StreamNet Project

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First 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 first 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.

Activities in the First Quarter of FY 2004 included routine development, maintenance and posting of various data sets, routine administrative activities to continue project function, data management support for components of the Northwest Power and Conservation Council's (NPCC) Fish and Wildlife Program (FWP). Key highlights of activities this quarter are presented by cooperator, as follows:

Regional StreamNet at PSMFC (Region)

Regional scale data management and distribution continued to gain prominence as topics within a variety of programs, including the Federal Action Agencies' RM&E program; the Columbia Basin Cooperative Information System; the Federal, State and Tribal Partnership for Watershed Assessment (being renamed the Pacific Northwest Aquatic Monitoring Partnership – PNAMP); and the Columbia Basin Fish and Wildlife Authority's Collaborative Systemwide Monitoring and Evaluation Project (CSMEP). The StreamNet Program Manager, along with several StreamNet cooperators, participated in these efforts to further the interest of providing effective and efficient flow of information region wide.

The Regional Fisheries Biologist spent significant time under NMFS funding, helping NMFS create data for a report to Congress on expenditure of the Pacific Coast Salmon Recovery Fund program. The primary StreamNet role was in relation to data gathering from the Northwest Indian Fish Commission, the Columbia River Intertribal Fish Commission, and California, through StreamNet's partner project, CalFish. In addition, assistance was also provided to the Oregon Watershed Enhancement Board related to georeferencing projects under their administration.

Significant progress was made in creating a new Independent Data Sets web page, which will serve as an archive and public dissemination point for a variety of fish and wildlife related data sets developed by the Fish and Wildlife Program. The data structure for this Cold Fusion-based web page was determined, and web output programming began. In addition, an application for submission of data sets for inclusion on the StreamNet Independent Data Sets page was improved, and will be completed in the second quarter.

The GIS data download page was completely redesigned, adding the ability to view current fish distribution with an interactive map application.

The Pacific States Marine Fisheries Commission moved its office from Gladstone to Portland (Sellwood), requiring significant work from all PSMFC projects, including StreamNet. The entire office was packed and moved, and all servers and computer equipment were shut down, moved, and then brought back on line. Only two days of down time for the StreamNet website (www.streamnet.org) were required. StreamNet data users were notified of the move by a notice posted on the web site prior to the move and through a special edition of the StreamNet newsletter. The new PSMFC office location is 205 SE Spokane St., Suite 100, Portland, OR 97202. The new phone number is (503) 595-3100.

Columbia River Intertribal Fish Commission (CRITFC)

The most significant technical accomplishment was a closer integration of StreamNet into the subbasin planning process in Oregon. The StreamNet Library is serving as the collection and archive site for key reference material used by subbasin planners. The StreamNet web site and databases are being used to deliver data to and house data from subbasin planning teams. Combined, these new services should make StreamNet familiar to a wider group of potential long-term users.

All age data from the Bonneville Dam sampling program were updated and sent to the Region during the quarter. This includes the only consistent age data on Columbia Basin sockeye salmon runs.

Administratively, a smooth transition was made to a new fiscal year and the annual report was completed.

U. S. Fish and Wildlife Service (FWS)

The Fish and Wildlife Service component of the StreamNet project, the smallest component, conducted routine data development and data delivery for information pertaining to the national fish hatcheries in the Columbia River basin.

Idaho Department of Fish and Game (IDFG)

Idaho StreamNet continued strong involvement with subbasin assessments for the Salmon, Boise/Payette/Weiser, Middle Snake and Upper Snake this quarter. StreamNet data were essential to their work. StreamNet staff contributed their expertise and assistance in utilizing the existing data and developing new data.

After several years of keeping the Idaho 1:100,000 scale hydrography static, Idaho StreamNet completed a major update to the streams layer. Based on input from IDFG fish biologists, 316 new streams were added and 71 existing streams were modified. These updates still need to prepared for transfer to PSMFC, which will be addressed next quarter.

Idaho StreamNet made a major commitment to CBFWA's CSMEP. Data development tasks in the 2004 Statement of Work were set aside in order to develop a pilot fisheries data survey focused on two river systems, the Selway (data poor) and South Fork of the Salmon (data rich). This work took nearly all of the data coordinator's time this quarter, allowing accomplishment of little else in data development.

The Idaho Supplementation Studies (ISS) have been utilizing the Spawning Ground Survey system for several years. After these initial "test and modify" years, the project was able to combine the past 3 years of spawning ground survey data into a single, central database. In addition, ISS has been working to compile all of their historic spawning ground data into this database. Besides providing a valuable tool to ISS and others, Idaho StreamNet will now be able to start work to migrate that data directly into the StreamNet Data Exchange Format (DEF). This will allow for real electronic flow of data from the field into the StreamNet database, without the past step of Idaho StreamNet reentering the data from completed reports.

Idaho StreamNet has been striving to build the Idaho Fish and Wildlife Information System (IFWIS) to facilitate data management and the electronic flow of data from the field to StreamNet. The infrastructure has largely been put together by savings and borrowing equipment to develop on. This quarter Idaho StreamNet finally obtained (from IDFG) the last of the key servers needed to implement IFWIS. The project installed a web server running Windows 2003 Server, IIS 6.0 and ArcIMS, and also installed a new server that will become the new domain controller. Both of these servers replaced failing desktop PCs that had been converted into servers.

Montana Fish, Wildlife and Parks (MFWP)

Data gathered during the 2003 biologist meetings continued to be added to the database and further contact with the biologists was made as needed to complete entry. Initial contacts with biologists were begun for data meetings that will occur in the second quarter. During the 2004 biologist meetings the appropriate barriers from the Westslope Cutthroat Assessment will be incorporated into the MFISH database and subsequently exchanged with Regional StreamNet. The multi-state Yellowstone Cutthroat Trout layer was sent to the Region for inclusion in the "Independent data sets" list.

Development of a DEF for hatchery release data was begun with Washington StreamNet staff. The DEF is scheduled to be completed in March 2004, and MFWP 2003 release data will be exchanged shortly thereafter. Data have been received for two new State hatcheries and data for private commercial hatcheries are due by 2/7/04 from MFWP Enforcement Division. Data exchange will occur shortly after that.

Updates to the Montana NHD hydrography layer continued in the first quarter and the NRIS SDE layer was updated with the new stream and lake layer. The water code x LLID cross reference was updated this quarter as needed. Updates on the lake layer continued in the first quarter. Using ArcGIS, the project experimented with creating new stream annotation layers at 3 scales; generalized, HUC level and Stream Level.

Montana StreamNet continued 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 uses to input data. Location edits for new projects were received from the MFWP Helena office and the data are scheduled to be exchanged in the second quarter. The project provided hard copy maps of locations in the data base and stored updated coordinates in the database.

The Fisheries Division e-library, the source for the StreamNet DEF, is an ongoing effort, with current work directed toward updating the internal system used to track the Library.

As a state, Montana declined a contract to participate in the CSMEP project. Montana StreamNet will continue to monitor the progress of this group as they move forward.

Montana StreamNet held a very productive meeting of all staff to review work plans, issues and work assignments. Performance appraisals were completed all for all direct report staff. The number of staff who report directly to the Project Leader was reduced in order to provide better supervision. The FY-03 contract was closed out and operations were initiated under the FY04 Contract. A proposal to modify the format of the annual progress report was submitted to the Steering Committee and adopted.

Oregon Department of Fish and Wildlife ODFW

We completed the Fish Screen Location Project. We underestimated the time it would take to do this job. The most time-consuming aspects of this project are research and landowner contact.

More will be provided during the open review period.

Washington Department of Fish and Wildlife (WDFW)

Much of this quarter's activity related to administrative exercises related to closeout of the old contract (including the no-cost extension granted in August) and startup of the new contract.

Discussions at the November Steering Committee meeting highlighted the importance of connecting our work with other efforts outside the current StreamNet work plan, including Monitoring and Evaluation support (CSMEP), the NOAA-Fisheries Salmon Data Management initiative, and the Oregon-Washington Framework Partnership for developing 1:24,000 scale spatial hydrology layers. Thus, finding a way to move forward with StreamNet work in the context of these other projects occupied a significant slice of time this quarter.

Clearly, whenever new priorities are addressed (and funding remains constant), some previously existing priorities do not get addressed. In the fourth quarter of FY-03 and this first quarter of FY-04, we received extra money to address new Basin priorities. Our progress this quarter demonstrates it's risky to hire new staff to do the grunt work for new priorities while using existing Washington StreamNet Managers to oversee the new work. Management takes time away from other workplan items. If the new project isn't clearly defined and carefully scoped, the managers must help with the grunt work when nobody else is available and deadlines loom. Progress on existing work plans for both the western Washington StreamNet Data Manager and Assistant Data Manager was seriously impacted by these new priorities. Clearly, there is a limit to what can be managed by existing staff. The StreamNet Statement of Work is replete with data topics to be addressed if new money becomes available. It's more feasible to address THESE data topics first when new money is identified if adequate infrastructure for the topic is built first, and if sufficient progress can continue on pre-existing priorities.

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, First Quarter 2004
IDFG	1	Update 100K anadromous fish distributions based on input obtained from subbasin assessment work and NOAA Fisheries critical habitat designation.	Idaho StreamNet provided technical assistance to the subbasin assessment team's effort to update our distribution information for Chinook salmon, steelhead and bull trout in the Salmon River basin. Final edits are currently being made.
ODFW	1	Update, maintain, correct and exchange anadromous fish distribution and documentation information.	Version 2 of our Observation GIS datasets for chum, spring Chinook, and summer and winter steelhead was releases this quarter. We also created snapshot images of new datasets and posted them to the ODFW ftp site for public download. Also posted were 100k and 24k coverage and shapefile datasets for summer and winter steelhead, chum, spring Chinook and bull trout.
WDFW	1	The StreamNet database currently has all WDFW anadromous distribution data collected at 100K resolution. Submit corrections if warranted.	The Washington StreamNet Data Manager started researching StreamNet's AnalyzeEvents tool as a solution to converting WDFW distribution data to StreamNet's format. Continued work on this effort was postponed due to other priorities.

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, First 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 combined our existing data for cutthroat trout (including the reference system, collecting permit reports, BLM and IDFG field office records, and USFS cutthroat trout assessments) to produce maps that are being used to update the IDFG management plans for Yellowstone Cutthroat, Bonneville Cutthroat and Westslope Cutthroat trout. Input gathered on those maps will help us update our distributions for those species.
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 gathered during the 2003 biologist meetings continued to be added to the database. Further contact with the biologists was made as needed to complete entry.
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.	We began making initial contacts with biologists. Data meetings will happen in the second quarter.
ODFW	1	As time and funding permits update, maintain, correct and exchange resident fish distribution and documentation information.	The GIS Analyst initiated efforts to update resident fish distribution data to match documented observations that occur outside of existing distribution. This effort primarily focuses on rainbow/redband trout, but will likely extend to other species.

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, First Quarter 2004
CRITFC	1	Update mainstem Columbia and Snake River dam counts through 2003 and provide updated data to the StreamNet database.	No work was done this quarter. Dam counts are typically available in corrected form in the second or third quarter.
CRITFC	2	Update available tribal spawning ground survey data.	No work was done this quarter. Spawning surveys are typically available in corrected form in the second or third quarter.
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.	Data will be gathered in the second quarter.
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 first 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.	A new version of the Trend database was created, and staff resumed updating data with corrections and additions, as well as contacting field data collection projects for updated information. All additions and corrections that were compiled during the quarter were incorporated into the Trend database.
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).	Washington StreamNet staff continued refining the design of the PDA Form used to capture stream survey data. This effort will aid local and statewide WDFW and StreamNet needs.

Staff also continued updating the internal escapement and age databases with 2002 data as they came in. The escapement database is up to date and chum data have been entered. All 2003 escapement data will be updated in the summer of 2004. |

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, First Quarter 2004
FWS	1	Data received from National Fish Hatcheries will be processed and added sent to the Regional Mark Information System via the USFWS Lacey Office.	2003 release data from National Fish Hatcheries in the Columbia Basin, excluding Idaho, were transformed to PSC version 4.0 release format, and passed on to the Lacey office of USFWS for submittal to RMIS. Release data from 1999 and 2002 were resubmitted to correct information that corresponds to the CRiS MARK field. Development of the program to perform this transformation is continuing.
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.	We are currently working out a resident DEF for hatchery releases with Washington StreamNet staff. MFWP data for 2003 will be available in March 2004. We expect the DEF to be completed by that time and the exchange to occur shortly after.
ODFW	2	Create a cross table to link Pacific Salmon Commission codes to LLID stream based locations to provide more precise locations for releases.	Oregon StreamNet's Database Manager downloaded various data from the ODFW Hatchery Management Information System in order to produce a distinct water body list and a release location list. In all, over 8,000 distinct water bodies and 38,000 distinct release locations were identified. A new technician was trained on the PSC-Code/LLID translation database. With the combined efforts of the new technician and regular Oregon StreamNet staff, more than 5,600 LLIDs (stream identification numbers) for water bodies where hatchery releases occurred were confirmed. This effort is not yet complete because we are waiting for information from a couple of ODFW Liberation Coordinators.

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, First 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.	Recovery data from National Fish Hatcheries in the Columbia Basin, excluding Idaho, were transformed to PSC version 4.0 recovery format, and passed on to the Lacey office of USFWS for submittal to RMIS. Programs to produce this file, and the associated catch sample file are still under development.
WDFW	1	Update and enhance the existing hatchery return database for available species per the newest DEF.	The Assistant Data Manager continued to refine the new internal MS Access hatchery return database to accommodate the new DEF format. A few related and unrelated issues need to be resolved before we can submit the data to Regional StreamNet.
WDFW	2	WDFW and WDFW StreamNet staff work jointly to create a more efficient means to analyze and simplify the hatchery return data flow from the internal WDFW database.	The Assistant Data Manager met with WDFW Hatchery Unit staff as warranted to resolve data issues and discuss protocol changes for the initial data capture.

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, First Quarter 2004
MFWP	1	Continue to update Montana's spatial coverage and associated tabular file of dams. Exchange with StreamNet.	See first quarter entry for Barriers. There has been no new data for dams so far. However, there may be some updates resulting from the barriers data update.

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, First Quarter 2004
MFWP	1	Update the StreamNet hatchery database with Montana's public and private facilities. Exchange with StreamNet upon completion.	Data have been received for two new State hatcheries. Data for private commercial hatcheries is due by 2/7/04 from MFWP Enforcement Division. Data exchange will occur shortly after that.

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, First Quarter 2004
CRITFC	1	Complete and update ocean and Columbia River catch data through 2003	No work was done this quarter. Catch statistics are typically available in corrected form in the second or third quarter.

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 all other 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, First Quarter 2004
IDFG	1	Maintain and update, as necessary, the 1:100,000 scale hydrography files for Idaho. Submit all changes to the StreamNet database at the Regional office.	We completed incorporating all the identified updates needed for our 1:100,000 streams layer. There were 316 new streams added and 71 streams that had edits made to them.
IDFG	2	Complete lakes GIS layer for Idaho and incorporate into StreamNet.	We have collected quite a few updates and additions to make to our lakes layer. Most of these changes are for high mountain lakes in the Clearwater and Salmon basins. We have just begun to make these changes to the data.
MFWP	1	Using the NHD, 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 other databases).	Updates on the hydrography continued in the first quarter. The NRIS SDE layer was updated with the new stream layer. The water code x LLID cross reference was updated this quarter as needed.
MFWP	2	Error check and edit Montana's lakes layer which was created using 1:24 000 and 1:100 000 base hydrography. Provide to StreamNet for use with Hatchery Release Data.	Updates on the lake layer continued in the first quarter. The NRIS SDE layer was updated with the new lake layer.
MFWP	3	Using ArcGIS, create new stream annotation layers at 3 scales; generalized, HUC level and Stream Level.	We are still at the experimental stage. Details are being worked out at this point before the actual populating of the hydrography with the stream name annotation.
WDFW	1	Update, as necessary, the Washington 1:100,000 scale Stream, Lake, and Marine Area hydrography files. Submit all spatial and tabular changes to the StreamNet database at the Regional office for inclusion in the PNW regional hydro layer.	Staff collected GPS data for index streams to refine the accuracy of redd count location data tied to the stream hydrography layer. The Data Manager continued work fixing un-connected stream arcs until other priorities postponed this effort.

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, First 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.	We received location edits for new projects from the MFWP Helena office and expect to exchange data in the second quarter.
MFWP	2	Update location of all restoration projects through a review with regional MFWP fisheries biologists. Provide hard copy maps of locations in data base and store updated coordinates in database.	This work was completed
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 was initiated, but put on hold due to a shift in priorities to the CSMEP effort (see Objective. 4, Task 1 for information on the CSMEP effort).
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.	A new temporary compiler (Gretchen Blatz) was hired under a separate contract to compile Pacific Coastal Recovery Fund (PCSRF) projects granted to the Northwest Indian Fisheries Commission (NWIFC). The data were compiled in a revised StreamNet format and converted by CDFG into NOAA Fisheries' preferred format. Although data have already been submitted to NOAAF, work continues to refine the data representation for a StreamNet submission of the habitat restoration component of the data. Both NOAAF and StreamNet funds were used for this effort, as a way to jump-start WDFW submission of Washington habitat restoration project information.

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, First Quarter 2004
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.	No progress was made in the first quarter. The meetings with fisheries biologists for updating all fisheries data will occur in the second quarter. At these meetings the appropriate barriers from the Westslope Cutthroat Assessment will be incorporated into the MFISH database and subsequently exchanged with the StreamNet Regional office at PSMFC.

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, First 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 Washington StreamNet Region 5 Compiler (Groesbeck) continued work on the Cedar Creek smolt and adult trap databases, updating it weekly. Related data requests that come in to the local biologists were handled by Groesbeck; it takes considerable time to manipulate the data per the varied user's needs.

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, First Quarter 2004
CRITFC	1	Update CRITFC age data on sockeye and Bonneville Dam Sampling	All age data were updated and submitted to the Region this quarter.

ODFW	1	Compile age composition data as it is identified and becomes available.	The Data Analyst obtained McKenzie River (Willamette River drainage) steelhead data and converted them to the StreamNet DEF format. Additional age data were identified from hardcopy reports. These two sources were combined and a total of 13 trends, with 153 corresponding age data records were submitted to Regional StreamNet in early November. This submission spawned a debate about the compatibility of the StreamNet age data format to ODFW's age data (see Objective. 2; Task 2).
WDFW	1	As warranted, update Age data links with other "count" data records (i.e. hatchery returns and adult abundance).	The Data Manager reviewed the recent Age data submission since it was our first in the new format. She summarized some issues that might puzzle users and future compilers. The Compiler spent this quarter researching and addressing the issues.

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, First Quarter 2004
CRITFC	1	Coordinate with ESA recovery planning and NWPPC subbasin planning efforts to capture available anadromous fish and bull trout productivity data for eventual DEF testing and inclusion in StreamNet.	Subbasin planners are in the process of conducting subbasin assessments. Data will be available as assessments are completed, likely in the second or third quarter. Staff worked with Mobrand Biometrics to compare EDT input with existing stock summary information contained in StreamNet.

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, First Quarter 2004
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 shared replica of the FishScreen Database was downloaded from the ODFW network, queried by ODFW District, and the updated information was posted on the NRIMP web site for StreamNet access.

Project	Job	Planned work elements	Accomplishments, First Quarter 2004
ODFW	2	Capture GPS coordinates for water diversions and fish screens in the Willamette subbasin.	ODFW Fish Screen Program staff was contacted in late September to create a plan for obtaining coordinates for screened and unscreened diversions in the Willamette basin. However, subsequent discussions with ODFW Fish Screen Program and District personnel were infrequent due to scheduling difficulties, so we were not able to meet to devise final plans and initiate the Fish Screen and Diversion Location effort in the Willamette until early November. It was decided to focus on the Calapooia River system due to it's close proximity and density of pumps and screens. We then visited several diversion sites on one local farm and obtained location coordinates. However, none of the pumps were still in operation, so we didn't actually see them functioning. Because this effort was initiated so late in the pumping season, most of the work may have to wait until next Spring when pumps go back in. Therefore, the deadline associated with this task will have to slip.
ODFW	3	Capture GPS coordinates for water diversions and fish screens in the Primary Oregon Columbia River tributary subbasins	The field portion of this task was originated on September 15, 2003, and continued into the first quarter of FY-2004. During that time, 67 individual landowners who potentially divert water were identified and contacted in the Mill Creek drainage, this included phone calls, notes on doors, mailings, and personal visits. Of these, 34 site coordinates were collected, 22 landowners indicated they do not use water from Mill Creek, and we received no response or were unable to locate 11 landowners. Of the 17 landowners who potentially divert water in the Fivemile Creek drainage, 8 site coordinates were collected, 5 landowners indicated they do not use water from Fivemile Creek, 1 landowner was too busy to meet with us, and we received no response or were unable to locate 3 landowners.

The 2003 Fish Screen and Diversion Location Project Summary Report was completed and submitted by mid-December. In addition, summary pages for each diversion were delivered to the Fish Passage Coordinator in The Dalles. |

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, First Quarter 2004
IDFG	1	On an opportunistic basis, develop other types of data.	We provided assistance to IDFG Fisheries personnel to enter detailed carcass data into our Spawning Ground Survey system. The data will ultimately provide age composition information for use in run reconstructions.

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.	The multi-state Yellowstone Cutthroat Trout layer was sent to the Region for inclusion in the "Independent data sets" list.
Region	2	Acquire data sets from other (non-StreamNet) entities where the data would be useful in relation to data available in the StreamNet database and for regional planning and management needs. Initial efforts may be only exploratory in nature, and will only be pursued within existing resources and as data become available.	StreamNet staff from Montana Fish, Wildlife, and Parks provided the report and supporting data and GIS files for the 2001 interagency Yellowstone cutthroat trout range-wide assessment. This resource was added to the Independent Data Sets page.

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, First 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 purchased and installed a server rack system to help us manage our server hardware. At the same time we installed two new UPS systems that will provided protection from sudden power outages. We also installed a dependable air conditioner in our server room to cool the air. We obtained two new servers this quarter. One has been installed and configured as a web server with Windows 2003 Server, IIS 6.0 and ArcIMS. The other will take over our domain controller functions. This now removes the last of our failing, desktop-turned-servers with which we had been developing.
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 work is ongoing.

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 installed the .NET Framework 1.1 on his computer in order to develop up-to-date applications for our new server using the latest technologies available to us. 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.	Routine backups were frequently made of all important databases. During this project quarter, all servers were moved to the new location of the PSMFC headquarters in Portland. The servers were unavailable for use for approximately two days during the move. No problems were encountered restoring the servers to service following the move. A notice of the impending move was posted to the StreamNet web page in advance to alert users to the planned down time.
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.	The GIS Specialist upgraded his computer to increase efficiency. This included importing all data from the network to decrease processing time.
Region	3	Maintain and upgrade the StreamNet web server and software, including programming, tool development, system security, etc.	We experienced no significant down time this quarter except for December17-18 while our server equipment was transferred to the new PSMFC headquarters facility.
Region	4	Assist with development of XML schema based options for both incoming and outgoing data. Continue exploration of how XML can enhance data exchange and develop data use agreement to control subsequent use of StreamNet data by other websites.	We developed and implemented the Data Use Agreement through a web form that must be submitted to StreamNet before data can be accessed and queried to return XML.
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.	Our two Vancouver based Washington StreamNet staff continued to struggle with network or individual PC problems.

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, First Quarter 2004
IDFG	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	The Idaho StreamNet staff worked with IDFG Idaho Supplementation Studies (ISS) staff to combine the past 3 years of spawning ground survey data into a single master database. ISS staff worked to incorporate all of their historical spawning ground survey data into the central database.

We updated the Spawning Ground Survey application by adding import and export functions.

Development staff began work to include all of our hydrography into the Spawning Ground Survey system, instead of just the ISS sampled streams. This will make the application more universally useful within IDFG and other agencies.

We obtained the beta version of SQL Server 2000 Reporting Services and tested its usefulness with our spawning ground data. Our initial tests were encouraging and we plan to obtain the upcoming official release.

Project	Job	Planned work elements	Accomplishments, First Quarter 2004
MFWP	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	We are experimenting with the format for maps displaying native trout distribution, genetic sampling location and a table with the locations. We need to complete this by next quarter in order to send it out to fisheries biologists.
ODFW	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	Oregon StreamNet staff continued cooperative development of an ArcGIS Data Capture Tool. The new tool will encompass several areas such as 100k and 24k distribution and barrier information. A large portion of the coding for the 100k distributions was completed along with a good start on the 24k distribution functionality.

The Database Manager tracked down and fixed a couple of bugs within the Age data entry form.

The Assistant Database Manager corrected an error that was discovered in the "Planned Screens" and "Planned Passage" reports, created a FishScreen Query Documentation report in the FishScreen Database, and released new versions of the database user interface, Version 3.0.2. and 3.0.3 during the quarter. FishScreen Database Technical support was provided to ODFW staff throughout the quarter.

We migrated our existing metadata site to the new server. The old site was written completely in C and built as a CGI program. Due to security considerations, our new server does not allow the running of CGI applications and so the metadata site needs to be re-written into an ASP.NET application. This re-initiation is in response to a request for us to support the high priority Oregon Plan Review effort. Functionality of the new site was completed in mid-December (see Objective 6, Task 2).

The GIS Analyst developed a set of tools for distribution data quality assurance. These tools facilitate the automated identification and resolution of data quality issues within the distribution database. Data quality issues include event gaps, overlaps, questionable measures, greater then total route length and dissolvability.

Staff worked on developing the structure and UI for the new barrier database throughout the quarter. This included creating and defining a list of culvert types/codes to be used, and preparing several tables (i.e. a LLID x HUC table with HUC order and HUC specific begin and end measures for each LLID, and a location table that is compatible with the recently developed ODFW Master Location database).

Staff added a new age subform to the Trend and EscData forms in the Trend database.

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 completed several projects with cooperating agencies this quarter. First, an online discussion tool was created to help Subbasin planners exchange information, documents and data. This tool is similar to the StreamNet discussion forum tool and is publicly viewable at <http://planning.streamnet.org/>. The tool was created at the request of Cedric Cooney. A second project also supporting subbasin planning was to work with technical people at CRITFC to provide a web site and ftp storage and download facility for the TOAST group.
Region	3	Create an Online Event Mapper to allow users to create event tables based on 1:100K Hydrography over the Internet	The GIS Specialist attended ESRI training for online mapping. This will lead to increased capability of providing online interactive mapping through use of ArcIMS.
WDFW	1	Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.	The GIS Data Manager re-designed the interface for editing the 100K hydrography layer, improving the performance 300%.

Work continued on refining all the new internal MS Access databases. |

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, First 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.	Worked with subbasin planning staff to identify metadata needs and availability. Subbasin planning staff began developing metadata for GIS layers developed as part of that project.
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.	Data were entered into the CRiS Returns file by running the RunSum program after receiving Fish Removal database files from hatcheries. Available age data were processed using CRiS programs.
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.	We received and attended to communications with regional StreamNet staff concerning changes to our data related to DEF and query changes made at the Region. Regional StreamNet staff had questions about the age data submitted in September. Once again, ODFW's data is unique, raising concerns about the value of stand-alone age data, differences in age reporting mechanisms, and tying these data to location information. The problems were resolved, but work remains concerning further DEF enhancements. Regional staff were put in contact with ODFW scale readers for a better understanding of the complex life histories of anadromous fish. After further conversations with Regional staff regarding the DEF changes to the Age data table, our Data Analyst began reconfiguring the Age data to the new DEF. To aid this effort, a sub-form for the Trend and EscData forms in the Trend database had to be created. The GIS Analyst completed q/a and clean-up efforts related to the Observation database. He addressed issues related to outdated LLIDs and disconnected begin and end measure values. He also assessed potential 24k observation records that were either located at mouths of 24k streams or had no coordinates or LLID values populated, and assigned coordinates to several dozen of these previously "unmappable" 24k observation records. He also ran some q/a procedures in preparation for creating new distribution datasets, filling some gaps in origin and production coding as well as ESA status coding. Lastly, he drafted a document titled, "Instructions for Creating Distribution Datasets", furthering our efforts to document our data development procedures.

Metadata for version 2 of the 100k and 24k Observation GIS datasets was updated during the quarter. This included significant additional text explaining the discrepancies between distribution and observation data. Metadata for the timing database was also drafted during the quarter.

As part of converting our new ASP.NET metadata site into the Oregon Plan Review Data Upload Site, some changes had to be made to the schema of the database to allow the capture of specific information for the OPSW, as well as other tabular data types.

The Data Analyst initiated a reference audit, requesting a reference check to be conducted by Oregon StreamNet staff to eliminate duplication or other accuracy issues.

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.	Oregon StreamNet and ODFW staff met to discuss the Draft Distribution Update Protocol and Procedures document. We successfully addressed a variety of issues and made substantial progress toward finalizing the Draft document in preparation for an upcoming review by managers outside our group. We plan to re-write the procedures section based on meeting notes, and then re-circulate the document for review.
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 Fisheries Biologist researched and discussed with WDFW personnel how to code "tangle-tooth net" for the StreamNet database (=gill net). He assisted StreamNet-related PSMFC personnel in California with coding for the new hatchery returns data structure and with hatchery facility data. Over 10,800 records related to California's Habitat Restoration Projects were removed from a dozen StreamNet tables in order to prepare for these data to be resubmitted next quarter using the new routed hydrography for California.
Region	2	Examine the StreamNet database for errors and report any found to the appropriate entity for correction. Continue to improve error-checking capabilities.	Duplicate data in the fish distribution records (GeneralizedFishDistribution table) were found for streams that border or cross state boundaries. These duplicates, which often contained inconsistent attributes for how the species uses the reach (e.g., 'spawning' in one record, 'migration' in another), were flagged and will be brought to the attention of the state StreamNet partners, who will need to coordinate the cross-border data issues.
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.	Two new fields, LastUpdatedBy and LastUpdatedOn were added to a dozen tables in order to track changes to data records in StreamNet's primary count data, facilities and reference tables. These fields will be used in the future to query a summary of recent changes to StreamNet data via the online web based query system. Much of the effort by data compilers was temporarily redirected to PCSRF work during this project quarter, but new data were loaded; including a 6% increase in the new Age table records, a 20% increase in Barriers and a 35% increase in records detailing the extent to which fish barriers restrict fish species by run and life history stage.

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.	The full database of citations from the StreamNet Library at CRITFC was examined at the Region and a reconciliation of all occurrences of RefIDs relating to StreamNet data records were matched with a single LibraryID. In many cases, the RefID on data records was updated to reflect the single, correct LibraryID so that a one-to-one relationship now exists between the Library database and StreamNet database, and agency compilers were notified in order to make those corrections in their internal databases as well. This work will facilitate more timely data exchanges between the Library and StreamNet headquarters, as well as enhance the access to citations and documents related to all StreamNet data.
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 GIS Specialist reformatted all metadata to common format (XML) for display on the GIS data page. He also added a category for boundary files (HUCs/Regions) for download.
Region	9	Assist the database manager with the spatial component of data and its implementation online	The GIS Specialist assisted in reviewing some QX (cross references between tables) issues regarding the new California hydrography.
Region	10	Maintain and update, as necessary, the 1:100,000 scale hydrography files for the states and the PNW region. Submit all changes to the StreamNet database at the Regional office.	The GIS Specialist received the updated 1:100,000 hydrography from California.
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.	The GIS Specialist upgraded the StreamNet database with creation of QX (cross reference)tables for the new CA hydrography. He also created spatial layers to show fish distribution in lakes to fix this missing element in the query system.
Region	12	Maintain the Protected Areas database. Provide access to the Protected Areas data through the online queryable database and through the interactive map application. Work to resolve the remaining location issues where protected areas did not translate well to the 1:100,000 hydrography.	This job is a duplicate of Objective 4, Task 5, Job 1 and should be disregarded. It will be removed from the work statement when it is revised.
WDFW	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 continued to refine and correct our spatial metadata.

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, First Quarter 2004
MFWP	2	Co-develop a draft resident release DEF, in cooperation with Leslie Sikora, WA StreamNet	Jeff Hutten worked with Leslie Sikora (Washington StreamNet) on the resident release DEF.
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 Fisheries Biologist worked with StreamNet-related PSMFC personnel in California to convert the existing habitat restoration projects database to an improved structure for this data category, and to incorporate the Oregon Watershed Enhancement Board's newest database into StreamNet format. Work on this item was not completed this quarter due to work under NMFS funding for the Pacific Coastal Salmon Recovery Fund (PCSRF). We expect that this task will be completed in the second quarter.

The StreamNet Data Exchange Format document was converted to landscape layout and several coding changes were made, resulting in about 10 fewer pages. The initial feedback is that the new layout is easier to use. We plan to publish future DEF documents in the landscape format unless additional feedback indicates the new format presents a problem. Several errors and needed updates in the DEF were identified by staff from the various cooperating agencies and corrections were made.

The Regional Fisheries Biologist worked with ODFW personnel on the initial steps for a carcass placement DEF. Regional staff discussed with ODFW staff the implementation and possible changes needed to the new age data DEF. |
| 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 initiated discussion with the original technical team to address better coordination between the Hatchery and new LocMaster table. Idaho StreamNet engaged in discussion; Oregon StreamNet hasn't responded yet. Regardless, now with Idaho StreamNet's agreement on the first small issue, she will put the remaining issues to StreamNet Regional staff next quarter.

We provided feedback to PSMFC's Mike Banach on the new layout and orientation of the DEF document. We find the landscape orientation and modified use of space makes the document much easier to use. |
| WDFW | 2 | Co-develop a draft resident release DEF, in cooperation with Janet Hess-Herbert, MT StreamNet | The Data Manager drafted a table cross-referencing equivalent MFWP and WDFW resident hatchery release data fields with a proposal for viable StreamNet DEF fields. |

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, First 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 team worked with Regional staff to design an FTP and discussion forum on StreamNet to support subbasin planning in Oregon.
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.	Library web pages were added for subbasin planning activities. The website was also updated periodically to show changes in Library hours of availability.
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	Library InMagic software was upgraded to a newer version with XML capabilities and other advancements. We made minor changes to displays to facilitate users locating necessary information.
IDFG	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.	We reviewed and provided feedback concerning the Idaho barrier data in the StreamNet query system.
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.	Review comment was provided during the StreamNet Steering Committee meeting in November.
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 this quarter.

ODFW	2	Manage and maintain Oregon's web-based data integration, communication, and data transfer systems and their links to StreamNet.

Web page hits (top-level pages only) from 10/28/03 to 12/23/03 were:

Data Resources = 2,368	Home page = 2,120
Job Openings = 502	Fish Habitat 1:24K = 394
Tools = 338	Site Contents = 307
News & Weather = 293	Search = 283
Monthly Feature = 240	What's New = 225
Data Standards = 221	Library = 214
Links = 199	FAQ & Contacts = 198
Tips = 169	Feedback = 118

Web statistics from the beginning of the quarter were not available due to our server host not allowing individual page counters.

Our Database Manager created a virtual directory on our new server, which will host the new NRIMP website. The old site hosted at OSU was copied to the new server, and all content from the OSU server was deleted and replaced with a redirection page to the new site. The new website is now fully operational.

Region	2	Maintain and enhance the functionality, look and usability of the StreamNet web-based query system.

The Fish Distribution data category was upgraded to better handle the Montana GIS lakes layer used for the dynamic maps available in the query system. Also, the GIS Specialist implemented improvements to the shape files to increase the speed of map creation.

Region	3	Conduct a thorough review of the web query system. Identify and address errors, and omissions in data delivery. Improve help files.

Query system output was improved by increasing the number of fields displayed. Previously, some fields included in data downloads were not displayed in the on-screen display. Review of the query system will continue in future quarters in an attempt to find and correct similar kinds of problems and thereby improve data output.

Region	4	Review and rearrange the links pages on the StreamNet web site.

Several links were added to the links pages this quarter. A full review and reorganization of the links page did not begin yet.

Region	5	Maintain the GIS Data, Map, and PNW Reach File Internet pages.

The GIS Specialist enhanced the GIS data page by creating links to an online mapper to show current fish distribution.

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 GIS Specialist made minor alterations to the layout of the online mapper to improve display and function. In addition he fixed a bug that was not allowing users to save map images created from the mapper.

| Region | 8 | Deploy new query system components and data categories that are approved by the Steering Committee |

No new data categories were approved for addition to the query system. We began work on implementing Age data.

| 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. |

Website use during the quarter was logged and is summarized in Table 1.

Table 1. Usage of the StreamNet web site, StreamNet usage excluded.

	Oct-03	**Nov-03**	**Dec-03**
Overall Page Requests	25,435	21,508	18,777
Data Query Page Requests	14,371	11,080	14,567
Unique Query Sessions	5,006	1,851	4,684
Data Reports Viewed	1,611	2,130	1,696
FTP Files Downloaded	855	604	1,226
Top individual requesters (in descending order). Unresolvable numeric IP addresses are combined. Private Internet Service Providers are combined.	numeric IPA; noaa.gov, private ISP dfw.state.or.us, usda.gov, parametrix.com, blm.gov, state.id.us, usgs.gov, deq.state.or.us	noaa.gov, private ISP; numeric IPA; oregonstate.edu, dfw.state.or.us, blm.gov, parametrix.com, orst.edu, alexa.com, usgs.gov, washington.edu, state.id.us, usda.gov, 150.131, nezperse.org	parametrix, noaa.gov, numeric IPA, private ISP; dfw.state.or.us, oregonstate.edu, blm.gov, orst.edu, army.mil, wsu.edu, washington.edu

| Region | 10 | Work with the StreamNet Librarian to improve user access to data references through the web data query system. |

As detailed in Objective 2, Task 3, Job 5, a reconciliation of all occurrences of RefIDs relating to StreamNet data records were matched with a single LibraryID. This will correct the relationship between the two database sources and permit more scanned literature to be readily available from links included in reference citations shown in the web based query system associated with data sources.

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, First 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 38 requests for information, maps or technical assistance. The requests were distributed as 1 local government, 12 state government, 4 federal government, 16 private industry, 1 non- governmental organization, and 4 tribal. The requests included 24 for species lists or distribution queries, 1 for barrier data, 4 for escapement data (redd counts or carcass counts), 4 for GIS layers, 1 for habitat information, 4 for maps (two of which were a series of cutthroat trout distributions by cataloging unit), and 1 request for technical assistance for programming.
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.	??? unique users viewed / downloaded data from the ODFW FTP site during this quarter. Also, ??? data downloads were made from this site. A total of ??? data, ??? document, ??? map, and ??? '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. Responding to a request for an ODFW report from a web site visitor in Hawaii. b. Providing MS Access tech support to ODFW's Freshwater Fisheries Manager, addressing issues with ODFW's fishing regulations database. c. Responding to a culvert ownership data request from the U.S. Forest Service. d. Creating a shape file of a draft map displaying fish screen and passage projects in Oregon. e. Providing a summary of culvert ownership values from ODFW's State and County Culvert database. f. Responding to a request from Fish Division managers for two large format plots containing information such as ESU boundaries, hatcheries, subbasin boundaries, ODFW regional boundaries, other base layers and focused on the Oregon portion of the mid and upper Columbia basin. The maps were used at a meeting to discuss issues related to artificial production and ODFW's Native Fish Conservation Policy and to capture feedback from meeting participants. g. Printing out two large format plots of some hand drawn map images of Chinook and steelhead hatchery / refuge information within the Columbia basin. h. Creating two custom queries in one of ODFW's sage grouse "Lek Survey" databases. i. Creating a culvert barrier shape file for the Oregon Plan Review.

Region 1 Respond within one business day to requests for data, information or help. Log and report responses to all requests received.

A total of 35 direct requests for data, information or assistance were received at the regional office at PSMFC during the quarter. Responses were provided (in most cases within one business day), as summarized in Table 2. These do not include information accessed directly from the StreamNet web site.

Table 2. Direct requests for information or assistance handled by the Regional office

User Type	No.		Request Type	No.
Gov., Federal	3		General fish /fisheries	9
Gov., State	6		Help finding data	6
Gov., County/local	1		GIS	6
Tribal or CRITFC	2		Map	4
NWPCC	2		Help, data structure	3
Student, Graduate	2		Report error	2
Student, Undergrad	1		Help with query	1
Faculty, El./High	2		Link request	1
Private consultant	4		Other	3
General public	11			
Undisclosed	1			
Total	35		Total	35

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.

Washington StreamNet staff responded to more than 25 requests for data related to StreamNet-funded efforts. Popular requests include juvenile out-migrant counts, spawner survey data, maps for report illustrations, and fish distribution data in spatial format.

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, First 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 received several shipments of materials from participants.
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 have received documents from various sources this quarter. We are also working on identifying gaps in the collection through analyzing subbasin assessment bibliographies. As these materials are identified, we are prioritizing their acquisition.
CRITFC	4	Maintain and develop a collection of journals related to fisheries and aquatic sciences as well as other related scientific topics.	We have received subscription renewal notices for most of our journals. These will be processed during the next quarter so that we do not experience lapses in our primary subscriptions.
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 is an ongoing effort with the MFWP Fisheries Division; we are currently working on updating the internal system that we used to electronically track the FWP Fisheries Division Library.

Project	Job		
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.	Oregon StreamNet's Data Analyst created a reference table and reserved a large number of reference ID's to assign to timing documentation. She also located and delivered an electronic copy of a missing document for the StreamNet Library. We worked with Regional StreamNet staff to reconcile reference catalogs between StreamNet and ODFW, then updated our data with the reference changes. We also coordinated with StreamNet staff concerning submitting library documents that are not referenced. Currently the StreamNet Library will take all documents even if they are not referenced. Non-referenced documents will receive a unique identification number but not a RefID; referenced documents will be given a RefID for the reference information in the database. This means we will have to do a better job of keeping track of our documents in the reference table, their use, if they have been submitted to Regional StreamNet, etc.
ODFW	2	Initiate organization of ODFW Library documents and update the library bibliography with new titles as they are identified.	Our initial hiring request was approved too late to retain the qualified library technician, meaning the hiring process will have to re-initiated during the next quarter.
WDFW	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.	We sent PDF copies of the popular WRIA manuals (A Catalog of Washington Streams and Salmon Utilization) to the StreamNet Library. We also sent a complimentary copy of "Inland Fishes of Washington", Second Edition (Wydoski and Whitney) to the library to enhance their collection.

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, First 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 during this quarter.
CRITFC	2	Catalog and organize the materials for ease of use by clients and staff	Materials have been cataloged and added to the collection as temporary and permanent records. Temporary records are added for materials that are not central to the mission of the library.
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 was updated as new records were added.

| CRITFC | 4 | Develop and execute a plan to place electronic documents in the catalog and on the library website. | Library staff have identified documents and are now working on adding materials to the electronic collections for subbasin planning. Many materials important to the basin are also being digitized. |
| CRITFC | 5 | Develop and keep a schedule of open times and reference desk staff hours | The regular schedule was kept and holiday hours were posted when necessary. The reference desk is staffed for all hours we are open. |

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, First Quarter 2004
CRITFC	1	Provide information and reference services to library clients	More than 300 reference and information requests were filled for library users.
CRITFC	2	Publish information about services and hours to library clients via print and Internet	The library brochure was updated for distribution at the annual Salmon Festival at Oxbow Park.
CRITFC	3	Provide interlibrary borrowing services for library patrons to access materials not yet owned by the StreamNet Library.	These statistics are included in the reference and information requests. However, a larger number of requests are filled with in-house materials.
CRITFC	4	Provide access to hardcopy and electronic files of draft and final documents related to subbasin planning and the NWPCC amendment process.	These documents are being processed and digitized for inclusion on the library website.

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, First Quarter 2004
CRITFC	1	Provide interlibrary lending services for other libraries to access the StreamNet Library's unique collection.	The library provided materials to fill over 50 requests from other libraries.
CRITFC	2	Maintain memberships in appropriate library and subject-related associations. Ex. IAMSLIC, NRIC, OFWIM, etc.	Memberships in professional organizations have been renewed for appropriate staff members.

CRITFC	3	Provide consultations for groups and other agencies on library organization and services	The Librarian has had conversations with various individuals about the possibilities of the StreamNet Library managing their collections.
CRITFC	4	Coordinate with other StreamNet libraries, library clients and other libraries to improve service to clients and limit duplication of effort	The staff continued to work on Northwest ILL committees for programs on library sharing. **NOTE: what is ILL? Spell out**
CRITFC	5	Work with subbasin planning groups and TRTs to identify modifications to Library services and new uses of the Library to make information related to these processes easier to retrieve.	We continued to work on enhancing website and electronic collections to provide documents in electronic format to planners.

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, First 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 and on the project team of the Columbia Basin Cooperative Information System group. mAll these groups are promoting standardization and coordination of monitoring and data management efforts.
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.	StreamNet was requested by CBFWA this quarter to provide major data compilation services in support of the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP). In a pilot project, two watersheds in Idaho were identified, one data poor, the Selway, and one data rich, the South Fork of the Salmon. The Idaho StreamNet data coordinator contacted fish biologists and managers that work in these watersheds and questioned them for information about their data sets on Chinook salmon, steelhead or bull trout. This information was entered into spreadsheets supplied by CSMEP. The results of the pilot study are posted on http://www.cbfwa.org/rme.htm.

MFWP	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.	As a state, Montana declined a contract to participate in the CSMEP project. We will continue to monitor the progress of this group as they move forward. We are providing information and support to the sub basin planning effort when requested.
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.	At the request of CBFWA, Oregon StreamNet staff initiated the CSMEP data inventory effort. Numerous entities were contacted for information, including the Nez Perce Tribe, the Imnaha Subbasin Planning consultant, the Deschutes Subbasin Plan Project Coordinator, and others. Data inventories were initiated for the Imnaha, Lower Columbia, Deschutes, and John Day subbasins. Draft data inventories for the Imnaha (data- rich) subbasin, Lower Columbia (data-poor) subbasin, and the Deschutes subbasin were submitted on Dec. 1st. Although the Deschutes subbasin is not required for our data rich/poor subbasin inventory pilot effort, we thought we would go ahead and include the inventory we have started for it with this submission of our pilot effort products.

At the request of CBFWA, Oregon StreamNet staff initiated the CSMEP data inventory effort. Numerous entities were contacted for information, including the Nez Perce Tribe, the Imnaha Subbasin Planning consultant, the Deschutes Subbasin Plan Project Coordinator, and others. Data inventories were initiated for the Imnaha, Lower Columbia, Deschutes, and John Day subbasins. Draft data inventories for the Imnaha (data- rich) subbasin, Lower Columbia (data-poor) subbasin, and the Deschutes subbasin were submitted on Dec. 1st. Although the Deschutes subbasin is not required for our data rich/poor subbasin inventory pilot effort, we thought we would go ahead and include the inventory we have started for it with this submission of our pilot effort products.

The Oregon StreamNet Project Leader responded to a request from Frank Young who is drafting a White Paper at the request of Tony Nigro, comparing the CSMEP Data Inventory Task to the data inventory task that ODFW is responsible for under subbasin planning. He requested a listing of activities that are the same for the two efforts and a separate listing of activities that require additional effort to carry out the CSMEP assignment, which was provided.

Oregon StreamNet staff worked with ODFW and other CSMEP staff to get clarity on the meaning of stated performance measures, and to identify potential data sources.

CSMEP status reports were completed and submitted on Nov. 25th and Dec. 15th.

Region	2	Participate in and assist regional Monitoring and Evaluation efforts to provide relevant StreamNet data, and to initiate work to obtain new data types necessary for R,M&E. Since no specific requests or funding have been received for this, work may be limited to scoping and advising. Development of new data types to serve R,M&E will be initiated only as current time and funding permit, or as current work priorities are reprioritized by regional processes.	Initial plans were developed to assist CSMEP with data cataloging. The intent is to locate data sets that will be useful in monitoring a suite of performance measures related to fish population health. Actual work on the inventory effort will begin in the second quarter.

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, First 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 attended NOAA Fisheries Technical Recovery Team meetings when the agenda included 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.
IDFG	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.	As part of our ongoing effort to develop an electronic flow of FWP data from the field to StreamNet, we coordinated closely with the IDFG fish research staff, especially the Idaho Supplementation Studies and related projects.
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.	Declined participation in CSMEP effort; no further support requested this quarter.
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 Nov. 24th and Dec. 1st StreamNet conference calls to discuss specific details of the CSMEP effort, and coordinated with Oregon CSMEP representatives concerning project strategies and progress.
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 participated in a number of meetings of CBFWA's CSMEP project to provide advice regarding data acquisition and management. An outgrowth will be participation of StreamNet staff in an active role of conducting a data inventory and development of a data catalog.
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 to serve on the CBCIS Program Team.

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 participated in meetings of the Federal/State/Tribal Partnership (being renamed the Pacific Northwest Aquatic Monitoring Partnership - PNAMP) to provide input regarding data management. This is one forum where CBCIS, CSMEP and the federal RM&E Plan activities are coming together.

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, First 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 is chair of the Oregon subbasin planning technical team, which created an FTP site and discussion forum on StreamNet for subbasin planners.
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.	Idaho StreamNet staff provided key support to subbasin assessments of the Salmon, Boise/Payette/Weiser, Middle Snake and Upper Snake subbasins. In particular, we provided assistance in updating distribution data for Chinook salmon, steelhead and bull trout in the Salmon subbasin. We also worked to complete a GIS layer of big game sightability subunits. Subunits are subdivisions of IDFG game management units and are used to sample big game populations during the winter. The intended product is a quantitatively-produced map of big game winter distribution for the subbasin assessments.
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.	A great deal of subbasin planning support was provided during the quarter. Specific activities are discussed under "Supplemental Information", since significant effort was done on jobs not detailed in the statement of work.
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.	Washington StreamNet staff based in Vancouver filled various specific data and analytical requests for consulting firms that are working on the Lower Columbia River Recovery Plan.

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, First 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 proposed database structure and query approach for use with Independent Data Sets was completed and presented to the Steering Committee. The concept was generally accepted, but no specific direction was received from the Steering Committee. We decided to implement the approach and have a functional application ready for the Steering Committee to adopt at the next meeting in the second quarter.
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	A draft application to use for sending independent data sets, and metadata for them, to StreamNet was improved enough to be sent to WDFW for use in December. Their initial feedback provided information to further improve the tool, and that work continued into the second quarter to improve the application. WDFW staff began entering metadata this quarter, and should begin sending data files to StreamNet in the second quarter.
WDFW	1	Work with FWP supported projects in the state to assist them with submission of their data sets to StreamNet for archiving and dissemination as part of the formal DEF or as Independent Data Sets.	The Project Leader worked with the Regional Fish Biologist to review and provide specific comments on the new Independent Datasets page for the StreamNet web site. We will compile and send Independent Dataset examples next quarter, which will provide further testing of the metadata tool interface.

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, First 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 database was maintained and remained available through the on-line query system and on-line map application.

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, First Quarter 2004
All	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	Project guidance through the Steering Committee continued during the quarter. The fall meeting was held November 3-4 at Olympia, WA. The key highlight of the meeting was the CSMEP project and the desire to have StreamNet take on the data inventory roll. The Steering Committee adopted the proposal to support the CSMEP effort. All cooperators participated in the meeting, except that the CRITFC Project Leader, faced with demands of subbasin planning, was unable to attend but was briefed later. Steering Committee members also participated in providing input into the annual performance appraisal of the Program Manager.
All	2	Supervision. Supervise project staff at the cooperator level to provide guidance and staff development.	All project cooperators exercised routine supervision of their StreamNet staff, and in some cases, non StreamNet staff also. Montana StreamNet shifted reporting relationships to reduce workload on the Project Leader.. Oregon StreamNet sent two staff members for Access training and one member to an ESRI conference to learn Mobile GIS technology. Washington StreamNet worked with the Region to hire a data technician.
All	3	Budget. Manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.	All project cooperators conducted routine budget management during the quarter, with Particular emphasis on closing out the FY-03 contract, including the Data Management placeholder funds added to the project late in the fiscal year.
All	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	All project cooperators provided input into the FY-03 Fourth Quarter Report, which was completed and submitted to BPA. The Project Manager upgraded the FY-04 Statement of Work database to provide templates for the quarterly reports in FY-04
All	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.	Montana StreamNet suggested that the annual report could be improved by making it simpler and reformatted into a brochure format. The Steering Committee adopted the proposed format at the November meeting. All cooperators provided input for the FY-03 annual report in the new format.

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	PSMFC moved to new offices at 205 SE Spokane St., Suite 100, Portland, OR 97202. The move and setup of all servers was accomplished smoothly, with most web services offline for just two days. Web site users were warned of the impending move and down time through a notice on the home page for several weeks prior to the move and through a special edition of the StreamNet newsletter.

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, First Quarter 2004
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.	We worked closely with the Montana Natural Heritage Program to remove duplication of effort between the two programs. We are sharing occurrence data that are collected from Montana biologists through a shared database that will also be used as part of the SWG Fish and Wildlife Conservation Plan.
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: -- Meeting with ODFW Wildlife Division staff on Oct. 30th to discuss the State Wildlife Grant position, and with these same folks plus State Wildlife Grant contractors on Oct. 31st to discuss the entire State Wildlife Grant project. -- Meeting with staff from ODFW's Fish and Wildlife Divisions to discuss the role of StreamNet and what NRIMP (Oregon StreamNet) does for ODFW. The meeting occurred on Oct. 28th. -- Meeting with Jeff Rodgers on Dec. 1 to discuss data support for the Oregon Plan Monitoring Review and Assessment. We were asked to help with metadata development for data sources that will contribute to his effort. -- Attending the Oregon Plan Monitoring Review and Assessment meeting in Salem on Dec. 8th to describe the type of support we could provide, and to learn more about the overall goals of the Oregon Plan Assessment. -- Participating in the ODOT culvert information management meeting to learn of their efforts, and share what ODFW and StreamNet are doing. No real coordination agreement resulted, as ODOT is still exploring what they should do internally with their culvert information.

Oregon StreamNet's GIS Analyst attended a Hydro Framework meeting in Portland. Clearinghouse loading has begun with Framework standard data and should progress substantially in the next couple of months. Plans are taking shape to transition the data into a GeoDatabase. Issues related to the impending NHD standard still remain. The group agreed that implementing the Framework standard in its entirety remains the top priority. After the initial goal is accomplished, some testing will occur on various alternative strategies to potentially managing both route systems simultaneously or possibly other alternatives as part of the ultimate transition to NHD. Washington state partners were firm that NHD will not meet their business needs. More yet to come on this.....

Oregon's GIS Analyst attended the URISA / OGISA business meeting with the primary goal of evaluating the WebGD application developed by the Electronic Engineering and Computer Sciences Dept. of OSU (Toshimi Minoura). The application was developed on a Linux OS, using Map Server and PostgreSQL open source software. WebGD enables clients to update spatial data via a web browser, extending basic GIS editing functionality to the masses. This application serves as an example of what NRIMP could do related to automating broad scale Distribution data updates.

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 maintained the ongoing relationship with the Pacific Northwest Water Quality Data Exchange project spearheaded by ODEQ. Edits and comments were provided on project documents, as requested.

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, First Quarter 2004
CRITFC	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 maintained a presence at the annual Salmon Festival sponsored by Metro Regional Government.

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 provided training to FWP Fisheries Division staff at the their annual meeting in December.
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 website monthly features for the NRIMP website on ___ (Oct.), ____ (Nov.) and the timing update project (Dec.).
Region	1	Publish at least two editions of the StreamNet Newsletter during the fiscal year, providing readers with information about StreamNet activities, available data, data updates, new data services, etc.	The third StreamNet News was sent to 967 people on December 8. This newsletter included a warning that the StreamNet Internet site and staff, as well as other PSMFC-administered projects and Internet sites, would be unavailable while the PSMFC office was moved from Gladstone to Portland (Sellwood). People continue to sign up for the newsletter; at the end of the quarter there were 988 people signed up to receive the newsletter.

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

Specific accomplishments during the first 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, First Quarter 2004

CRITFC   Much of the subbasin planning and regional monitoring work already described in this report was conducted on funding from CRITFC outside of the StreamNet contract.

MFWP   MFWP's Comprehensive Fish and Wildlife Plan has provided a needed opportunity to get our nongame wildlife data in order; we have accumulated most of the existing data for Montana's terrestrial species and are working closely with Montana's Natural Heritage Program to get it into a shared database. We have been able to use distribution and population size data from Montana StreamNet to rank fish species for the plan. The Project Leader has been involved in the ranking and recommending of projects that will be funded by the State Wildlife Grant. We have released a new on-line Montana Animal Field Guide http://fwp.state.mt.us/fieldguide on the FWP website which is an exiting opportunity to use StreamNet data to enhance another opportunity. We are also working with the Natural Heritage Program on a revised Species of Concern List and Element Occurrence development. We are updating the department's strategic plan, which includes meeting the needs of StreamNet in Montana at the infrastructure level. Work continues on the Montana Fish Planner for the MFWP website, which is utilizing StreamNet data for all game species distribution.

ODFW   Staff completed adding initial LLID values to culvert records from the State and County Culvert Database.

Received and incorporated coordinate information from the Coastal Salmonid Inventory Project staff for observation records that were lacking spatial attributes.

We completed the OPSW Metadata and Data Upload Site's major functionality. The site now allows users to login and upload metadata and data files. Minor UI changes were made upon request in the later part of the quarter. **Note: What is OPSW? What is UI? Spell out.**

Region   The Regional Fisheries Biologist spent significant time this quarter under funding from NOAA Fisheries (NOAAF). The U.S. Congress asked NOAAF to provide a report in spring 2004 on the activities funded under the Pacific Coastal Salmon Recovery Fund (PCSRF), which is administered by NOAAF. NOAAF asked PSMFC for assistance in compiling data on PCSRF-funded activities carried out by the member tribes of the Northwest Indian Fish Commission in northwest Washington, by the member tribes of the Columbia River Intertribal Fish Commission in the Columbia Basin, and by California Department of Fish and Game under the Adaptive Watershed Program administered by PSMFC. The data collected for the PCSRF work included habitat restoration projects, fish releases, staffing, and other activities. The habitat restoration and hatchery release data compiled will be incorporated into StreamNet in the future as time permits.

WDFW   Groesbeck worked with Ron Egan in the month of December on a new CSMEP project to formally inventory datasets related to monitoring and evaluating the success of salmon and watershed restoration efforts in the Columbia Basin. Groesbeck and Egan have been working diligently with regional biologists in collecting the necessary data in order to fulfill the contractual requirements of this project. The Project leader worked with WDFW CBFWA representatives to understand the context for the entire CSMEP effort, participated in conference calls to help guide task development for the dataset cataloging work, and supervised Groesbeck and Egan's work, including provision of informal progress reports to the StreamNet Program Manager of PSMFC. WDFW and CBFWA funding independent of StreamNet funds were used for this work.

Under separate funding, the Washington StreamNet Assistant Data Manager cooperated with agency hatchery staff by helping de-ice Skamania Hatchery ponds during the big freeze to save the steelhead on-hand.

The Project Leader and Data Manager provided management support for the PCSRF project work (see Objective 1, Task 10, Job 1) by participating in initial discussions with NOAA Fisheries, PSMFC, and NWIFC staff, recruiting Blatz to lead the work to compile tribal information, and closely supervising the work to meet the December 15 and subsequent deadlines. Both StreamNet and other WDFW funding sources were used to support these tasks.