



BPA Project # 8810804

FY 2000

Second Quarter Progress Report

January 1, 2000 through March 31, 2000

Submitted to:
Bonneville Power Administration

Submitted by:
Pacific States Marine Fisheries Commission

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Introduction

This report presents accomplishments of the StreamNet project for the second quarter of the 2000 Fiscal Year. The report follows a new format that is intended to more clearly link accomplishments with the tasks and responsibilities detailed in the annual Statement of Work. It is organized by task for all project participants, rather than by individual project participant as in previous reports. A table for each task and subtask presents the accomplishments for all participants. The first two columns of each table are taken directly from the Statement of Work and are followed by the specific accomplishments. Accomplishments that relate to a task but were not specifically detailed as work components when the Statement of Work was finalized are inserted as additional work components below those taken from the Statement of Work for each participating agency. Accomplishments that were not related specifically to a task and came about as additions to the work detailed in the Statement of Work are presented in a separate table near the end of the report. Project participants contributing to the StreamNet project were Columbia River Intertribal Fisheries Commission (CRITFC), US Fish and Wildlife Service (FWS), Idaho Department of Fish and Game (IDFG), Montana Department of Fish, Wildlife and Parks (MFWP), Oregon Department of Fish and Wildlife (ODFW), Pacific States Marine Fisheries Commission (Region), Shoshone-Bannock Tribes (SBT), and Washington Department of Fish and Wildlife (WDFW)

Objective 1 - Data Development. *Increase the knowledge base concerning the region’s fish and wildlife resources through the acquisition of new information that responds to emerging needs as well as the updating and enhancement of production and survival trends and other existing information.*

Task 1.1 Anadromous Fish

Acquire data sets related to salmon, steelhead and, where data are readily available, other anadromous fish populations from the multiple agencies, tribes and organizations within the Columbia Basin and compile and maintain them in standardized, consistent formats for the following categories:

Task 1.1.a. Distribution, Life History (use type), and Barriers. Document the occurrence and distribution of anadromous species, related barriers to migration, and life history characteristics

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	Develop an associated barriers database. Available, existing information on natural barriers is particularly lacking, so the barriers dataset should be expected to be incomplete.	<ul style="list-style-type: none"> • Built table of preliminary barriers using anadromous distribution database. Includes LLID and measure. • Developed an ArcView project to facilitate populating barrier type information. • Began building a point coverage of waterfalls from the Geographic Names Information System for eventual incorporation into barriers database. • Provided fish distribution and use type data to PSMFC for StreamNet web site.
MFWP	No anadromous fish	
ODFW	1) Populate the FishBarrier table by rectifying all anadromous distribution with the barriers database: <ol style="list-style-type: none"> a. In the Lower Columbia HUCs (below the Willamette). b. In the Mid-Columbia HUCs (between the Willamette & John Day basins). c. In the Upper Columbia HUCs (upstream of the John Day) 	Added 790 FishBarrier records statewide to the barrier database during this quarter.
	2) Update, maintain, and correct the 100k distribution event tables for Oregon as needed and applicable.	Ongoing.

ODFW (cont.)	3) Update the 100k distribution event tables: a. For the Willamette basin using documentation records derived from the W-DESH 2 project. b. For the John Day basin c. For the NE Oregon basins	<ul style="list-style-type: none"> Completed final round of distribution updates for the Youngs/Lewis & Clark and Clatskanie Lower Columbia hydrologic units. Plotted final maps and provided to contributing fisheries biologist. Updated data on ODFW FTP site. John Day and Willamette basins were completed and submitted during the first quarter.
	4) Test an automated approach to populate the FishBarrier table by rectifying all anadromous distribution with the barriers database using the Tillamook basin	Developed automated process to attribute the FishBarrier table. Worked to refine the process of distribution and barrier data rectification.
	5) Populate the FishBarrier table for the Willamette basin by rectifying all anadromous distribution with the barriers database.	Prepared and posted two updated barrier Data Submission Forms on the StreamNet ftp site.
	6) Design and develop a database to capture carcass placement data.	Efforts to date involve compiling a list of necessary fields and report requirements, and scoping the required database structure.
	7) Develop a database to capture fish presence survey data to help populate the DistPresence table. *	Continued to make enhancements to the database structure. Data has been entered for two HUCs in the Lower Columbia.
	8) Develop a database for capturing incidental species observations not routinely reported in agency documents. *	Continued to make enhancements to the database structure. Data is being submitted at a slower pace than expected. Only 9 of the 61 records in the database are for Col. Basin streams.
	9) Locate documentation information in the Willamette (W-DESH 2 Project) in order to populate the DistPresence table. *	Completed during the first quarter.
	10) Assist in identifying appropriate references for anadromous fish distribution data in order to populate the DistPresence table.	Ongoing.
	11) Assist project staff with identifying appropriate references for anadromous fish distribution.	Ongoing.
	12) Assist in adding new barrier records to the Barriers database including providing references for any information in the database.	Added a total of 176 Barrier records and 3 dam records statewide to the Barrier and Dam databases during this quarter.
	13) Plot new Columbia basin barriers on maps for review by ODFW field staff and incorporate changes as needed.	Included barrier data on distribution maps for review and update by biologist alongside the distribution data. Incorporated changes and additions into barrier database.
	14) Using project camera, photograph Columbia basin barriers that are maintained in the database and provide to PSMFC.	Began reviewing existing scanned photographs to determine which barriers still need to be photographed.

ODFW (cont.)	15) Populate the genetic origin and production origin fields in StreamNet distribution exchange format for all anadromous distribution data in the Columbia basin.	No efforts made this period.
	16) Transfer all 250K Lamprey distribution data into the 100K data structure using data from ORIS.	Developed DRAFT statewide Pacific Lamprey distribution coverage based on Oregon Rivers Information System source data at 1:250,000 scale.
	17) Assist as needed with tabular data collection and compilation tasks in order to help produce anadromous salmon distribution coverages.	Worked with regional SN staff to ensure proper mapping of distribution event data.
	18) Compile Columbia basin distribution coverages from other State & Federal agencies and incorporate new information into ODFW distribution update processes. Four updates planned.	Processed Oregon Department of Forestry fish presence data as part of a project to document coastal cutthroat distribution in the Lower Columbia. Acquired densified 1:24,000 scale hydrography for 39 fifth field watersheds within Western Oregon which contains data on resident cutthroat upper distribution as well as other information.
	19) Update the Barrier database with information obtained during conduct of other project activities and submit updated information to PSMFC. Four updates anticipated.	Prepared and submitted two updated barrier Data Submission Forms on the StreamNet ftp site. Requested barrier data from various ODFW staff and from other agencies, and updated the barrier database with information gleaned during this effort.
Region	1) Compile distribution updates (tabular events) as they arrive. Create distribution GIS coverages from these event tables, and post the shape files to the StreamNet website as downloadable GIS coverages	Compiled distribution tables for chinook, coho, pink, sockeye, chum, and steelhead. Created GIS coverages from these event tables and coordinated error checking of the distribution events. Posted GIS files to the StreamNet website as downloadable coverages.
	2) Compile barriers tables from the states, create a GIS coverage from this data and post the Barriers GIS coverage to the StreamNet web sit.	
	3) Assist StreamNet partners with acquisition, development, formatting and submission of data.	PSMFC StreamNet personnel were contacted by CTUIR biologist Dave Cross. Dave has lamprey distribution data that he would like to incorporate into StreamNet. Worked with Dave to capture his data in StreamNet.
SBT	No work planned this year.	
WDFW	1) Update and exchange anadromous fish distribution.	Located and fixed identified LLID/anadromous fish presence data errors
	2) Review barriers in layer, based on SSHIAP information and indicators in the Stream Catalog. Update and exchange.	Reviewed and updated barriers based on Stream Catalog for three pilot basins

Task 1.1.b. Adult Abundance. Escapement, redd counts, trap counts, dam counts

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	1) Compile hatchery return information as it becomes available	Completed Eagle Creek steelhead age composition
	2) Complete programs to transform data into StreamNet exchange format	
	3) Submit data through 1999 to StreamNet	
IDFG	1) Compile 1999-field season redd count data into Idaho's existing database.	Began redd count updates for 1999 field season.
	2) The data will then be migrated to the current version of the PNW 1:100,000-scale hydrography.	
	3) Write new routines to convert the redd count data to the StreamNet data exchange format (2000.1) and submit to PSFMC.	
MFWP	No anadromous fish	
ODFW	1) Compile some* of the Columbia basin abundance field data gathered by the CREP crews into the SN abundance data set.	No efforts were made this quarter.
	2) Update existing abundance trends to the new 2000.1 exchange format standards as trends are updated through 1998. Three updates planned.	A great deal of time and effort was spent updating existing trend data to conform to DEF 2000.2 standards.
	3) Revise and enhance the Abundance data entry interface to suit project needs.	Modifications were made as the DEF migrated from 99.1 to 2000.1 to 2000.2.
	4) Review all Oregon trends with personal communication references in the Abundance database and update to hardcopy reports if possible.	Ongoing efforts were made to locate hardcopy references without success.

ODFW (cont.)	5) Update StreamNet abundance and indices data (escapement, redd counts, trap counts, peak/other spawning counts, etc.) for OR populations within the Columbia Basin (updated through 1998). Three updates planned.	<ul style="list-style-type: none"> • During this quarter, 14% of Oregon's on-line Dam/Weir Count trends were reviewed for accuracy and/or updated through 1998 (this is only for trends where data were collected for anadromous fish in 1998). At the present time, 79% of these trends have been reviewed and/or updated. • During this quarter, 17% of Oregon's on-line Redd Count trends were reviewed for accuracy and/or updated through 1998 (this is only for trends where data were collected for anadromous fish in 1998). At the present time, 60% of these trends have been reviewed and/or updated. • During this quarter, 5% of Oregon's on-line Estimates of Spawning trends were reviewed for accuracy and/or updated through 1998 (this is only for trends where data were collected for anadromous fish in 1998). At the present time, 89% of these trends have been reviewed and/or updated. • During this quarter, 7% of Oregon's on-line Peak Count trends were reviewed for accuracy and/or updated through 1998 (this is only for trends where data were collected for anadromous fish in 1998). At the present time, 96% of these trends have been reviewed and/or updated. <p>Due to the departure of our abundance database staff person, and the anticipated delays in filling the position, it is likely that no future updates will be submitting to regional StreamNet this fiscal year.</p>
	6) Opportunistically review all 60K series trends for Oregon and transfer to 50K series trends or delete them if they cannot be validated.	Ongoing.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	Assisted ODFW and WDFW with conversion of "PSMFC" trends to their "possession." This is being done so that time series data that had been entered by PSMFC, and are not currently being updated, will be updated in the future.
SBT	Update to IDFG adult abundance data gathered by SBT personnel.	Redd count data collected by the SBT was sent to the IDFG for Bear Valley, E. FK. Salmon, Herd Creek, Yankee Fork Salmon, and Valley Creek.
WDFW	1) Update and exchange hatchery returns through 1998 in the StreamNet data exchange format (2000.1).	Updated hatchery returns through 1997, converted to 200.1, awaiting final LLID assignments for hatchery facility and stream site
	2) Update and exchange natural spawner data through 1998 (CR, PS)	Updated Columbia River natural spawning data for all species except mid-Columbia spring, summer chinook through 1999; "age" data components only through 1997 as analysis continues

Task 1.1.c. Juvenile Data. Sample records, abundance indices (as available)

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	1) Incorporate the IDFG General Parr Monitoring (GPM) data into the IDFG database.	
	2) If possible, convert the IDFG GPM (juvenile fish) data into exchange format and submit to PSMFC.	
MFWP	No anadromous fish	
ODFW	1) Prepare and submit recommended modifications of the draft Juvenile abundance portion of the DEF.	Drafted a document of comments and suggestions on ways to modify the Juvenile Abundance exchange format.
	2) Update Oregon's 10 existing juvenile abundance records to approved DEF standards.	Will be done once a new DEF is adopted.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	Update to IDFG juvenile data gathered by SBT personnel.	Snorkel data collected by the SBT at GPM sites was sent to the IDFG.
WDFW	No work planned this year.	

Task 1.1.d. Harvest. In-river, terminal, and other harvest, as available

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No anadromous fish	
ODFW	Provide statewide 1997 tributary sport harvest from angler harvest cards.	Acquired, compiled, and maintained in-season updates of catch estimates by species in Columbia River sport and commercial fisheries.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	1) Update and exchange salmon harvest data through 1998, beginning with Columbia River commercial, sport and treaty harvest.	
	2) Update and exchange steelhead harvest through 1997 if feasible.	

Task 1.1.e. Hatchery Production. Releases, disposition, straying

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	1) Compile hatchery release data as it becomes available, add CWT information	Release data compiled for National Fish Hatcheries using the CRiS database management system
	2) Transform into format 32	Data transformed into format 32
	3) Submit 1999 data to PSMFC via USFWS W. Washington FRO	Data sent to USFWS WWFRO
IDFG	1) Compile IDFG 1999-field season hatchery returns data into Idaho's existing database.	Completed entry of 1999 hatchery returns.
	2) Migrate the data to the PNW 1:100,000-scale hydrography, write new routines to convert the data to the StreamNet data exchange format (2000.1), and submit to PSFMC.	
MFWP	No anadromous fish	
ODFW	1) Develop the ability to remotely access the Portland mainframe hatchery data and download hatchery return data consistent with the StreamNet contract.	No efforts were made this quarter.
	2) Compile 1997 egg-take data and submit to PSMFC	No efforts were made this quarter.
	3) Develop an automated procedure for updating egg-take data and to	No efforts were made this quarter.
	4) Capture and incorporate historic data into the StreamNet database.	No efforts were made this quarter.
	5) Compile data on returns to ODFW hatchery facilities (updated for 1997 and part of 98 returns).	No efforts were made this quarter.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data. Acquire data from the RMIS database.	
SBT	Update SBT anadromous release information and provide to the IDFG.	No efforts were made this quarter.
WDFW	1) Update and exchange juvenile release data to PSMFC through 1999.	
	2) Explore providing "unrolled" release data directly to StreamNet.	

Task 1.1.f. Natural Production. Survival, production factors, spawner recruit

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No anadromous fish	
ODFW	1) Compile hatchery-wild fractions in OR portions of the Columbia basin for spring chinook and fall chinook.	No efforts were made this quarter.
	2) Compile spawner-recruit data (updated for spring chinook surveys in 1998, and available time series for fall chinook and coho returns)	Worked on summarizing spawner/recruit data.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.1.g. Age. Age/sex composition for returning adults

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year	
IDFG	1) Compile IDFG 1999-field season age and sex composition data into our existing database.	Completed entry of 1999 age-composition data.
	2) Migrate the data to the PNW 1:100,000-scale hydrography, write new routines to convert the data to the data exchange format (2000.1), and submit to PSFMC.	
MFWP	No anadromous fish	
ODFW	Compile age frequency data (updated for natural spring chinook in 1997, available time series for natural steelhead in OR portion of Columbia basin).	Summarized and transferred age data to regional StreamNet.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Provide age/sex data associated with exchanged CRB natural returns data.	

Task 1.1.h. Genetics. Areas where genetics data exists and the sources of these data

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No anadromous fish	
ODFW	No work planned this year.	
Region	1) Determine the desire/need for and availability of genetics data.	No activity this quarter
	2) If approved, draft and submit a DEF proposal to Steering Committee.	No activity this quarter
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.1.i. Populations. Population delineation, as determined by others.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	1) Incorporate the standard population/run type designations into the IDFG database.	
	2) If possible, convert IDFG population/run type data and submit to PSMFC.	
MFWP	No anadromous fish	
ODFW	Produce a cross-reference table of ODFW designated Gene Conservation Groups (GCG) by subbasin.	No efforts were made this quarter.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Compile and exchange Washington SaSI stock status data for anadromous fish using newly developed 2000.1 Data Exchange Format (DEF)(see Task 2.3).	

Task 1.1.j. Historic Range. As available at the watershed-level. Compilation at the reach level is an option if these data are available

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No anadromous fish	
ODFW	No work planned this year.	Processed existing historic distribution event data. Compiled a one page summary report detailing the strengths and weaknesses of the data.
Region	No work planned this year.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.2 Resident Fish and Other Aquatic Species

Acquire data sets related to resident fish species, and where specifically identified other aquatic species, from the multiple agencies, tribes and organizations within the Columbia Basin and compile and maintain them in standardized, consistent formats for the following categories:

Task 1.2.a. Distribution and Life History. Document species occurrence and distribution and life history characteristics.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	As new information becomes available, update and maintain the existing IDFG StreamNet distribution dataset for resident salmonids and other species of concern that is attached to the PNW 1:100,000-scale hydrography. Include collecting permit records and annual reports.	<ul style="list-style-type: none"> • Fisheries Bureau staff continued entry of collecting permit reports. • Provided fish distribution data to PSMFC for StreamNet web site.

MFWP	1) Convert MRIS from the River Reach Numbering system to an "LLID system" (temporary use of MFWP water code).	Completed; temporarily using the State's Watercode system as an LLID to tie existing and recently collected data together in both Access and in ArcView. Waiting on the routes to carry the measure information across.
	2) Restructure MRIS datasets and create a new edit/entry program with tabular and spatial components for distribution data entry by measures.	Temporarily using "streamized data" which carries the measure fields. Necessary scripts needed to pass measure information over to Access are ready when the routes are completed.
	3) Update and edit distribution data for game and native fish during visits with state and federal fisheries biologists by StreamNet staff during February through June 2000. Collect supporting references and survey data to document distribution.	Ongoing; completed visits to regional state and federal fisheries offices in 3 of the 7 regions and 2 partial visits. Have to decide at what level to document a survey. In most cases we have the survey data and in other cases the DJ report, some cases both. Still need to enter the new data, clean up older data and enter the reference information.
	4) Complete conversion of data to a routed hydrography following access to the NHD.	Sent all of the western Montana hydrography to regional StreamNet staff for LLID assignment and other clean up routines.
	5) Work with regional StreamNet staff to develop a resident fish data exchange format.	Will recommend a DEF 3 rd quarter.
ODFW	1) Produce GIS coverages illustrating rainbow and redband trout distribution where available for Columbia basin streams.	Already completed and submitted for areas where we have data.
	2) Transfer Lahontan cutthroat and white sturgeon 250K resident distribution data from ORIS into the 100K data structure and compare with the current 100K distribution and update accordingly.	Met with David Graves to discuss how to handle the White Sturgeon distribution layer developed by StreamNet for Oregon.
Region	1) Compile distribution updates (tabular events) as they arrive. Create distribution GIS coverages from these event tables, and post the shape files to the StreamNet website as downloadable GIS coverages	Researched and compiled a distribution table for White Sturgeon in the Columbia Basin from state submissions and PSMFC literature. Created a GIS coverage from the event table and made this available via the StreamNet GIS web page.
	2) Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Update and exchange bull char distribution data at 100K resolution if multi-agency agreement on distribution criteria can be reached (see Task 2.3).	Discovered and fixed a problem leading to "missing" basins of bull trout and westslope cutthroat presence data in the StreamNet GIS layer fish presence layer

Task 1.2.b. Adult Abundance. Escapement, redd counts, trap counts, dam counts

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Collect stream fisheries survey data collected for population trends; genetics and escapement, redd counts, trap count and other counts during visits to biologists.	Collecting all fisheries surveys from the last 3 years during regional visits including population estimates, redd counts and fish counts.
	2) Collect reference for each survey.	Collecting all reference documents associated with fish surveys from the last 3 years during regional visits.
	3) Provide data in data exchange format to regional StreamNet staff.	No work yet.
ODFW	1) Update existing abundance trends to the new exchange format standards as trends are updated through 1998. Three updates planned.	See Task 1.1.b, which includes resident trends.
	2) Review all Oregon trends with personal communication references in the Abundance database and update to hardcopy reports if possible.	See Task 1.1.b, which includes resident trends.
	3) Update StreamNet abundance and indices data holdings (redd counts, trap counts, peak/other spawning counts, etc.) for OR populations within the Columbia Basin (updated through 1998). Three updates planned.	See Task 1.1.b, which includes resident trends.
	4) Opportunistically review all 60K series trends for Oregon and transfer to 50K series trends or delete them if they cannot be validated.	See Task 1.1.b, which includes resident trends.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Compile, convert, and exchange portions of the Yakima Basin juvenile and adult abundance data from Ken Ham.	

Task 1.2.c. Angler Use. Fishing pressure, creel census

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Add FWP 1999 angler survey data to MRIS collected by MFWP mail survey.	No work yet.
	2) Review available creel census data on Montana's waters and determine value and availability.	Have collected creel census data during regional visits.
ODFW	No work planned this year.	
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Explore conversion of AnglerFish Database harvest information from the Columbia Basin into either "harvest" or a new "census" format for exchange.	

Task 1.2.d. Hatchery Production. Hatchery production (releases and outplants) for salmonids

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year. Will provide data when DEF is completed.	
IDFG	1) IDFG resident fish stocking data currently uses an IDFG specific stream and lake locator (Catalog Number). IDFG SN will develop an ArcInfo compatible event table to cross-reference the catalog numbers to LLIDs.	<ul style="list-style-type: none"> • Began building cross-reference table of IDFG stream catalog numbers to LLID and measure. Completed 800 of approximately 1300 catalog numbers. These comprised mostly whole stream and EPA reach number catalog numbers. Remaining catalog numbers consist largely of various sections, such as bridges, towns, and landmarks. • Worked with Fisheries Bureau to identify point locations for stocking sites.
	2) Migrate the IDFG stocking data into the IDFG StreamNet database, write new routines to convert the data to the data exchange format (2000.1), and submit to PSMFC.	Worked with Fisheries Bureau to identify and clean up inconsistencies in IDFG stocking database.
MFWP	Update StreamNet hatchery outplant data in the data exchange format with 1999 data from the FWP Information Services Unit Hatchery Database.	No work yet.
ODFW	Acquire 1997 trout release data (by species, location, and facility) and compile into SN exchange format.	No efforts were made this quarter.

Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	1) Complete conversion and exchange resident fish stocking data from 1930-1981, once location coding has been standardized and verified.	Started an intern on data entry of a “proofing” (validation) set of data cards to test the quality of earlier data entry of these complicated data records. Worked on developing procedures to comb through comment fields for specific location info.
	2) Add stocking data from 1981-1999 if time permits.	

Task 1.2.e. Genetics. Areas where genetics data exists and the sources of these data

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Update genetic spatial and tabular databases that contain the results of genetic analysis of populations of Montana’s species of special concern	Entered up to February 2000; have received additional letters since. Updated MRIS genetic table and spatial layer with new information. Currently have over 1200 sample locations with results.
	2) Update genetic codes in fish distribution table.	No work yet.
	3) Explore the development of data exchange format with regional SN staff	No work yet.
ODFW	No work planned this year.	
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.2.f. Population. Population delineation, as determined by others

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Maintain spatial delineation of bull trout populations, core and nodal habitat. Enhance layer with population risk field.	Received update of core areas from MFWP Species of Special Concern Coordinator. Will update next quarter.
	2) Determine westslope cutthroat trout priority areas as part Westslope Cutthroat Conservation Agreement.	Created priority areas in ArcView using 5 th and 6 th code HUC line work where possible. Sent out to state and federal biologists for review.
ODFW	No work planned this year.	
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	1) Synchronize WDFW tabular SaSI data fields and codes with those linked to the spatial presence data for bull char.	
	2) Compile and exchange Washington SaSI stock status data for resident fish using newly developed exchange format (see Task 2.3).	

Task 1.2.g. Historic Range. As available at the watershed-level

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Explore the development of historic range coverages for all of Montana's native species.	Provided a blank map of Montana with 4 th Code HUC boundaries delineated and a current distribution map of all native species to biologists during field visits.
	2) Submit arctic grayling, westslope and Yellowstone cutthroat trout historic distribution to StreamNet by June	Completed. Will discuss with StreamNet regional staff submittal format.
ODFW	No work planned this year.	

Region	1) Compile distribution updates (tabular events) as they arrive. Create distribution GIS coverages from these event tables, and post the shape files to the StreamNet website as downloadable GIS coverages 2) Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.2.h. Status. Population stability index

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Assist regional and state data managers in developing data exchange format.	No work accomplished
	2) If DEF adopted, submit bull trout, arctic grayling and westslope and Yellowstone cutthroat trout data.	Step 1 needs to occur before Step 2.
ODFW	No work planned this year.	
Region	Work with partners to determine data formats for this category	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.3 Habitat

Acquire data sets related to fish habitat from the multiple agencies, tribes and organizations within the Columbia Basin and compile and maintain them in standardized, consistent formats for the following categories:

Task 1.3.a. Stream / Watershed Habitat. Incorporate applicable stream and watershed level habitat and stream survey data, as these become available

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	

IDFG	1) IDFG StreamNet will incorporate the IDFG General Parr Monitoring (GPM) habitat data into its database.	
	2) If possible, convert the IDFG GPM habitat data into regional format and submit to PSMFC.	
MFWP	1) Determine what type of habitat data and at what scale Montana state and federal fisheries biologists are collecting during regional visits.	Interviewing state and federal biologists concerning habitat variables they collect and comparing them with ICBEMP core variables. The FS will be putting all their fishery data online in the near future including the habitat data. Could potentially provide a location-based link to this Federal site.
	2) Determine if there is a core set of variables that we could gather on each stream.	Will tabulate after regional visits are complete.
	3) Work with regional staff on data exchange format, if sufficient interest and/or data.	No work yet.
	4) Explore the idea of a statewide stream survey form that would include these core variables (if established).	Will have a better idea on a standard form after all the 1996-1999 data has been entered.
ODFW	No work planned this year.	
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	Update data collected by the SBT to IDFG GPM data coordinator.	It was agreed by all the agencies involved that no habitat data will be collected unless there is a major change in stream morphology at the GPM sites.
WDFW	Transfer and exchange spatial layers of SSHIAP habitat characteristics and segmentation (based on gradient, confinement, and substrate).	

Task 1.3.b. Water Quality. Incorporate existing Clean Water Act 303(d) data and other water quality data as applicable.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	

MFWP	1) Provide a link to The MT Dept. of Environmental Quality (DEQ) from MRIS. The Natural Resource Information System (NRIS) has been contracted by DEQ to develop a web-based application of these data.	Programming has begun on this by NRIS staff. Draft product is on internal website. Montana's TMDL data can be found at: http://nr.is.state.mt.us/wis/environet/
	2) Provide MRIS data and expertise in the process of updating the 303(d) (TMDL) affected water bodies for the state. Integrate these data into the sub-basin planning effort if opportunity arises during the fiscal year.	Provided MRIS data to TMDL process on-line through query system.
ODFW	No work planned this year.	
Region	1) Create GIS water quality data coverages from the 303(d) data and post to the StreamNet web site.	Completed event tables of the 303D water quality data for Idaho and Oregon and created GIS coverages based on these event tables.
	2) Develop data structure for stream nutrient data compiled by PSMFC	
	3) Georeference (assign LLIDs) to the stream nutrient data	
	4) Assist SN partners with data acquisition, development, formatting, and submission.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.3.c. Miscellaneous Habitat Data

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Provide links through NRIS with GAP and other statewide natural resource data.	Master mapper being developed by NRIS
	2) Update and incorporate MFWP water leasing and dewatered stream list data into MRIS.	Dewater stream list complete and on-line. Outlined data structure for water leasing data.
	3) Provide to StreamNet if data exchange format is developed.	No work yet.
ODFW	Update key stream management area designations for OR including FEMAT key watersheds, AFS aquatic diversity areas, ODFW coho source river reaches, ODSL essential salmon habitat and Priority Areas.	No efforts were made this quarter.

Region	Assist partners with acquisition, development, formatting and submitting data	
SBT	No work planned this year.	
WDFW	Explore Cosentino's model to assess habitat suitability for anadromous and resident fish by comparing predictions to actual. Write paper on techniques and findings.	

Task 1.4 Facilities

Acquire data sets related to fishery-related facilities and structures from the multiple agencies, tribes and organizations within the Columbia Basin and compile and maintain them in standardized, consistent formats for the following categories:

Task 1.4.a. Dams and Fish Passage Facilities. Enhance the existing StreamNet dams data set by updating relevant data from the Pacific Northwest Hydropower Database and Analysis System (NWHS) and the National Inventory of Dams

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	1) Add enhanced data from the National Inventory of Dams to the IDFG StreamNet information system.	Worked on development of dams interface and database. Most work focused on obtaining and incorporating the Idaho state dam fields and integrating with National Inventory of Dams and StreamNet standards.
	2) Write export routines and submit the dams data to PSMFC in StreamNet Data Exchange Format.	
MFWP	1) Quality check the existing StreamNet dams dataset and update relevant data from the GNIS and the National Inventory of Dams, if needed.	No work yet.
	2) Exchange Montana's data.	
ODFW	Update the dam database with information obtained during the conduction of other project activities. Four updates planned	See Task 1.1.a where barriers include dams.
Region	1) Convert remaining 250K Dams information in StreamNet database to the 100K system. Create a 100K Dams and Fish Passages facilities GIS coverage and distribute it via the StreamNet website.	
	2) Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	

WDFW	Review, update, and exchange any new Washington state dams information.	
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Task 1.4.b. Hatcheries. Update and maintain a dataset on anadromous and resident hatchery facilities containing information on location, design, management and authorization

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	Continue checking for submitted FWS update records, update records when appropriate, submit to StreamNet	Checked online data for timeliness
IDFG	1) IDFG StreamNet has attached the IDFG hatchery database to the current 1:100,000-scale PNW hydrography. The data will be incorporated into the IDFG database and submitted to PSMFC.	<ul style="list-style-type: none"> • Worked on development of interface for hatchery facilities. • Completed database.
	2) Supporting hatchery structures, such as weirs and traps, will be added to the hatcheries database.	
MFWP	Provide update of these data if changes have occurred in Montana's facilities.	No work yet.
ODFW	1) Locate at least one public domain photo of each hatchery in Oregon and provide to PSMFC.	No efforts were made this quarter.
	2) Update OR hatchery facilities data to the 99 version of the exchange format and submit to PSMFC.	No efforts were made this quarter.
Region	1) Convert hatcheries data to the 100K system. Create a regional hatcheries GIS coverage and distribute it via the StreamNet website.	
	2) Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	1) Provide standard geo-spatial coordinates (Longitude-Latitude) for each facility.	Generated LLID-like "SiteCode" for each facility, based on Long/Lat
	2) Compile similar coordinates for fish releases that occur away from these facilities, in order to develop a spatial layer of fish release sites (including streams, lakes, and marine areas.	

	3) Complete, convert, and exchange tabular and spatial data tables of Washington state hatchery facilities, including federal and tribal stations.	<ul style="list-style-type: none"> • Began reconstructing hatchery facilities records lost in a fire. • Reviewed the tabular and spatial facilities data sets simultaneously so that both products can be delivered to StreamNet. Sent several corrections to the GIS layer manager; added a unique record identifier to both data sets to facilitate coordinated updates
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Task 1.4.c. Diversion/screening. Develop a dates for water diversions and screening.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	1) Review regional data exchange format.	No work yet.
	2) Provide input and data to watershed planning projects.	Discussed with MT CBFWA rep.
ODFW	1) Identify fish screening data that is appropriate for the StreamNet site and submit test records once an exchange format has been adopted.	No efforts were made this quarter.
	2) Develop a database structure Oregon's fish screening data and submit a draft data exchange format to SC for adoption.	No efforts were made this quarter.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.5 Habitat Restoration/Improvement Projects

Acquire data sets related to habitat restoration / improvement projects from the multiple agencies, tribes and organizations within the Columbia Basin and compile and maintain them in standardized, consistent formats for the following categories:

Task 1.5.a. Fish and Wildlife Program Projects. Prepare and maintain standardized data relating to tracking aquatic management and restoration projects related to the Fish and Wildlife Program

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Incorporate Fish and Wildlife Program Projects for Montana into Restoration and Mitigation database and submit in data exchange format.	Collecting these data during regional visits. Most restoration projects in Montana have used "Future Fisheries" (MFWP restoration program) so they are already in the FF database.
ODFW	Assist PSMFC with the creation and development of the map presentation of Oregon GWEB restoration data. Provide technical assistance to GWEB and StreamNet staff as needed to make compilation of ODFW habitat restoration/improvement projects in the Columbia basin more efficient.	<ul style="list-style-type: none"> Created a new version of the ODFW/OWEB Mitigation and Restoration Projects database, MitOdfwData3.mdb, and updated it. Provided technical assistance to OWEB staff, answering MS Access questions to make compilation of ODFW mitigation and restoration data more efficient.
Region	1) Compile updated information from BPA funded and other FWP mitigation and restoration projects and incorporate in the SN database.	
	2) Develop Habitat Restoration/Improvement project GIS data (including a polygon coverage to illustrate true extent of projects) based on state submissions and make this available via the StreamNet website as downloadable GIS coverages.	
	3) Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	Compile and convert a test set of restoration project data from the Interagency Commission (which oversees state salmon recovery project funds) PRISM database (which monitors project contracts) into exchange formats for conversion (projects since 1995).	

Task 1.5.b. Other Projects. Prepare and maintain standardized data relating to tracking aquatic management and restoration projects other than related to the Fish and Wildlife Program

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	IDFG StreamNet will continue to compile information from non-FWP restoration projects into the PSMFC projects database and interface and submit to PSMFC.	Worked with regional StreamNet staff to develop and improve new Restoration Projects database and interface. Entered minimal new data records as test of new interface. Obtained approximately 2000 records from the Idaho Conservation Data Center's Managed Area database that provides references to restoration projects.
MFWP	1) Data will be updated for FWP Projects during FY-00; a spatial data layer of project location will be checked by regional staff and the possibility of adding other agency/FWP divisions will be explored during regional visits.	Updated MFWP Future Fisheries Restoration Project database. Reviewed DEF
	2) Exchange Montana data in data exchange format.	
ODFW	1) Design and develop a database to capture carcass placement data.	Ongoing development efforts were made this quarter.
	2) Provide technical assistance to GWEB and StreamNet staff as needed to make compilation of ODFW habitat restoration/improvement projects in the Columbia basin more efficient.	<ul style="list-style-type: none"> Created a new version of the ODFW/OWEB Mitigation and Restoration Projects database, MitOdfwData3.mdb, and updated it. Provided technical assistance to OWEB staff, answering MS Access questions to make compilation of ODFW mitigation and restoration data more efficient.
Region	Assist StreamNet partners with acquisition, development, formatting and submission of data.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 1.6 Sub-basin Planning

Develop consistent data sets and information that are particularly suitable and useful for regional sub-basin planning and make them readily available for planners.

Task 1.6.a. Provide data for Sub-basin Planning. Organize and distribute the available fish, wildlife and habitat data in a standardized format for use in Sub-basin Planning or other regional planning efforts

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Provide summaries of habitat ratings & constraints from 1991 SB planning work	Summaries were completed, discussed with CBFWA, AFC and some subbasin planners. Summaries have been posted on the StreamNet web site
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Coordinate with MT CBFWA rep and provide available fish, wildlife and habitat data in a standardized format for Sub-basin Planning or other regional planning.	Discussed subbasin planning needs with MT CBFWA rep; reviewed assessment document and outlined what MRIS could provide to program.
ODFW	1) Assist regional staff with developing an example data package for the Hood River basin as a test sub-basin.	<ul style="list-style-type: none"> • Contacted Hood River and Fifteenmile Creek Subbasin Planning staff to offer assistance. • Assessed GIS data availability for subbasin planning in the Hood River and shared information with regional StreamNet staff
	2) Participate in discussions concerning data needs to support sub-basin planning or other processes adopted by the amended Fish & Wildlife Program. Modify data plan and priorities as needed to be responsive.	Coordinated with OR CBFWA representative on data needs and services.
Region	1) Meet with sub-basin planners to discuss data types that may be needed, data sources, and to plan integration methods of the various data sets.	Coordinated with WA and OR StreamNet projects re. upcoming subbasin planning meetings.
	2) Develop, with help from the state SN projects, an 'example' package for a test sub-basin of StreamNet data suitable for use in sub-basin planning.	Coordinated with WA and OR StreamNet projects on compiling available data for use in the Intermountain and Columbia Gorge, beginning with the Hood subbasin.
	3) Provide the GIS coverages developed for the Framework to the entities conducting sub-basin planning, including coverages for: Digital elevation, Stream routing, Land ownership, Land use type, Soils, Vegetation, Precipitation, other readily available coverages from ICBEMP	Compiled various GIS coverages and made an example ArcView project for the Hood subbasin of these GIS layers. Created map products based on these GIS coverages for subbasin planning examples.
	4) Provide available tabular data described under tasks 1.1 through 1.5 to entities conducting sub-basin planning.	
SBT	Assist StreamNet cooperators with data needs as they are developed by Fish and Wildlife Program managers from sub-basin planning sessions.	Relayed information to StreamNet central staff as it became available.

WDFW	1) Participate in discussions concerning data needs to support sub-basin planning or other processes adopted by the amended Fish & Wildlife Program. Modify data plan and priorities as needed to be responsive.	
	2) Coordinate data compilation from other WDFW Units as needed to respond to the above needs, using StreamNet data exchange experience.	
	3) Provide consultation services for WDFW wildlife and habitat data managers to assist them in meeting the above needs.	

Task 1.6.b. Capture information from Sub-basin Planning. Acquire information developed during subbasin planning to update anadromous fish, resident fish, and wildlife data sets.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) In collaboration with regional staff, develop computer applications to enter and edit information developed during subbasin planning as described in Tasks 1.1 through 1.5, above.	This task (and its sub-parts) will be actively addressed in the second half of this contract year and into FY 2001.
	2) Train subbasin planners in use of the applications.	
	3) Modify tools as needed on experience in the Columbia Gorge province	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Collaborate with regional staff and Montana CBFWA representative when data become available	No work to date; waiting for assessment process to be finalized.
ODFW	Determine the Subbasin Planning generated data types which are not contained in StreamNet and adjust staff work plans to capture new data if appropriate	No efforts were made this quarter.
Region	In collaboration with CRITFC staff, provide subbasin planners with computer applications to enter and edit information developed during subbasin planning as described in Tasks 1.1 through 1.5, above.	No work on this yet.
SBT	See 1.6.a	
WDFW	No work planned this year.	

Objective 2 - Data Management and Delivery: *Provide high quality data management services, with specific emphasis on the creation of regionally consistent data sets and the timely delivery of data to users in formats that meets their policy, planning, and management needs.*

Task 2.1 Database Management.

Maintain functional database programs at the state and regional levels to make consistent data sets for anadromous fish, resident fish and to a lesser extent wildlife available through the StreamNet online database system. At both the regional and state levels, provide database management and administration necessary for accomplishing StreamNet objectives, to include: 1) maintaining regional and state-level StreamNet data sets, 2) processing exchange data into the regional database, 3) transporting data to the SQL environment, 4) enhancing StreamNet database structures and capabilities, and 5) providing programming services to project participants to allow for efficient data entry and transfer.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	1) Implement a new information management system that will facilitate input of IDFG data and output the data in SN Data Exchange Format for inclusion in the regional database.*	Continued development of interface and database. Responding to a special need by Fisheries Bureau, started to extract just the lakes component to implement as training for IDFG fishery biologists.
	2) Update existing data sets with 1998 field data	
	3) Update existing data sets as described in Task 1 and provide data to the regional StreamNet office in DEF. Provide data as sub-sets are updated rather than waiting for entire data to be complete.	
MFWP	1) Provide state-level data management services, emphasizing coordination with StreamNet regional staff, MFWP and other state and federal natural resource agencies and encourage the use of consistent data attributes and data sets among all agencies.	Ongoing.

MFWP (cont.)	2) Provide high quality data management services with specific emphasis on creation of regionally consistent data sets and the timely delivery of data to users in formats that meet their policy, planning, and management needs.	Ongoing
	3) Update existing data sets as described in Task 1 and provide data to the regional StreamNet office in DEF. Provide data as sub-sets are updated rather than waiting for entire data to be complete.	<ul style="list-style-type: none"> • Waiting for LLID assignment to export data • Restructured MRIS databases to comply with DEF.
ODFW	1) Provide state-level StreamNet database management / administration / development. Enhance StreamNet and ODFW database structure and capabilities as possible.	<ul style="list-style-type: none"> • Created a data dictionary to be used by Oregon StreamNet staff to insure consistency across the various data development projects. • Reviewed and commented on the reference submission protocol and the data submission protocol. • Developed a Stream and Waterbody master database to ensure consistency among ODFW StreamNet staff members. • Reviewed our project databases for memory leak problems
	2) Modify/update the Eventmapper tools with updated event data and/or background GIS layers.	Incorporated a Township/Range coverage into the Event Mapper tool. This feature was needed to help identify locations of restoration projects.
	3) Maintain and update state-level StreamNet data sets, database structures, and interfaces.	Created a new master image database, I031500M.mdb. Finished building the new database structure (compliant with the 2000.1 DEF) and appending the data
	4) Develop custom GIS projects and database structures that help improve data management transfer with ODFW field staff.	
	5) Develop custom database products in support of project data compilation efforts as described in 3.1 below.	Initiated the development of the Riparian Land Tax Incentive database and finished the preliminary database development for review by program staff.
	6) Investigate and summarize the pros and cons of distributed vs. centralized information systems	Began the investigation and drafted a summary document for review.
	7) Update existing data sets as described in Task 1 and provide data to the regional StreamNet office in DEF. Provide data as sub-sets are updated rather than waiting for entire data to be complete.	

Region	1) Maintain and manage the StreamNet database so information / data are available internally to project participants and externally via Internet.	<ul style="list-style-type: none"> • Inventoried the StreamNet GIS data holdings by subbasin and wrote the GIS component of the StreamNet data inventory. • Wrote a StreamNet file naming convention document (intended for internal use). • Added fields for the main time-series table in StreamNet which will help provide information on the status of each individual time series. This should both help users interpret downloaded data, and also assist data entry administration by identifying which data sets are in need of updating. • Routine server maintenance, backup.
	2) Add data submitted to the StreamNet regional office into the SN database within ~30 days of receipt from the project partners.	
	3) Assist data-providing agencies with error checking of data sets.	
	4) Coordinate database compilation between agencies, helping to ensure that data submitted are usable, scientifically sound, and consistent.	
	5) Update the database structure as new data categories are added or categories are changed.	
	6) Publish a procedure manual to define procedures and protocols for data submission.	
	7) Document all additions/changes to data structure, exchange formats, interface tools, etc.	
	8) Develop metadata for spatial data sets posted to the SN GIS web page.	Completed metadata for all spatial data sets posted on the SN GIS web page.
	9) Begin developing metadata for SN's tabular data holdings.	
	10) Provide programming services to project participants to assist with efficient data entry and data transfer	
SBT	No work planned this year.	
WDFW	1) Washington state data maintenance and exchange support services, including updated exchange format system, support for MS Access 97, and support for new data categories and fields.	<ul style="list-style-type: none"> • Participated in Technical Data discussions 1/18-19/2000 • Began updating internal format data system and tables by converting Trend numbers, adding LID and other support fields to comply with DEF 2000.1.
	2) Update existing data sets as described in Task 1 and provide data to the regional StreamNet office in DEF. Provide data as sub-sets are updated rather than waiting for entire data to be complete.	

Task 2.2 Data Plan.

Update and maintain a project data plan that identifies 1) current data holdings at the regional level, 2) data items to be incorporated in the current contract period and in future years, and 3) expectations for data development and delivery from participating organizations within the current contract period

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Provide input to the data plan to keep it responsive to subbasin planning and Framework needs and schedules.	
FWS	No work planned this year.	
IDFG	Work jointly with other participants to modify elements of data plan or priorities based on needs arising out of sub-basin planning or other processes that drive Basin data needs through the amended Fish & Wildlife Program.	
MFWP	Provide input into plan when requested.	No work.
ODFW	Work jointly with other participants to modify elements of data plan or priorities based on needs arising out of sub-basin planning or other processes that drive Basin data needs through the amended Fish & Wildlife Program.	No efforts were made this quarter.
Region	1) Review the existing Data Plan for need and adequacy, given that the new format for the Statement of Work now provides much of the detail and information formerly contained in the Data Plan.	Began development of a new format Statement of Work that provides more detail of the specific work planned by data category. This new SOW format will provide updated information regarding data development and data management formerly contained in the Data Plan.
	2) Based on input from the BPA COTR and project participants, modify and update the Data Plan as needed.	No work on this so far.
SBT	No work planned this year.	
WDFW	Work jointly with other participants to modify elements of data plan or priorities based on needs arising out of sub-basin planning or other processes that drive Basin data needs through the amended Fish & Wildlife Program.	

Task 2.3 Data Exchange Standards.

Establish and maintain data exchange standards that ensure consistent format and content of data that originated from the multiple agencies and data sources in the basin. Included will be proposed and adopted data exchange formats, metadata and location look-up tables for specific data items as described under Objective 1. At the regional level, this task will provide technical assistance regarding standard codes and exchange formats for Fish and Wildlife Program and ESA- related projects, and for applicable tribal data compilation activities. At the state level, this task will provide similar technical assistance for state agency data activities applicable to StreamNet.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Participate in the design, development and maintenance of standard codes and data exchange formats. This will occur through involvement on the Steering Committee and technical work groups.	<ul style="list-style-type: none"> Submitted new Reference Submission Form and Procedures manual. These documents have been posted on the website. Reviewed other portions of the DEF document
FWS	No work planned this year.	
IDFG	IDFG StreamNet will participate in the design, development and maintenance of standard codes and data exchange formats. This will occur through involvement on the Steering Committee and technical work groups. There is no set schedule for this task, because it is highly dependent on issues facing the Steering Committee. Potential new data exchange standards may include juvenile abundance, genetics, stream habitat, stream temperature and resident fish releases.	Participated with Steering Committee to develop Data Exchange Format 2000.2.
MFWP	MFWP StreamNet will participate in the design, development and maintenance of standard codes and data exchange formats. This will occur through involvement on the Steering Committee and technical work groups.	Attended Steering Committee meeting where DEF were discussed.
ODFW	Participate in the design, development and maintenance of standard codes and data exchange formats. This will occur through involvement on the Steering Committee and technical work groups. There is no set schedule for this task, because it is highly dependent on issues facing the Steering Committee. Potential new data exchange standards may include juvenile abundance, genetics, stream habitat, stream temperature and resident fish releases.	<ul style="list-style-type: none"> Reviewed and commented on StreamNet Data Exchange Format 2000.1 and 2000.2. Met with Regional StreamNet staff (via conference call) on Wednesday, January 05, 2000 to resolve barrier and dam data issues. Prepared comments and suggestions to modify the Juvenile Abundance exchange format. Reviewed and commented on the draft version of the StreamNet library protocol. Comments were summarized and forwarded to Lenora at the StreamNet Library.

Region	1) Work with the project database managers to identify needed modifications to the Data Exchange Format (DEF) to accommodate changing data needs	PSMFC hosted a technical meeting on January 18-19 to discuss database structure issues. This meeting resulted in decisions on many outstanding data structure issues, and led the way to adoption of a new major Data Exchange Format (version 2000.1).
	2) Formally adopt changes to the DEF through the SN Steering Committee	Changes to the StreamNet Data Exchange Format were approved by the Steering Committee at the Feb 7-8 meeting, and implemented by the completion and adoption of Version 2000.1 of the exchange format. (Several minor errors were found in version 2000.1, resulting in the release of 2000.2 in April.)
	3) Document all adopted changes to the DEF	All changes from Data Exchange Format version 99.1 to 2000.1 (and in April from 2000.1 to 2000.2) were documented and distributed to all StreamNet participants.
	4) Develop a description of the DEF process and guidelines for modification	A formal process for updating the Data Exchange Format had never been described. During the quarter, an initial attempt was made to formally describe this process by creating a flow chart of necessary steps. This flow chart is a first attempt, and will likely be modified as more experience is gained.
	5) Lead or work with partners to develop Data Exchange Formats for new data categories, as follows: Population delineation (anadromous and resident) Carcass placement Resident fish Resident fish hatchery releases Habitat restoration project final version Juvenile abundance Stream habitat	<ul style="list-style-type: none"> • A final version of a habitat restoration projects exchange format was created in the fall of 1999. However, minor adjustments have been made since then to address unforeseen needs, including adjustments made this quarter to assist in the functioning of a data input form. • Updated species use/distribution database structure.
SBT	No work planned this year.	
WDFW	1) Compile and review the specific criteria used by participating agencies in describing fish distribution, use, or extent information, in order to find and adopt common standards among data providers.	Worked with USFWS and state biologists to draft acceptable criteria for juvenile and adult bull trout presence, spawning and rearing in preparation for statewide 100K update
	2) Analyze Hatchery Returns exchange format and explore whether a second table (covering Spawning and Disposition data fields) is needed to more accurately meet the needs of the Artificial Production Committee.	
	3) Finalize and distribute for adoption an exchange format for State Risk status (stock status) to provide information on sensitive salmonid stocks.	

WDFW (cont.)	4) Move toward complete adoption of LLIDs as the standard stream referencing code by reviewing and completing the RRN-to-LLID conversion, addressing supercode issues, and assuring that LLIDs are assigned to all locations where StreamNet data exist.	
	5) Provide metadata for tabular and spatial datasets according to guidelines adopted by the Steering Committee.	
	6) Construct a new data compilation and conversion system to provide data in MS Access according to the most recently adopted exchange format version (99.1 or later). Begin exchanging data in MS Access form by summer, 2000.	

Task 2.4 GIS Data System.

Establish and implement procedures for coordination of StreamNet-related spatial data activities among participating organizations, to include regular meetings and or other communication links among participating GIS specialists. Designate and maintain metadata format for spatial data to be used by StreamNet participants. Prepare map products in hardcopy and/or electronic format for use in Program-related aquatic resource policy, planning, and management. Provide for distribution of spatial data in GIS and tabular format and as GIS products.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	1) Maintain and enhance a geographic information system (GIS) related to regional and state-level StreamNet goals and objectives.	
	2) Prepare data and map products from StreamNet data on request	Prepared 2 new paper maps from the IDFG StreamNet GIS database and Fishery Information System: 1. Distribution of cutthroat trout in Idaho, 2: general parr monitoring sites in the Middle Fork Salmon River drainage.
MFWP	1) Maintain a state- level GIS program (state and StreamNet funded)	Ongoing.
	2) Prepare map products in hardcopy and/or electronic format for use in Program-related aquatic resource policy, planning, and management	Filled 40 requests for fisheries information.

ODFW	1) Participate in planning and coordination meetings for state-level 24k hydrography layer to ensure compatibility with the PNW 100k hydrography.	No efforts were made this quarter.
	2) General maintenance activities associated with the GIS data system	Ongoing.
	3) Develop a Lakes coverage for Oregon.	Processed the 1:100,000 scale PNW Banks coverage to derive lakes and reservoirs. Combined with the GNIS data set to assign names to approximately 1200 Oregon lakes and reservoirs.
	4) Participate in spatial metadata format development processes with PSMFC, WA, ID, & MT.	No efforts were made this quarter.
	5) Develop, maintain, and update metadata for Oregon StreamNet GIS products	Updated distribution metadata.
Region	1) Maintain and enhance a geographic information system (GIS) related to regional StreamNet goals / objectives.	Maintained the StreamNet GIS system and enhanced it by installing and incorporating the new Arc/Info 8 software
	2) Prepare GIS data and map products from StreamNet data.	Prepared GIS data, maps, and other products from StreamNet data in response to internal requests, government agencies, and 14 public requests, including private citizens, environmental consulting firms, government agencies, educators, and students. Prepared more detailed map products for requests from the NWPPC and associates for use in reports, etc. Examples included maps of species distribution (9 total) and historic and current anadromous fish habitat.
	3) Integrate the functioning of the GIS system with the StreamNet fisheries and habitat database, in support of the query system. Create cross tables and queryable maps used via the StreamNet web interface.	Created cross tables of our LLID stream locations by county, subbasin, hydrologic cataloging unit, state, and region in support of the query system. Created queryable GIS coverages of updated fish distribution for the StreamNet web interface.
	4) Direct users to other GIS resources when requests exceed SN capability	
	5) Explore converting data sets from 1:250 K to 1:100 K	Explored converting. Recommended which data sets it was reasonable to do so.
	6) Develop a tool to rapidly assign LLID location identifiers to data	
SBT	No work planned this year.	
WDFW	Create approved reference documents for all exchanged spatial data sets.	

Task 2.5 StreamNet Internet Site.

Continue to maintain and enhance the existing client-server system to provide access to StreamNet data products through the Internet. The StreamNet home page will continue to be recognized as the project's primary data delivery vehicle. Priority will be given to incorporating data developed through Objective 1 and providing access to reference materials secured through Objective 3. Appropriate training on the use of the system will be provided through a combination of on-line help and in-person training sessions.

Task 2.5.a. Maintain the StreamNet Client Server system.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	Began mapping the StreamNet website to aid in improving efficiency and user friendliness of site.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Regional Responsibility	
ODFW	No work planned this year.	
Region	1) Maintain, upgrade as needed, and administer the StreamNet web servers.	<ul style="list-style-type: none"> • Minor web site updates were performed. Major web site updates were created on our "test" site. Began an inventory of all images used on the StreamNet web site, in order to document permission gained to use each image. • Created a new web page for distributing StreamNet GIS data (http://www.streamnet.org/gisdata.html)
	2) Convert the query system from the RRN to the LLID system where possible.	An initial version of the LLID-based on-line query system was created and tested. This new version of the query system uses a new strategy for selecting data on-the-fly based on geographic requests selected by users. The tests demonstrated that further refinement of both the query system and the database are required before this new system can be implemented on the StreamNet web site, although no major bugs have been discovered. It appears the new geographic selection method functions quite well. This feature will be improved in the next quarter to allow for more flexibility in geographic selections.
	3) Obtain advanced training in system administration for the NT based servers and SQL Server.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 2.5.b. Enhance and improve the StreamNet website. Maintain and enhance components of the StreamNet home page and incorporate new features that complement existing components

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Work with subbasin planners to identify modifications and new uses which will make the website more useful to them	
	2) Identify changes and new features which will improve delivery of Library services	Identified need for button/link on “no references retrieved” response screen to directly request assistance with research and document location.
	3) Work with regional staff to implement changes identified above.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Montana will review and comment when necessary.	Reviewed new (draft) StreamNet web site and provided feedback to regional staff.
ODFW	Recommend and/or take part in review of new products and features. Provide feedback on content, suitability, navigability and data currency issues.	Reviewed new (draft) StreamNet web site and provided feedback to regional staff.
Region	1) Develop and conduct an online survey of users to determine the need for modifications to the site, the data or the project.	Made plans to create a survey of StreamNet database users, in order to determine who they are, their needs, and how well the current StreamNet database and query system meet those needs. An initial list of questions was created, and the best way to present the questionnaire to users was determined. Still to be done is to implement the questionnaire, and perhaps to have the questionnaire reviewed before implementation.
	2) Review the website for clarity, organization and ease of use. Recommend and implement changes to maximize utility for people accessing the site to obtain information	<ul style="list-style-type: none"> • Staff conducted joint reviews of portions of the StreamNet website and identified needed improvements to facilitate usability and clarity. Implemented some of the simple improvements that did require custom programming to alter the query system. • Reviewed the html files and categorized each file as ‘retain’, ‘archive’, or ‘delete’. • Developed a new look for the site on the internal test page.
	3) Implement an improved and remodeled website based on the review.	Designed a skeleton for a revised StreamNet website
	4) Plan to enhance the website content by adding additional kinds of information that would support the Fish and Wildlife Program. Develop concept for increased information by coordinating with regional data users	
	5) Investigate the latest internet technology in order to improve/add interactive features to our site.	

Region (cont.)	6) Identify and provide links to other web sites that provide data complimentary to but not contained in StreamNet.	
	7) Modify the query system to function with revisions to the DEF	
	8) Update the anadromous fish hatchery release online data from the CWT database	
	9) Post the Aquatic Inventory Program habitat data to the SN website	Linked to the ODFW Aquatic Inventory Program habitat data from the StreamNet GIS data website.
SBT	No work planned this year.	
WDFW	Take part in review of new products and features. Provide feedback on content, suitability, navigability and data currency issues, especially issues related to providing static or dynamic map capabilities.	

Task 2.6 1:100,000-scale Hydrography. Maintain the 1:100,000-scale PNW hydrography for purposes of attaching StreamNet data. Coordinate with efforts to prepare a National Hydrographic Dataset (NHD). Develop a standardized method for incorporating lake hydrography and attribute information.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	1) Continue to maintain the Idaho portion of the 1:100,000-scale PNW hydrography for purposes of attaching StreamNet data.	Continued to make corrections to PNW hydrography as necessary to incorporate the hydrography into the IDFG StreamNet Fishery Information System.
	2) Participate in coordination of the National Hydrographic Dataset (NHD) through review and evaluation of the NHD.	Tested developing LLID route system on sample of NHD. Made recommendation to Steering Committee regarding maintenance of NHD and development of LLID route system on NHD.
IDFG (cont.)	3) Continue to enhance the 1:100,000-scale PNW hydrography for use in IDFG's information management system. This will include integrating the PNW hydrography with lakes, dams, and other hydrographic related features. All modifications will be made according to regional standards established for the 1:100,000-scale PNW hydrography.	Developed routines to test for errors and inconsistencies in PNW hydrography, especially for incorporation into the IDFG StreamNet tabular-based Fishery Information System. Continued to make corrections to PNW hydrography as necessary to incorporate the hydrography into the IDFG StreamNet Fishery Information System.
	4) Submit all modified PNW hydrography to PSMFC for inclusion in the regional PNW hydrography data.	

MFWP	1) Support the efforts of the NHD and convert Montana hydrography to NHD upon receipt.	Previewed several HUCS that the NHD has released and compared with RF3 and PNW. Provided review of grant proposal NRIS submitted to USGS for NHD maintenance.
	2) Enhance layer with LLID and stream level routing.	Waiting for final NHD product.
	3) Use the PNW prior to release of NHD for western Montana following the assignment of LLIDs by StreamNet regional staff in winter 2000.	Waiting for final product.
ODFW	1) Submit issues and corrections to 100K stream coverage as identified during other data compilation activities.	Coordinated with regional SN staff to clear up distribution event record mapping issues and initiated an effort to synchronize ODFW and SN stream route data and associated LLID coding.
	2) Review Duane's RRN-LLID cross-reference table for errors and incorporate LLIDs into Oregon's abundance records	Reviewed Duane's RRN-LLID cross-reference tables. Staff identified and fixed duplicate records and corrected other discrepancies associated with LLIDs, Supercodes and WaterbodyIDs assigned. Prepared the records for incorporation into the StreamNet regional database.
	3) Review and provide an evaluation of the NHD test CU's.	Participated in review of NHD draft hydrography data products.
	4) Participate in technical and policy discussions concerning adoption of the NHD 100K framework for the Northwest.	Provided comments on a PSMFC proposal to become the PNW NHD data-keeper and participated in discussions as necessary.
Region	1) Continue to maintain the regional 1:100,000-scale PNW hydrography.	Maintained the regional 1:100,000 scale PNW hydrography. Corrected errors on an ongoing basis as they were reported or found through regular use.
	2) Implement updates to the 1:100,000-scale PNW hydrography from state cooperators.	Synchronized the PNW reach files with updates made by ODFW.
	3) Update and serve a regional web version of the 1:100,000-scale PNW hydrographic set from the StreamNet website.	<ul style="list-style-type: none"> Delivered a regional web version of the 1:100,000 -scale PNW hydrography on the StreamNet website (see http://www.streamnet.org/pnwr/pnwrhome.html). Responded via e-mail or phone to all public requests for information about the PNW hydrography and assisted users of the hydrography with ancillary products (tables, GIS coverages, etc.)
Region (cont.)	4) Assess future uses of the National Hydrography Dataset (NHD) and if adopted, coordinate the replacement of the PNW Reach files with the NHD as the StreamNet hydrograph layer.	<ul style="list-style-type: none"> Completed coordination of the regional review of the National Hydrography Data set (NHD). Wrote a proposal for managing the NHD in the Pacific Northwest. Developed a procedure to transfer the LLID-based stream routes to the NHD. Regenerated Washington hydrography data from the PNW reach files and submitted to the NHD in their FOD (feature operational database) format.
	5) Update Montana hydrography with LLID routing as updates are received from MFWP.	
SBT	No work planned this year.	

WDFW	1) Initiate Steering Committee discussion about lake attributes useful to share in a regional database.	
	2) Compile, standardize, and exchange point, line, and polygon information for lakes stocked with fish that appear at 100K (or higher) resolution.	<ul style="list-style-type: none"> • Brought in updated lakes polygon layer from DOE and generated error flags for inconsistencies. Assigned or transferred LLIDs to all lakes • Entered other spatial reference information (Town/Section/Range) from the Wolcott series to help identify lakes found in the GIS polygon layer that have only ambiguous references in Wolcott. Found and fixed several cases of data entry errors made on Wolcode, a key link between the tabular (Wolcott) and GIS lakes files. Started matching up the larger (over 50-acre) lakes first.
	3) Participate in technical and policy discussions concerning adoption of the NHD 100K framework for the Northwest. Review Washington state NHD datasets if funding is available.	Participated in local and e-mail discussions on our perceived role in relation to the 100K NHD data set and the issue of migration or co-existence with the PNW 100K.
	4) Maintain Washington 100K HUCs by performing error fixes, addressing cross-border and cross-HUC incompatibilities, and related duties.	
	5) Provide technical advice on hydrology routing and other issues related to working with higher resolution hydrography as needed.	

Task 2.7 Data Requests.

Receive and respond to requests for data, source materials, and custom products. Response to requests will be honored within the limits of available resources, with priority given to information requests having direct relevance to the Fish and Wildlife Program. Other priorities will include implementation of the Endangered Species Act and federal, state, and tribal natural resource management activities.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See Task 1.6	Provided Coarse Screening Process report to Mike Rowe. Tutorial to tribal biologists on use of the habitat summaries.
FWS	No work planned this year.	
IDFG	Continue to respond to requests for information in the IDFG StreamNet database, including requests for fishery information that comes into the Idaho Conservation Data Center (Natural Heritage Program), other IDFG programs and personnel, and outside agencies and consultants.	<ul style="list-style-type: none"> Completed 59 requests for site specific species list of fish presence/absence for the Idaho Conservation Data Center. Completed 10 other requests for various data queries or data sets.
MFWP	Receive and respond to requests for data, source materials, and custom products. Respond to requests within the limits of available resources, with priority given to information requests having direct relevance to the FWP.	See under GIS.
ODFW	1) As requested, consistent with other deliverables in this contract, receive and respond to requests for data, source materials, and custom products.	A total of 8 data, 84 document, 4 map/GIS related, and 10 other requests were answered during this quarter. A detailed list by requester and request type can be made available upon request.
	2) As requested, provide training and instruction on the use of the StreamNet website data delivery system.	Instruction on the use of the StreamNet web site was provided to several individuals via phone conversation.
Region	1) Respond within one day whenever possible to all user requests received via email, phone, or other medium. Typical requests received include help using the query system, complex data requests not easily done with the query system, and requests for GIS coverages and maps.	<ul style="list-style-type: none"> Responded to all StreamNet GIS/map user requests within one working day of the request. Answered all questions, where possible, about StreamNet data, maps, GIS products, and other miscellaneous requests. Requests were from a variety of sources including private citizens, environmental consulting firms, government agencies, educators, and students. Prepared GIS data or maps for public requests when feasible (see task 2.4- region (2)- Prepare GIS data & maps from StreamNet data).

Region (cont.)	2) Fill requests for data not available via the web in an expeditious manner, with highest priority for people working for the PPC's Fish and Wildlife Program. Requests from outside the Fish and Wildlife Program or participating agencies will be addressed on an 'as possible' basis.	<ul style="list-style-type: none"> Met with PPC staff and member Karier regarding information needed for the PPC annual report. Began compiling the relevant information that is available from StreamNet. Coordinated with state projects on available data. Began a major database summary of escapement. Responded during the quarter to 48 user requests and comments received via email or phone. StreamNet web site use statistics for the quarter are at the end of this report.
	3) Modify the web site to advertise the fact that regional staff can respond and fill custom data requests (do with Task 2.5.b.)	
SBT	No work planned this year.	
WDFW	1) Generate maps, data reports, electronic copies of datasets as requested.	55 maps, six digital (INFO) data dumps from the fish GIS layers, four data tables containing hatchery release and returns data provided to consultants, county staff, students, tribal groups, JSAP Project staff and WDFW staff.
	2) Provide data support for ESA-related Hatchery and Genetic Management Plan (HGMP) document preparation for the Washington hatchery system.	Provided hatchery release, returns, and facilities data for Puget Sound chinook, coho, and chum stocks to support EDT recovery goal generation in support of the NMFS ESA-related needs to allow continued hatchery operations.

Objective 3 - Library / Reference Services: *Provide a full service regional library for fish (and to some degree wildlife) literature (published and gray), including documentation of all data in the StreamNet database.*

Task 3.1 Collection Development

Develop a collection of materials applicable to the mission of StreamNet. Collect, catalog and organize materials to document data source materials, Fish and Wildlife Program activities and reports, and other gray literature for access by regional scientists, agencies, interested parties, and other libraries.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Coordinate source material submissions for data compiled under Objective 1. Develop standards for document submissions	<ul style="list-style-type: none"> Submitted new/edited StreamNet References manual as well as new form to accompany documents. Received and cataloged 168 StreamNet reference documents.

CRITFC (cont.)	2) Collect and catalog documents prepared by contractors (including final products published by BPA and draft documents suitable for public release) under the Fish and Wildlife Program. Work with Publications distribution for better publication notification and deposit system.	Began dialogue with Publications Office at Bonneville to enhance access to documents and to discuss the future of electronic documents.
	3) Collect and catalog documents from the Council's Fish and Wildlife Program-related collection.	Documents are currently being integrated with the StreamNet Library collection.
	4) Collect and catalog additional books, journals, agency reports, gray literature, research reports, and documents that are applicable to management of the region's aquatic resources.	<ul style="list-style-type: none"> • Added 367 new records for documents to the Library catalog. • Requested placement on several Forest Service mailing lists. • Received and sent documents through duplicate exchange.
FWS	No work planned this year.	
IDFG	IDFG StreamNet will continue to collect documents used as source materials for data in Objectives 1 and 2. Documents will be assigned reference numbers and forwarded to the StreamNet library as per established StreamNet guidelines	Compiled reference information into IDFG StreamNet database for 1999 field season data entered in Objective 1.
MFWP	Provide an update to the electronic version of documents used as source materials for data compiled in Objective 1. Make a determination about acquiring the hard copy documents from Montana to the StreamNet Library.	MFWP Fisheries Administrative Assistant has continued to enter new documents into the Fisheries Library; will provide update to StreamNet Library in September.
ODFW	1) Provide originals/copies of all documents and reports referenced in the compilation of new StreamNet data holdings, but not already housed in the StreamNet Library.	Submitted 6 documents associated with updated abundance trends to the StreamNet Library.
	2) Update the set of historic Oregon Fish Commission and Game Commission reports and provide to the StreamNet library as available.	This effort is on hold till our Library tracking software is updated (see Task 3.2).
	3) Update library bibliography of ODFW, Fish Commission, and Game Commission reports with 99 ODFW publications and make bibliography available to the StreamNet Library for reference.	This effort is on hold till our Library tracking software is updated (see Task 3.2).
Region	Coordinate with the StreamNet librarian to maintain, update and improve the StreamNet reference database and query system.	
SBT	No work planned this year.	

WDFW	WDFW StreamNet will continue to collect documents used as source materials for data in Objectives 1 and 2. Documents will be assigned reference numbers and forwarded to the StreamNet library as per established SN guidelines.	
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Task 3.2 Provide Access to Collection

Provide user access to the materials described in Task 3.1 by providing facilities for storage of paper and electronic copies of documents, an online catalog of all documents in collections, and staff to answer location questions and respond to requests.

Entity	Work Component	
CRITFC	1) Maintain an appropriate facility for the storage and public use of the physical collection.	Hours were maintained and computers for access to the Library resources were kept running.
	2) Catalog, organize and maintain the collection for appropriate on-site use.	Added 500+ records to Library catalog and edited over 200 records to add access points such as authors, agencies and descriptors/keywords.
	3) Provide access to the StreamNet Library Catalog via the Internet.	Requested meeting to discuss setting schedule for catalog updates as well as other website issues.
	4) Develop a schedule for regular updates of the Internet catalog.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No work planned this year.	
ODFW	Investigate existing approaches and recommend adoption or develop a custom library interface and bibliography that allows tracking of information requests, key word searches, and easy comparison to the StreamNet Library holdings.	Drafted a complete description of the requirements for a new library operations database that is being developed and also made arrangements to see the library software that is being used by the StreamNet library. Investigated other library software packages to allow better tracking of information requests, documents and the ability to do key word searches. No decision has been made at this time.
Region	Work with CRITFC librarian to make electronic library resources available on the StreamNet website.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 3.3. Catalog and Index Materials. This task was combined with and covered under Tasks 3.1 and 3.2

Task 3.4 Library Services

Manage the StreamNet Library and provide library services to the StreamNet user community and the general public.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Provide access guide to outline services for patrons.	Completed FY2000 access guide complete with listing of significant journal runs (i.e. more than 6 months' worth of issues). Will continue to update
	2) Assist users to locate information by providing reference, referral, and computer based search services.	Assisted with 39 requests from clients from various agencies and the general public with reference services. In addition there were 17 questions in the last two weeks of March that would be considered short questions. (How to use the catalog? What do you have from the IHOT?)
	3) Provide document delivery services, including inter-library lending and borrowing.	There were at least 172 Interlibrary borrowing requests from our clients 2 nd quarter. Lent 64 items to other Libraries.
	4) Maintain hardcopy files of draft and final documents related to the NPPC amendment process, subbasin planning, and Columbia River/Portland harbor dredging	Have also begun scanning documents to provide electronic copies of the existing subbasin plans.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No work planned this year.	
ODFW	Respond to requests for ODFW documents and other source materials.	Provided 301 documents to 104 individual users during the quarter.
Region	No work planned this year.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 3.5 Inter-library Coordination

Engage in networking activities with other agency and regional library service providers to provide better access to other collections that will enhance the StreamNet Library and to avoid unnecessary duplication of effort and materials

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Collect information about other regional fish and wildlife library collections and access policies.	Began collecting addresses for mailing list to locate subject-related collections in the Portland area.
	2) Provide consultations for agencies and groups on ways to coordinate catalogs and services.	Consulted with ODFW on InMagic/DBTextworks catalog for use in the ODFW StreamNet Library.
	3) Coordinate with users, agencies, and regional libraries to improve services and avoid unnecessary duplication. Perform a needs assessment for the Library.	Drafted Needs Assessment and did preliminary testing at Columbia River Conference.
	4) Facilitate communications between subject related library service providers. Coordinate concurrent Library Needs workshop with Data Needs workshop (Task 4.7).	
	5) Maintain presence in related Library groups (i.e. IAMSLIC, NRIC) to provide access to knowledge on Best Management Practices for libraries and current awareness of subject-related materials.	Renewed membership in IAMSLIC and NRIC. Continued as volunteer coordinator for Cascadelink Environmental web page. Attended Online NW (computers in libraries). Attended Special Libraries Association library marketing workshop.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No work planned this year.	
ODFW	No work planned this year.	
Region	No work planned this year.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Objective 4 - Services to Fish and Wildlife Program Activities: *Provide technical data services to Fish and Wildlife Program decision-makers and appropriate Fish and Wildlife Program projects.*

Task 4.1 Project Tracking.

Assist CBFWA, BPA, and the Council in providing Internet access to the Annual Implementation Work Plan (AIWP) database and other essential information from AIWP-related reports

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Regional Responsibility.	
ODFW	No work planned this year.	
Region	Update AIWP information in a timely manner as it is received, and make it available and queryable via the StreamNet web site.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 4.2 Monitoring and Evaluation.

Assist in the development of products that contribute to the monitoring and evaluating (M&E) of Fish and Wildlife Program effectiveness. Specific area of involvement will include:

Task 4.2.a. M&E Participation. Participate in Program-related monitoring and evaluation work groups

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Assist CBFWA to develop an R/M/E plan consistent with the regional Framework (cost sharing)	Produced third draft of R/M/E plan for CBFWA. Distributed copies to NPPC and StreamNet for comments. Discussed NPPC staff comments. Identified changes for a final draft.
FWS	No work planned this year.	
IDFG	Participate in discussions concerning data needs to support processes adopted by the amended Fish & Wildlife Program for Monitoring and Evaluation.	

MFWP	Participate in discussions concerning data needs to support processes adopted by the amended Fish & Wildlife Program for Monitoring and Evaluation.	<ul style="list-style-type: none"> • Discussed StreamNet's involvement in subbasin planning • Contacted Mobrاند Inc to discuss ground truthing his model for bull trout • Discussed subbasin planning with MT CBFWA rep.
ODFW	Participate in discussions concerning data needs to support processes adopted by the amended Fish & Wildlife Program for Monitoring and Evaluation.	No efforts were made this quarter.
Region	Participate in Monitoring and Evaluation work groups to provide assistance in locating, acquiring and providing data needed for R/M/E activities.	
SBT	No work planned this year.	
WDFW	Participate in discussions concerning data needs to support processes adopted by the amended Fish & Wildlife Program for Monitoring and Evaluation.	

Task 4.2.b. Evaluation. Periodically re-evaluate the StreamNet data plan to ensure consistency with M&E needs

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Keep Steering Committee apprised of regional R/M/E plans and needs	Regular report to SC at scheduled meetings. Circulated relevant documents by e-mail between SC meetings.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Assist as needed.	No Work.
ODFW	No work planned this year.	
Region	Keep abreast of regional data needs related to Fish and Wildlife Program Monitoring and Evaluation and plan for StreamNet database's ability to fulfill these needs.	Schmidt reviewed the RM&E Plan.
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 4.2.c. M&E Reporting. Prepare reports and data products that illustrate key M&E topics

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Assist Steering Committee to identify useful M&E products which StreamNet can produce at regular intervals	No work this quarter.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	No work planned this year.	
ODFW	No work planned this year.	
Region	1) Participate in and/or monitor FWP monitoring and evaluation work groups.	
	2) Respond to M&E needs for information, provide data reports and other products in support of M&E activities.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 4.3. Watershed Projects.

Provide data and data services to Fish and Wildlife Program-sponsored watershed planning and assessment projects.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Assist subbasin planners to develop monitoring and evaluation activities for watershed projects that will integrate smoothly with StreamNet databases (cost sharing)	No work this quarter. This task will become more active through FY01.
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Participate in watershed and sub-basin planning to the extent requested by the Council and other regional participants. Coordinate with Montana CBFWA representatives in the process and assure a valuable product. Volunteer to complete a pilot sub-basin in the process within Montana.	Discussed with MT CBFWA rep concerning piloting ArcView project for subbasin plan for one sub basin in Montana
ODFW	Provide data and data services to Program-sponsored watershed planning and assessment projects as needed to be responsive to Program needs.	No efforts were made this quarter.
Region	Receive information on watershed restoration and improvement projects and make available via the website	
SBT	No work planned this year.	
WDFW	No work planned. (Related work under Task 1.6)	

Task 4.4 Stock Assessment Projects

Provide technical assistance to the Upper Columbia Basin and Upper Snake River Basin resident fish stock assessment projects, including a) identification of regionally consistent data exchange standards and b) Internet access to project data and other information. Specific actions will be defined in consultation with stock assessment project managers

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	IDFG StreamNet will coordinate with the Upper Snake River Basin Resident Fish Stock Assessment project in order to incorporate that data into StreamNet and to provide technical assistance.	
MFWP	Provide input as needed	
ODFW	No work planned this year.	
Region	Assist state partners as needed.	
SBT	No work planned this year.	
WDFW	Provide spatial, tabular data standardization and exchange consultation and assistance to participants in the BPA-funded Joint Stock Assessment Project (JSAP).	Attended February JSAP meeting in Spokane to refine data needs and some codes, formats, and data summary level issues between Spokane, Kalispel, Colville tribes and WDFW. Provided list of StreamNet data support available for subbasin assessments.

Task 4.5 Service to Other Fish and Wildlife Program Projects and Activities.

In consultation with CBFWA, the Council, and BPA StreamNet will provide technical assistance and data services to select Program projects

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Collaborate with CBFWA, NPPC, and other fish and wildlife programs in the Columbia Basin to identify and provide technical and other services to the Fish and Wildlife Program (cost sharing)	<ul style="list-style-type: none"> Participated in CBFWA meetings and interagency staff discussions regarding shortcomings in the present programs. Kept SC apprised of issues leading into the program amendment process. Participated in an interagency effort to develop a watershed assessment template. This template describes the types of habitat data that will be used by subbasin planners.
FWS	No work planned this year.	

IDFG	Provide technical and other services to other FWP projects occurring in IDFG.	Continued coordination with Fisheries Bureau and various FWP projects, especially Idaho Supplementation Studies.
MFWP	Provide technical assistance and data services to Program projects upon request.	No work
ODFW	No work planned this year.	Produced, formatted, and posted in-season fishery management information (dam counts, hydrological data, and harvest estimates) on CRM/ODFW web page for six Columbia River Compact hearings (January 1, 2000 - March 31, 2000).
Region	Work with Fish and Wildlife Program projects throughout the basin to assist with providing information needed by the projects and acquiring and distributing information generated by the projects.	
SBT	No work planned this year.	
WDFW	No work planned; available as needed and as prioritized.	

Task 4.6 Protected Areas.

StreamNet will a) maintain and provide access to the Council's Protected Areas dataset, b) archive the official version as a historic record, and c) in consultation with the Council, respond to requests for information concerning Protected Areas.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	No work planned this year.	
FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Participate at whatever level is requested by StreamNet regional staff and/or the Council.	Produced GIS map of Montana's protected streams for Army Corps of Engineer to be used in ESA process.
ODFW	No work planned this year.	
Region	Maintain the existing Protected Areas database.	
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 4.7 Basin Data Needs

StreamNet will provide information and assistance to regional reviews of data management projects and data management needs conducted by the PPC, ISRP, ISAB and other regional entities.

Task 4.7.a. Data Management Needs. Provide an analysis of regional data management needs, challenges and capabilities to the Power Planning Council, CBFWA, and other regional data review processes.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Review and contribute to the data management white paper.	Participated in the ISRP review of StreamNet, gave presentation on library functions.
FWS	Review and contribute to the data management white paper.	
IDFG	Review and contribute to the data management white paper.	Reviewed and commented on the draft outline of the data management white paper.
MFWP	Review and contribute to the data management white paper.	Reviewed several versions of the “white paper” and provided comment.
ODFW	Review and contribute to the data management white paper.	Reviewed several versions of the white paper and provided comments. Assisted with the preparation for and attended the ISRP review meeting of PSMFC data projects including StreamNet.
Region	1) Organize and coordinate development of a white paper report describing the current state of regional data management and future options	<ul style="list-style-type: none"> • Worked with SC members and developed a working outline for the white paper. • Wrote the GIS section of the data management 'white paper'. • Used the white paper outline to develop a summary of data management issues and provided it to the ISRP team reviewing the data management projects
	2) Publish and distribute the data management white paper.	Developed a summary of data management issues.
SBT	Review and contribute to the data management white paper.	Reviewed versions of the “white paper.”
WDFW	Prepare an outline for a ‘white paper’ report describing the current state of regional data management and future options.	Drafted outline of white paper; distributed to Steering Committee members; compiled comments, and provided final draft outline to StreamNet Project manager.
	Review and contribute to the data management white paper.	Developed issues pieces on the <u>role of scope</u> , <u>issue of redundancy</u> , and <u>role of metadata</u> for draft white paper

Task 4.7.b. Data Needs Workshop. Promote organization of a regional 'data needs workshop' to establish regional data / information needs and priorities and to develop recommendations for roles and responsibilities for acquiring and providing the needed data / information.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Assist in planning and conducting the workshop.	
FWS	Participate if requested.	
IDFG	Participate if requested.	
MFWP	Participate if requested.	
ODFW	Participate if requested.	No efforts were made this quarter.

Region	1) Organize and hold a meeting of the regional data management projects to discuss current activities and capabilities, investigate potential duplication of effort, and develop a plan for coordinated activities to meet regional data and information needs.	
	2) Call for, and if successful, participate in, a regional workshop designed to bring together regional, state and tribal agencies to establish data and information needs, determine data and information priorities, and determine a coordinated regional approach to developing and providing the priority data and information.	
SBT	Participate if requested.	
WDFW	Assist Regional staff as needed.	Provided list of data items available from StreamNet to assist subbasin assessments to WDFW subbasin planning leads and to StreamNet Project manager

Objective 5 - Project Management / Coordination: *Provide effective leadership that ensures the production of high quality products targeted at critical applications and the development of these products in a timely, cost-effective manner.*

Task 5.1 Manage Project Activities.

Administer all aspects of the project at the regional and sub-contractor levels, including oversight of budget, personnel, work statement preparation and implementation, coordination among participating agencies, active participation in steering committee work, and project reporting.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Provide normal supervision of StreamNet Library staff and the CRITFC database Programmer.	Staff continues to function effectively.
	2) Produce quarterly reports within 1 month after the end of each quarter	Delayed due to annual leave.
	3) Produce final report within 2 months of the end of the contract period	No work this quarter.
	4) Participate in Steering Committee meetings	Attended all SC meetings. Made several presentations on regional issues.
	5) Collaborate on developing a final detailed Statement of Work for the current contract and for FY01	Completed.

FWS	1) Participate in Steering Committee activities	Participated in January Steering Committee meeting in Portland
	2) Produce quarterly reports within 1 month after the end of each quarter	Completed first quarter report.
	3) Produce final report within 2 months of the end of the contract period	
	4) Create FWS StreamNet budget	
IDFG	Participate in Steering Committee activities. Manage all aspects of StreamNet in IDFG, including budget, personnel, and work management. Products will include: Annual IDFG StreamNet work statement; Quarterly and annual reports of progress; and, Participation in Steering Committee activities.	<ul style="list-style-type: none"> • Participated in February 2000 Steering Committee meeting. • Managed work flow, personnel and budgeting issues in IDFG StreamNet. • Completed IDFG portion of annual Statement of Work. Completed and submitted first quarter 2000 quarterly progress report for IDFG StreamNet.
MFWP	Administer all aspects of the project for Montana, including oversight of budget, personnel, work statement preparation and implementation, coordination, and project reporting. Participate in Steering Committee.	Ongoing.
ODFW	1) Attend StreamNet steering committee or specific technical data meetings as needed to address data issues.	Four staff members attended various portions of the StreamNet Technical Issues meeting to address tabular and GIS data issues
	2) Summarize/compile individual staff quarterly reports into one document, including fiscal year highlights, and plans for the next quarter.	Compiled and submitted the FY-99 Annual report, the 99-4 quarterly report, and the 2000-1 quarterly report.
	3) Coordination activities: Oversee and monitor personnel, budget, and other project activities.	Ongoing. Spent an excruciatingly inordinate amount of time this quarter on personnel related issues and paperwork.
	4) Prepare for and attend StreamNet steering committee meetings and specific technical data meetings as needed to address data issues.	Attended technical issues meeting in January and regularly scheduled Steering Committee meeting in February.
	5) Participate / attend appropriate conferences and submit conference agendas, proceedings, and presentations to PSMFC upon request	No efforts were made this quarter.
	6) Produce and provide a Statement of Work and budget proposal for ODFW	Developed (far too) detailed Statement of Work for Oregon.
	7) Contribute to the Oregon portion of Quarterly and Annual reports by providing period highlights, plans for the next quarter, and a data request/response log.	All staff submitted required reports for this period.
	8) Develop a mid-year status report for work items contained in individual work plans.	No efforts were made this quarter.

ODFW (cont.)	9) Summarize/compile individual CRM staff quarterly reports into one document, including fiscal year highlights, and plans for the next quarter, and deliver to Cedric	Completed.
Region	1) Provide oversight for the StreamNet Program	<ul style="list-style-type: none"> • Ongoing. • Utilized weekly staff meetings to track progress and guide future efforts • Worked with staff and Steering Committee on future direction for the project. • Continued meeting with cooperating projects (CRITFC and FWS this quarter) to coordinate activities. • Met in person and by phone with John Piccininni, BPA COTR, to discuss project direction and capabilities.
	2) Supervise and train StreamNet regional staff	<ul style="list-style-type: none"> • Continued supervision of three staff members at the Gladstone office. Authorized computer system training for the StreamNet Database Manager. • Bill Kinney started January 3 as the StreamNet Database Manager. Much time was spent familiarizing him with the StreamNet database and computer system at PSMFC. Training in NT administration and SQL Server was authorized. Training and orientation will continue at least through the end of June 2000. • Developed a contract to extend employment for Doug Burch on a part time basis to produce several programming products.
	3) Develop program budgets and manage / monitor expenditures	Made adjustments to the current budget to reflect changes in staffing unanticipated at the time the original budget was developed.
	4) Coordinate with other regional data management projects to coordinate and cooperate to maximize data and information flow, maximize complementary aspects, and to avoid duplication of effort.	Developed a detailed report responding to proposed changes in the technological approach to distributing information regionally. The report was not released, but served as the basis for developing recommendations for the ISRP panel reviewing the database management projects and developing an issue paper for the projects submission to the FWP amendment process.
	5) Coordinate with data collecting agencies and organizations to determine data availability and encourage data and information being made public.	<ul style="list-style-type: none"> • Continued meeting with cooperating projects (CRITFC and FWS this quarter) to coordinate activities. • Worked with Steering Committee members to develop a list of available data for the Subbasin Planning effort and the PPC Annual Report.

Region (cont.)	6) Coordinate with regional management agencies / entities and data using entities to determine information and data service needs and to assure rapid response to reasonable data and information needs.	<ul style="list-style-type: none"> • Met with a member and several staff of the Power Planning Council regarding data needs/availability and on how the project can contribute to PPC programs. • Attended several PPC meetings relating to Subbasin planning and the FWP amendment process • Met with CBFWA staff and state agency managers regarding data distribution, project capabilities and data needs. • Met with Bill Bogue, EPA, on progress developing data for stream temperature and macroinvertebrates. These data have relevance within and beyond the Columbia Basin. • Coordinated with USGS and EPA on the future need to support the PNW data in the National Hydrographic Database, which StreamNet is currently doing for the PNW 1:100K hydrography. Began developing options on how that may be done.
	7) Produce quarterly reports within 1 month after the end of each quarter	The first quarter report was written as in previous quarters by appending reports from the individual projects. A new consolidated format will be developed for the second quarterly report (this report) that organizes actions by all project components by task.
	8) Produce final report within 2 months of the end of the contract period	The 1999 Annual Report was finalized and submitted to BPA. This report was delayed by the turnover in staff last year and early in this project year.
	9) Manage and serve the StreamNet Steering Committee through: Organizing and conducting committee meetings at least quarterly Calling additional meetings as needed to address timely issues Actively consulting with Steering Committee on program activities	Organized and held a Steering Committee meeting and a technical issues meeting.
	10) Develop a final detailed Statement of Work for the current (2000) contract	Developed and finalized a revised, more detailed Statement of Work that is organized by task and combines actions by all project participants in a single consolidated report. This revised SOW amends the original SOW and provides greater detail in work products for the project this year.
	11) Prepare a project proposal and Statement of Work for FY 2001	No work was done on this during the quarter.
SBT	1) Produce quarterly reports within 1 month after the end of each quarter	First quarter report submitted on time.
	2) Produce final report within 2 months of the end of the contract period	SBT portion of 1999 annual report was submitted.
	3) Participate in Steering Committee meetings	Unable to attend February meeting due to conflict with other meetings.

WDFW	The WDFW StreamNet state coordinator will participate in Steering Committee activities. He will also manage all aspects of StreamNet in WDFW, including budget, personnel, and work management.	<ul style="list-style-type: none"> • Participated February 7-8 Steering Committee meeting at CRITFC, generating and delivering informal project progress report • Generated and delivered Q1 written progress report • Provided FY2000 statement of work in newly-designed format, along with updated staff allocation matrix • Provided training in MS Access97 for two data compilers
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Task 5.2 Participate in Fish and Wildlife Program Development Activities.

Organize, facilitate, and/or participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB/ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might more effectively contribute to the Fish and Wildlife Program (FWP). Participate in advisory groups, task forces, and other groups whose purpose is enhancing the effectiveness of the Fish and Wildlife Program and its data development activities.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB/ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might more effectively contribute to the Fish and Wildlife Program.	
	2) Where appropriate, participate in advisory groups, task forces, and other groups whose purpose is enhancing the effectiveness of the Fish and Wildlife Program and its data development activities, with particular emphasis on subbasin planning and R/M/E issues.	No work this quarter. See also tasks above.
FWS	No work planned this year.	
IDFG	1) Participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB/ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might more effectively contribute to the Fish and Wildlife Program.	Reviewed StreamNet presentation for ISRP review of FWP data management programs.

IDFG (cont.)	2) Where appropriate, participate in advisory groups, task forces, and other groups whose purpose is enhancing the effectiveness of the Fish and Wildlife Program and its data development activities.	
MFWP	Participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB/ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might more effectively contribute to the Fish and Wildlife Program.	Provided review and input to documents and presentations.
ODFW	Participate in Fish and Wildlife Program advisory groups and applicable regional policy, planning, and management forums and provide a written summary of activities in quarterly progress reports.	Participated in the ISRP review of regional data management projects.
Region	1) Participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB / ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might most effectively contribute data / information and support to the FWP.	<ul style="list-style-type: none"> • Participated in meetings of the PPC and CBFWA, with particular focus on data needs for the Subbasin planning and assessment activities • Participated in a meeting with PPC member Karier and staff regarding data needed for an annual report to the Council.
	2) Where appropriate, participate in advisory groups, task forces, and other groups whose purpose is enhancing the effectiveness of the Fish and Wildlife Program and its data development activities. Areas of particular emphasis are a) participating in FWP monitoring and evaluation activities, and b) exploring opportunities for integration of StreamNet data exchange formats into Fish and Wildlife Program contract terms and conditions.	StreamNet personnel met with USFWS personnel to demonstrate the StreamNet habitat restoration projects database and interface. USFWS has several needs to respond to, and are looking for a single database that might meet their needs.
	3) Participate in regional reviews of data management projects	Participated in the ISRP review of regional data management projects. Developed a list of questions for the review. Gave a presentation to the panel on project objectives and capabilities, and gave a brief demonstration of project data.
SBT	1) Participate in appropriate coordination meetings with BPA, CBFWA, the Council, ESA officials, ISAB/ISRP, and/or staff and management of participating organizations aimed at identifying ways that StreamNet might more effectively contribute to the Fish and Wildlife Program.	Participated in the ISRP review of regional data management projects. Participated in CBFWA Anadromous Fish Managers meetings.

SBT (cont.)	2) Where appropriate, participate in advisory groups, task forces, and other groups whose purpose is enhancing the effectiveness of the Fish and Wildlife Program and its data development activities.	Not applicable this quarter.
WDFW	No specific work planned; available as needed for coordination.	<ul style="list-style-type: none"> • Met with NWPPC staff 2/7 to discuss Tom Karier's draft annual report • Met with Brian Walsh, NWPPC on 3/3 to coordinate efforts to support subbasin planning with StreamNet data, staff, and services • Provided responses to 9 questions in advance, then participated in ISRP review of the StreamNet project, 3/21 at PSMFC

Task 5.3 Coordinate with Other Related Activities.

As needed, produce public information materials including updated versions of the project brochure, computer demonstration materials, and/or other appropriate materials.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	1) Seek closer cooperation, coordination, and consistency of information management practices and standards between salmon restoration programs in the Columbia Basin (e.g. Mid-Columbia PUD's, LSRCP) by participating on appropriate work groups.	Had extensive meetings and discussions with NPPC Multi-Species Framework about making their information available through StreamNet. They are resistant and little progress was made.
	2) Promote greater regional and national coordination of information management applications at appropriate professional meetings.	No work this quarter.
FWS	No work planned this year.	
IDFG	Continue to coordinate with regional and state-level fish and wildlife activities that have relevance to the goals and objectives of StreamNet.	Communicated with IDFG representatives on CBFWA regarding role of StreamNet in subbasin planning and monitoring & evaluation.
MFWP	Maintain communication and help coordinate activities with Montana Department of Natural Resources, Department of Environmental Quality and the Natural Resource Information System as they relate to StreamNet activities. Participate in appropriate conferences by preparing papers and giving presentations.	Coordinated with many other state and federal agencies on a variety of StreamNet related topics.

ODFW	Establish / maintain working relationships with major data collection projects within and outside ODFW to promote efficient and beneficial data sharing.	<ul style="list-style-type: none"> • Processed Bull Trout Survey coordinate data from a project in the upper Willamette in order to assign stream LLIDs and measures. • Met with Oregon Natural Heritage staff to get an update on their fish mapping efforts and to discuss potential future cooperation • Coordinated with numerous other state and federal agencies on a variety of StreamNet related topics.
Region	1) Coordinate the efforts of the StreamNet project with other data compilation projects occurring in the region. Address issues of data gaps, duplication of effort, data set integration, georeferencing standardization, scientific rigor, management needs, etc.	Participated in review meetings with PTAGIS and CWT programs for PSMFC.
	2) Organize an annual meeting of regional data compilation projects to facilitate coordination and communication. See Task 4.7.b.	No activities this quarter
SBT	No work planned this year.	
WDFW	Maintain working contact with Washington Hydro Framework partners and USGS Regional Ecosystem Office staff to promote effective sharing of hydrology base layers and attached fish and habitat data.	

Task 5.4 Prepare Public Information Materials.

Maintain communications between StreamNet and other applicable regional and state-level fish and wildlife activities to identify means for collaborative data collection, storage, and dissemination. Collaborative data activities will target tribal fishery programs within the Columbia Basin, federal land managers' fishery programs, state fish and wildlife agencies, and, with respect to water use and stream development, state water resource management agencies. Collaboration with coast-wide and private data collection/compilation efforts will be pursued when this supports overall project goals. Areas of particular emphasis are 1) participation in Fish and Wildlife Program monitoring and evaluation activities, and 2) exploring opportunities for integration of StreamNet data exchange formats into Fish and Wildlife Program contract terms and conditions.

Task 5.4.a. Prepare Public Information Materials. As needed, produce public information materials including updated versions of the project brochure, computer demonstration materials, and/or other appropriate materials.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	Produce and update a Library brochure and Access guide listing services, hours and cost recovery fees.	Updated Library Brochure and Access Guide. Also produced a bookmark with contact information for the Library.

FWS	No work planned this year.	
IDFG	No work planned this year.	
MFWP	Montana will participate in review and recommendations.	No work assigned.
ODFW	1) Write informational article for the ODFW Monitor or Inside Tracks on the Fish Presence Survey database development and its utility.	No efforts were made this quarter.
	2) Write informational article for the ODFW Monitor or Inside Tracks on the Barriers database development and utility	No efforts were made this quarter.
	3) Write informational article for the ODFW Monitor or Inside Tracks on the development of a component information system and utility.	No efforts were made this quarter.
	4) Write informational article for the ODFW Monitor or Inside Tracks on distribution data development efforts.	No efforts were made this quarter.
	5) Develop an informational PowerPoint presentation about the SN Project.	No efforts were made this quarter.
	6) Write informational article for the ODFW Monitor or Inside Tracks on custom database and GIS projects/products services provided by the project.	No efforts were made this quarter.
Region	1) Update the existing StreamNet brochure	Reviewed the existing brochure.
	2) Create improved web page help files to assist users in understanding and making better use of StreamNet information.	Held several meetings to review the existing web site for usability. Began making recommendations for site improvement. No specific work on the help files yet.
	Unplanned	Met with Sid Clouston, Lenora Oftedahl, Tom Backman, and various others to discuss a potential pilot project to provide public access to fisheries related data in the Portland area. The proposed project has not taken off so far.
SBT	No work planned this year.	
WDFW	No work planned this year.	

Task 5.4.b. Participate in informational meetings/conferences. Participate in appropriate state, regional, and national educational and professional conferences, including, where applicable, giving presentations, preparing poster session materials, and contributing to conference proceedings.

Entity	Work Component	Accomplishments, Second Quarter, FY2000
CRITFC	See task 3.5	
FWS	No work planned this year.	
IDFG	1) Participate in state, regional, or national educational or professional conferences.	
	2) Serve as chairman and organizer for the 2001 ArcInfo User's Group Conference scheduled for October 2001.	Met with Sun Valley representatives to reserve facilities for conference in October 2001.
MFWP	Participate as opportunities arise to highlight StreamNet programs & data	Trained biologist staff of Montana Department of Transportation.
ODFW	Participate in appropriate meetings & conferences as opportunities arise to highlight StreamNet programs & data	Participated in meetings with the ODFW Oregon Plan monitoring team members.
Region	Participate in appropriate meetings to explain the StreamNet project, solicit new data and information, or to present relevant data from the SN database	No activity this quarter
SBT	No work planned this year.	
WDFW	Participate as opportunities arise to highlight StreamNet programs & data	

Accomplishments Not Tied to a Specific Task

The following accomplishments were achieved during the quarter but were not tied to a specific task or where not anticipated when the Statement of Work was developed.

Entity	Accomplishments, Second Quarter, FY2000
CRITFC	<ul style="list-style-type: none"> • Attended conference as an exhibitor: Columbia River Conference. • Developed presentation on StreamNet Library for ISRP review.
FWS	
IDFG	
MFWP	Continued to provide MRIS data and map products to the Montana Native Species Management Area efforts, coordinated with the Natural Heritage Program on Species of Special Concern Lists and data centralization.
ODFW	<p>Three staff members attended the Habitat Division retreat.</p> <p>Spent considerable time reviewing and commenting on StreamNet's response to the Fish Passage Center "Regional Database Technology Review" memo of 10/13/99.</p> <p>Created a new master image database, I031500M.mdb. Finished building the new database structure (compliant with the 2000.2 DEF) and appending the data</p> <p>Produced a preseason report summarizing salmon, steelhead, and shad stock status and Columbia River spring and summer fisheries and post on ODFW/CRM web page.</p> <p>Began working on <i>Status Report, Columbia River Fish Runs and Fisheries, 1938-1999</i>.</p> <p>Updated Federal and state status attribute information associated with salmonid distribution data.</p> <p>Developed presentation materials on fish distribution information for the Oregon Salmon Core Team.</p>
Region	<ul style="list-style-type: none"> • To help promote more effective communication between StreamNet participants, we investigated several possible tools for a bulletin-board type system. No solution has yet been found that is available and would be more useful than email lists. • Prepared a summary of StreamNet data holdings. This summary was presented to a PSMFC all-staff meeting. At this meeting, made contact with PSMFC staff from other projects who have in the past provided data for the StreamNet database. Preliminary plans were made for an update to these data types (marine commercial and recreational harvests). • The StreamNet data holdings summary mentioned above was also presented to the Independent Scientific Review Panel, which was evaluating the database management projects in the Columbia River basin. Met with the ISRP group on March 20, and presented a brief overview of the StreamNet program, database, and challenges being faced by the project. Presented to the ISRP a summary of the very slight data duplication which exists between StreamNet and the other data management projects in the basin (RMIS (CWT), FPC, PTAGIS, DART).
SBT	
WDFW	

Work Planned for Next Quarter

Entity	Task No.	Work Planned for Third Quarter, FY2000
CRITFC	3.5 3.1 4.2 4.5	Finalize mailing list and mail needs assessment. Complete 50% of NPPC collection integration. Complete final draft of R/M/E report Respond to ISRP report; Provide extensive input to NPPC amendment process and discussions.
FWS		
IDFG	1.1.a 1.4.a 1.5.b 2.1 2.6 2.7	Populating preliminary anadromous barriers table with barrier type information. Continued to add NID and state dams data to 100K hydro and build attribute tables Continued to compile non-FWP restoration project data. Continue to develop Fish Information System (FIS) Continue to value-add information to the 100k hydro for use in the FIS Continue to respond to data and map requests
MFWP		Finish regional visits for data collection and begin entering data into MRIS Receive routed hydrography with LLID from StreamNet regional Staff Convert MFWP restoration database to DEF Continue to work with NRIS on moving NHD along; attend NWPPC meeting in Helena in May, provide further input into subbasin planning process and coordinate with MFWP staff Provide maps for review of existing barrier data in MRIS Update hatchery, outplants database if needed Review various dams database and create a Montana portion Review habitat data structures that state and federal biologists are currently using and compare with ICBEMP core variables Update data on MRIS query site Link MRIS query site with StreamNet Attend Steering Committee meeting in Vancouver.
ODFW		
Region		<ul style="list-style-type: none"> • Continue review of web site and developing recommendations to improve usability • Develop questions for a survey of the web site users into how well their data needs are being met • Develop a PPC amendment recommendation related to data management • Prepare and submit project renewal documents and budget estimate
SBT		
WDFW	1.1(d,e,g,i), 1.2d, 1.5a, 1.6a, 2.1, 2.3, 2.6, 2.7, 5	Work listed above for these tasks that has not been started or completed

Use Summary Statistics:

Table 1. Summary of Monthly Use of the StreamNet Web Site

Year / Month	Number of Unique Visits	Total Number of "Hits"
1998 October	13,401	134,558
1998 November	13,828	133,990
1998 December	10,006	100,944
1999 January	12,264	126,783
1999 February	13,721	143,167
1999 March	14,860	155,930
1999 April	12,350	145,118
1999 May	11,220	126,857
1999 June	7,004	94,684
1999 July	9,574	102,058
1999 August	9,052	101,141
1999 September	9,694	112,371
1999 October	11,469	157,039
1999 November	10,846	153,913
1999 December	11,557	128,984
2000 January	11,658	129,160
2000 February	13,250	168,756
2000 March	13,499	177,588

Table 2. StreamNet GIS Data Downloads from the ODFW FTP Server: January 2000 – March 2000:

Data	Total Downloads	Number of Users
Bull Trout	98	40
Fall Chinook	173	35
Spring Chinook	172	31
Chum	56	18
Coho	165	40
River Routes	254	24
Summer Steelhead	157	32
Winter Steelhead	278	24
PDF – CSRI maps	191	53
Metadata	466	117
Core Areas	30	15
Cutthroat	48	25
Barriers	27	9
Hatcheries	18	12
Redband	73	8
Snapshot images***	373	111
Total downloads	2579	

***Note: This is a new product which received a great number of hits during the quarter, possibly indicating a need for simple images that can be downloaded and printed without the use of GIS software.