

Table 7: List of Research, Monitoring, and Evaluation Projects

Strategy	Substrategy	RPA Action Num	Project ID Number	Project Title	Lead Agency	02 Work Expectation
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	163		Develop a project implementation and compliance monitoring program	BPA	Database system for tracking implementation of projects and a plan for development of a compliance monitoring program
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		Assistance to TRTs through AA staff and technical support contracts	BPA	Products from the participation in TRT working groups as requested by NMFS and technical reviews of TRT work products having significant relationship to assessments and prioritization of IP actions
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		TRT Support - Identification of individual population structures for Interior Basin ESUs.	BPA	Progress report - TRT/NMFS
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		TRT Support - Develop Viable Salmonid Population (VSP) criteria for each of the populations	BPA	Updated VSP NMFS methodology report, and an Interior Basin VSP report - TRT

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Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		TRT Support - Develop Interim Monitoring/Evaluation recommendations	BPA	A report on interim RM&E recommendations - TRT/NMFS
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		TRT Support - Alternative Delisting Scenarios Report for Interior Basin ESUs	BPA	ESU Delisting Scenarios progress report -TRT/NMFS
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	179		TRT Support - Habitat Characteristics Assessment Report	BPA	Summary of Interior Basin Reports: 1. Historical Perspectives on Tributary Anadromous Fish Habitat. 2. Estuarine Anadromous Fish Habitat Characteristics. 3. Fish Habitat Characteristics and Location Report. - TRT/NMFS
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	193		New Monitoring and Marking Techniques (BPA Project No 198331900); Evaluate Small Stream PIT Detection (BPA Project 200101200)	BPA	Continued development of detectors for small streams; continued development of flat plate technology

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Status - Track the status of fish populations and their environment relative to required performance standards	System Level	180		Development of a regionally coordinated RME Program that includes status monitoring	BPA	Status monitoring plans and data collection protocols for each ESU population and each major environmental performance measure with regional coordination and cost sharing
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	181		Development of a regionally coordinated plan for obtaining aerial and satellite imagery data	BPA	Plan for obtaining co-purchased aerial and satellite imagery data
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	921	Assess Chinook Restoration (Snake River Basin)	BPA	Report to BPA the life history and survival information on naturally produced fall chinook
Status - Track the status of fish populations and their environment relative to required performance standards	System Level	198		Development of a regionally coordinated plan for a data management system	BPA	Regionally coordinated plan for the development and implementation of a data management system, including data tracking categories, protocols, and proposed software and hardware platforms.

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Status - Track the status of fish populations and their environment relative to required performance standards	Tributary Habitat	180		John Day RM&E Pilot Project -Tier2 EMAP sampling	BPA	EMAP sampling design; Database of environmental sampling data.
Status - Track the status of fish populations and their environment relative to required performance standards	Tributary Habitat	190		Post-Release survival of Fall Chinook in the Snake River (BPA project 199102900)	BPA	Projections of fall chinook emergence, growth, migration timing, and survival.
Status - Track the status of fish populations and their environment relative to required performance standards	Hydro Corridor	191		Adult fish counting program (Corps)	BPA	Hourly adult fish counts and improved reporting at dams
Status - Track the status of fish populations and their environment relative to required performance standards	Hydro Corridor	192		Installation of Adult PIT Detectors (BPA project 198331900)	BPA	Operational adult PIT detectors at Bonneville and McNary dams

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Status - Track the status of fish populations and their environment relative to required performance standards	Estuary and Ocean	196		Evaluate relationships between estuary, plume and near-shore ocean conditions and juvenile salmon growth and survival.	BPA	Progress report on utilization, growth and survival of salmon in the estuary, plume and near shore ocean. Final report for sonic tag project.
Status - Track the status of fish populations and their environment relative to required performance standards	Estuary and Ocean	197		Evaluate relationships between estuary, plume and near-shore ocean conditions and juvenile salmon growth and survival.	BPA	Progress report on utilization, growth and survival of salmon in the estuary, plume and near shore ocean. Final report for sonic tag project.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	64	Nez Perce Tribal Hatchery Monitoring & Evaluation	BPA	Progress of this research project will be reported in FY 2002 annual report which will be available on the BPA Fish & Wildlife website.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	530	Genetic M&E Program for Salmon & Steelhead	BPA	Progress of this research project will be reported in FY 2002 annual report which will be available on the BPA Fish & Wildlife website.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	532	Evaluate Supplementing The Salmon and Clearwater	BPA	Progress of this research project will be reported in FY 2002 annual report which will be available on the BPA Fish & Wildlife website.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	533	Salmon Supplementation Studies in Idaho - USFWS	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.

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Effectiveness - Identify the physical and biological responses to management actions	System Level	184	534	Salmon Supplementation Studies in Idaho- Nez Perce	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	535	Salmon Supplementation in Idaho- Shoshone-Bannock	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	569	Production Impacts of Various Hatchery Stocks	BPA	Progress of this research project will be reported in FY 2002 annual report which will be available on the BPA Fish & Wildlife website.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	650	The Natures (Natural Rearing Enhancement Systems)	BPA	Periodic technical reports on research findings and technology transfer to increase the post release survival of hatchery produced fish.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	921	Assess Chinook Restoration (Snake River Basin)	BPA	Report to BPA the evaluation of supplementation strategies favorable for recovery and restoration of summer and fall chinook in major tributaries to Snake River
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1042	YKFP - Yakima / Klickitat Fisheries M & E	BPA	Annual results on supplementation research will be reported in FY 2002 annual report which will be available on the BPA Fish & Wildlife website.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1559	Recondition Wild Steelhead Kelts	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.

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Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1614	Analyze Behavioral Change During Salmonid Domestication	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1772	M&E of Chinook & Steelhead Outplanting	BPA	Completed report is due in FY 2002 and will be available on the BPA Fish & Wildlife web site.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1773	Adult Spring/Summer Chinook Outplanting	BPA	Completed report is due in FY 2002 and will be available on the BPA Fish & Wildlife web site.
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	1728	Reintroduction Success of Steelhead from Captive Propagation and Release Strategies	BPA	Progress of this research project will be reported in 2002 annual report, which will be available on the BPA Fish & Wildlife web site
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	532	Idaho Supplementation Studies	BPA	Progress of this research project will be reported in 2002 annual report, which will be available on the BPA Fish & Wildlife web site
Effectiveness - Identify the physical and biological responses to management actions	System Level	184	842	Captive Salmonid Broodstock Technology Demo	BPA	Progress of this research project will be reported in FY 2002 annual report, which will be available on the BPA Fish & Wildlife web site.

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Effectiveness - Identify the physical and biological responses to management actions	System Level	183		AA staff and contractor support to work with NMFS and TRTs for identification and development of effectiveness studies for each major action category	BPA	Report that identifies: 1) key action categories and performance measures, 2) a review of baseline data across ESUs and recommendations of opportunities for statistically robust studies, 3) guidance for statistical design of studies, and 4) short-term measures for action responses.
Effectiveness - Identify the physical and biological responses to management actions	Tributary	183		Develop and initiate an Oxbow property study of flood irrigation effects on instream water quantity/quality (part of BPA proposal 25069)	BPA	Design project, develop water monitoring network, and initiate data collection. Issue progress report.
Effectiveness - Identify the physical and biological responses to management actions	Tributary	183		Forrest property diversion dam removal and passage study.	BPA	Design project, install monitoring equipment to study adult and juvenile fish movement, and initiate data collection. Issue progress report.
Effectiveness - Identify the physical and biological responses to management actions	Tributary	183		Lower S. Fork John Day flow effectiveness study of diversion dam removal, water augmentation, and diversion screens.	BPA	Design project, collect baseline environmental data. Issue progress report.
Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor	100		Biological evaluation of Northern Pikeminnow Management Program (BPA project 9007700)	BPA	Evaluation of the Northern Pikeminnow Management Program for 2002 and cumulative results to-date: annual and multi-year exploitation rate, estimated salmonids "saved." Preliminary estimates of over-wintering mortality of northern pikeminnow.

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Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor	107		Evaluation of adult salmon and steelhead migration past dams, through reservoirs, and into tributaries (Corps prject ADS-00-xx)	BPA	Adult salmon passage rates, conversion rates, losses,
Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor	82, 83		Estimate juvenile fish survival through powerhouses and spillways (multiple; project titles vary)	BPA	Total project and route specific survival through Bonneville, The Dalles, John Day, and Ice Harbor dams
Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor			Reach Survival Studies (BPA project 199302900; 199602000)	BPA	PIT-tag based estimates of in-river survival through select projects and river reaches for sp/su chinook and steelhead
Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor			Smolt Monitoring Program (BPA project 1987-12700; others)	BPA	Juvenile salmonid migration timing and passage indices at select mainstem dams
Effectiveness - Identify the physical and biological responses to management actions	Hydro Corridor	102		Biological evaluation of caspian tern predation on juvenile salmonids	BPA	Evaluation of the Caspian tern relocation project; abundance and distribution of terns and other avian predators, consumption rates on juvenile salmonids
Effectiveness - Identify the physical and biological responses to management actions	Estuary and Ocean	194		Develop conceptual model of relationship between estuarine conditions and salmon population structure and resilience.	BPA	Progress report on development of the model for: a) tidal, seasonal, and inter-annual variability of the circulation, hydraulic residence times, and physical properties below Bonneville Dam; b) extent and properties of plume, c) physical properties of the nearshore ocean environment north and south of the plume.

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Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	Hydro Corridor	185		Comparison of SAR's for in-river vs. transported juveniles (TPE-W-00-1)	BPA	Annual estimates of in-river survival and accrual of additional SAR's for transported and in-river migrants
Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	Hydro Corridor	186		see RPA action 195, below	BPA	
Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	Hydro Corridor	189		Long-term survival and disease susceptibility of yearling chinook salmon with different juvenile passage histories (BPS-00-9; BPA-00-10).	BPA	Comparison of general health and delayed mortality of juveniles with different passage histories; effect of bypass system passage on immune competency.
Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	Estuary and Ocean	187		CoE AFEP proposal: Evaluation of the relationship among time of ocean entry, physical, and biological characteristics of the estuary and plume environment, and adult return rates (EST-P-02-03).	BPA	First year progress report
Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	Estuary and Ocean	187		Innovative project: Feasibility study for Pacific Ocean Salmon Tracking.	BPA	Tracking system to identify individual fish in-river and north along the continental shelf to Alaska. Final report due February 2002

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Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	System Level	182		Develop Request for Qualifications (RFQ) and Proposals (RFP) with NMFS for project(s) to research the reproductive success of hatchery spawners relative to wild spawners	BPA	RFQ, list of qualified research entities, and RFPs
Resolve critical uncertainties in the methods and data required for the evaluation of future population performance and needed survival improvements	System Level	195		Salmonid survival below Bonneville Dam, including potential mechanisms of delayed hydrosystem mortality (EST-P-01)	BPA	Feasibility of estimating survival below Bonneville Dam and through the estuary using acoustic tag.