StreamNet Project

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Fiscal Year 2004
Second Quarter Progress Report

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Introduction

StreamNet is a cooperative, multi-agency data compilation and data management project authorized by the Northwest Power Planning Council's Fish and Wildlife Program (FWP) and is funded primarily by the Bonneville Power Administration. The project is administered by the Pacific States Marine Fisheries Commission (PSMFC). Three fourths of the project consists of sub-projects within the state fish and wildlife agencies, Columbia River Intertribal Fish Commission and the US Fish and Wildlife Service to develop databases within the respective agencies and to facilitate data transfer regionally. The remaining fourth consists of the regional staff at PSMFC which includes project management, database management and data dissemination functions.

The StreamNet Project compiles, manages and distributes information related to fish resources in the Columbia River basin, with additional information available for the rest of the Pacific Northwest. The state, tribal and federal fish and wildlife agencies collect and utilize data related to the region's fish and wildlife resources to meet their own mandates. A subset of these data, primarily the annually collected types of information that are routinely used to monitor trends within fisheries and populations and provide management information, are compiled by StreamNet into regionally standardized formats and publicly distributed. In this manner, data common to fisheries management but collected and stored in multiple formats by the individual agencies are standardized and made uniformly available basin wide. StreamNet also ties all data to the regional 1:100,000 scale routed hydrography (GIS stream network) so that different kinds of data can be compared on a geographic basis and mapped. The project utilizes the Internet as its primary means of data distribution, but also provides custom data services to FWP participants. The StreamNet web site provides access to information in a queriable database and also provides maps, individual data sets not contained in the queriable database, and library references. All data in the StreamNet database are referenced to source documents that are housed in the StreamNet Library. Work reported herein is tied to the specific jobs contained in the FY-04 Statement of Work, available at http://www.streamnet.org/about-sn/project_management.html.

Work priorities for FY 2004 include updating existing long term data sets, managing the data and infrastructure necessary to maintain and deliver data, maintaining the StreamNet Library, providing data services to regional entities associated with the Fish and Wildlife Program (including subbasin planning), and project administration. This report documents accomplishments made by the project and its cooperators during the second quarter of Fiscal Year 2004 (FY-04). Since the cooperating agencies work on different jobs throughout the year, and not all agencies address the same jobs in their respective portions of the Work Statement, the work accomplished in this quarter varies by cooperator. Tasks and jobs that did not have any work addressed during the quarter are not included in this report.

A significant change in project focus occurred in the second quarter of FY-04. While routine data development and updating continued to a degree, a large amount of effort was diverted to data inventory work for the Columbia Basin Fish and Wildlife Authority's (CBFWA) Collaborative Systemwide Monitoring and Evaluation Project (CSMEP). This effort is seen as a top priority by the region's fish managers despite the fact that it alters priorities established in the StreamNet Statement of Work and will result in the delay or cancellation of some planned work on existing data sets. Most other routine work, including project administration, computer system maintenance, routine data delivery and coordination with other programs continued during the quarter.

Key highlights of activities by all project components this quarter are presented by cooperator, as follows:

Regional StreamNet at PSMFC (Region)

The Second quarter began with completing the move to the new PSMFC headquarters. Although the servers were moved and brought back on line in mid December, most personal moving in did not make much progress until after the holidays. The cubicle spaces were not all completed by the move in date, so there was repeated disruption until all cubicles were finished. The printers and plotter were installed on the network this quarter after the cubicles were completed.

The other key highlight of the quarter was the effort put into the CSMEP project under CBFWA. Most of the work to inventory data was done by data technicians in the Oregon, Washington and Idaho StreamNet projects, but regional staff participated in CSMEP meetings to integrate data management into the CSMEP effort. Significant progress was made on the six test subbasins, one data rich and one data poor in each state. The data inventories were provided to CBFWA and the CSMEP partners are now reviewing the data and assessing its capacity for addressing the key performance measures.

Time was also spent participating in several other regional scope efforts that include significant data management components. Besides CSMEP, these included the Pacific Northwest Aquatic Monitoring Program (PNAMP), the Northwest Environmental Data-network (NED, which grew out of the Columbia Basin Cooperative Information System), and the effort to coordinate data on expenditures under the Pacific Coast Salmon Restoration Fund (PCSRF).

Columbia River Intertribal Fish Commission (CRITFC)

Maintaining the StreamNet Library is the largest portion of the CRITFC StreamNet budget and effort. Despite the resignation of the Assistant Librarian in January and operating at reduced staffing for the remainder of the quarter, all essential services were maintained without interruption. Efforts by the StreamNet Library to support subbasin planning efforts were reduced, however. The acquisition and digitizing of core documents was slowed.

Strong support was provided to subbasin planning teams in Oregon through a combination of StreamNet and other CRITFC staff. This work included standardizing databases and GIS coverages, including metadata, providing support to teams developing EDT input datasets, and developing an archiving strategy using the StreamNet system.

The Project Leader also participated in several regional inter-agency efforts to bring greater standardization to data collection and management efforts. Throughout these discussions a strong role for StreamNet was advocated.

Idaho Department of Fish and Game (IDFG)

Idaho StreamNet continued to contribute to subbasin assessments for the Salmon, Boise/Payette/Weiser, Middle Snake and Upper Snake subbasins. The work included technical expertise, database design, and data interpretation. Our Data Coordinator spent about 20% of his time on subbasin assessment work.

2003 index redd counts, hatchery return and age composition data were compiled.

We started new efforts to link all IDFG stocking locations to LLID and build metadata for our GIS layers.

We continued to solidify the IT infrastructure for IDFG/StreamNet, configuring a new domain controller and making upgrades to our backup and recovery systems.

In addition to progress on our .Net framework, we started two new applications: an Import/Export Module and a GPS Coordinate Manager.

Montana Fish, Wildlife and Parks (MFWP)

Montana StreamNet completed data entry for the 2001-2002 field season for distribution and life history. Distribution was updated based on stream surveys and genetic sampling efforts. Regional data meetings with MFWP field staff were conducted during the quarter. Data for the 2003 season were gathered and filed for later data entry, although some data were entered during this quarter.

MFWP hatchery release data for 2003 has been obtained. The proposed hatchery releases DEF is still under construction. There was a delay in getting an exact location for a new state fish hatchery. Data will be exchanged in the third quarter. Several streams were added to the hydrography this quarter from the 1:24,000 hydro for fish distribution purposes; the database and SDE hydro layer were also updated. NRIS created a non-spline annotation layer that works well at a large scale. To better understand its utility in map production, the layer needs to be converted and tested. The FWP Libby office's data for BPA mitigation projects was received and will need to be entered in the third quarter. The limited screening data the department has collected was received. An attempt will be made to convert these data to the StreamNet format in the third quarter. The format for the field maps displaying distribution and genetic sampling location and data were completed. Maps have not been sent due to missing genetic results from the lab. Maps should be sent out earlier in the third quarter. Work continues on the resident release DEF. A review was conducted of the new system for independent datasets, with comments provided to StreamNet staff. Internal and public websites have been created to access the reference materials from the FWP website. All references for fish and wildlife are now being entered into one system.

A meeting was held with the Fisheries Division Administrator and the BPA mitigation project leader to discuss CSMEP. Since a recommendation has been made to delay the CSMEP efforts until after subbasin planning is completed on May 28, it was determined that Montana would wait until June to begin any work that they might do related to the CSMEP effort.

We reviewed and made comments concerning the QA/QC white paper the Steering Committee has been working on. We met with Fisheries Division staff to discuss screening data, CSMEP and PNAMP. The Project Manager attended the third session of Management and Leadership Development conducted by the department. Many aspects of communication and conflict resolution were incorporated into the session. We reviewed monthly budget reports to better understanding SN funding use.

MFWP and the MNHP collaborated this quarter on the a review of the Species of Concern list, a quantified approach to the inclusion of a species on the list and a review/determination of an appropriate approach to the development of Element Occurrence records. The quantification of a species on the list utilized extensive data from the Montana StreamNet data including distribution and genetic purity. Have worked closely with the Montana Geographic Information Council on funding proposals for statewide GIS layers. We met with Fisheries Division staff during regional visits to assess their data management needs.

Oregon Department of Fish and Wildlife (ODFW)

Oregon StreamNet made progress on most project deliverables that were slated for attention during this quarter. CBFWA's request for us to conduct data inventory work for the CSMEP project, coupled with numerous position vacancies led to the postponement or cancellation of some planned activities. Support of the CBFWA effort continued throughout this report period. Significant effort was directed toward filling the six vacant positions, with three being filled this quarter, and the remainder anticipated to be filled next quarter.

Specific deliverables completed this quarter include the release of new coho distribution and observation data for Oregon, submission of an updated Trend dataset, assignment of location identifiers to more than 1,000 additional hatchery release sites, internal and external project coordination, reference submissions to the StreamNet Library, and release of a new Oregon Dams dataset.

A great deal of work was accomplished this quarter related to data and database management infrastructure improvements, including tool and metadata development, which are described in this report. The ability to report complete summarized NRIMP web site statistics was restored this quarter and the statistics are provided.

Staff continued participation in Oregon Subbasin Planning support, including participation in related meetings, providing technical support, gathering needed datasets to address EDT and QHA attribute ratings, and providing feedback on data related topics as needed. This effort has primarily been funded through a special contract with the Council through the Oregon Coordination Group.

Work on various data update protocols continued this quarter. The draft Distribution Data Update Protocol will be distributed for comment during the next quarter. The recent pesticides ruling has led to some requests for changes in Oregon's distribution layers, and we anticipate many more coming in, so getting this protocol finalized and adopted has been elevated in priority by the agency.

Washington Department of Fish and Wildlife (WDFW)

Recent StreamNet work to develop a more comprehensive hatchery returns data exchange format came at a very useful time. Washington StreamNet, PST, and WDFW Hatchery Data staffs are collaborating in an effort to standardize and streamline the data tables and procedures used to manage hatchery returns data. Our internal efforts can be targeted toward the StreamNet DEF "model", which will facilitate subsequent conversion and exchange of annual hatchery returns data to StreamNet.

Staff work on improving internal hatchery facilities source spatial dataset discovered other WDFW staff members who are using parallel sets of information for mapping or summary purposes. Thus, the StreamNet-sponsored work has helped spark formation of an internal WDFW work group whose task is to modernize this dataset to support both StreamNet data exchange as well as priority internal needs.

Tightly-focused habitat restoration project work funded under the PCSRF contract last quarter has blossomed into a broader initiative that led-StreamNet staff to working with staff from IAC-PRISM, Northwest Indian Fisheries Commission, NOAA, and WDFW's Landowner Improvement Program. While not all groups have identical needs, WDFW StreamNet staff are using the best ideas from all projects to influence finalization of a more responsive StreamNet habitat restoration project format. We hope that some of this momentum will carry forward into subsequent quarters, so that a more usable StreamNet DEF emerges for use by those who are still searching for a format that isn't tightly formed around the needs of a single initiative.

Objective 1 Data acquisition and development

Support the need for region wide fisheries data for research, monitoring, modeling, and management through acquisition and regional standardization of new information and updates to previous information for priority fishery data types. Data types may be addressed by all data providing agencies, or for specific data types by a single cooperating agency on behalf of the entire project. This Objective addresses both anadromous and resident fish species, although priorities may differ. The tasks under this objective are identified as high or low priority under the constraints imposed under base level funding. Work on the low priority types will largely be limited in scope or effort unless new funding is approved.

Objective 1 Data acquisition and development

Task 1 Anadromous distribution and life history (habitat use) at the 1:100,000 scale

Document the occurrence, distribution and life history characteristics of anadromous fish species. Project participants made major updates last fiscal year utilizing the new Data Exchange Format (DEF). Maintenance of this data set will continue. This is a high priority data set.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Update 100K anadromous fish distributions based on input obtained from subbasin assessment work and NOAA Fisheries critical habitat designation.	With IDFG/StreamNet assistance, the subbasin assessment team completed their distribution update for Chinook, steelhead and bull trout in the Salmon River Basin. We will begin migrating it into the StreamNet database next quarter.
ODFW	1	Update, maintain, correct and exchange anadromous fish distribution and documentation information.	The GIS Analyst created approximately 150 Species/Run/4th field HUC Observation pdf maps and posted them on the Web. Corresponding image maps to facilitate access to the maps were also developed and posted. He also created version 12 of the 1:100,000 scale coho distribution dataset and version 7 of the 1:24,000 scale coho distribution dataset, along with associated snapshot images, and posted everything to the ftp site. Supplementary Western Oregon Rearing Project observation data was incorporated into the Observation database, resulting in a new 1:100,000 scale coho observation dataset. New pdf maps for the 9 HUCs affected were created, and all of it was posted to the ftp site. The availability of updated distribution and observation datasets and maps was announced during the week of February 1st to our internally managed update list as well as the Framework Implementation Team BioScience Listserve

Objective 1 Data acquisition and development

Task 2 Resident fish distribution and life history (habitat use)

Document the occurrence, distribution and life history characteristics of resident fish species. Existing resident fish distribution will be maintained, and project participants will begin expanding data for additional species. This is high priority for Montana and Idaho, and new data will be developed by the other states as time allows.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Update 100K resident fish distributions using new IDFG data surveys and sources, including westslope cutthroat, Yellowstone cutthroat, interior Columbia-basin redband, and bull trout.	We linked lake survey databases from the IDFG Salmon Region, IDFG Southwest Region and Boise National Forest to the StreamNet hydrography.
MFWP	1	Complete Distribution and Use Types data sets from data collected from biologists, documents and reports during 2001-2002 using LLID stream routes and Montana's lakes coverage and watercode system. Exchange with StreamNet. Complete distribution and use type data sets for 2002-2003. Update entire state, including missed data from Western Montana in FY03. Focus on target species during the year if opportunity arises. Exchange the data to the regional database in the approved DEF format.	Data entry was completed from the 2001-2002 field season for distribution and life history. Distribution was updated based on stream surveys and genetic sampling efforts.
MFWP	2	Visit MFWP, other state and federal fisheries biologists in 2004 to collect 2002-2003 fish distribution and supporting survey data and references. Input all this information into the MFISH tables. To aid in visits, provide maps and other support documents to biologists.	Regional data meetings were conducted during the quarter. Data were gathered and filed for later data entry. Some data were entered during the quarter.
ODFW	1	As time and funding permits update, maintain, correct and exchange resident fish distribution and documentation information.	The GIS Analyst incorporated a subset of ODFW's Bull Trout sightings point layer into the Observation database. Input was limited to points where the exact location was known and where the data were based on surveys (not angling). Numerous additional records exist in the dataset that should be considered as "candidate" observation records that need to be brought up to the standards required for entry into the Observation database. We may evaluate whether these as potential may be appropriate for the Incidental Fish Observation (IFO) database.

Objective 1 Data acquisition and development

Task 3 Adult abundance in the wild

Develop and maintain (update) information on adult abundance for native fish species, resident and anadromous, including escapement, redd counts, peak spawner counts, trap counts, dam and weir counts, and resident fish populations (where calculated by other agencies). This is a high priority data type. Also included in this data category are data gathered during spawning ground surveys regarding straying of hatchery fish onto spawning areas, i.e., marked/unmarked ratio. These are lower priority under base funding.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Update mainstem Columbia and Snake River dam counts through 2003 and provide updated data to the StreamNet database.	This update is postponed until the third quarter due to the demands of supporting subbasin planning efforts.
CRITFC	2	Update available tribal spawning ground survey data.	This update is postponed until the third quarter due to the demands of supporting subbasin planning efforts.
IDFG	1	Complete the compilation of the 2003 field season redd count data from IDFG. Prepare the data for inclusion into StreamNet and submit.	We entered all of the 2003 index redd counts into our internal database.
MFWP	1	Collect all 2003 stream and lake fish survey data during field office visits; data may be one time visits, index streams and/or results from gill nets in lakes and reservoirs.	Regional data meetings were conducted during the quarter and data were gathered.
MFWP	2	Input 2003 data into MFISH, including trend, count and references. Through the DEF Process, we will explore the creation of a DEF for Montana's stream survey data. If DEF is not developed, Montana will look into submitting these data as a supplemental dataset to the StreamNet website.	Data entry continued in the second quarter.
ODFW	1	Update existing anadromous, resident, and non-game abundance and index trends through 2002. Opportunistically collect new trend information, including marked-to-unmarked ratio data (relative to dam, weir, spawning ground, etc. counts) and hatchery-fraction data.	Corrected trends were submitted to Regional StreamNet in mid-January. Due to staff changeover and the data inventory and cataloging work being done for the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP), collection and submission of new trend data has been delayed. It is anticipated that these data will be submitted before the end of the contract in September.
WDFW	1	Update and enhance the existing natural spawner database (escapement estimates and/or detailed counts) for available species (including a focus on steelhead data AND any dam or weir counts that might not already be captured in our on-going Adult Abundance collection).	Initial updates of the master escapement database with 2003 escapement and age data was begun by the Region 5 Data Compiler once CSMEP dataset work ended in January. After she left on maternity leave, the Assistant Data Manager took over escapement database updates and all general database maintenance tasks.

Objective 1 Data acquisition and development

Task 4 Hatchery releases

Develop and maintain (update) information on the release of hatchery reared fish. Emphasis this year will be on developing release data before release information is rolled up into PSC location codes. Release data for resident species under base funding will be developed only where the data are readily available (primarily Montana). Efforts will be made to complete cross references between PSC release codes and LLID stream location identifiers. This is a high priority data set.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Work with IDFG Fisheries staff to incorporate IDFG hatchery release data into StreamNet.	We held strategy discussions with IDFG Fisheries staff on the linking of IDFG hatchery release data directly to StreamNet hydrography and the possible development of a new hatchery release database and application. We began a project to link all hatchery release sites to the StreamNet hydrography.
MFWP	1	Exchange Montana's hatchery release data after development of a resident DEF and/or modifications to the existing anadromous hatchery release DEF. Number of years and number of waters will need to be determined.	MFWP hatchery release data for 2003 has been obtained. The proposed hatchery releases DEF is still under construction.
ODFW	2	Create a cross table to link Pacific Salmon Commission codes to LLID stream based locations to provide more precise locations for releases.	Hatchery release location information was received this quarter from one of the remaining ODFW Liberation Coordinators and incorporated into the PSC-Code/LLID translation database. The bulk of this effort has been completed. To date, of the 8,871 unique PSC-codes that needed LLIDs, 6,640 have been completed. This includes 430 records that had coordinates that needed to be converted to LLID. Our GIS Analyst was able to assign pre-existing LLIDs to approximately 25%, and created new LLIDs for the remaining records using the longitude and latitude values of the locations. Three hundred seventy-nine have multiple LLID possibilities that still need to be distinguished; and 1,852 need an LLID or some type of location information to be identified. We successfully associated over 700 of these records with Township/Range/Section information, which will enable us to either locate existing water bodies or assign new coordinates for these records. CSMEP work has delayed the completion of this effort. We anticipate completing this project during the next quarter and preparing a final report on the project.

Objective 1 Data acquisition and development

Task 5 Hatchery returns

Develop and maintain (update) information on the return, disposition and straying (e.g., from other hatcheries) of adult fish returning to hatcheries, including information on coded wire tags. This is an anadromous related task only. Priority will be placed on updating total return and egg take data through 2002. Development of disposition data is lower priority and would require additional resources. This is a high priority data set.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
FWS	1	Data received from National Fish Hatcheries will be processed and added to the new hatchery return file in the DEF, after a new program is written and debugged.	The Project Leader continued wresting with the intricacies of the 4.0 version of the PSC exchange format.
IDFG	1	Complete compilation of the 2003 field season hatchery return data from IDFG. Prepare the data for inclusion into StreamNet and submit	The 2003 hatchery return counts were entered into our internal database. We still need to obtain the fall Chinook data for Oxbow Hatchery.
IDFG	2	Convert existing hatchery return data to new DEF.	We began the migration of our internal hatchery release data into the newly designed tables, consistent with the new StreamNet hatchery release DEF. We need to complete a new data edit form to capture new data specified in the new DEF.
WDFW	1	Update and enhance the existing hatchery return database for available species per the newest DEF.	The Assistant Data Manager spent a considerable amount of time in January converting the master hatchery returns database (Paradox format) into a new MS Access hatchery return database which can accommodate the new Data Exchange Format for hatchery returns.

Objective 1 Data acquisition and development

Task 6 Dams and Fish Passage Facilities

Develop and maintain information on dam facilities. Update information as necessary. This is a high priority data set.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
MFWP	1	Continue to update Montana's spatial coverage and associated tabular file of dams. Exchange with StreamNet.	The regional data meetings with FWP biologists are still ongoing and are expected to be completed by May 31.
ODFW	1	Maintain and update, as needed, based on errors found in the Oregon dam and fish passage facilities information.	A new version of the Oregon Dams GIS dataset was made available in mid-February. Some minor spatial adjustments had been made since the last version and approximately 60 off-channel dams were also flagged. Over 100 new fish passage records had also been added since the last release in November 2002. The new GIS datasets, updated metadata and a new fish passage table were posted on the FTP site.

Objective 1 Data acquisition and development

Task 7 Hatchery facilities

Develop and maintain information on anadromous and resident hatchery facilities, including information on location, design, management and authorization. Update information as necessary. This is a high priority data set.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
FWS	1	The hatchery facility database file will be updated as needed.	No changes were noted in hatchery facilities.
MFWP	1	Update the StreamNet hatchery database with Montana's public and private facilities. Exchange with StreamNet upon completion.	There was a delay in getting an exact location for a new state fish hatchery. These data will be exchanged in the third quarter.
WDFW	1	Update the hatchery database, adding records and improving field entries as warranted, including record updates for related tables (i.e. HatcheryXProduction data).	The Data Manager researched the existing map making programs for data requests. The research revealed that another WDFW effort is supplying maps that do not pull from the master layer of hatchery facility points, starting discussions on how to meet all needs and coordinate efforts.

Objective 1 Data acquisition and development

Task 8 Harvest

Develop and maintain (update) information on sport and commercial harvest. Higher priority is assigned to anadromous species.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Complete and update ocean and Columbia River catch data through 2003	This update is postponed until the third quarter due to the demands of supporting subbasin planning efforts.
MFWP	1	Explore the possibility of exchanging Montana's limited creel survey data using the current Harvest DEF. Exchange if data is compatible and/or desired by Steering Committee	Some creel survey data were gathered during the biologist meetings.
ODFW	1	Compile and exchange Oregon sport harvest data through 2001.	Due to staff changeover and the data inventory and cataloging work being done for the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP), submission of these data was not completed by the deadline. It is anticipated that these data will be submitted before the end of the contract in September.

WDFW	1	Although we should only be in maintenance mode for this data set, WDFW re-organized their data collection process several times since our last StreamNet update (and it's still in flux) so it poses a large workload. As such, we need a large allotment of time before renewing this effort and this year we're devoting any discretionary time to barriers. As funding and time permits, compile freshwater harvest for key Columbia Basin salmonid stocks for both anadromous and resident data, using existing WDFW data sets (i.e. Angler Fish Database) and other sources. Standardize the data (to stock if possible), convert and submit it to the StreamNet database.	A Data Compiler assisted the WDFW Catch Data staff with processing incoming Angler Catch Record Cards.

Objective 1 Data acquisition and development

Task 9 Hydrography

Maintain a regionally consistent routed hydrography layer at the 1:100,000 scale. This LLID based hydrography is the basis for georeferencing and displaying locations for data in the StreamNet database, and as such is an essential data set. Data will be updated as necessary. Exploratory work will be initiated in preparation for the eventual, inevitable move to the 1:24,000 scale hydrography being developed by other entities.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	2	Complete lakes GIS layer for Idaho and incorporate into StreamNet.	We continued editing and adding new lakes to the StreamNet lakes layer.
MFWP	1	Complete updating the routes using the updated NHD layer; quality check the cross-reference between the LLID system and MFWP's watercode system (a system still used to index fishing pressure, hatchery plans and numerous other databases).	Several streams were added to the 1:100,000 hydrography this quarter from the 1:24,000 hydro for fish distribution purposes; the database and SDE hydro layer were also updated.
MFWP	3	Using ArcGIS, create new stream annotation layers at 3 scales; generalized, HUC level and Stream Level.	NRIS created a non-spline annotation layer that works well at a large scale. To better understand its utility in map production, the layer needs to be converted and tested.
ODFW	1	Maintain and update, as necessary, the 1:100,000 scale hydrography files for Oregon. Submit all changes to the StreamNet database at the Regional office.	The GIS Analyst initiated an assessment of discrepancies between California and StreamNet hydrography along the southern border of Oregon. Various hydro data models and datasets were reviewed in preparation for a meeting with StreamNet GIS staff to determine the best course of action regarding development of regional 1:24,000 scale hydrography data. The GIS Analyst participated in the meeting in early March. The general agreement was that the ultimate goal is to have an LLID-like set of routes that are built on top of the1:24,000 scale NHD linework. These routes would be integrated to the greatest extent possible with the NHD routes. In the interim, a concept was formulated to create a unique, "enhanced" 1:100,000 scale hydro layer that also includes 1:24,000 scale lines where aquatic resource data exist. However, a number of issues related to this concept remain, and will need to be addressed.

Objective 1 Data acquisition and development

Task 10 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. Preliminary work has been completed on this data type, but regional priority has not been assigned to developing these data. Work continues on improving the data structure and DEF, primarily through work being done by a related project in California. This currently remains a low priority data type under current base funding, but is ready should a higher priority be assigned by regional entities.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
MFWP	1	Continue to collect, centralize and maintain all stream restoration projects data for Montana using the "Future Fisheries Interface" which StreamNet staff maintains and the Fisheries Division inputs data. Exchange data to the Region twice during the year.	The FWP Libby office's data for BPA mitigation projects was received and will need to be entered in the third quarter.
ODFW	2	Input a small set of historic restoration project records as a test to scope the level of effort needed to input available historic information.	This task remains on hold due to a shift in priorities to the CSMEP effort (see Objective 4; Task 1 for information on the CSMEP effort). We anticipate working on this during the next quarter.
WDFW	1	If funding and time permits, convert habitat restoration project data stored in Washington's IRC's (Interactive Committee for Outdoor Recreation) PRISM database and submit to StreamNet. NOTE - We anticipate a pilot effort (under other funding) to compile other source habitat restoration data in StreamNet's newest format.	The Data Manager and temporary Compiler worked the full quarter on this data type for both a StreamNet and NOAA submission. At the time of NOAA's January 15 deadline, we submitted our current snapshot of the NWIFC PCSRF data to CDFG for conversion and submittal to NOAA in NOAA's preferred format. Under StreamNet funding, the Data Compiler continued improving the NWIFC dataset for an ultimate submission to StreamNet. We also improved and created lookup table cross-references, data dictionaries and user guide documentation to expedite and improve data capture. The Data Manager met with IAC's PRISM database manager (Debra Wilhelmi) for an overview of the PRISM database. After the meeting she started scoping the PRISM data for an ultimate StreamNet submission and to engage in DEF discussions. Before the March 31 DEF meeting, she also met with the WDFW Landowner Incentive Program (LIP) coordinator (Ginna Correa) to briefly discuss how LIP collects pertinent data. She learned they are not collecting tabular data and are agreeable to collecting the needed data via paper forms.

Objective 1 Data acquisition and development

Task 11 Barriers

Develop and maintain data sets for barriers to fish migration. This category is still being organized. Existing data on adult barriers will be maintained and updated as practical. Other sources of data will be explored. Work on juvenile barriers and culverts may require revisions to the DEF. The primary emphasis is on anadromous species except in non-anadromous areas. This is a low priority data set under current base funding, and will be addressed as time and other priorities allow.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Continue to compile barrier records.	With our assistance, the subbasin assessment team obtained barrier data on culverts and diversions for the Salmon, Boise, Payette, Wesier, Middle Snake and Upper Snake basins. The data are currently georeferenced by geographic coordinates and are not linked to LLID.
MFWP	1	Complete update to barrier location, species affected and other fields on stream barriers in Montana once the data collected during the Westslope Cutthroat Assessment Process conducted in 2002 is reviewed by MFWP biologists. Information will be collected on all species regardless of life history. Exchange Barriers data with the StreamNet database.	The regional data meetings with FWP biologists are still ongoing and expected to be completed by May 31.
ODFW	1	Update and maintain Oregon's Barrier data and minimal Fish Barrier data development based on new barrier information.	Work being performed on ODFW's Barrier database has centered on incorporating data from the State and County Culvert Inventory, which is being funded through FRIMA. This work is described in the Supplemental Information section of this report.

Objective 1 Data acquisition and development

Task 12 Juvenile data (abundance and outmigration)

Develop and maintain information on smolt production (as determined from smolt traps), juvenile abundance (as determined through snorkel, electrofishing, and other surveys), and smolt density model estimates. Primary emphasis will be on maintaining the existing smolt density model data and development of a DEF for these data. The rest of the work for this data category is still under development and will require additional resources to accomplish. This is a low priority data set under current base funding, and will be addressed as time and other priorities allow.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
WDFW	1	As funding and time permits, keep informed about other WDFW agency staff efforts to organize the juvenile data and scope existing juvenile data to plan future conversion and submission efforts.	The Region 5 Compiler continued work on Cedar Creek smolt and adult trap databases. Work included importing new data, updating existing records, and generating summary reports for biologist John Weinheimer.

Objective 1 Data acquisition and development

Task 13 Age

Develop and maintain information on age/sex composition of returning adults, primarily for anadromous species. Emphasis on this data type will increase once the draft DEF is tested and finalized. This is a low priority under current base funding.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
FWS	1	The Age table will be updated using the Snage program after processing is completed within the CRiS database.	The Project Leader continued working on programs to transform data from the CRiS Returns and Age formats to the StreamNet formats.
IDFG	1	Complete the compilation of the 2003 field season age data using hatchery returns data from IDFG.	The 2003 hatchery return age composition data were entered into our internal database. We still need to obtain the fall Chinook data for Oxbow Hatchery.

Objective 1 Data acquisition and development

Task 14 Production factors and run reconstruction

Develop and maintain information on survival, production factors, spawner / recruit estimates, and run reconstruction. This is a low priority data type under current base funding, but the existing spawner / recruit estimate data will be maintained. Current effort will focus on what aspects of this kind of data are most needed.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
All			No work was done on this task this quarter

Objective 1 Data acquisition and development

Task 15 Diversion Screening

Explore the availability of data on diversion screening. Capture data on screens as time and other priorities allow. The DEF will need to be finalized before much can be done with this data type. This is a low priority data set under current base level funding.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
MFWP	2	Work with MFWP Habitat Bureau to review diversion screening data collected as a result of FRIMA activities in Montana during 2003. Exchange if there are any data and if it is an appropriate format	The limited screening data the department has collected was received. An attempt will be made to convert these data to the StreamNet format in the 3rd quarter.
ODFW	1	Compile Oregon fish screening and diversion data. Data will be posted on the NRIMP site and linked to StreamNet as an 'as is' submission until a DEF is adopted.	The Oregon StreamNet staff member assigned to this task has left the project, and the position remained vacant through most of the quarter. It is uncertain at this time if this task will be completed before the end of the contract year.
ODFW	2	Capture GPS coordinates for water diversions and fish screens in the Willamette subbasin.	In preparation for obtaining GPS coordinates for Willamette Valley fish screens, our Data Technician contacted local Watermasters and downloaded owner information for the Calapooia and Long Tom Rivers from the Or. Dept. of Water Resources website.

Objective 1 Data acquisition and development

Task 16 Other data sets

On an opportunistic basis, develop other types of data as available or as requested by FWP participants. This relates to data relevant to StreamNet objectives which would be developed by StreamNet cooperators. Actual acquisition, standardization, georeferencing and distribution of these data will be dependent on available time and funding. These data may be included in the DEF in the future, or may be obtained and distributed as independent data sets in 'as is' condition. This is a low priority under current base funding.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
MFWP	1	Provide updated genetic results information on Montana's species of concern. Explore providing data on Whirling Disease results for Montana's streams and rivers; creel data if format is not appropriate for harvest DEF; and fishing pressure data on Montana's lakes and streams.	Several genetic letters were entered this quarter and fish distribution was updated. Receiving genetic letters from the UM Genetics Lab has been slowed due to loss of personnel on their end.

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 meet their policy, planning, monitoring, and management needs.

Objective 2 Data management and delivery

Task 1 System Administration

Manage and maintain the computer systems (hardware and software) necessary for supporting the tabular and GIS data systems at the regional and cooperating agency levels, including system backup.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Manage, maintain and enhance the computer systems (hardware and software) necessary for supporting the tabular and GIS data systems, including system administration, backup and recovery, hardware and software upgrades, and security.	We completed the installation and configuration of a new domain controller, obtained in the previous quarter. We completed an upgrade to our backup and recovery system. ArcSDE and ArcIMS were reconfigured using a new servlet. Nearing storage capacity on our SQL Server database, we installed additional hard disk storage.
MFWP	1	Manage, maintain and enhance the computer systems (hardware and software) necessary for supporting the tabular and GIS data systems, including system administration, backup and recovery, hardware and software upgrades, and security.	This ongoing work continued during the quarter.

ODFW	1	Manage, maintain and enhance the computer systems (hardware and software) necessary for supporting the tabular and GIS data systems, including system administration, backup and recovery, hardware and software upgrades, and security.	The Database Manager finished the basic objects that will allow our server log files to be summarized and analyzed. Work still needs to be completed on the real-time report generation components. Other routine systems administration activities were performed throughout the quarter, including Windows security and virus definition updates.
Region	1	Manage, maintain and enhance the existing tabular database systems, including hardware, software, tools, database structure, QA/QC activities, and system administration, backup and security.	Upgraded the Operating System of the main StreamNet database server from Windows NT 4 SP6 to Windows Server 2000. This upgrade was performed after backing up, then reformatting the RAID hard disk array, so required reloading SQL Server 2000, reattaching all databases, and rebuilding all user accounts, connections and stored files. This upgrade was intended to keep the database server compatible and performance tuned with StreamNet's map and web servers.
Region	2	Maintain and update, as necessary, the hardware and software, including ArcView and other tools, extensions and projects, that constitute the regional Geographic Information System. Provide system administration, backup and recovery, and security.	Routine GIS system maintenance continued through the quarter.
Region	3	Maintain and upgrade the StreamNet web server and software, including programming, tool development, system security, etc.	We upgraded the web server to Apache 2.048 and ColdFusion to ColdFusion MX 6.1. These upgrades appear to have improved the speed and reliability (already high) of our web query system and the StreamNet web site as a whole.
WDFW	1	Manage, maintain and enhance the computer systems (hardware and software) necessary for supporting the tabular and GIS data systems, including system administration, backup and recovery, hardware and software upgrades, and security.	Two staff members attended a two-day ARCGIS training session. One Vancouver based staff member had to work around a dying PC for one full month until a replacement was ordered and set up.

Objective 2 Data management and delivery

Task 2 Application and Interface Development

Develop computer applications and interfaces that facilitate the entry, management and dissemination of tabular and GIS data at the regional and cooperating agency levels. This will include development of new applications and tools as well as maintenance or modification of existing applications.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Develop data handling applications to ease transfer of tribal data to StreamNet	No work was done this quarter due to the demands of supporting the subbasin planning efforts.

IDFG	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	Work continued on the Idaho Fish and Wildlife Information System .Net framework, including the development of business rules that will maintain database integrity in things such as data validation, required fields, and proper domain values. We started an Import/Export module that will handle the transfer of data using an XML protocol. A new GPS Coordinate Manager was started. We have found this necessary because many biologists in IDFG use GPS to locate their surveys, but still do not have the ability to link directly to LLID. With this we can capture the coordinate in a standardized format and projection and link it to LLID ourselves. Simple maintenance level modifications were made to our Spawning Ground Survey application. We continued to port our Reference application to .Net, adding in the redd count and fish count features. Using the brand new Microsoft Reporting Services, we produced a web-based application for querying our redd count database. A similar reporting services application was begun for juvenile trapping data.
MFWP	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	The format for the field maps displaying distribution and genetic sampling location and data were completed. Maps have not been sent due to missing genetic results from the lab. Maps should be sent out earlier in the 3rd quarter. No major changes occurred to the user interface currently being used by staff.
ODFW	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	The Database Manager completed development of an ASP.NET framework that will be used to expedite development of web applications. The framework allows staff to work on different parts of an application and bring them together once coding is complete and ready for final distribution to the production web server. The framework handles all security and control creation and is dynamically driven from a database. ODFW's existing library bibliography information was merged from the InMagic program and the Access database into one database for conversion to MySQL. The Database Manager outlined the core components of the application utilizing our Web Application Framework and initiated development of several components of the application including index and search controls. Our new Assistant Database Manager created an MS Access to MySQL Converter for use with future projects, including the Bibliography and Fish Screen Databases.

Region	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.. Assist cooperating agencies with tool development, as requested. Tools may include input interfaces, error checking, geographic locators, etc.	We made some improvements to the subbasin planning forum tool for use by the Oregon subbasin planning group.

Objective 2 Data management and delivery

Task 3 Data (content) Management

Manage data at the regional and cooperating agency levels to assure timely and accurate data flow from source to final distribution. Activities include exchange of data to PSMFC, data loading, updating data, quality assurance procedures, metadata development, etc.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Manage data at the agency level (including data loading, data updating and quality assurance), develop and maintain FGDC compliant metadata for GIS data, work toward developing metadata for tabular data, and exchange data to PSMFC according to deadlines specified in this work statement.	Metadata were completed for all the GIS data developed for Oregon subbasin plans.
FWS	1	Manage data at the agency level (including data loading, data updating and quality assurance), develop and maintain FGDC compliant metadata for GIS data, work toward developing metadata for tabular data, and exchange data to PSMFC according to deadlines specified in this work statement	The Project Leader worked on CRiS programs to accurately calculate the number of coded-wire tagged fish being released from National Fish Hatcheries.
IDFG	1	Manage data at the agency level (including data loading, data updating and quality assurance), develop and maintain FGDC compliant metadata for GIS data, work toward developing metadata for tabular data, and exchange data to PSMFC according to deadlines specified in this work statement	We started building FGDC compliant metadata for our GIS layers using ESRI's ArcCatalog. We have completed approximately 15 layers.
MFWP	1	Manage data at the agency level (including data loading, data updating and quality assurance), develop and maintain FGDC compliant metadata for GIS data, work toward developing metadata for tabular data, and exchange data to PSMFC according to deadlines specified in this work statement .	This ongoing work continued during the quarter.

ODFW	1	Manage data at the agency level (including data loading, data updating and quality assurance), develop and maintain FGDC compliant metadata for GIS data, work toward developing metadata for tabular data, and exchange data to PSMFC according to deadlines specified in this work statement	Draft metadata for Oregon's life-stage timing data were developed following Oregon's Tier I metadata format. The GIS Analyst identified and corrected some erroneous HUC coding within the Observation database. New observation datasets were released following the correction of these errors. The GIS Analyst updated the metadata associated with the new (version 12) 1:100,000 distribution datasets. The metadata for the Oregon Dams GIS dataset has been updated to a format compatible with ArcCatalog. The metadata for version 7 of the 1:24,000 scale distribution datasets were also updated this quarter. The Database Manager communicated with Regional StreamNet staff related to the status of our PSC conversion project, our ability to submit hatchery release data in the new format, and our position on temporarily removing the hatchery release dataset from the online query system.
ODFW	3	Coordinate and work with internal ODFW staff to improve the agency data collection efforts to allow more efficient compiling into internal intermediate ODFW-NRIMP/ StreamNet databases and/or StreamNet databases.	The GIS Analyst evaluated the documentation database for potential improvements in design and implemented measures to improve referential integrity, including adding some validation rules where needed. He also investigated the remaining incorrect RefIDs in the Observation database and assigned correct RefIDs to them. One RefID applied to approximately 160 records. Staff reinitiated efforts to draft the Distribution Update Protocol document, by editing it to reflect the "phase - in" approach that was recommended during the last review. We also completed a draft of the Life-stage Timing data update protocol, including a Sample Timing Update form. This protocol will be revised based on feedback received from the distribution protocol, then submitted for ODFW adoption. The GIS Analyst updated the metadata associated with the new (version 12) 1:100,000 distribution datasets.
Region	1	Assist data contributing agencies in development of data, including formatting, coding, data entry, error checking, and submitting to the regional database.	The Regional Data Manager exchanged Fish Barrier data records with ODFW and Reference records with IDFG and location georeferencing tables with CDFG in separate efforts to error check data.

Region	2	Examine the StreamNet database for errors and report any found to the appropriate entity for correction. Continue to improve error-checking capabilities.	As part of ongoing data review efforts, numerous communications were initiated by the Regional Data Manager to bring incomplete, vague or erroneous information to the attention of StreamNet data compilers in the state Fish & Wildlife agencies, and to the StreamNet Librarian at the Columbia River Intertribal Fish Commission. These errors are now being corrected.
Region	3	Update and append data as submitted by StreamNet participants. Isolate erroneous or duplicative data and work with source agencies to correct problems. Maintain logs of data submissions and major database changes. Produce downloadable versions of the StreamNet databases to keep in synch with the updated regional databases.	Submission of data updates was deferred this quarter because efforts by many StreamNet data compilers was redirected to CSMEP work and some ongoing PCSRF work. All California StreamNet data were resubmitted using the new routed hydrography for California. A crosswalk table was built in order to identify location identifier codes, LLIDs, that replace older temporary location identifier codes that were not derived from routed hydrography, and this crosswalk table was later used to remove archaic location coding from lookup tables that georeference all StreamNet data. New California StreamNet trend, escapement and hatchery return data and associated references were updated and/or appended to database tables. Many issues related to differences between existing Southern Oregon hydrography and the new California hydrography in basins that span the two states were resolved, but some issues remained to be investigated by GIS specialist Jon Bowers of ODFW in order to reconcile and accept the new hydrography.
Region	5	Help the StreamNet Librarian to optimally format an export of the library reference database of StreamNet documents for routine inclusion in the StreamNet database for use by the web query system.	A time-limited trial version of InMagic Corporation's DBTextWorks literature database software was obtained by the Regional Data Manager in order to test better ways to interact with the StreamNet Library database at CRITFC.
Region	7	Maintain a library of StreamNet GIS layers for internal use and as downloadable data on the web site with complete documentation (metadata).	The library of GIS layers and metadata was maintained.
Region	11	Integrate the functioning of the GIS system with the StreamNet fisheries and habitat database in support of the query system. Maintain up-to-date cross tables used via the StreamNet web interface to select information by geographic area.	Routine coordination between the GIS and database systems continued during the quarter.

Objective 2 Data management and delivery

Task 4 Data exchange standards

Establish and maintain data exchange standards to ensure consistent content and format of data that originate from multiple data sources. Monitor adopted and proposed data exchange formats for data categories described under Objective 1. This task will provide coordination and technical assistance regarding interpretation of database structures and codes. The formal process for creating new and revising old DEFs may require significant amounts of time, potentially more than a year, for complex data categories

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types.	No work was done this quarter due to the demands of supporting the subbasin planning efforts.
IDFG	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types.	We participated in discussions regarding modification of the hatchery facilities DEF.
MFWP	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types.	The staff has been working on updating several DEFs - hatchery release and minor changes to others.
MFWP	2	Co-develop a draft resident release DEF, in cooperation with Leslie Sikora, WA StreamNet	Work continued on the resident release DEF.
ODFW	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types.	We participated in DEF reviews where needed.
ODFW	2	Review the Barrier DEF for juvenile fish passage and recommend an approach to the Steering Committee.	This task has been delayed due to shifting priorities, but should be addressed during the 3rd quarter with a report provided to the Steering Committee before the July meeting.
ODFW	3	Initiate the process to develop a new DEF for fish screen data.	The Oregon StreamNet staff member assigned to this task left the project and the position remained vacant through most of the quarter. It is uncertain at this time if this task will be completed before the end of the contract year.

ODFW	4	Investigate the potential for developing a Life-stage Timing DEF	This task remains on hold due to a shift in priorities to the CSMEP effort (see Objective 4; Task 1 for information on the CSMEP effort). The Oregon StreamNet staff member who was assigned to complete this task exhausted the funding for the position performing CSMEP tasks, therefore it is unlikely this task will be completed during this contract year.
Region	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types. The regional Biologist will serve as the primary coordinator of the DEF process and is responsible for updating and publishing the official DEF document.	The regional Database Manager noticed a potential issue with the most recently adopted hatchery returns data exchange format. The issue is that for fish captured in the wild and then brought directly to an out-of-basin hatchery facility, the query results for these fish will show as a return to the basin where the hatchery is located rather than as a return to the river where the fish actually returned. This issue, which does not apply to fish captured at weirs or other hatchery facilities, was discussed by PSMFC, USFWS, and WDFW personnel. The outcome was that this data type is about returns to hatcheries and not about returns to basins, so this issue, though valid, may not be applicable in practice when people use the hatchery return data. It was agreed to continue with the hatchery returns DEF as is, then evaluate the output after it is in use to ensure that this is indeed not a substantial issue. During the first quarter StreamNet staff from PSMFC and WDFW worked, under NMFS funding, with staff from NMFS, CRITFC, Northwest Indian Fish Commission, Oregon Watershed Enhancement Board, and California Department of Fish and Game to assist NMFS in compiling data for their report to Congress on how Pacific Coastal Salmon Recover Fund monies have been spent. A large part of this data compilation effort involved information about habitat restoration projects that were performed. This work delayed an already-planned update to the StreamNet habitat restoration projects database structure. On the last day of this quarter and the first day of the third quarter PSMFC hosted a meeting with the agencies cited to determine if there was anything we learned from our PCSRF work that should be integrated into our database structure before the conversion was completed. The meeting was very productive in terms of producing valuable insight into appropriate changes to our habitat restoration projects database structure. As a result, work on the DEF for habitat restoration project data will move forward in the third quarter.
WDFW	1	Work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types.	The Data Manager and Assistant Data Manager attended the January Steering Committee meeting discussion about the Hatchery Returns DEF. After these discussions, the Data Manager submitted a summary of potential Hatchery Facility DEF changes that are warranted to dovetail with location coding plans.

			The Data Manager and Data Compiler submitted a request to the Steering Committee to consider specific improvements to the habitat restoration project tracking DEF to coordinate with the current intended changes. They attended the subsequent March 31-April 1 technical meeting to discuss that DEF.
WDFW	2	Co-develop a draft resident release DEF, in cooperation with Janet Hess-Herbert, MT StreamNet	Further progress on a resident fish stocking DEF is on hold until Montana staff can provide a detailed response to last quarter's proposal.

Objective 2 Data management and delivery

Task 5 StreamNet Internet sites

Continue to maintain and enhance the StreamNet Internet sites. Provide access to StreamNet data products through the Internet at both the regional and cooperating project levels. The StreamNet home page (www.streamnet.org) will continue to be utilized 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. The site will also be used to archive data sets developed by FWP participants for data that do not fit within the StreamNet DEF, including the means to index and search the archive.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Provide ongoing review of the StreamNet website through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.	The subbasin planning FTP site was used to post databases, GIS products, and EDT input and output files. This was sometimes a more efficient way to distribute these products than other methods.
CRITFC	2	Maintain, and enhance as needed, the web pages used to provide public access to the StreamNet Library collections and services, including hardware and software maintenance, web page development, and system security.	We continued adding documents and links to the library web pages in support of subbasin planning. Other notes and news of interest were also added as needed.
CRITFC	3	Work with PSMFC staff to upgrade formats for displaying library catalog search results to facilitate development of bibliographies and to assist patrons locating needed literature	We continued discussions of how best to approach changing library displays and how they interface with data from the Streamnet.org site.
MFWP	1	Provide ongoing review of the StreamNet website through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.	A review of the new system for independent datasets was conducted. Comments were provided to Regional StreamNet staff.
ODFW	1	Provide ongoing review of the StreamNet website through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.	Review of the StreamNet website continued during this quarter.

ODFW	2	Manage and maintain Oregon's web-based data integration, communication, and data transfer systems and their links to StreamNet.	The Database Manager started creating a web-based IIS log viewing application, which lets users view the raw website log files. Work is still needed to allow the selection and viewing of particular site logs of the server, which will allow us to monitor and assess the use of individual web applications on the server. This application will also be used to produce the quarterly FTP reports, which are currently done by hand. Use statistics for the ODFW websites managed by the Natural Resources Information Management Program (NRIMP), ODFW's StreamNet cooperator, are presented in Table 1. Table 1. Website hit statistics for the second quarter. Total page views for all NRIMP managed sites was 53,830 for the quarter.
Region	1	Guide development and enhancement of the StreamNet web query system from the perspective of data users. Review changes to the web query system to ensure they are implemented appropriately and do not create unforeseen problems.	The regional Fisheries Biologist suggested that the 1990 subbasin criterion be taken out of the web query system, as the 2001 subbasins have supplanted them for current work. Research was done into this topic by all regional staff to ensure it would cause no problems. The web programmer reviewed the query system logs and confirmed that the 1990 subbasins are very infrequently used by people.
Region	2	Maintain and enhance the functionality, look and usability of the StreamNet web-based query system.	A new system for reporting web site, query system, and server error messages to the end user was implemented. This new system gives more useful information to the user, has a consistent look and feel, and gives us instant notification via email about any error that has occurred.
Region	3	Conduct a thorough review of the web query system. Identify and address errors, and omissions in data delivery. Improve help files.	Although a comprehensive review was not undertaken, identification of ways to improve query output display continued, with a number of issues added to the agenda for consideration during the third quarter Steering Committee meeting.
Region	4	Review and rearrange the links pages on the StreamNet web site.	Links were added to the Upper Columbia White Sturgeon Recovery Initiative web site (http://www.uppercolumbiasturgeon.org/), and to the ODFW Fish Finder web site (http://rainbow.dfw.state.or.us/fishfinder/). Work proceeded on an improved "On-Line Data" page for the StreamNet web site. A prototype was created that still needs to be reviewed and finalized.
Region	5	Maintain the GIS Data, Map, and PNW Reach File Internet pages.	Routine maintenance continued for the GIS data, map and PNW Reach File web pages.

	January	February	March	Total
NRIMP	9,544	11,573	13,767	39,296

Region	6	Maintain, update as necessary, and improve the Internet mapping component to the StreamNet web site to allow users to access StreamNet data through interactive map interfaces. Improvements might include such items as adding DRGs or aerial photos to the IMS applications, and showing trend locations in the web query system.	The interactive mapping pages were routinely maintained during the quarter.
Region	8	Deploy new query system components and data categories that are approved by the Steering Committee	Some work was done on Age data, with the intent of having these data display in the On-line Query System during the third quarter.
Region	9	Maintain logs of web query history and error events. Track and report Internet site usage by month and investigate web query system errors encountered.	The Programmer improved the web use data capture tool, allowing us to track use by category. Web use in the second quarter is summarized in Table 2. We saw a significant increase in ftp downloads in February and March as a result of our posting listed salmon and steelhead distribution data in response to the court's pesticide spraying ruling.

Table 2. Summary of use of the StreamNet website in the second quarter, with use by StreamNet members excluded.

	Jan-04	Feb-04	Mar-04
Overall Page Requests	74,426	63,375	57,877
Number of Visits	13,523	13,679	17,190
Unique Visitors	6,354	7,243	7,825
Data Query Page Requests	15,949	16,149	14,498
Unique Query Sessions	5,581	4,520	3,504
Data Reports Viewed	2,393	2,367	2,658
FTP Files Downloaded	754	2,324	1,381

We are now able to obtain some insight into what data is most often sought by users and who is using the StreamNet website and database based on the domain of visitors (Table 3). This is only a partial list of users, since many IP addresses are numeric and we are unable to decipher them. All un-resolvable addresses and ISPs are lumped in Table 3.

Table 3. Users of the StreamNet website and most sought data types.

	Jan-04	**Feb-04**	**Mar-04**
Top individual requesters (descending). Un-resolvable numeric IPAs and ISPs combined.	Unresolved numerics, ISPs, Consultants, ODFW, U. Wa, ODOT, Oregon State U. , USDA, IDFG, US Fish & Wildlife	Unresolved numerics, ISPs, Consultants, Oregon State U., ODFW, U. Wa, USDA, BLM, ODOT, Oregon Dept. Forestry, Counties, NOAA , BPA, ODEQ	ISPs, Unresolved numerics, ODFW, Consultants, Oregon State U., NOAA, BLM, EPA, Tribal, BPA, fire.cal.gov, USGS
Top Query Data Categories, in descending order	Photographs Fish distribution Prebuilt maps Habitat restoration/improvement projects Redd Counts Peak/other spawning counts Estimates of spawning population Hatchery returns Harvest – fw/est Dam/weir counts Barriers Protected areas Facilities - dams Smolt density model data Facilities - hatcheries Spawner/recruit estimates Fish and wildlife projects (BPA) Reference Harvest - marine Data holdings	Photographs Prebuilt maps Fish Distribution Estimates of spawning population Barrier Redd Counts Dam/weir counts Harvest – fw/est Protected areas Hatchery returns Facilities - dams Habitat restoration/improvement projects Peak/other spawning counts Fish and wildlife projects (BPA) Reference Hatchery releases Facilities - hatcheries Data holdings Spawner/recruit estimates Smolt density model data harvest - marine	Photographs Fish distribution Prebuilt maps Redd counts Estimates of spawning population Dam/weir counts Habitat restoration/improvement projects Peak/other spawning counts Hatchery - returns Facilities - hatcheries Barriers Hatchery - releases Facilities - dams Protected areas Smolt density model data Spawner/recruit estimates Harvest – fw/est Reference Harvest - marine Fish and wildlife Projects (BPA)

Region	10	Work with the StreamNet Librarian to improve user access to data references through the web data query system.	We obtained the database of literature references used by IDFG's IFIS system to compare with records in both the StreamNet Library and the StreamNet Reference table. Several updates and corrections were suggested to IDFG and other differences noted or updated in StreamNet databases.

Objective 2 Data management and delivery

Task 6 Respond to data / information requests

Receive and respond to requests for data and information, source materials, and custom products at the regional and cooperating agency levels. 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.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	Respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.	We responded to 48 requests for information, maps or technical assistance. The requests were distributed as 16 state government, 5 federal government, 21 private industry, and 6 non-governmental organizations. The requests included 33 for species lists or distribution queries, 2 for barrier data, 1 for escapement data (redd counts or carcass counts), 7 for GIS layers, 1 for habitat information, 2 for hatchery returns, 1 for juvenile abundance, and 1 request for technical assistance for programming.
MFWP	1	Respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.	We filled 13 GIS map/data requests during the quarter.
ODFW	1	Respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.	Five hundred fifty nine unique users viewed / downloaded data from the ODFW FTP site during this quarter. A total of 4,527 data downloads were made from this site. A total of 5 data, 0 document, 1 map, and 10 'other' requests were answered during this quarter. A detailed list by requester and request type can be made available upon request. The list of requests below is provided as an example of the range of requests we respond to. These requests include: a. Updated statewide O. mykiss dataset including metadata for the "combined" dataset to Region 10 EPA. b. Redband distribution and Interior Columbia Basin fish data to an ODFW staff member. c. Completing an information technology survey that PSMFC's Computer Services Manager is conducting.

Region	1	Respond within one business day to requests for data, Information or help. Log and report responses to all requests received.	Regional staff responded to 38 help and data requests. The type of person making the request and the type of help requested are summarized in Table 4.

Table 4. Summary of data and help requests serviced in the second quarter.

Requester Type	#		Type of Request	#
Elementary/high school student	1		Can't find data	13
Environmental group	2		Complex request	2
Federal agency	2		Error report	4
Fishing/hunting group	1		General fish biology	3
General public	3		GIS	8
Graduate student	2		Link request	2
Industry	7		Map	3
Local government	3		Query help	2
Nonprofit group	1		Other	1
Private consultant	3		Total	38
State agency	4			
Tribe / tribal organization	3			
University faculty	2			
Watershed council	2			
Unknown	2			
Total	38			

WDFW	1	Respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.	Data requests handled this quarter supported subbasin planners (fish distribution background information and data, hydro layer statistics) and others interested in stocking data and spawner survey data from eastern Washington.

Objective 3 Library and reference services

Provide professional library services to the Columbia Basin's fish and wildlife decision-makers, planners, managers, and researchers by acquiring and cataloging StreamNet source documents and other related material; and by providing open and efficient access to these materials. Provide a repository for the source documents for the data contained in the StreamNet database.

Objective 3 Library and reference services

Task 1 Collection development

Develop a collection of materials applicable to the mission of StreamNet. Collect, catalog and organize materials to document data sources, Fish and Wildlife Program activities and reports, and other gray literature for access by regional scientists, agencies, interested parties, and other libraries. Project participants will submit reference documents for all data contained in the StreamNet database.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Obtain reference documents for all data developed under Objective 1 and submit them to the StreamNet Library for inclusion in the collection and catalog.	Reference documents for data submissions were received from participants and scheduled for cataloging.
CRITFC	2	Coordinate source material submissions for data compiled by StreamNet participants under Objective 1	The library continued to receive information and references from participants. We also cataloged a large portion of documents received.
CRITFC	3	Develop a collection of materials related to the Columbia Basin, including reports from other Fish & Wildlife Program projects, other agency documents as they relate to the Basin, and other published and unpublished materials as requested by clients.	We continued to pursue documents from agencies that pertain to the Columbia basin that are not part of the regular flow of documents in support of StreamNet data. We continue to work on the bibliographies from the Subbasin Assessments to identify documents necessary of the collection.
CRITFC	4	Maintain and develop a collection of journals related to fisheries and aquatic sciences as well as other related scientific topics.	Journal subscriptions were analyzed and we renewed the most necessary of the titles. We also renewed the NISC-ABAFR (Aquatic Biology, Aquaculture and Fisheries Research) index cd-rom.
IDFG	1	Obtain reference documents for all data developed under Objective 1 and submit them to the StreamNet Library for inclusion in the collection and catalog.	During the process of compiling the 2003 redd count and hatchery return data, we obtained the documents that were sources for the data. We scanned the 2003 run reports and saved them as PDF documents.
MFWP	1	Obtain reference documents for all data developed under Objective 1 and submit them to the StreamNet Library for inclusion in the collection and catalog.	This ongoing work continued during the quarter. Internal and public websites have been created to access the reference materials from the FWP website. All references for fish and wildlife are now being entered into one system.

ODFW	1	Obtain reference documents for all data developed under Objective 1 and submit them to the StreamNet Library for inclusion in the collection and catalog.	The Data Analyst synched up our reference tables, added references related to life-stage timing data, and made a library submission for the month of January. In addition, 57 references were delivered/submitted to the StreamNet library in late February.
ODFW	2	Initiate organization of ODFW Library documents and update the library bibliography with new titles as they are identified.	The Library Tech position was announced on March 23rd. We anticipate hiring the successful candidate very early in April.

Objective 3 Library and reference services

Task 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 the collection, and staff to answer location questions and respond to requests.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Provide and maintain an appropriate facility for the storage and public use of the StreamNet Library collections.	The library space has been maintained. We have discussed how to best use the left over shelving pieces that have been located in other parts of the CRITFC offices.
CRITFC	2	Catalog and organize the materials for ease of use by clients and staff	Nearly 300 records were added to the library catalog, both temporary and permanent. The new software allows a different record importation technique that will limit the work we need to do when replacing records.
CRITFC	3	Provide access to the catalog of materials via the Internet and update the online catalog on at least a monthly basis.	The library catalog continues to function on the Internet. In addition, we have been updating the catalog on a more regular basis using the Dreamweaver software which makes the process more efficient.
CRITFC	4	Develop and execute a plan to place electronic documents in the catalog and on the library website.	We are continuing efforts to digitize incoming StreamNet references and adding the URL's to the catalog record on entry.
CRITFC	5	Develop and keep a schedule of open times and reference desk staff hours	We continue our regular schedule. We have also worked as a team to staff the reference desk during open hours while we search for a new Assistant Librarian.

Objective 3 Library and reference services

Task 3 Library services

Manage the StreamNet Library and provide library services to the StreamNet user community, the Council's Fish and Wildlife Program, and the general public.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Provide information and reference services to library clients	We continue to receive a steady stream of reference and information requests from library clients.

CRITFC	2	Publish information about services and hours to library clients via print and Internet	The website is currently under evaluation for an upgrade.
CRITFC	3	Provide interlibrary borrowing services for library patrons to access materials not yet owned by the StreamNet Library.	We continued to request documents for patrons and for many of these materials, we were able to make copies for inclusion in the library collections.
CRITFC	4	Provide access to hardcopy and electronic files of draft and final documents related to subbasin planning and the NWPCC amendment process.	We have slowed work on this project with the resignation of the Assistant Librarian, however, we continue to queue documents for digitization and work on this project as time allows.

Objective 3 Library and reference services

Task 4 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

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Provide interlibrary lending services for other libraries to access the StreamNet Library's unique collection.	We provided materials to fill over 50 requests from other libraries.
CRITFC	4	Coordinate with other StreamNet libraries, library clients and other libraries to improve service to clients and limit duplication of effort	Continued conversations with Oregon State University about the possibilities of developing cooperative digital collections on rivers in the Columbia Basin.

Objective 4 Services to the Fish and Wildlife Program

Provide technical data services to Fish and Wildlife Program decision-makers and appropriate Fish and Wildlife Program projects.

Objective 4 Services to the Fish and Wildlife Program

Task 1 Data and Data Services to Support the Fish and Wildlife Program

Provide data management assistance to the Fish and Wildlife Program, as requested. Services may include custom development of data, provision of data from the StreamNet database to support FWP activities (such as planning, monitoring and evaluation, etc.), and general advice and technical assistance with database management, data delivery, and GIS. Work under this task will have to be based on time available, particularly for larger requests.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Participate in various NWPCC planning and management work groups to improve and coordinate regional information management programs, such as serving as leader of the technical work group for Oregon's Subbasin Planning effort.	The Project Leader continued to serve as chair of the Oregon subbasin planning technical support group. He also serves on the steering committee of the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) and on the project team of the Columbia Basin Coordinated Information System (CBCIS, now being renamed as NED) group. All these groups are promoting standardization and coordination of monitoring and data management efforts. Each group met multiple times during the quarter to discuss and develop strategies for improving inter-agency coordination of data collection and management.
IDFG	1	At the agency level, support Fish and Wildlife Program activities, such as R, M & E, subbasin assessment, etc., by providing data and maps of existing StreamNet data and technical information management advice or assistance as requested, within available time and budget under base level funding.	We were approached this quarter by IDFG and Nez Perce Tribe biologists to integrate the two CSMEP spreadsheets into one comprehensive spreadsheet. Unfortunately, we were unable to provide time for this task. We provided reference materials, an ArcGIS map project, GIS data, and maps in PDF format to NOAA-Fisheries for use in the Lemhi Model Watershed Project. We continued to coordinate with IDFG Fisheries staff and expanded the use of tools and data integration that improve the capture of data for StreamNet.
ODFW	1	At the agency level, support Fish and Wildlife Program activities, such as R, M & E, subbasin assessment, etc., by providing data and maps of existing StreamNet data and technical information management advice or assistance as requested, within available time and budget under base level funding.	Updated spreadsheets for data rich and poor subbasins were delivered to Dave Marmorek and Frank Young on January 16th. Paul Kucera provided additional information for the Imnaha inventory in early March and again in late March, so we made the changes in the spreadsheet and sent the updated version to Frank Young. These inventories have been posted to the CBFWA website (http://www.cbfwa.org/rme.htm)

			Staff worked to further populate CSMEP data inventory spreadsheets for the Burnt, Deschutes, Fifteenmile, Grande Ronde, Hood, Imnaha, John Day, Lower Columbia, Malhuer, Owyhee, Powder, Sandy, Umatilla, Walla Walla, and Willamette subbasins via available hardcopy information, internet searches, and email and phone contacts. Staff requested the data inventory component of draft subbasin plans from eleven subbasin leads in hopes that some would take the time to forward the information to us. By the end of the quarter, only 3 subbasins had responded affirmatively to our request. Given the low response rate, it is our plan to complete as much as we can during April, then wait until after May 28th, the deadline for final Subbasin Plans to be submitted, and review the inventory portion of the plans in early June.
Region	1	At the regional level, support Fish and Wildlife Program activities, such as R, M & E, subbasin assessment, etc., by providing data and maps of existing StreamNet data and technical information management advice or assistance as requested, within available time and budget under base level funding.	In a surprise to us, the United States District Court, Western District of Washington, Seattle, in a court decision related to pesticide spraying near streams supporting listed salmon and steelhead, cited StreamNet as the source of information on "Salmon Supporting Waters" for Oregon and Washington. The decision started a sudden demand for fish distribution information. In order to meet that demand and make it simpler for people not familiar with our query systems, we developed an explanatory document that outlined the court's decision and provided step by step instructions on how to use the on-line query system and interactive mapper applications to locate that information. In addition, we developed a spreadsheet of all streams containing salmon and/or steelhead in the listed ESUs, sorted by stream name, county and HUC. Both of these were posted on the StreamNet home page (www.streamnet.org) to make it easy for people needing this information to find and acquire it.

Objective 4 Services to the Fish and Wildlife Program

Task 2 Participate in Fish and Wildlife Program Development Activities

Participate in planning, development and/or coordination meetings with regional entities to provide assistance in the area of data management, as requested, to support development of Fish and Wildlife Program projects and programs. Provide input on ways StreamNet can effectively contribute to the programs and general advice about data management. Participate in advisory groups, task forces, and other groups whose purpose is to enhance the effectiveness of the Fish and Wildlife Program relative to its data development activities.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Participate in groups to develop strategies for ESA recovery planning efforts to ensure data and technical literature are captured and made regionally accessible. This will be done "as possible"' under base level funding.	The Project Leader attends NOAA Fisheries Technical Recovery Team meetings when the agenda includes issues related to subbasin planning. In his capacity as chair of the Oregon technical team, he is coordinating a joint assessment with the TRT on the Grande Ronde subbasin. Little work was accomplished this quarter because of unanticipated delays in completing the Grande Ronde subbasin assessment.

MFWP	1	At the agency level, work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program. Serve as a data management resource to the FWP.	A meeting was held with the Fisheries Division Administrator and the BPA mitigation project leader to discuss CSMEP. Since a recommendation has been made to delay the CSMEP efforts till after subbasin planning is completed on May 28, it was determined that Montana would wait until June to begin any work that they might do related to the CSMEP effort.
ODFW	1	At the agency level, work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program. Serve as a data management resource to the FWP.	Staff participated in the January 13th StreamNet conference call to discuss specific details of the CSMEP effort. We also coordinated with Oregon CSMEP representatives concerning project strategies and progress throughout the quarter. CSMEP status reports were completed and submitted to Regional StreamNet on Jan. 15th. No further progress reports were requested during the quarter. Staff participated in CSMEP meetings/conference calls on January 16th, Feb. 23rd, and March 19th to discuss future plans for StreamNet's support of this effort and the overall CSMEP effort. The Oregon StreamNet Project Leader participated in the Columbia Basin Coordinated Information System meeting via conference call on Feb. 3rd. They're interested in developing standards and protocols for collecting data, sharing data, evaluating project performance, etc. throughout the NW region, not just the Columbia Basin. Staff participated in the John Day Research, Monitoring, and Evaluation (RME) Data Management Pilot Project Workshop. The purpose of the workshop was to gain a shared understanding of the John Day RME Data Management Pilot Project, with a focus on its Data Dictionary (database entity list). Pilots are currently planned for the John Day, Wenatchee (WA), and Upper Salmon (Idaho) subbasins.
Region	1	At the regional level, work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program. Serve as a data management resource to the FWP.	The Program Manager continued participation in meetings of the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP) being conducted under CBFWA. StreamNet accepted a role of conducting data inventories necessary to support CSMEP's addressing key performance measures. Initial work entailed pilot data inventories in one data rich and one data poor subbasin in each of the three participating states. The actual work was done by data technicians under the Idaho, Oregon and Washington StreamNet projects.
Region	2	Continue participation on the Program Team for the Council's project to develop a Columbia Basin Cooperative Information System to convey recommendations based on experience in the development of a regional approach to data dissemination.	The Program Manager continued participation in the Northwest Environmental Data--network (NED), newly renamed from CBCIS.

Region	3	Continue participation in the Federal/State/Tribal Partnership for watershed data coordination (the group being led by Steve Lanigan). Participate in other R, M & E groups, including the Action Agencies and CBFWA, to provide support and data management expertise.	The Program Manager continued participation in the Pacific Northwest Aquatic Monitoring Partnership (PNAMP), the group that has grown out of the State/Federal/Tribal Partnership. PNAMP is receiving significant regional interest as a means of coordinating regional aquatic monitoring.

Objective 4 Services to the Fish and Wildlife Program

Task 3 Support to Subbasin Planning

At the regional and cooperating agency levels, work with subbasin planners to provide needed information from the StreamNet database and to capture data developed as part of the subbasin planning process.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Participate in subbasin planning efforts, such as serving as leader of the technical work group for Oregon's Subbasin Planning effort.	The Project Leader continued to coordinate and provide technical assistance to Oregon subbasin planning groups.
IDFG	1	At the state or local level, and within existing resources, work with subbasin planners to provide needed information from the StreamNet database and to capture data developed as part of the subbasin planning process. In particular, IDFG/StreamNet is providing lead technical, logistical, and administrative support to subbasin assessments for the Salmon, Weiser/Boise/Payette, Middle Snake, and Upper Snake subbasins.	We continued to provide support to the subbasin assessment team working on the Salmon, Boise/Payette/Weiser, Middle Snake and Upper Snake subbasins. Approximately 20% of our data coordinators time is spent working with subbasin assessment staff.
ODFW	1	At the state or local level, and within existing resources, work with subbasin planners to provide needed information from the StreamNet database and to capture data developed as part of the subbasin planning process.	The Project Leader submitted seventy-seven additional names & email addresses to StreamNet for inclusion on the Subbasin Planning Forum. Traffic on the site has been extremely light, probably due to the fact that these additional folks have not been included on past postings, but the fact that everyone has been head-down writing their plans has undoubted played a major role as well. Regardless, the Oregon Coordination Group has expressed appreciation for the site. He also facilitated Tom O'Neil's IBIS and Focal Species forum posting. A notice stating that the Willamette Subbasin Plan Inventory had been made available on the web was posted to the Subbasin Planning Forum by Oregon StreamNet staff. The Project Leader attended the Subbasin Planning All-Subbasin Meeting in Pendleton, and the Oregon Coordination Group meeting that followed the All-subbasin meeting on March 4th.

Region	1	At the regional level, and within existing resources, work with subbasin planning groups to provide needed information from the StreamNet database and to capture data developed as part of the subbasin planning process and make it publicly available.	We improved the search capabilities for the Independent Data Sets web page (http://www.streamnet.org/online-data/ids.cfm) in anticipation that this would be an excellent location to post data developed through the subbasin planning process. The data (with descriptive information for use in locating the data through the search feature) can be posted here in their native format to make them immediately available. Future work could include efforts to standardize the data and develop a more precise query function.
WDFW	1	At the state or local level, and within existing resources, work with subbasin planners to provide needed information from the StreamNet database and to capture data developed as part of the subbasin planning process.	The Region 5 Compiler spent the first half of February updating Lower Columbia subbasin reports with data records from current Washington StreamNet data,

Objective 4 Services to the Fish and Wildlife Program

Task 4 Archive and deliver independent data sets, as requested

Work with participants to aid in the capture and distribution of data generated through Fish and Wildlife Program activities and to help determine the most appropriate means of storing and disseminating them. Where data do not fit in existing StreamNet data sets, post data in the archive as independent data sets in their native formats.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
Region	1	Provide a location within the StreamNet web site to disseminate Independent Data Sets obtained from FWP funded projects and others engaged in fish and wildlife research and management in the Columbia Basin. Work with BPA, the Council, and individual projects to inform them of the availability of this site to post data sets. Improve the current Independent Data Sets page to a dynamic, searchable system.	A new independent data sets web page was developed and implemented (http://www.streamnet.org/online-data/ids.cfm) that allows for searching and display of metadata and downloading of the data sets. This new web page is integrated with the independent data sets submission tool (see Job 4.4.2), and is a powerful search engine that should allow for huge expansion of the independent data sets and also provide for easily searching for data sets of interest.
Region	2	Coordinate with BPA and BPA contractors and the StreamNet cooperators to capture data sets, reports, and other electronic materials for inclusion in the StreamNet Independent Data Sets page. Finalize metadata needs. Create a tool to help data submitters to easily provide needed information	The tool for data and metadata submission was completed, tested, and used to submit new independent data sets. The program was written by the regional Fisheries Biologist and tested/debugged by Dick O'Connor of WDFW and the StreamNet COTR at BPA. After debugging was complete and the beta-testers were satisfied with it, the regional Fisheries Biologist used the tool to migrate the data sets that were on the existing independent data sets page to the new format on the new page (http://www.streamnet.org/online-data/ids.cfm). The tool was made available for download on the StreamNet web site (http://www.streamnet.org/online-data/submitdatasets.html), and installation and use help information was created and provided.

Objective 4 Services to the Fish and Wildlife Program

Task 5 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, c) in consultation with the Council, respond to requests for information concerning Protected Areas, and d) modernize georeferencing and make these data available through online mapping. If the Council so directs, work with subbasin planners to record any desired changes to the protected status of individual streams.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
Region	1	Maintain the Protected Areas database, and as time allows, work to resolve the remaining unresolved location issues that resulted from conversion of the data from the 1:250,000 scale to the 1:100,000 regional hydrography.	The Protected Areas data and interactive map page were maintained during the quarter.

Objective 5 Project management and coordination

Provide effective leadership that ensures the production of high quality information products targeted at critical applications and the development of these products in a timely, cost-effective manner.

Objective 5 Project management and coordination

Task 1 Manage Project Activities

Administer all aspects of the StreamNet project at the regional and cooperating agency levels, including oversight of budget, personnel (including training and staff development), work statement preparation and implementation, coordination among participating agencies, active participation in steering committee work, and project reporting.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
CRITFC	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	The Project Leader attended the steering committee meeting this quarter. Input on agenda items was provided via e-mail and he participated in discussions at the steering committee meeting.
CRITFC	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	Normal staff supervision was provided.
CRITFC	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	All activities were conducted within budget limits. The resignation of the Assistant Librarian created a temporary projected budget surplus. We expect this surplus will be used during the third and fourth quarters to archive subbasin planning information.

CRITFC	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	Input to the first quarter report was provided.
FWS	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	Technical considerations regarding an Internet accessible application were discussed with StreamNet Regional staff. The Project Leader participated in the quarterly Steering Committee meeting.
FWS	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	Charges representing StreamNet activities were made using the USFWS time accounting system.
FWS	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	The accomplishment report for the previous quarter was completed and submitted to the PSMFC office.
IDFG	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	The Project Coordinator attended and participated in the January Steering Committee meeting in Portland, OR.
IDFG	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	The Project Coordinator provided supervision for both StreamNet and non- StreamNet staff that are part of the Idaho Fish and Wildlife Information System in IDFG.
IDFG	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	The Project Coordinator conducted regular reviews of the 2004 StreamNet budget.
IDFG	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	We completed the 2004 StreamNet first quarter report and submitted it to the StreamNet project manager at PSMFC.
MFWP	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	We reviewed and made comments concerning the QA/QC white paper the Steering Committee has been working on. We met with Fisheries Division staff to discuss screening data, CSMEP and PNAMP. We attended the January StreamNet meeting in Olympia. We attended the 1:24 K hydro discussion in March.
MFWP	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	The Project Manager attended the 3rd session of Management and Leadership Development conducted by the department. Many aspects of communication and conflict resolution were incorporated into the session. She reviewed monthly budget reports to better understanding StreamNet funding for personnel. We advertised for a replacement for Fisheries Information Specialist; closing of the job will be in April and hiring is expected to occur in April.

MFWP	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	We reviewed the monthly budget reports.
MFWP	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	The FY-04 1st quarterly report was completed and submitted to Regional staff at PSMFC.
MFWP	6	Submit the draft FY-03 annual progress report for the sub project to PSMFC within 50 days of the end of the fiscal year.	We reviewed the final annual report, and provided feedback on the content and the format.
ODFW	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	The Project Leader attended and participated in the StreamNet Steering Committee meeting on Jan. 28-29.
ODFW	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	Along with routine activities, work on this task consisted of several hiring processes for vacant Oregon StreamNet positions, including the GIS Analyst, Assistant Database Manager - Webmaster, Data Analyst, CSMEP Data Tech, Subbasin Planning GIS Tech, and Library Tech positions. By the end of the quarter, the GIS Analyst, CSMEP Data Tech, and Assistant Database Manager - Webmaster positions were successfully filled. An interactive database to input information about interview questions and to organize information about NRIMP staff positions and their required "knowledge, skills and abilities" was developed during the quarter to aid the various hiring processes. The Project Leader attended Bargaining, Contract and Respectful Workplace training on Monday, March 8th. The GIS Analyst spent a very full day on the lower Columbia River participating in the gillnet fishery monitoring effort, for cross-training/career development. StreamNet work plans for all staff were reviewed and revised (where needed) in preparation for a half-year status review. We enlisted the help of a GIS volunteer to work on the PSC Code project. Data processing instructions were drafted as a reference guide for the volunteer to use in order to associate LLIDs with the PSC water codes.
ODFW	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	The Project Leader worked through FY-05 StreamNet budget projections in preparation for discussions of the next years' contract.

ODFW	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	Oregon's StreamNet 1st-Quarter Report was delivered to Regional StreamNet on March 11th.
ODFW	6	Submit the draft FY-03 annual progress report for the sub project to PSMFC within 50 days of the end of the fiscal year.	Staff reviewed and provided comments on the StreamNet FY-03 Annual Report and report brochure.
Region	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project. Serve as chair of the Steering Committee.	The Steering Committee meeting was held at the new PSMFC office on January 28 & 29. Topics covered included CSMEP work, PCSRF work, DEF development progress, approval of new Data page format, QA issues, rescheduling and budgeting, citing StreamNet data, new format for annual report, agency priorities, and planning for the FY-05 project proposal.
Region	2	Supervision. Supervise project staff at the regional level to provide guidance and staff development.	Routine supervision of regional personnel continued.
Region	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	Routine budget expenditure tracking continued during the quarter.
Region	4	Develop the annual project proposal and budget within submission deadlines.	The Program Manager developed a blank template for the FY-05 Statement of Work and distributed it to the participating projects. Development of the FY-05 SOW and budget will take place during the third quarter.
Region	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to BPA within 30 days of the end of each quarter.	The First Quarter Report was prepared and submitted to BPA, but not within the requested 30 day time period.
Region	6	Submit the FY-03 annual progress report to BPA within 60 days of the end of the fiscal year.	The annual report for FY-03 was changed dramatically, from a detailed report by Objective and Task to a more overview format. The new format report was submitted to BPA in the second quarter due to the format change. The new abbreviated format was made possible by the fact that the detailed accomplishments are already presented in the four quarterly reports, so the detailed annual report was redundant. Only the big picture accomplishments are included in the new format. In addition, the new format report will be printed as a large brochure for distribution to cooperators and the public. Even thought the annual report was submitted to BPA and approved, the brochure version is still in production for distribution next quarter.
Region	7	Move the Regional StreamNet office and all computing equipment from Gladstone, Oregon to a new PSMFC office. Attempt to minimize down time for the StreamNet website and other data services	The PSMFC office was moved late in the first quarter. In this quarter, the cubicles for 3 of the Regional staff were still unfinished. Down time resulted from having to move out and back into the cubicles for the workers to finish cubicle installation. Afterwards, moving books and other items into the cubicles was finally completed. We also got all printers working again for the first time since the move.

WDFW	1	Project oversight and guidance. Participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate within respective agencies, and resolve policy and technical issues for the project	Three staff members attended the January Steering Committee meeting in Portland January 26-27, 2004. Staff present participated in the meeting through round-table contributions and presentation of on-going work. The Project Manager presented the most recent draft of the StreamNet Project QA/QC Report at the January meeting. In February, comments received were incorporated and a new draft was sent out for more in-depth review by Steering Committee members prior to the April 2004 meeting. Comments received by mid-April are intended to be incorporated into the next version, which is scheduled to be presented at the April 26-27, 2004 meeting. The Project Manager and Data Manager drafted a list of WDFW "follow-up" assignments following the January Steering Committee meeting and completed all tasks by mid-February.
WDFW	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	All standard supervisory duties, including re-training of temporary Data Compiler Gretchen Blatz to move into additional StreamNet support duties, were completed. Paperwork was completed to progress toward extending and filling the vacant Data Compiler position on a permanent basis. The Program Manager and Data Manager conducted an exit interview with temporary staffer Ron Egan just before he left to ensure smooth transition and easy access to his files of CSMEP dataset inventory work, spawner survey data, and other data tasks he had completed for us.
WDFW	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	Expenditures of CSMEP, PCSRF, and StreamNet funds were carefully managed to maintain focus on product delivery before contract end dates or other internal deadlines arrived. The WDFW StreamNet Project budget is showing a slight projected surplus at this time. FY-04 StreamNet Contract information was entered into the WDFW CAPS system, checked, and submitted for formal agency review in January 2004. This adheres to new contract approval procedures adopted by WDFW for this and subsequent state fiscal years.
WDFW	5	Report accomplishment of the work outlined in the annual Statement of Work through quarterly progress reports submitted to PSMFC within 20 days of the end of each quarter.	The First Quarter Progress Report input was submitted to PSMFC on January 26, 2004.
WDFW	6	Submit the draft FY-03 annual progress report for the sub project to PSMFC within 50 days of the end of the fiscal year.	The final version of the WDFW FY-03 Annual Report content (including revisions to the material submitted last quarter) was submitted to PSMFC on February 13, 2004.

Objective 5 Project management and coordination

Task 2 Coordinate with Related Activities Beyond the FWP

Maintain communications between StreamNet and other applicable regional and state-level fish and wildlife activities and agencies beyond the Council's Fish and Wildlife Program to identify means for collaborative data collection, storage, and dissemination. Collaborative data activities will include 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 and environmental quality agencies. Collaboration with coast-wide and private data collection/compilation efforts will be pursued when this supports overall project goals.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
IDFG	1	On an opportunistic basis, coordinate with other state, federal, or tribal agencies and various local inter-agency planning and management work groups beyond the FWP to enhance the collection and management of data related to management of fish and wildlife resources.	We were asked by the Idaho Office of Species Conservation to help conduct a review of bull trout status. The information will be used to provide input on the U. S. Fish and Wildlife Service's 5-year status review under the Endangered Species Act. The data compiled will serve as a new base for an update to the IDFG/StreamNet bull trout distribution layer.
MFWP	1	On an opportunistic basis, coordinate with other state, federal, or tribal agencies and various local inter-agency planning and management work groups beyond the FWP to enhance the collection and management of data related to management of fish and wildlife resources.	MFWP and the MNHP have collaborated this quarter on a review of the Species of Concern list, a quantified approach to the inclusion of a species on the list and a review/determination of an appropriate approach to the development of Element Occurrence records. The quantification of a species on the list utilized extensive data from the Montana StreamNet data, including distribution and genetic purity. We have worked closely with the Montana Geographic Information Council on funding proposals for statewide GIS layers.
ODFW	1	On an opportunistic basis, coordinate with other state, federal, or tribal agencies and various local inter-agency planning and management work groups beyond the FWP to enhance the collection and management of data related to management of fish and wildlife resources.	Several coordination activities occurred during this quarter, including: -- We responded to questions about distribution data (historical distribution, 24K, and disputed records, in particular) from Ray Beamsderfer of Cramer and Associates, related to their contract to draft the Stock Status Review update. -- We reviewed The Nature Conservancy's response to a review we prepared of their resident fish distribution proposal and providing additional opinions /comments/questions during the Resident Fish Distribution Proposal meeting on Jan. 27th.

			-- We participated in a joint workshop on Pacific Rim salmonid monitoring and protocol review as part of the Data Management Review Team on March 9 - 11. The team drafted a guiding document that describes how to successfully accomplish and address data management considerations during the standard phases (i.e. Planning, Setup, Data Collection, Data Entry, Data Analysis, Data Reporting) of establishing and/or conducting an observation-based data collection project. Data managers from Oregon, Washington, NOAA-Fisheries, and British Columbia participated on the panel. -- We met with ODFW and representatives from the Oregon Geospatial Clearinghouse to discuss ways to synchronize the data development that will occur as part of the Comprehensive Wildlife Conservation Plan and the statewide geospatial data standards development efforts (State Framework). -- We attended the Forest Sciences Lab Spatial Data Management. Group meeting where David Hockman-Wert presented "Visualization techniques for studying landscape patterns and fish distribution". The techniques discussed may potentially be useful if there is a need to assess certain spatial patterns across a stream network, and to learn about some distribution modeling that is under development at the lab. -- We communicated with ODFW Fish Screen Program staff about converting the existing FishScreen Database from the replicated distribution format to online distribution and access. They were excited about the idea, and suggested some things that they would like to see in the online version. -- We coordinated with staff from the Geospatial Enterprise office of DAS to bring our distribution and observation data up to a 100% level of compliance with FGDC specifications. This all relates to posting the distribution and observation data on the Oregon Geospatial Data Clearinghouse site as BioScience Framework data layers. -- We coordinated with Wildlife Conservation and Habitat Management Program staff to resolve issues with their malfunctioning database. We talked to them about the idea of creating a web version, which they were very excited about since the replication approach has not worked for them (the field biologists don't have Access 2000 so they can't run it).
Region	1	On an opportunistic basis, coordinate with other state, federal, or tribal agencies and various regional inter agency planning and management work groups beyond the FWP to enhance the collection and management of data related to management of fish and wildlife resources.	The Program Manager attended meetings of several data initiatives that were not directly part of the Fish and Wildlife Program, including the Puget Sound Nearshore Environmental Resources Information System and the NOAA Fisheries let effort to report to Congress on expenditure of the Pacific Coast Salmon Recovery Fund (PCSRF). StreamNet assisted both of these efforts with advice and work done on small additional contracts. This was made possible by the fact that the StreamNet contract does not cover the entire time for some StreamNet staff members.

WDFW	1	On an opportunistic basis, coordinate with other state, federal, or tribal agencies and various local inter-agency planning and management work groups beyond the FWP to enhance the collection and management of data related to management of fish and wildlife resources.	We provided information in the form of a legal declaration to federal court on the WTC lawsuit advising use of the WDFW SalmonScape online application as the most current source of generalized fish distribution for Washington state. The StreamNet online query system is populated with older data based on a lower-resolution streams data layer. StreamNet hopes to upgrade this base layer late in FY-04 or during the first half of FY-05.

Objective 5 Project management and coordination

Task 3 Professional and Public Involvement

As needed, produce public information materials and participate in various meetings and forums (public or professional) to explain the project's capabilities and purpose and to generate support and additional data sources. Activities may include brochures, issue papers, demonstrations, posters and talks to public, policy or professional groups and organizations.

Project	Job	Planned work elements	Accomplishments, Second Quarter 2004
MFWP	1	As requested, prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the project.	We met with Fisheries Division staff during the regional visits to assess their data management needs. We collaborated with the Fisheries Division extensively on the design of the "Fishing Guide", a recreational version of some of the data from StreamNet.
ODFW	1	As requested, prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the project.	Staff completed monthly articles for the NRIMP website, including "Having the timing of their life - Salmon in Oregon streams" (Jan.), and Road Density Analysis results (March). No article was submitted in February. The GIS Analyst was interviewed (via phone) as part of the U of O mentor program. This program gives students the opportunity to explore career options and to help them in their job search efforts
Region	2	Prepare and deliver presentations to scientific and professional meetings to demonstrate project capabilities and accomplishments, and to solicit additional data and coordination with the project.	The Program Manager delivered a presentation on Data Standards and Why They Matter to the Oregon Chapter of the American Fisheries Society. The presentation was intended to improve the understanding of field biologists on the value of adopting regionally consistent data standards in order to make their data useful for addressing larger, regional scale issues. The availability of StreamNet for posting Independent Data Sets was also highlighted in an attempt to get more biologists to provide their data for easy public access in the region.

Region	3	Developed and distribute materials to support the project. Improve public materials such as the StreamNet brochure, data inventories, etc. as needed. Maintain and update explanatory materials such as the Query System User Guide and documents explaining data categories and structures, as necessary.	As a result of the court ruling on pesticide spraying near salmon bearing streams discussed under Objective 4, Task 1, Job 1, we wrote a document to inform users how to find listed salmon and steelhead distribution in the StreamNet database and also summarized the distribution information for listed salmon and steelhead in spreadsheets organized by stream, county and HUC. These were posted prominently on the StreamNet home page (www.streamnet.org). The spreadsheets were well received and became the most frequently accessed StreamNet data in February and March.

Supplemental Information. Work accomplished outside the specific work elements in the Statement of Work

Specific accomplishments during the second quarter, often on other funding sources, that did not relate specifically to any of the Tasks / Jobs in the annual Statement of Work, but that did relate to StreamNet and served the project mission.

Project	Accomplishments, second Quarter 2004
CRITFC	See above objectives and tasks relating to subbasin planning and regional monitoring and data management groups. These efforts involve a combination of StreamNet staff and CRITFC staff funded from other sources.
MFWP	We collaborated with the Fisheries Division extensively on the design of the "Fishing Guide", a recreational version of some of the data from StreamNet. Completion of the Fishing Guide will occur in April. Plans to integrate the larger data set of MFISH will be designed in the next quarter. We assisted in the creation of the species and habitat ranking tiers for the Comprehensive Fish and Wildlife Plan. We received approval to hire a Web Content Manager; interviews will occur in May.
ODFW	Oregon StreamNet presented a new Oregon Fish Finder funding proposal to the Oregon Restoration and Enhancement Board on Jan. 30th, and received unanimous approval with a 7-0 vote. However, then a hold was placed on the funding pending an internal agency review to determine who in the agency is best suited to compile this type of data. Staff continued efforts to enhance Oregon's Barrier Database with new information related to culverts. This effort is being funded by FRIMA. As part of this effort, we: a) assigned measures to all culvert records where the value was omitted; b) contacted Washington and Clackamas counties to finalize details related to incorporating their culvert data into the ODFW database - we received culvert data from Washington County as a result of these communications; c) reformatted Forest Service culvert records and appended them into a blank barrier and culvert detail table in order to address some internal unique ID duplicates; and d) finished the draft version 1.1 of the culvert data update protocol, which is formatted similarly to the distribution update protocol document. The GIS Analyst completed a statewide road density analysis using BLM 1:24,000 scale roads data and REO 6th field watersheds. He created a map image and also wrote up the analysis procedures, which was featured as the March monthly feature on the NRIMP web site.

The GIS Analyst received Observation data from the Western Oregon Rearing Project for sampling that was completed in 1998 and 1999. He processed the data and incorporated them into the Observation database. He then created GIS datasets for 1:10,000k and 1:24,000 coho observations and created Observation pdf maps and an image map. Snapshot images of these layers were produced and everything was posted to the ftp site. In addition, he created updated 1:24,000 scale distribution datasets for fall and spring chinook, chum and summer and winter steelhead. Both the 1:100,000 and 1:24,000 distribution datasets were converted to shapefile format and posted on the ftp site.

One staff member participated in an Oregon Plan - Coastal Coho Review conference call and answered questions related to Oregon StreamNet/NRIMP's Fish Habitat Distribution data for coho.

Web statistics for sites maintained by Oregon's StreamNet cooperator (NRIMP) are shown in Table 5. Four hundred twenty two data downloads were made by 25 unique users from the Oregon Plan Metadata Warehouse during the quarter.

Table 5. Website hit statistics for the second quarter.

	January	February	March	Total
NRIMP	9,544	11,573	13,767	39,296
Oregon Plan Metadata Warehouse	2,145	767	1,500	11,840
Oregon Fish Finder	2,119	2,330	2,979	7,428

Staff support of Oregon Subbasin Planning continued throughout the quarter.

WDFW

The temporary Data Compilers on CSMEP funding continued to work on Lower Columbia dataset inventories for the CSMEP Project. Biologists were contacted and interviewed about area and species-specific data that they manage. Information from these interviews and related data discovery efforts were catalogued and handed off to the appropriate CSMEP analysts for review.

The Program Manager participated in four CSMEP steering committee meetings (two conference calls, one in Portland, one WDFW internal meeting in Olympia) in order to review dataset inventory and other product development to date and advise on next steps. He proposed a moratorium on further CSMEP dataset inventory work until at least June 2004, when those working on subbasin planning would have more time available for dataset interviews and after CSMEP analysts had the chance to review initial dataset inventories for quality and completeness of content. This proposal was adopted at the February 23 meeting. He also provided updates to Washington bull trout status by recovery area summarized in Table 4 of the CSMEP Work Plan. This work was done on WDFW funding.

The Project Manager participated in the March 9-12, 2004 Fish Counting Protocols Workshop as a member of the Data Management Team. He assisted in developing the group product during the Workshop, and also provided extensive additions to the initial draft later in March. This work was done on WDFW and Workshop-related funding.

Region

The regional Programmer undertook a small contract to evaluate existing database programs to determine which could be suitable to manage nearshore environmental data from Puget Sound.