

StreamNet Quarterly Progress Report

(April - June 1999)



Submitted to:
Bonneville Power Administration

Submitted by:
Pacific States Marine Fisheries Commission

Contents

- I. Columbia River Inter-Tribal Fish Commission
- II. Idaho Department of Fish and Game
- III. Montana Department of Fish, Wildlife & Parks
- IV. Oregon Department of Fish and Wildlife
- V. Pacific States Marine Fisheries Commission
- VI. Shoshone-Bannock Tribes
- VII. U.S. Fish and Wildlife Service
- VIII. Washington Department of Fish and Wildlife

I. Columbia River Inter-Tribal Fish Commission

PERIOD HIGHLIGHTS

Services:

Continued to provide reference, online search, and interlibrary loan services. Hired Assistant Librarian, Laurie Nock, to coordinate the reference and interlibrary loan services to patrons.

Reference requests: Approximately 49, of which half became interlibrary loan requests ; Requestors included:

CRITFC

NMFS

ODFW StreamNet Library

NPPC staff

Members of the public

USFWS

Bureau of Indian Affairs

PSU graduate students

S.P. Cramer, Inc.

Yakama Indian Nation, Fisheries Management Office

Nez Perce Tribes, Fisheries Management Office

CTUIR GIS office

Interlibrary loan requests: 103 items borrowed, 23 items lent (Several to federal agencies, including National Agriculture Library and Environmental Protection Agency headquarters.) We also provided interlibrary loan services to libraries in the Philippines, Jamaica and Peru.

Circulation: approximately 70 books and technical reports.

Photocopier usage: 1956 copies made by CRITFC, NMFS, CTUIR, Nez Perce, CTWSRO, PSU students, and PSMFC.

Duplicate Exchange:

Participated in Backserv (email list for duplicate exchange) and IAMSLIC duplicate exchange to offer and receive duplicate issues of journals, books and technical reports.

Received 7 boxes of materials from Bonneville Power Administration Library.

Received significant back run of Genetics (v.1-111) and Journal of Ecology (25 vol.) via duplicate exchange from SUNY Oneonta.

Used duplicate exchange system to send out CRITFC technical reports and other publications of interest to Fisheries and Natural Resources libraries.

Cataloging

Limited numbers of documents were cataloged this quarter. Staff shortages and training took up most of the time. We were able to catalog 88 new items into OCLC, edit 16 records for local use, and print labels for 23 new volumes of serial titles (not journals). This activity added 127 items to the catalog. We also edited all the records in the catalog to reflect volumes and copies held in preparation for barcoding.

Submitted catalog records to PSMFC for translation to website catalog.

Meetings:

Multi Species Framework documentation planning session, June 1999.
Attended management training seminar, June 1999.

Miscellaneous:

Received several shipments of StreamNet documents that are currently being processed.

Several informational bulletins about materials and services in the StreamNet Library were sent out to a mailing list via e-mail. David Liberty usually sends these out with a couple generated by Lenora Oftedahl.

Interviewed candidates for Assistant Librarian position. Hired Laurie Nock as Assistant Librarian to coordinate reference and interlibrary loan.

Began monitoring journal usage to justify subscription costs.

Initiated contact with Washington Dept. of Fish and Wildlife, Vancouver office to discuss library services we can offer and the administration of their library. (No response received to date.)

Located and enrolled in grant writing course.

Intern from CRITFC stamped all documents from Northwest Power Planning Council with their property stamp.

Rewrote job descriptions for Library Technician, Assistant Librarian and Librarian to comply with new CRITFC model. Also completed job surveys for CRITFC salary survey.

Reorganized Library materials for better control of and easier access to the periodical collection. Also began cataloging some StreamNet documents into Library of Congress classification.

Continued as consultant for the Environmental web pages of CascadeLink through the Multnomah County Library. Designed and submitted initial page and worked on mapping WWW for inclusion in CascadeLink and links pages for StreamNet Project.

Coordination and Administration:

Multi-Species Framework: The Project Leader and DB Programmer worked with Framework participants to develop and test documentation procedures for analyses conducted as part of the Framework process. These procedures will capture Framework information into the StreamNet system. Testing and implementation of documentation will continue through at least the next quarter.

Administration: The Project Leader, individually and through the Steering Committee, spent considerable additional time dealing with transition issues associated with a change in Program Managers. This additional work load is likely to continue through the next quarter as a new Program Manager comes up to speed.

II. Idaho Department of Fish and Game

PERIOD HIGHLIGHTS

- Completed manual editing of 1:100,000-scale hydrography for adding parent LLIDs and parent names to routes and minor corrections to routes.
- Snapped dams GIS layer to 1:100,000-scale hydrography in preparation for assigning stream LLIDs
- Working on snapping existing barriers GIS layer to 1:100,000-scale hydrography in preparation for assigning stream LLIDs
- Ongoing development of interface for entering stream and lake survey data. System will be used to compile Department data for StreamNet.
- Completed the 1998 Spawning Ground Report.
- Started adding new fish reference information into Fish Information System.
- Began development of AML program to route braids in 1:100,000-scale hydrography
- Continued entry of collecting permit data into Reference and Collecting Permit interface of the fish information system.
- Developed ArcView program for Fisheries Bureau to update missing lake identification codes in our lake GIS layer.
- Delivered water temperature data to PSMFC for EPA contract.
- Worked with Steering Committee to develop data exchange standards for Mitigation/Restoration Projects.
- Compiled Mitigation/Restoration Projects data into database.
- Worked on Steering Committee on project management discussions.

PLANS FOR NEXT QUARTER

- Continue development of stream and lake survey interface.
- Implement Fish Information System.
- Submit additional changes to hydrography to regional GIS Manager.
- Integrate lakes GIS layer with streams in our fish information system.
- Begin entering stream and lake survey data into Fish Information System.
- Build cross-reference between LLID and IDFG catalog numbers for streams.
- Attach IDFG fish stocking database to Fisheries Information System.
- Attend StreamNet Steering Committee Meetings
- Continue development of hatcheries, dams, and barrier databases.

DATA REQUESTS

END_DATE	USER_ORG	USER_REP	SUPPLIER	DATA_TYPE
04/26/99	USFS	Tim McDonald	Scarlett	streams coverage
04/30/99	NRCS	Pam Lyon	Scarlett	bull trout distribution

05/17/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
05/17/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
05/18/99	IDFG-CDC	TammyTanaka	Scarlett	species list
05/21/99	BLM - CDA	Howard Merriman	Scarlett	WSC,STHD
05/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
05/24/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
05/24/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
05/28/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/04/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/04/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/04/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/09/99	Ecology&Env.Inc. Seattle	Dan Weiss	Scarlett	fish species data
06/09/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/10/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/16/99	IDFG-Nampa	Paul Bunn	Scarlett	gmu,streams,own covs
06/17/99	IDFG-CDC	George Stephens	Scarlett	species list
06/18/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list

06/21/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/21/99	Idaho State University	Chuck Trost	Scarlett	fish species data
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/21/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/22/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/25/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/25/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/25/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
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06/25/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/25/99	IDFG-CDC	Tammy Tanaka	Scarlett	species list
06/28/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/28/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/28/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list
06/28/99	IDFG-CDC	Stephanie Mitche	Scarlett	species list

III. Montana Department of Fish, Wildlife & Parks

PERIOD HIGHLIGHTS

Objective 1: Data Development

- Completed update of the spatial and tabular components of the genetic sampling databases; separated the data into two datasets with species in one and sampling information in the other to make a “one-to-many” relationship. Coordinated with University of Montana Wild Salmon and Trout Genetics Lab on data reporting. Sent an Access program to them for review.
- Continued to redesign the MRIS data structures to “streamize” the data prior to assigning LLIDS; used the State’s watercode number and converted reach data into “from and to measures”. Duane Anderson did this work.
- Inherited/received a Lakes BOR Contract providing a .5 FTE for the remainder of FY99 and FY00. Jenni Corbin will transfer most of her time to this effort which will include redesigning the data structure, creating an edit/entry program in Access, and collecting data through personal interviews with state and federal biologists and review of existing documents. LLID’s will also be assigned to the centroid of each lake if time allows.
- Created one more set of Stream Fisheries Ratings Maps to verify the ratings and check for small reaches being miscoded. Will have final product on the website and atlas maps for each regional office.
- Created a first draft of Native Fish Species Management Areas for the Fisheries Division using MRIS data; used 4th and 5th code HUC boundaries and created species densities polygons of native and species of special concern. Reviewed the first map with the committee and modified approach.
- All the bull trout edits for 1998 are back; will get data inputted when MRIS edit/entry program for fish species distribution is completed.
- Completed the input of MFWP’s stream restoration projects, reviewed StreamNet data exchange format and attended a meeting in Gladstone to further review structure. Will simplify/modify the data exchange format to obtain restoration projects conducted for all Montana’s fish species of special concern.
- Delivered to StreamNet the first 4th Code Hydrologic Unit stream coverages for assignment of the new Longitude-Latitude (LLID) numbering system. Our processing of these coverages involved editing stream names and their courses so that the coverages are synchronized with the Forest Service’s 1:24,000 stream coverages. This will enable MFWP to more easily share stream and fisheries data with the National Forests.

- Wrote a Visual Basic procedure (program) to draw and store the coordinates of quarter section lines from township, range, and section input. This program could be expanded to draw half sections and quarter-quarter sections, etc.

Objective 2: Data Management and Delivery

- Continued work on the website for MRIS (State of Montana funded all of this work). Reviewed data and continued to provide input to all aspects of the conversion.
- Conducted a GIS analysis for the U.S. Fish and Wildlife Service for the Plum Creek Timber Company Habitat Conservation Plan. Miles of stream occupied by westslope cutthroat trout, Columbia Basin redband trout, pygmy whitefish and mountain whitefish on Plum Creek land by 4th Code Hydrologic Unit.

Objective 3: Library/Reference Services

- Cataloged remaining documents into the Fisheries Division Inmajic Library Database including theses, archives and other remaining documents; spot checked catalog including quality checking of entries, checking assigned StreamNet ID, locating missing streams and waterbodies, and providing Y2K compliance; provided library reference documents electronically including the watercode and StreamNetID fields to StreamNet Fisheries Staff for use in the Montana Rivers Information System; created CDs of the system for back up and distribution use; and imported data into MRIS and included it in the prototype website.

Objective 5: Project Management and Coordination

- Reviewed StreamNet budget and notified StreamNet management.
- Attended two Steering Committee meetings to discuss Project Management.
- Presented a paper, Using MS Access 97 as a Database Manager for GIS Solutions, at the 1999 Intermountain GIS Conference in Idaho Falls, Idaho. This presentation focused on the practical uses and applications of Access when using GIS data, such as formatting raw data for entry into the GIS, creating custom functions in Visual Basic for Applications (VBA), and advanced sorting and grouping.
- Attended a StreamNet meeting in Olympia, Washington to coordinate GIS projects among the four Northwest states: Washington, Oregon, Idaho, and Montana. Updated the other states' representatives on our current activities and saw a StreamNet produced application using MapObjects. This program allows a user to select and edit stream-related data using a map within a database program. This application holds promise for making our own Interagency Stream & Fisheries Database easier to use.

NRIS Report:

- Continued work on MRIS database and prototype web system. Nearly complete with the Phase I web product (all text based). The system will be made available to the public in the first quarter of FY2000.

Other MRIS related requests served by NRIS during the period:

DateReceived	DateSent	NARRATIVE	Company/Organization	SectorName
4/13/99	4/13/99	Full stream MRIS Report for 13 streams (some with multiple segments) for HUC 10020006.	Department of Environmental Quality	State
4/13/99	4/13/99	Would like all available info on Bramlet Creek near West Fisher Creek - Libby, MT for fishing trip.		Private Individual
5/7/99	5/7/99	Help with Access Basic procedure to automate TMDL data extraction from MRIS database	Department of Environmental Quality	State
5/18/99	5/18/99	Help with Excel Basic procedure to automate TMDL data extraction from MRIS database	Department of Environmental Quality	State
5/12/99	5/12/99	Called and asked for TMDL database for impaired stream data used at Water Center.	Bureau of Land Management	Federal
5/14/99	5/14/99	Full MRIS stream report for 15 streams (most with multiple segments) in HUC 10020008.	Department of Environmental Quality	State
5/14/99	5/14/99	Full MRIS stream reports for 11 streams in HUCs 10060001, 10060003, 10060005, 10060006.	Department of Environmental Quality	State
5/14/99	5/14/99	Full MRIS stream reports for 2 stream segments for a biological review relative to a proposed highway reconstruction project near Jordan, MT.	Western EcoTech	Private Consulting Firm
5/20/99	5/20/99	Full MRIS stream reports for 5 streams in HUCs 10060002 & 10060005. Also need info for streams where reports are not being generated (MRIS database problem).	Department of Environmental Quality	State
5/28/99	5/28/99	Called requesting help with reports sent directly from MRIS database.	Department of Environmental Quality	State
6/2/99	6/2/99	Trying to tie Storet data to RF3 reaches and needed cleaned up stream names for a matching algorithm. Took MTView storet station database and cleaned stream names to match rf3 coverages as best as possible in short time frame.	Department of Environmental Quality	State
4/5/99	4/5/99	MRIS full stream report for 14 streams (some with multiple segments) in HUC 10020005.	Department of Environmental Quality	State
4/5/99	4/5/99	Full MRIS stream reports for 19 streams (some with multiple segments) in HUCs 10040101, 10040201, 1005004.	Department of Environmental Quality	State
4/27/99	4/27/99	Requested any info on Stebbins Creek east of Lame Deer.	Montana Department of Transportation	State
4/16/99	4/27/99	Full MRIS stream reports for 15 streams (some with multiple segments) in HUCs 10070006, 10050010, 10050011, & 10050012.	Department of Environmental Quality	State
4/22/99	4/27/99	Full stream report for reach of Yellowstone river from bridger creek to stillwater river for inclusion in a montana land reliance baseline report.	Montana Land Reliance	Private Non Profit
4/20/99	4/27/99	Full MRIS stream reports for 15 Streams (some with multiple segments) for HUC 17010202.	Department of Environmental Quality	State
4/26/99	4/27/99	Full stream report for 18 streams segments of the Clark's Fork of the Yellowstone.	Department of Environmental Quality	State

4/29/99	4/29/99	Need Water Quality Bureau Publication - Bahls, Loren L. Periphyton Bioassessment Methods for Montana Streams. Montana Dept of Health and Environmental Sciences, Water Quality Bureau. 9/92 (rev.1/93)	Miccosukee Tribe of Indians of Florida	Other
5/7/99	5/7/99	MRIS full stream report for 11 streams (some with multiple segments) for HUC's 10050014, 10050015, 10040203, & 10060001.	Department of Environmental Quality	State
5/7/99	5/7/99	MRIS full stream report for five streams (all with multiple segments) for HUC 10030101.	Department of Environmental Quality	State
5/6/99	5/7/99	MRIS full stream report for 5 streams (some with multiple segments) for HUC 10020008	Department of Environmental Quality	State
5/7/99	5/10/99	Fix database for streams to include more data - TMDL, locational, etc.		State
5/12/99	5/12/99	MRIS full stream reports for 8 streams(some with multiple segments) in HUC # 10030102.	Department of Environmental Quality	State
6/3/99	6/3/99	Called and asked for info on head gates and stream flow.	Broadwater County	County/Local
5/27/99	6/7/99	Trying to determine any interrelationship between the severity of whiling disease in rainbow trout and arsenic levels in tributaries where they live. She gave the names of five streams.	Whirling Disease Foundation	Private Non Profit
6/15/99	6/25/99	MRIS stream reports for three segments of Sweet grass Cr in Upper Yellowstone HUC.	Department of Environmental Quality	State
6/17/99	6/17/99	Working on watershed health assessment focusing on cumulative effects from grazing and logging in the south fork of Tenderfoot Creek. Any info on streamflow, precip, water quality, nutrient levels. Also any map coverages would also help.	University of Montana	Academic
6/21/99	6/21/99	Full MRIS stream reports for 12 HUC's	Maxim Technologies	Private Business
6/23/99	6/23/99	MRIS full stream reports for 7 streams in HUC 17010204.	Department of Environmental Quality	State
6/24/99	6/25/99	MRIS full stream reports for 2 sites for contract with MDT. Bigfork and Harve area.	Montana Department of Transportation	State
6/10/99	6/10/99	Needed April MRIS report done for Mike Suplee for streams in HUC 17010202.	Department of Environmental Quality	State
6/10/99	6/10/99	MRIS stream report for Pine Cr in Upper Yellowstone.	Department of Environmental Quality	State
6/3/99	6/10/99	Working with Madison Conservation District assessing watersheds characteristics and impact for TMDL development. Need as much info as possible on 6 streams in the area.	Montana Fish, Wildlife, and Parks	State
6/29/99	6/29/99	MRIS full streams reports for 22 streams in HUC 17010204.	Department of Environmental Quality	State
6/24/99	7/6/99	Need info on water rights for a spring/stream that runs through the Mica ranch west of Great Falls. The stream runs across manchester Rd into Joe Hepps land to the Sun river .	Athletic Trainer	Private Individual

GIS Log - Third Quarter 1999 (Information Services Unit, Kalispell Office)

4/1/99 Angie Schmidt Ken McDonald, MFWP
 Bull Trout distribution with core areas, nodal areas, and restoration areas without displaying public land ownership.

4/2/99 Kim Lindstrom Craig Fager, MFWP
Sent wall size copies of all WMA atlas maps for Mt. Haggins WMA.

4/2/99 Angie Schmidt Richard Peterson, MFWP
Hunting District 170 map zoomed in to the Owen Sowerwine Natural Area for use a hunting district 170 brochure.

4/5/99 Lydia Bailey Dan Vincent, MFWP
Processed bear/lion incident data for use in GIS. Produced wall sized map of incidents in relation to game farms with photo images of current and potential incident concerns, public land ownership, hydrography, roads, cities. Enlarged insets were made for higher detail of three game farms and nearby incidents.

4/5/99 Lydia Bailey April Craighead, MSU
Sent lynx occurrence locations in ArcView shapefile format and lookup table for Gallatin county. Also sent metadata.

4/7/99 Kim Lindstrom Janet Decker Hess, MFWP
Created maps of Westslope Cutthroat Trout Genetic Distribution (also Yellowstone Cutthroat and Columbia Basin Redband Trout) for each applicable hydrologic unit. Produced copies for perspective fisheries biologists and forest service managers.

4/9/99 Jeff Hutten Bart Butterfield, Idaho Fish & Game
Fishpres.dbf and fishpres.doc

4/15/99 Lydia Bailey Chris Lorentz, MFWP
Existing development levels and mineral ownership map for Makoshika State Park. Map also included area of management concern boundary, public land survey section lines, roads, hydrography, and cities.

4/15/99 Lydia Bailey Alan Charles, MFWP
Sent copies of all Region 5 block management area (BMA) maps by county to Jay Watson. Also produced ArcView project with BMAs, hunting districts, state lands, BLM lands, roads, public land survey section lines, and Digital Raster Graphics of 24k topos. ArcView project presented to BMA coordinators by Janet Hess Herbert.

4/16/99 Kim Lindstrom Bob Synder, MFWP
Produced WCT and Grayling maps of 1) historical range 2)current ranges for kiosk at Waashoe Park Trout Hatchery.

4/16/99 Kim Lindstrom Ken McDonald, MFWP
Mailed copies of all Cherry Cr maps created for Pat Clancy.

4/19/99 Lydia Bailey Lee Flath, MFWP
Map of Lewis & Clark Caverns depicting the north boundary corners and a table with their associated longitudes and latitudes in decimal degrees and UTM coordinates. Coordinates were

generated using the GIS.

4/20/99 Lydia Bailey Troy Merrill, University of Idaho
Sent all big game distribution layers in Arc/INFO export format. Also sent all associated metadata.

4/20/99 Lydia Bailey Shana Driscoll, MSU
Sent Arc/INFO export file of Fishing Access Sites in Lambert Conic (state plane coordinates) for use in weed mapping project.

4/21/99 Lydia Bailey Bill Semmens, MFWP
ArcView technical support.

4/26/99 Lydia Bailey Tim Manley, MFWP
Wall size map of grizzly bear incidents in Region 1 with public land ownership, roads, county boundaries, cities, and hydrography.

4/27/99 Lydia Bailey John McCarthy, MFWP
Determined the number of acres of sagebrush (by species) in FWP Wildlife Regions.

4/29/99 Kim Lindstrom Richard Peterson, MFWP
Enlarged preexisting map of southwest MT mule deer hunting regions.

5/4/99 Jeff Hutten Jim Brammer, MFWP
Generated a new Native Species List by 4th Code Hydrologic Unit by including native species in non-native range.

5/4/99 Jeff Hutten Duane Anderson, NRIS
Montana Hydrography CD-ROM

5/4/99 Jeff Hutten Gael Bissell, MFWP
Visual Basic procedure to produce an Arc/Info generate file with lines forming quarter sections of Township-Range-Section from an input table.

5/6/99 Lydia Bailey John Vore, MFWP
ArcView technical support for the GeoProcessing and Animal Movement extensions.

5/6/99 Lydia Bailey Ed Madej, NRIS
Sent copy of all Trails and Lands data and metadata on 8 mm tape.

5/7/99 Jeff Hutten Bill Olsen, USFWS
Western Montana Bull Trout Distribution map with county lines.

5/7/99 Jeff Hutten Jean Raymer, Army Corps of Engineers
Western Montana Bull Trout Distribution map.

5/11/99 Lydia Bailey John Vore, MFWP
ArcView technical support.

5/11/99 Lydia Bailey Parks Division, MFWP
Generated a series of maps of Parks data (primarily focusing on Region 7, Makoshika State Park mineral developments, and Certificate of Surveys) in ArcView and converted to slides in PowerPoint.

5/12/99 Lydia Bailey Dave Dziak, MFWP
Sent copy of all WMA atlas maps for Warm Springs Wildlife Management Area.

5/12/99 Lydia Bailey John Little, MFWP
Updated Makoshika proposed and existing development level maps based on revised MOU.

5/13/99 Kim Lindstrom Sue McDonald, MFWP
Updated preexisting maps of Region 1 fishing access sites, wildlife management areas, and state parks for staff manuals.

5/13/99 Lydia Bailey Darlene Edge, MFWP
Map of Judith River WMA proposed land acquisition with public land ownership, existing WMA boundary, hydrography, roads, public land survey section lines.

5/17/99 Lydia Bailey Jeff Copeland, MFWP
Sent copy of all ArcView generated urban trails maps.

5/19/99 Lydia Bailey Alan Wood, MFWP
Map of Lincoln county depicting 30 meter shaded relief, hydrography, public land survey system, highways, and cities. Also produced overlay depicting public land ownership.

5/19/99 Lydia Bailey Gael Bissell, MFWP
Overlays for each basin (Thompson and Fisher) depicting 1/4 sections with wildlife priority 1 and Plum Creek ownership.

5/20/99 Jeff Hutten Mary Zednick, State Auditor
ACCESS report of public land ownership by FWP region and hunting district.

5/21/99 Jeff Hutten Jim Mogen, USFWS
Westslope and Yellowstone Cutthroat Trout land ownership breakdown with actual acreage instead of percentage.

5/21/99 Jeff Hutten Russ Macal, MFWP
Map of the Spotted Bear River drainage (S Fk Flathead) with roads, trails, and DEMs.

5/21/99 Jeff Hutten Kate Walker, USFWS
MFWP Fisheries Biologist Responsibility Area map.

5/24/99 Kim Lindstrom Kevin Coates, MFWP
Created map of lion, black bear and grizzly bear responses within a five mile radius of proposed subdivision in Ferndale.

5/25/99 Jeff Hutten Ken Phillips, MFWP
Generated a list of FWP owned lands with Latitude-Longitudes.

5/25/99 Lydia Bailey Shanna Driscoll, Montana State University
Sent ArcView shape file of Erwin Bridge FAS in Lambert (state plane) projection.

5/27/99 Lydia Bailey John Vore, MFWP
ArcView shape files (UTM projection) of Middle Fork Flathead, South Fork Flathead, and Swan hydrography.

5/29/99 Lydia Bailey John McCarthy, MFWP
Determined number of acres of sagebrush species by land ownership within each FWP wildlife region. Determined number of acres of sagebrush species within WMAs by FWP wildlife region. Maps: sagebrush by species with FWP regions; overlay of federal grazing allotments; GAP sage grouse modeled habitat,

IV. Oregon Department of Fish and Wildlife

PERIOD HIGHLIGHTS

1. Identified 724 verifiable distribution data documentation records for anadromous and resident species in the Willamette basin. These records will be used to enhance the Presence Table in the StreamNet data exchange format. (Task 1.1a and 1.2a)
2. Enhanced our Barriers Database with new information and linked this database with our anadromous species distribution information using the FishBarrier Table for the Tillamook Hydrologic Unit. (Task 1.1a and 1.2a).
3. Reviewed for accuracy and/or updated 84% of Oregon's on-line Dam/Weir Count trends for anadromous fish. (Task 1.1)
4. Reviewed for accuracy and/or updated 90% of Oregon's on-line Redd Count trends for anadromous fish. (Task 1.1)
5. Reviewed for accuracy and/or updated 76% of Oregon's on-line Estimates of Spawning trends for anadromous fish. (Task 1.1)
6. Reviewed for accuracy and/or updated 89% of Oregon's on-line Peak Count trends for anadromous fish. In addition, 940 trends were added to this database. (Task 1.1)
7. Enhanced the Oregon barrier photographic database (the MapCat table in the StreamNet data exchange format) by scanning ODFW slides taken during Aquatic Inventory surveys. There are now 146 barrier photographs available to be displayed on-line (Task 1.1a and 1.2a).
8. Modified the Hatchery Facilities data to comply with the StreamNet data exchange format. (Task 1.4b).
9. Created the final database structure for StreamNet Restoration/Mitigation Project Data and submitted it to StreamNet for use by all StreamNet participants. (Task 1.5)
10. Submitted modifications and provided comments on a number of StreamNet data exchange formats. (Task 2.3).
11. Developed library structure for managing streams data across hydrologic units (Task 2.4)
12. Completed updating & rectifying discrepancies in the stream route coding system in the Oregon portion of the PNW 100K Hydrography. (Task 2.6).
13. A total of 8 data, 61 document, 2 map/GIS related, and 1 other requests were answered during this quarter. (Task 2.7).
14. One or more staff members participated in 13 essential project coordination meetings. (Task 5.1).
15. Compiled and submitted January - March. 1999 Quarterly Report information for Oregon. (Task 5.1).

PLANS FOR NEXT QUARTER

1. Finish updating the anadromous species distribution in the Willamette, Lower Deschutes, Hood River, John Day and Lower Columbia basins using the 1:100K Hydrography and provide the data to StreamNet. (Bowers, Cooney, Sounhein).

2. Enhance our Barriers Database with new information and link this database with our anadromous species distribution information using the FishBarrier Table for Willamette Hydrologic Units. (Bowers, Brodeur, Cooney).
3. Submit the updated anadromous fish distribution and enhanced barrier data for the Tillamook Hydrologic Unit to StreamNet. (Bowers, Cooney).
4. Continue verifying location and physical information for barriers in our Barriers database with Oregon field biologists. To date, there are 1,267 barrier records that need to be verified by field staff. These data will be converted into the new Barrier Exchange format and submitted to StreamNet as the verification process is completed. (Bowers, Brodeur, Cooney)
5. Submit updated adult abundance estimates and indices for anadromous species with available 1997 and 1998 data to StreamNet. (Sounhein).
6. Complete the compilation of Oregon Restoration Projects from the GWEB Restoration database and provide the data to StreamNet (Tasks 1.5 and 8.2).
7. Submit the updated Oregon hatchery facilities data to StreamNet in the new data exchange format. (Cooney).
8. Collect, record, and submit sample juvenile abundance records to StreamNet. (Sounhein)
9. Continue to answer information requests as received. (All).

StreamNet GIS Data Downloads off the ODFW FTP Server: January - March 1999

(Tabulated by Jon Bowers 7/12/99)

GIS Coverages	Number of Files Downloaded	Number of Different Users Downloading Files
Bull Trout	46	14
Fall Chinook	296	19
Spring Chinook	277	17
Chum	61	9
Coho	254	21
Cutthroat	13	4
Core Areas	44	9
DRG	8	4
River Routes	509	18
Summer Steelhead	229	19
Winter Steelhead	296	22
Vegetation	51	30
Metadata	54	24
Total Downloads	2128	

V. Pacific States Marine Fisheries Commission

PERIOD HIGHLIGHTS

Data Development

Evaluation and testing of SQL Server 7.0 software.

Developed automated routines and interface for conversion of CRITFC Textbase library database to StreamNet format.

Developed Trend cross reference table for conversion to LLID and 100K system.

Developed draft resident fish species exchange format.

Develop automated routines and interface for StreamNet data dumps to Access 97 and ASCII format.

Continued development of Annual Implementation Plan database and integration into the StreamNet query system.

Development of automated procedures and interface for the StreamNet data dictionary (outputs to printed and online report formats).

Develop an automated online report system for StreamNet data category information.

Document procedures for use of the data dictionary and report writer applications.

Coordinate development of StreamNet query system.

Update online help system.

Redesign of StreamNet online data site.

Document technical procedures for appending time series data to the StreamNet Trend database.

Continued development of a Trend data user interface.

Documented procedures for use of the Trend data user interface.

Development of an Edit database that tracks structural and lookup code edits, archived data, data edits, meta data for data dumps.

Developed an Access 97 coded wire tag interface and database for joint data development efforts with RMIS.

Develop Access database version Mitigation Project database.

Development of fish distribution exchange format.

Development of barriers exchange format.

Convert non-compliant date-time values to acceptable Y2K format.

Develop Annual Implementation Plan home page.

Initiated efforts to update the hatchery facility database. Created a new Access database in the form of the new 99.1 exchange format. This was sent out, and is being filled by the agencies.

Began update of fish barrier and fishway information.

Provided inter-agency coordination, and extensive help to the agencies, for the development of a mitigation projects exchange format and database. Compared existing BPA database to StreamNet's exchange format to estimate amount of work required to move existing BPA information into StreamNet.

Wrote programs and edited Montana hydrography files to prepare for routing and assignment of LLID's.

Created event table of White Sturgeon distribution based on state agency data.

Assisted in design and implementation of NWPPC Multi-Species Framework modeling efforts and database. Collected and assembled variety of GIS and tabular data layers in Access database.

Wrote programs and coordinated with state agencies for conversion of 303d and 305d water quality data into LLID route / event format.

Data Management

A new data exchange format, version 99.1, was completed last quarter. This quarter, we completed the comparison between the versions to document the changes. We also addressed several errors that were found in version 99.1.

We compared the structure of all tables in the exchange format to those actually in the MS-SQL server database and in the existing StreamNet data dictionary. We made corrections where necessary to ensure that all database information is consistent. We also deleted draft and obsolete tables that are no longer needed.

Revised the StreamNet data holdings document.

Created documentation for the StreamNet "trends" data entry form.

Incorporated updates to resident fish trends received from IDFG.

Completed geographic-based data entry system for referencing routes and measures. Tested application with team updating ODFW fish distribution data.

Maintained contact with the national NHD team. Participated in NHDinARC test project of GIS output from NHD.

Data Delivery

Introduced the updated version of the StreamNet online query system, including mapping and tabular reporting capabilities. Tested its operations to examine usability, performance, and intuitiveness, and to look for bugs. Incorporated an online data holdings feature. Added the ability to query the database by "wild" vs. "hatchery" fish; this will be available at the next update of the StreamNet system. Began work on improving the web site layout and design.

Responded to thirteen requests for data or system help from StreamNet users.

Update Annual Implementation Plan data from CBFWA and NPPC for FY99.

Project Management

Prepared a draft position description for StreamNet Program Manager position.

Began the process for preparation of draft FY2000 Work Plan and budgets.

Facilitated GIS coordination meeting of StreamNet technical staff and project managers in Olympia, Wa on June 14th and 15th. Demonstrated data entry tool, discussed work plans, hydrography issues, project status.

PLANS FOR NEXT QUARTER

Data Development

Continued development of the Edit database (online and printed report features).

Conversion to SQL Server 7.0.

Conversion to Access 2000.

Finalize Mitigation Project exchange format.

Develop Mitigation Project database (Access 97 and SQL Server versions).

Develop Mitigation Project interface.

Continued development event builder mapping tool.

Release draft format of Resident Fish data exchange format.

Release approved exchange format version 99.2.

Update procedures and documentation for submitting reference data to the CRITFC library.

Develop StreamNet online data use survey form

Add data request component to Edit database and interface.

Continued cooperation with RMIS to develop MS Access 97 CWT user interface and data delivery procedures.

Develop a 'Getting Started' online help system for the StreamNet query system.

Library

Cooperate with library staff in updating source references.

Data Delivery

Update CDFG Abundance data.

Update CDFG Haterey return data.

Update CDFG Hatchery release data for tagged and untagged groups.

ODFW Barriers data.

ODFW Mitigation Project data.

WDFW Abundance data.

Project Management

Finalize position description and announce, interview and hire for StreamNet Program Manager position.

Finalize position description and announce, interview and hire for StreamNet Regional Database Manager position.

Prepare for and assist with an August steering committee meeting.

Continue to monitor project progress, including work of subcontractors.

Continue to monitor Fish and Wildlife Program-related activities and reports in order to identify links with these activities.

Finalize FY 2000 budget and work statement and submit to BPA.

Determine needs for additional funding and sources. Prepare appropriate work plans and budgets and submit (i.e. NMFS, EPA, etc.).

VI. Shoshone-Bannock Tribes

PERIOD HIGHLIGHTS

I attended the quarterly meeting in Portland during April. I reviewed the data exchange formats for invertebrates and resident fish hatcheries. Once again I spoke with the people at the NMFS lab to see if they made any progress on what they had promised last spring. This time I was told that they will put one of their summer interns on the project but have not received anything to date. I spent a considerable amount of time dealing with project management issues and the future of the project. This included attending a meeting in Portland to discuss those issues.

PLANS FOR NEXT QUARTER

Educate new Department employees about StreamNet and instruct them how to access the data on their own. I will also do tasks as identified during the next Steering Committee meeting.

DATA REQUESTS / RESPONSE LOG:

No requests were made during this quarter.

VII. U.S. Fish and Wildlife Service

PERIOD HIGHLIGHTS

The hatchery facility database file was completed, except for fields such as LLID, BEGFT, MAPREF, etc, that are state responsibilities.

Participated in several lively discussions regarding the StreamNet project manager position.

PLANS FOR NEXT QUARTER

Produce CWT recovery and catch sample files in the new format for PSMFC.

Complete the hatchery water supply database file.

VIII. Washington Department of Fish and Wildlife

PERIOD HIGHLIGHTS

General

WDFW participated in the StreamNet Steering Committee meeting in Portland to review ongoing work on resident fish data, habitat restoration/mitigation datasets, and work products such as the “Stream Mapper” tool (Doug Reece). WDFW staff completed a six-month review of work completed and a six-month work plan for the remainder of the fiscal year. Staff also reviewed and provided comments on certain parts of the StreamNet Online Web site, including the new Online Data Query option and the project management page. O’Connor participated in two meetings and several conversations regarding project management and governance issues after the PSMFC StreamNet project manager position was vacated.

Database Development

Tabular:

Columbia River spring and fall chinook escapement data and overall estimates were compiled and submitted to Olympia for exchange. Resident fish hatchery data compilation began in Region 5 (Southwest WA), while cleanup and enhancement of the historical resident fish stocking database continued toward an August completion. Hatchery returns data were updated through 1997 and a new task to build a historical returns table covering return years 1938-1977 began. Tabular fields in the hatchery facilities merged files were analyzed as cleanup and standardization of that table began. The first draft statewide lakes file was built and review/correction began, in order to provide a basis for standardized resident fish location codes.

Spatial:

Exchange formats, legal status fields, and handling “tails” in distribution data were some of the topics discussed in a two day GIS Data meeting hosted by WDFW June 14-15. GIS programmers and Steering Committee representatives from all four states were present for this meeting hosted by Matt Freid, Regional GIS Data Manager. WDFW staff also constructed anadromous fish distribution/use tables for exchange, analyzed and began correcting the spatial side of the hatchery facilities database, began transferring bull trout data from the 250K coverage to the 100K event tables, and built three statewide layers to assist in mapping and data analysis.

Systems Development

Tabular:

Most time was spent working on construction of code-map tables to link PSC-style location codes present in WDFW datasets to GIS-based codes (LLIDs) for streams and lakes.

Spatial:

Washington’s WRIA (watershed) boundaries were added to the 100K hydro layer for easier data release to Washington users. Staff attempted to link stream catalog river IDs (assigned to enhanced-100K streams 25 years ago in Washington) from the DNR 24K hydro information onto the 100K hydro layer, but abandoned the task, given the high rate of duplications, errors, and breaks in basic linework found. This would have greatly speeded up the task of linking currently-used Washington tabular data location codes with the LLID-based system used for spatial data. Staff also spent time adding the capability

for historic distribution/use data, should it become priority, and needed to rebuild and transfer all data and programming systems from the local SUN workstations to a new central SUN GIS ARCINFO and file server.

Data Request/Response Log

WDFW StreamNet staff record both spatial data and tabular data requests in a similar format. The cooperation of Habitat Management Program staff was instrumental to both compilation and standardization of information concerning general spatial data requests, or "data releases". More specific requests for StreamNet data products and services are handled directly by the StreamNet staff listed at the beginning of this report.

The table on the following pages (Appendix A) summarizes the people who made these more specific requests, the type of information they needed, and the date the information was delivered by StreamNet staff during this project reporting period.

Requestor	Organization	Data Requested	Date Delivered
Chad Jackson	WDFW	8 Lakes maps	04/15/1999
Deborah Scheibner	KCM Inc.	Benton, King County Salmon Distribution	04/16/1999
Mark Clark	Conservation Commission (CREP)	250 County maps total, 100K and 24K	04/16/1999
Lisa Holsinger	NMFS	List of streams, LLIDs from WRIAs 5, 7	04/19/1999
Cindy LeFleur	WDFW	Zone 6 Steelhead tribal harvest recoveries of CWT's	04/21/1999
Heather McClary	Foster Cr Conservation District	pre-1982 gamefish releases	04/26/1999
Rayna Holtz	private citizen	documented salmon presence in Vashon Island streams	04/26/1999
Fern Honore	AGI Technologies	PHS (spec. chinook) presence in Pigeon Creek (Everett)	04/29/1999
Adam Roberts	Shiropo Consultants	East Fork Lewis Watershed escapement and harvest data, all species	05/06/1999
Bill Yake	WDOE	Fish presence (?) in lakes Crescent, Keechelus, Frenchman Hills	06/03/1999
Rich McConnell	USFS-Quinault Ranger District	Barriers in Humptulips drainage	06/04/1999
Eric Anderson	WDFW-Region 3	WRIA 37,38,39 anad, cutthroat and rainbow	06/11/1999