. Objective 1 will assess the basin-wide level of hybridization and sympatric populations of brook and bull trout. This objective is important to document the magnitude and location of hybridization between native bull trout and non-native brook trout for future suppression and eradication programs. CBFWA suggests that the project proponents consider submitting this request as a separate project or include this objective in a modified proposal. Objective 1 is important; however, during the project review it was noted this objective is covered under another project. Objective 2 concerns implementing brook trout suppression efforts in areas where bull trout spawning activity occurs. Pheromone-based trapping may be a promising technique to attract and remove spawning brook trout; however, CBFWA believes the study area does not appear to be an ideal setting to conduct a quantitative study to test this methodology. Research currently underway by Mike Young (USFS) and David Schmetterling (MFWP) will assess the effectiveness of pheromone “bait” trapping in tributaries of the Blackfoot River drainage, Montana during 2002. Results of their study may provide insight in the effectiveness of the technique. Further, the success of angling and weir trapping to suppress brook trout will be minimal in this setting. The project proponents are strongly urged to use chemical eradication techniques (antimycin and	

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			rotenone) to eradicate the existing population of brook trout in High Lake and Lake Creek. Case histories of related projects have shown that gillnetting and spot electrofishing have a low probability of success in achieving the desired goal of the project. Further, the proposed suppression efforts throughout the system will have minimal success if this source population is not removed. CBFWA believes that monitoring brook trout and bull trout population trends (Objective 4) and coordinating with state, federal, tribal and private landowners (Objective 5) are important elements of this project and should be considered for funding if the scope of the proposal is modified as suggested. A change in techniques and methods could make this project a high priority. CBFWA proposes that the sponsors eradicate the source population (i.e., headwater (lake) and stream). Following verification of effectiveness through M&E efforts, CBFWA proposes the sponsors could consider restocking the lake/stream with native redband trout pending approval of other cooperating fish and wildlife managers. The proposed Phase 2 of this project should not be initiated without CBFWA review/approval.	
32018	Williams Ranch Fish and Wildlife Acquisition Project	Burns Paiute Tribe	Malheur	y	y	y	y	na	na	y	y	y	y	y	y	y	y	y	Proposed work is located in "core" bull trout habitat as identified by the USFWS. Sponsors will provide information regarding what facility mitigation would be credited to during the CBFWA review.The BPT has provided the following information regarding the crediting questions that CBFWA had:MOA between the Burns Paiute Tribe and BPA Page (1) C. The Tribe has developed the Logan Valley and Malheur River Projects, collectively called the Malheur River Basin Project (Project), to assist BPA in fulfilling its wildlife mitigation obligation. A legal description of the Project is in Attachment A of this Agreement. In addition, at some future date the parties may wish to expand the scope of the	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			Project to include other property .If the other property is added to the Project, its acquisition and management shall be pursuant to this Agreement. (the "in addition" wording pertains to the Willams and Stanbro proposals as far as the Tribe is concerned whether or not BPA as one of the parties to the MOA agrees is another issue, but one would think that a funding of either project is in fact BPA's stamp of approval of where the credits (past, future)will be applied since there is a mechanism for that built into the MOA). BPA CREDIT page (7) (c) BPA shall receive full credit for all HUs, including those from both the acquisition of real property interests and from habitat improvement and management activities which are a direct result of BPA funding. BPA may credit these HUs toward its mitigation duty for wildlife habitat losses at the Lower Monumental, Lower Granite, Little Goose, and Ice Harbor Projects or any other Federal Columbia River Power System project (i) agreed to by BPA, the Tribe and the Council, or (ii) adopted by BPA consistent with the Northwest Power Act and applicable law. (that covers where our HU's for the current project will be credited to and the areas where future credits will be assigned. The MOA is a binding legal document agreed to in whole by both parties The Burns Paiute Tribe and Bonneville Power, no outside input was sought or needed)	
32019	Logan Valley Fish and Wildlife Project- Stanbro Ranch Acquisition	Burns Paiute Tribe	Malheur	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	The BPT has provided the following information regarding the crediting questions that CBFWA had:MOA between the Burns Paiute Tribe and BPA Page (1) C. The Tribe has developed the Logan Valley and Malheur River Projects, collectively called the Malheur River Basin Project (Project), to assist BPA in fulfilling its wildlife mitigation obligation. A legal description of the Project is in Attachment A	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			of this Agreement. In addition, at some future date the parties may wish to expand the scope of the Project to include other property .If the other property is added to the Project, its acquisition and management shall be pursuant to this Agreement. (the "in addition" wording pertains to the Willams and Stanbro proposals as far as the Tribe is concerned whether or not BPA as one of the parties to the MOA agrees is another issue, but one would think that a funding of either project is in fact BPA's stamp of approval of where the credits (past, future)will be applied since there is a mechanism for that built into the MOA). BPA CREDIT page (7) (c) BPA shall receive full credit for all HUs, including those from both the acquisition of real property interests and from habitat improvement and management activities which are a direct result of BPA funding. BPA may credit these HUs toward its mitigation duty for wildlife habitat losses at the Lower Monumental, Lower Granite, Little Goose, and Ice Harbor Projects or any other Federal Columbia River Power System project (i) agreed to by BPA, the Tribe and the Council, or (ii) adopted by BPA consistent with the Northwest Power Act and applicable law. (that covers where our HU's for the current project will be credited to and the areas where future credits will be assigned. The MOA is a binding legal document agreed to in whole by both parties The Burns Paiute Tribe and Bonneville Power, no outside input was sought or needed)	
199701900	Evaluate The Life History Of Native Salmonids In The Malheur Basin	Burns Paiute Tribe - Natural Resource Department	Malheur	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n		High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
200000900	Logan Valley Wildlife Mitigation Project/ O&M	Burns Paiute Tribe	Malheur	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	Proposed work will provide for habitat improvements for bull trout. Reviewers suggest that the budget tasks need to be related strictly to O&M and that construction and implementation activities need to be reevaluated and reclassified.	High Priority
200002700	Malheur River Wildlife Mitigation Project	Burns Paiute Tribe	Malheur	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	The elk study component has been removed (M&E objectives 1,2, and 3 as well as the elk objectives of objectives 4 and 5) thus the budget has been reduced to $426,880	High Priority
Owyhee																				
32001	Evaluate the Feasibility Artificial Production Facility DVIR	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	na	y	y	na	na	na	y	y	y	na	na	n	y	y	na	CBFWA recommended that Objective 1 (Tasks a-d) be categorized as "High Priority." Although not included in the proposal, a cost benefit analysis will be performed. CBFWA suggests that Objective 1 be extended for a three-year period at a total cost of $450,000. CBFWA questions whether 170,000 lbs. of annual production is appropriate for the DVIR? In addition, CBFWA suggested that other options (e.g., net pen program, using shaker boxes, continued fish purchases, or developing a rearing facility) may be more cost effective. Regardless of how the fish are obtained, CBFWA recommends that monitoring and evaluation continue after stocking.	High Priority
32008	Wildlife Inventory and Habitat Evaluation of Duck Valley Indian Reservation	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Owyhee	y	y	y	na	na	na	y	y	y	y	na	y	y	y	na		High Priority
32014	Feasibility of Transporting Salmonids through a Translucent Fish Passage System	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	n	y	y	na	na	na	y	y	y	n	na	y	na	y	na		Do Not Fund

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
198815600	Implement Fishery Stocking Program Consistent With Native Fish Conservation	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	y	y	y	y	y	na	y	y	y	na	na	n	y	y	na	CBFWA recommends that the sponsor should consider combining this project with Project 199501500 since they are essentially the same but occur in different lakes. If this project was combined with Project 199501500 administrative, M&E, and O&M costs could be reduced without reducing the quality and deliverables of these projects. Stocking rates for these waters seem excessive considering that temperature and oxygen profiles indicate they are marginal for trout. CBFWA questions how they are determined and adjusted annually? During the next 2 years the project costs will increase from $110,000 to $420,000. CBFWA questions why are project costs increasing so much over prior years? If the goal of the project is to produce more and bigger fish for anglers, The suggests the proponent should consider using net-pens or rearing ponds to reduce transportation and fish costs. Equipment maintenance seems excessive for what is needed to do this project, most of the equipment is owned by sub-contractors. See project 199501500 for additional issues that also relate to this project.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
199501500	Lake Billy Shaw Operations and Maintenance and Evaluation (O&M, M&E)	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	This is a fundable project; however, CBFWA suggests that the following concerns should be addressed. Although many tasks (e.g., planting projects, fencing, signage, and public relations) have been in progress for multiple years, when will they be finished? Much of the work seems repetitive and once baseline data has been established, implementing select tasks (e.g., water quality monitoring) on a yearly basis may have limited value. Monitoring could be conducted on a rotating basis with other lakes from Project 198815600. CBFWA suggests that data for each lake could be updated every three years and this would provide adequate information for assessing changes over time. In addition, monitoring riparian plants should be conducted one year after planting and then every five to ten years. Furthermore, CBFWA believes that hook and line sampling is redundant if creel surveys are conducted. The CBFWA recommends that the sponsors consider combining this project with Project 198815600 resulting in an annual budget of $250,000.	High Priority
199505703	Southern Idaho Wildlife Mitigation - Shoshone-Paiute Tribes	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Owyhee	y	y	y	y	na	na	y	y	y	y	y	y	y	y	y		High Priority
199701100	Enhance and Protect Habitat and Riparian Areas on the DVIR	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	A M&E Plan needs to be completed for this project.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
Payette																				
32009	Squaw Creek Cooperative Fisheries Restoration Project	Central Highlands Resource Conservation and Development Council	Payette	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	Due to the weakness of the proposed methods and the apparent lack of coordination with IDFG, CBFWA suggests that this project should be reclassified as a "Recommended Action" until the following comments are answered in a satisfactory manner. Are all culvert replacement activities occurring on private lands? Are bull trout present in Squaw Creek above the mouth of Poison Creek? What is the current population status of the Squaw Creek bull trout population compared to other populations within the Subbasin? How will the sponsor "characterize channel condition" during downstream migration of post-spawning adults? In addition, CBFWA expressed concern relative to the lack of information pertaining to the type of poison that would be used by the sponsors. CBFWA suggests that until the status of the bull trout population is identified, poisoning activities should not be implemented.	Recom-mended Action
32013	Fishery Restoration of the Gold Fork River, Idaho	Idaho Department of Fish and Game and Idaho Office of Species Conservation	Payette	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	CBFWA suggests that this anadromous substitution project will benefit bull trout if brook trout can be successfully removed; however, the proposed methodology to eradicate brook trout is vague. CBFWA suggests that Antimycin combined with selective electrofishing has the best track record for removing nuisance species from running water. Lakes can be successfully treated with rotenone during late fall, just prior to ice formation. The sequential strategy for removing brook trout in stages between temporary barriers has merit and should be funded and assessed for effectiveness before initiating Objective 2. The narrative states that bull trout will not be stocked until brook trout are reduced to acceptable levels. Unfortunately, because the stream habitat has been degraded by excessive sedimentation, CBFWA believes that brook trout are likely to rebound if not removed entirely. Instream habitat should be repaired to reduce the amount of fine sediments and protect riparian vegetation for thermal cover.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	M 1	M 2	M 3	M 4	M 5	M 6	M 7		
																			Bull trout require cool water temperatures and clean substrates, whereas brook trout can tolerate degraded stream conditions. Barriers isolating the remnant population of bull trout should not be removed if brook trout can invade from elsewhere in the system. CBFWA questions the current population status of the Gold Fork population compared to other populations within the Subbasin. Funds are allocated in FY 2003 to relocate bull trout and native fish assemblages into renovated stream sections. After removing brook trout from selected stream reaches, what is the duration and sampling frequency that will conclude that all brook trout have been removed? It is mentioned in the abstract that "No stocking will occur until brook trout abundance is reduced to acceptable levels in treatment stream sections". Is this acceptable level zero? The proposal mentions that "lower river reaches are frequently dewatered to satisfy irrigation demands". Would the creation of passage facilities and more efficient water transfer to the irrigators guarantee water will be left instream? The RFC proposes that the project should be funded in stages. Objective 1 should be completed first with the initiation of Object 2 dependent on the RFC review/approval of the results from Objective 1.	
32015	Deadwood River and Clear Creek Drainages Roads Analysis and Repair	USDA Forest Service, Boise National Forest	Payette	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	CBFWA believes that analyzing and correcting problems with roads, culverts and such seem to be reasonable approaches to improving conditions for bull trout; however, CBFWA believes that BPA funds should not be used for this work which is sponsored by the US Forest Service on Forest Service administered land to correct previous Forest Service sponsored actions. The potential actions to address listed bull trout needs is extensive. CBFWA questions where BPA's responsibility to mitigate for hydrosystem impacts end and the responsibilities of others begin.	Recom-mended Action

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
Powder																				
199405400	Tools for Managing Bull Trout Populations Influenced by Nonnative Brook Trout Invasions	Oregon Department of Fish and Wildlife	Powder	y	y	y	na	na	na	y	y	y	y	y	y	y	y	y	CBFWA recommends that Objectives 1-3 should be funded; however, concerns were expressed about changes of scope of ongoing projects and CBFWA suggests that the project sponsors be held to the flowing allocation schedule: 2003 - $329,581, 2003 - $293,482, 2005 - $106,425, and 2006 - $0	High Priority
Snake Lower Middle																				
32003	White Sturgeon put, grow, and take fishery feasibility assessment, Oxbow/Hells Canyon reservoirs.	Nez Perce Tribe	Snake Lower Middle	y	y	y	y	na	na	y	n	y	y	na	na	y	y	na	Although CBFWA found the proposal to be technically sound, the proposal would benefit from the inclusion of additional information. For example, CBFWA suggests that the proposal needs further documentation of the sample sizes needed and analytical methods needed to determine survival and diet. To estimate survival, CBFWA suggests the release of a larger number of fish. In addition, although the number of radio tags to be implanted seems reasonable, CBFWA is unclear as to how the sample size was determined. CBFWA suggests that estimation of abundance is key to describing the survival of these fish and recommend that investigators describe what precision they are targeting, how many fish they will need to capture and how many fish they will need to examine for marks. CBFWA suggests that diet objectives need to either be modified to allow lethal sampling of the fish using an unbiased gear (gill nets not set lines) or eliminated from the proposal. CBFWA suggests that modified methods should include a description of sample size required and the methods that will be used to characterize the stomach contents (e.g., volume, weight, count, taxonomic order, preservation techniques, etc.). CBFWA applauds the proposed coordination with ODFW and IDFG.	High Priority

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
32010	Lookout Mountain Road Decommission-ing	Vale District Bureau of Land Management	Snake Lower Middle	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	The sponsor indicates that the project proposal can help alleviate some of the limiting factors identified in the subbasin summaries. Loss of quality habitat and habitat degradation are among the overriding factors limiting fish and wildlife populations in the Burnt and Lower Middle Snake subbasins. In the Snake River tributaries, the limiting factor to tributary habitat is also degraded riparian habitat. Road related activities are contributory to on-going negative impacts to resident fish and their habitats. CBFWA suggest that decommissioning of roads along riparian areas with reclamation seems like a reasonable approach to improve habitat conditions for native resident fishes; however, CBFWA questions prioritizing BPA funding for this type of work sponsored by the US BLM on BLM administered land to correct previous BLM sponsored actions. Potential actions to address native fish habitat needs are virtually endless. Where does the BPA responsibility to mitigation for hydrosystem impacts end and the responsibilities of others begin?	Recom-mended Action
199800200	Snake River Native Salmonid Assessment	Idaho Department of Fish and Game, and the Idaho Office of Species Conservation	Snake Lower Middle	y	y	y	na	na	na	y	y	y	na	na	n	y	y	na		High Priority
Snake Upper Middle																				
32002	Implement Best Management Practices to improve riparian habitat and upland conditions within the Billingsley Creek watershed.	Gooding Soil Conservation District	Snake Upper Middle	y	y	y	y	y	y	y	y	y	n	y	y	y	na	y	Concerns expressed relative to Proposals 32012 and 33007 also apply to this project. In addition, CBFWA found that some of the work would be performed in a State Park and question whether it should be a BPA responsibility. CBFWA also found that there is a lack of coordination with the Tribes.	Recom-mended Action

ProjectID	Title	Sponsor	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	CBFWA Category
				T1	T2	T3	T4	T5	T6	T7	T8	M1	M2	M3	M4	M5	M6	M7		
Weiser																				
32006	Compare the parr-smolt transformation of nonanadromous and anadromous populations of Oncorhynchus mykiss	Idaho Department of Fish and Game	Weiser	y	y	y	na	na	na	y	y	y	n	na	y	y	y	na		Recom-mended Action

Appendix B. The CBFWA 3-Year Project Recommendations for the Middle Snake Province

ProjectID	Title	Sponsor	Subbasin	Total Of 2003	Total Of 2004	Total Of 2005
Boise						
32004	Effects of culverts on fish population persistence: tools for prioritizing fish passage restoration projects in the Middle Snake Province	USDA Forest Service, Rocky Mountain Research Station	Boise	$23,600	$121,540	$121,540
32011	Mitigation of marine-derived nutrient loss in the Boise-Payette-Weiser subbasin.	Idaho Department of Fish and Game, Washington State University, University of Idaho, Pacific Northwest Research Station, Idaho Office of Species Conservation	Boise	$354,789	$356,702	$361,057
32020	Inventory and Assessment of Stream/Riparian Resources, upper Boise and upper Payette River Subbasins, Idaho	White Horse Associates, Inc.	Boise	$176,000		
32021	Lower Boise River Wetlands Restoration Project	Pioneer Irrigation District	Boise	$164,500	$1,949,250	$1,612,250
199505701	Southern Idaho Wildlife Mitigation - Middle Snake	Idaho Department of Fish and Game and Idaho Office of Species Conservation	Boise	$3,889,703	$4,146,844	$4,334,977
Bruneau						
32007	Bull trout habitat restoration/protection program - Bruneau Subbasin	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Bruneau	$218,374	$323,651	$345,270
32012	Implement Best Management Practices to improve riparian habitat and upland conditions within the Clover Creek watershed.	Bruneau River Soil Conservation District	Bruneau	$44,500	$19,062	$17,937
200007900	Assess Resident Fish Stocks Of The Owyhee/Bruneau Basin, D.V.I.R.	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Bruneau	$232,000	$245,000	$258,000
Malheur						
32005	Burns Paiute Fish and Wildlife Mitigation Coordinator	Burns Paiute Fish and Wildlife Department	Malheur	$53,978	$53,978	$55,000

ProjectID	Title	Sponsor	Subbasin	Total Of 2003	Total Of 2004	Total Of 2005
32016	Assess the feasibility of the Upper Malheur Watershed to support the reintroduction of anadromous populations above the Beulah & Warmsprings Reservoir	Burns Paiute Tribe	Malheur	$49,000	$130,000	
32017	Suppress Brook Trout Populations in the Upper Malheur Subbasin.	Burns Paiute Tribe	Malheur	$221,473	$202,366	$208,436
32018	Williams Ranch Fish and Wildlife Acquisition Project	Burns Paiute Tribe	Malheur	$2,259,392	$260,600	$235,000
32019	Logan Valley Fish and Wildlife Project- Stanbro Ranch Acquisition	Burns Paiute Tribe	Malheur	$1,355,286	$220,000	$130,000
199701900	Evaluate The Life History Of Native Salmonids In The Malheur Basin	Burns Paiute Tribe - Natural Resource Department	Malheur	$324,401	$333,542	$333,542
200000900	Logan Valley Wildlife Mitigation Project/ O&M	Burns Paiute Tribe	Malheur	$146,842	$128,408	$98,908
200002700	Malheur River Wildlife Mitigation Project	Burns Paiute Tribe	Malheur	$426,880	$549,300	$440,000
Owyhee						
32001	Evaluate the Feasibility Artificial Production Facility DVIR	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	$300,000	$260,000	$1,855,000
32008	Wildlife Inventory and Habitat Evaluation of Duck Valley Indian Reservation	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Owyhee	$127,461	$120,010	$23,869
32014	Feasibility of Transporting Salmonids through a Translucent Fish Passage System	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	$102,050	$225,000	$175,000
198815600	Implement Fishery Stocking Program Consistent With Native Fish Conservation	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	$211,688	$209,000	$218,000
199501500	Lake Billy Shaw Operations and Maintenance and Evaluation (O&M, M&E)	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	$293,000	$244,000	$261,000
199505703	Southern Idaho Wildlife Mitigation - Shoshone-Paiute Tribes	Shoshone-Paiute Tribes of Duck Valley Indian Reservation	Owyhee	$1,813,746	$831,347	$2,017,201
199701100	Enhance and Protect Habitat and Riparian Areas on the DVIR	Shoshone-Paiute Tribes of the Duck Valley Indian Reservation	Owyhee	$344,696	$360,000	$375,000
Payette						
32009	Squaw Creek Cooperative Fisheries Restoration Project	Central Highlands Resource Conservation and Development Council	Payette	$43,750	$195,750	$298,250
32013	Fishery Restoration of the Gold Fork River, Idaho	Idaho Department of Fish and Game and Idaho Office of Species Conservation	Payette	$344,500	$365,000	$1,250,000

ProjectID	Title	Sponsor	Subbasin	Total Of 2003	Total Of 2004	Total Of 2005
32015	Deadwood River and Clear Creek Drainages Roads Analysis and Repair	USDA Forest Service, Boise National Forest	Payette	$105,800	$44,000	$313,000
Powder						
199405400	Tools for Managing Bull Trout Populations Influenced by Nonnative Brook Trout Invasions	Oregon Department of Fish and Wildlife	Powder	$329,581	$293,482	$106,425
Snake Lower Middle						
32003	White Sturgeon put, grow, and take fishery feasibility assessment, Oxbow/Hells Canyon reservoirs.	Nez Perce Tribe	Snake Lower Middle	$356,800	$246,000	$246,000
32010	Lookout Mountain Road Decommissioning	Vale District Bureau of Land Management	Snake Lower Middle	$49,150	$6,500	$6,500
199800200	Snake River Native Salmonid Assessment	Idaho Department of Fish and Game, and the Idaho Office of Species Conservation	Snake Lower Middle	$346,375	$360,000	$375,000
Snake Upper Middle						
32002	Implement Best Management Practices to improve riparian habitat and upland conditions within the Billingsley Creek watershed.	Gooding Soil Conservation District	Snake Upper Middle	$114,635	$86,135	$86,135
Weiser						
32006	Compare the parr-smolt transformation of nonanadromous and anadromous populations of Oncorhynchus mykiss	Idaho Department of Fish and Game	Weiser	$90,530	$111,667	$84,090