StreamNet Quarterly Progress Report

(October - December 1997)



Submitted to: Bonneville Power Administration

Submitted by: Pacific States Marine Fisheries Commission

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I. Columbia River Inter-Tribal Fish Commission

PERIOD HIGHLIGHTS

Cataloging

StreamNet Library References Module: Cataloged 127 new StreamNet documents.

Textworks catalog: 477 records were cataloged on OCLC and added to the library catalog; 115 maps were cataloged directly onto DBTextWorks.

Collection Management

IAMSLIC duplicate exchange program: received 45 needed journal issues and technical reports.

Other exchanges: donated 236 journal issues to NRIC libraries and 5 boxes of materials to Yakama/Klickitat Fisheries Project library.

Created space for the NWPPC collection and made further plans for receiving these materials.

Processed and shelved cataloged materials; completed routine shelf-reads.

Services

Continued to provide reference, online search, and interlibrary loan services (see statistics).

Meetings/Training

Attended October StreamNet steering committee meeting (Gretta, Phil).

Participated in OCLC Interlibrary Loan workshop in October (Krista).

Continued to meet with CRITFC ESU committee to enable improved library support in this area (Krista).

Met with fisheries staff at Yakama and Warm Springs (Hilary, Phil).

Data Compilation

Compiled and delivered 24 new trends from Yakama Fisheries Program.

Miscellaneous

Wrote quarterly project report.

Advertised for Assistant Librarian Position and reviewed applications.

Evaluated potential for increasing watershed support in FY98 as per NPPC recommendation; deferred for scoping in 1998 for implementation in FY99.

Revised library web page

Worked with Duane and Doug on re-vamping library query system.

Selected, purchased, framed and installed new artwork for StreamNet Library (funded outside of StreamNet).

LIBRARY STATISTICS

Reference requests: conservative estimate: 134 liberal estimate: 178

(note: approximately 1/3 - 1/2 of reference requests do not get logged in detail)

Interlibrary loan requests: 62

Circulation: journals - 8, books, videos, maps and technical reports - 115

Photocopy usage: 1051 - CRITFC staff; 53 - NMFS staff; 194 - public/other

INFORMATION REQUEST LOG (note: does not include most ILL requests)

Requestor	Affiliation	Nature of Request	Action
Lance Kruzic	NMFS	streamnet document and journal articles	assisted on site
Starla Dill	CRITFC	Federal Register Contents, week of 9/29	provided
Starla Dill	CRITFC	2 documents from Federal Register	provided
Irene Voigt	USFS Library- Ogden, UT	specialized literature search	provided
Scherri Sotomish	CRITFC	locations for newspapers from small Co. River. towns	Referred to Multnomah Co. Lib.Newspaper room
Inez Hopkins	BioAnalysts - lib	ODFW doc.	referred to ODFW library
Inez Hopkins	BioAnalysts - lib	zone 6 tribal salmon prices 1975-1995	provided
Nan Murch	PSU	financial info re: Col. Basin fisheries expenditures	referred to BPA
David Johnson	Nez Perce	Chapman document	had Inez send him a copy
John Hawksworth	S.P. Cramer	ODFW document	referred to ODFW
Starla Dill	CRITFC	Federal Register Contents 10/6-16	provided
Starla Dill	CRITFC	4 documents from Fed Reg.	provided
Bob Ellis	Consultant	documents and articles	assisted on site
Sean?	public	info on Grande Ronde tribe	provided guidance
Ted Gresch	Interrain Pacific	assistance with catalog searching	provided
Starla Dill/Laurie Jordan	CRITFC	training on GPO Wais client	provided
Bob Ringo	CRITFC	EPA water quality criteria	provided
Dale McCullough	CRITFC	Keizer flood info	assisted with use of Oregon Index
Bob Ringo	CRITFC	Juvenile fish transport docs.	provided
Bob Ringo	CRITFC	SOR - anadromous volume	provided
M. McClure	CRITFC	citation verification	provided
Ken Collis	CRITFC	NW Fishletter	provided via WWW
Stephanie Fiereck	attorney/NWF	training on research strategies	provided
Stephanie Fiereck	attorney/NWF	11 documents	assisted on site

Stephanie Fiereck	attorney/NWF	5 documents	1 provided, 4 referred
Jen Bayer	USGS-BRD	library orientation	provided
Rob Laird	David Brown & Assoc.	habitat quality at specific reaches	refereed to Duane, CBFWA for copy if Sandy R. sub-basin plan
Al Evans	CRITFC	citation verification	provided
Mara Scantlebury	BPA library	document for Kalispells	advised of holdings
Blaine Parker	CRITFC	Federal Register document	provided
Inez Hopkins	BioAnalysts	info on Brownlee/Oxbow/Hells Canyon Dams	advised of holdings
Jim Turner	NMFS	library orientation	provided
Steve Cramer	Consultant	4 documents	2 held and provided; 2 requested from elsewhere and provided
Rosemary Siefried	National Park Service, Seattle	Idaho document	left message that we had it, patron did not request further
Kevin Ford	NMFS, Seattle	CRFMP	left message, patron did not request further
student	Linfield College	cultural info and videotapes	referred to Linfield ILL
Heather Shaw	Warm Springs	'everything on the Deschutes'	assisted on site
Wade Myers	BPA (purpose was private)	May '97 Fishing Rights doc. from CRITFC	not provided, discretionary document (as per policy dept); gave alternatives
Darren Brumbaugh	BLM, Prineville	2 library docs, 2 CRITFC docs	sent 2, referred to authors for others
John Fenker	BPA Library	PNRS documentation	supplied what we could and referred
Skip?	public	etymology question re: coho	answered
Mark Yoshinaka	USFWS	document request and access to IDFG pubs listing	provided
Leslie Bach	Oregon Water Trust	document	not held - gave referral info
Jim Welter	Port of Brookings Salmon Advisory Committee	data query	assisted and referred to Duane
Alan Ruger	BPA	WWW full text NMFS document	not available this way

Inez Hopkins	BioAnalysts- Lib	consultation	provided
Nina Rabin	Harvard University	orientation, use of library, tribal materials re:hatcheries	assisted
Ken Thompson	NMFS Seattle	document request	lent
Jon Rhodes	CRITFC	reference question re: journal	answered
Shelly Espeland	CRITFC	search assistance	provided
Sandra Peterson	CRITFC	procurement question	answered
Gary Morishima	Quinault Nation	CRITFC document	referred to authors

PLANS FOR NEXT QUARTER

Library:

Hold an open house in (January).

Hire new assistant librarian (January).

Receive NWPPC collection.

Provide normal library services.

Data Management:

Continue to work with the Yakama Indian Nation to compile trend data.

Coordinate with WDFW in integrating WDFW-managed data from the Yakima Basin into StreamNet.

Coordinate with the Yakama Indian Nation in integrating non-standard data into StreamNet home page.

Begin the process of integrating Warm Springs Reservation data into StreamNet system.

Initiate discussions with Nez Perce and Umatilla tribes regarding initiation of data activities during the 3rd quarter.

II. Idaho Department of Fish and Game

PERIOD HIGHLIGHTS

Completed 1997 draft spawning ground report

Completed and uploaded 1997 steelhead redd count information.

Completed data entry for 1997 spring and summer chinook updates. Verification and editing nearing completion.

Completed lower Snake River area and began the mid-Snake sections of the SR3 Program for waterfowl data. Includes: compilation, analysis, verification, data entry and editing.

Completed resident fish distribution reference verification from IRIS.

Attended steering committee meeting.

Recruited and hired new Sr. Programmer Analyst.

Translated the anadromous distribution data into Arc/Info dynamic segmentation events. Included a thorough update of the data using Fisheries official reach by reach smolt density notebook. We need only two additional pieces of information, including: 1) distribution of fall chinook in Clearwater River from the Nezperce Tribe, and 2) information on portions of the Lemhi drainage with blocked but suitable habitat. The anadromous distribution event tables have been formatted for uploading into the Department's Oracle system, and will be uploaded with completion of the final pieces of information.

Beginning the process to convert bull trout distribution information to Arc/Info dynamic segmentation event tables. Editting the preliminary events and to make sure they match the original source documents.

Developing a barriers layer by using the anadromous distribution event table. Every event that stops short of a stream's headwaters will be converted into a barrier point. Each point will be attributed by LLID, measure, species, and barrier type as recorded in Fisheries smolt density notebook.

PLANS FOR NEXT QUARTER

Provide StreamNet update to IDFG anadromous fish managers.

Meet with GPM personnel to review and finalize Stream Survey database and entry program.

Continue work on barriers database.

In conjunction with SR3, begin development of lakes database system.

In conjunction with SR3, continue entry of waterfowl information.

Continue conversion of bull trout distribution to dynamic segmentation.

DATA REQUESTS

Record #	date	organization	supplier	data_type
204	10/06/97	IDEQ	E Brown	GPM and Resdist. data
205	10/16/97	IDEQ	E Brown	All GPM data for SALEFS
218	10/02/97	US BOR	Butterfield	CDC and fish dist data
219	10/02/97	Nezperce NF	Butterfield	streams for SF Clearwater
220	10/02/97	IDFG Region2	Butterfield	bull trout maps -digital
221	10/15/97	IDFG Fisheries	Hartpence	map of dams in CRB
222	10/28/97	IDFG CDC	Hartpence	map of EOs and Bailey ER
223	12/1997	USFS	Butterfield	bull trout maps - digital

III. Montana Department of Fish, Wildlife & Parks

PERIOD HIGHLIGHTS

Objective 1 - Data Acquisition

Resident Fish

The culmination of a 10 year update to the MRIS resident fish database occurred with the rating of all stream reaches with fish species present and their reclassification by sport fisheries and species and habitat values (redo of Montana Rivers Study). Materials for review were sent to all MFWP biologists included a map displaying the 1987 classification and the preliminary 1997 classification, a report explaining the fish species present and other fields used in the rating process and a new Assessment Guidelines. Packets were sent in November. Extensive data cleanup occurred in preparation for rating of stream reaches and review of data and ratings by biologists is providing further data correction and documentation. Continued on bull trout update; received all edit maps back from USFS and MFWP fisheries biologists.

Created metadata for many of the coverages we have created and sent to the Natural Resource Information System (NRIS). Historic distribution data table is completed until conversion to LLID when new data sources will be entered. Updated MRIS Protected Areas database to insure all river reaches where splits had occurred in the last 5 years were included. Began clean up work on the MRIS barriers database and discovered that the spatial and tabular files were poorly related.

Aquatic Mitigation and Restoration Projects

Added this table to MRIS restructure design; will determine how it will be incorporated.

Data Reference

Continuing to search for library technician to begin work on referencing of documents in MFWP Fisheries Library in Helena.

Objective 2 - Data Management

Continued work on the restructure of MRIS databases to Access and using PSMFC data exchange formats. Met with software developer in Helena and sent him data structures and other support documents to begin estimating cost of new edit/entry program (MFWP will pay for software development). Data collection will be by LLID.

As part of restructure, related FISHSPEC.DBF (fish species distribution database for Montana) to the databases containing survey data (genetic analysis, natural production counts, and population trend data); new system will make survey records mandatory for each species distribution record. Will also convert FISHSPEC to a trend database similar to PSMFC for tracking a species in a reach over time.

Objective 4 - River Reach System

Kept abreast of NHD activities through StreamNet website. Discovered that USFS Region 1 had completed routing and assigning LLIDs to several forests in western Montana using all the named streams in the 1:24000 hydrography. Received sample HUC (17010202, Rock and Flint Creek)

from Brian Sanborn, USFS contact, and compared to 1:100 000 line work, the number assigned and stream name given. Work looks good and involved PSMFC regional data and GIS coordinators in discussion as to how to proceed. Will defer entering new fisheries data into MRIS until conversion to LLID is completed.

Objective 5 - Data Delivery

Sent shape files of Montana's species of special concern to PSMFC Regional data coordinator to include on the website.

Continued to work on developing a web-based version of the MRIS database.

Successfully tested using simple html forms to retrieve data from Microsoft Access databases.

Objective 6 - Project Management/Coordination

Have been asked to give a presentation on StreamNet at the Annual Montana/Idaho GIS User's Conference in Butte on April 27-29. Have been given the responsibility for GIS Coordination for MFWP; duties (which are funded by the department) have included inventorying current use/hardware/software; assessing needs that can be met with current budget and needs that will require expansion of budget; and representing the department on the NRIS Advisory Committee and the GIS Technical Working Group. Position will also elevate the work of StreamNet. Using MFWP funding, have completed the spatial coverage of our Wildlife Management Areas and completing hard copy atlases; digital files for MFWP brochure of Fishing Access Sites; and map production for a Roads Assessment of State Parks. All of these products carry the StreamNet logo!

PLANS FOR NEXT QUARTER

Complete Fisheries stream rating process and provide to PSMFC for posting on web site.

Begin update of barriers database, clean up resident fish hatchery facilities database, and begin exploring a prototype test of data on irrigation diversions.

Begin work on restoration database coordinating with MFWP Future Fisheries Coordinator, Mark Lere; create edit/entry or wait for regional product.

Complete bull trout edit and send to USFWS in Portland and update maps distributed around state in the past.

Link Dams database from PSMFC to MRIS. Attend Region 1 USFS meeting in Missoula with all Fisheries Program Managers to discuss LLID issue at different scales.

Continue discussions with PSMFC regional data and GIS coordinators to insure conversion process of LLIDs between scales has no problems.

Begin routing 1:100 K hydrography for western Montana.

Attend Montana Chapter American Fisheries Society and meet with USFS fisheries biologist to discuss 1:24000 hydrography and LLID issues.

Attend MFWP Fisheries Division meeting and discuss data standards and habitat variables with MFWP biologists.

Explore interactive mapping of fisheries ratings system using NRIS staff. Complete metadata for all data layers created here and send to NRIS and PSMFC.

DATA REQUESTS / RESPONSE LOG

General Data Requests

Request for fisheries information on the Middle Clark Fork and Ninemile.

Request for fisheries and wildlife information on Cedar Creek and Smith, Sun, and the Bitterroot Rivers. Also wanting information on Swamp Creek.

Request for all information on Clark Fork and St. Regis for proposed pipeline.

Request for fisheries and wildlife information for Swamp Creek-2590000 and Wise River.

Request for all information on the Smith River above Eagle - River Reach # 06077200.

GIS Log (services mostly funded through MFWP)

Date	<u> </u>	<u>F0r</u>	<u>Agency</u>

10/13/97 Lydia Bailey Bruce Sterling MFWP - Region 1

Provided technical assistance for using township, range, and section values to generate spatial data. Instruction for setting up tabular database necessary to generate spatial database.

10/14/97 Lydia Bailey Kevin Chappell DNRC

Statewide map of big horn sheep overall distribution, winter core areas, summer core areas with land ownership (Nat'l Forests labeled), hydrography, highways, cities. To be used in review of grazing leases. Sent large and small copies.

10/16/97 Lydia Bailey Wildlfe Managers MFWP - All Regions

Updated mule deer and white-tailed deer monitoring location maps. Maps also include special mgmnt districts, population mgmnt units, hydrography, hunting districts, cities, highways, Indian Reservations, National Parks.

10/16/97 Lydia Bailey Tony Jewett MT Wildlife Fed.

Sent copies of statewide big horn sheep distribution maps.

10/20/97 Angie Schmidt Kathy Jewel BLM

Sent her the latest copy of our statewide hydrography, MRIS database files, and metadata files.

10/21/97 Angie Schmidt Bill Schultz

DNRC

Produced Three maps for Bill displaying the Upper Missouri drainage Westslope Cutthroat Trout Genetic Distribution with public land ownership, cities, and roads.

10/22/97 Lydia Bailey

Ray Heagney

MFWP - Region 3

Provided ArcView shape files for Missouri Headwaters State Park.

10/23/97 Lydia Bailey

Brian Richards

MFWP - Region 4

Wall maps of Brinkham Game Preserve. One with public land ownership and the other with shaded relief. Both maps also included hydrography, roads, and preserve boundary.

10/24/97 Angie Schmidt

Gael Bissell

MFWP - Region 1

Digitized game preserves withing Deer/Elk Hunting District 170. Produced 2- 8.5x11 black and white maps of HD 170 displaying the landownership, roads, cities, hunting district boundaries, game preserves, and hunting closures.

10/27/97 Angie Schmidt

Brian Peck

MT Wild Forever

Requested a wall size map of the Swan River Drainage displaying public land ownership, and Westslope Cutthroat Trout Genetic Distribution.

10/27/97 Angie Schmidt Val Jaffe

Maxim Technologies

Requested State Fishing Access Sites and non-state Fishing Access Sites, State Parks, Wildlife Management Area Points, and the recreation database for portions of the Middle Clark Fork Drainage, Lower Clark Fork Drainage, and L. Flathead Drainage

10/30/97 Lydia Bailey

Marty Watkins/Darlene Edge

MFWP

Wall map of Thompson Chain of Lakes area with public land ownership, Plum Creek lands, detailed roads, hydrography, and Plum Creek lands FWP would like to acquire, FWP lands available for trade, and FWP lands Plum Creek would acquire.

10/31/97 Lydia Bailey

Eric Atkinson

OEA Research Inc

Sent copies of 8.5 x 11 maps of Treasure Mountain proposed ski area vicinity with shaded relief, big game winter ranges, hydrography, roads, and cities.

10/31/97 Lydia Bailey

Dale Carlsen and Lee Bastian

MFWP - Region 2

Used GIS to determine square miles of Parks' administrative regions.

11/5/97 Lydia Bailey

Brad Shepard

MFWP - Region 3

Used Arc/Info GRID to generate elevation, slope, and aspect by short_rrn for streams within the Flint-Rock, Boxelder, and Upper Clark Fork drainages.

11/5/97 Jeff Hutten Jim Vashro MFWP - Region 1

Bull trout spawning map for the Kootenai drainage.

11/12/97 Lydia Bailey Paul Valle MFWP - Helena

Generated latitude and longitude for the section corner of sections 8, 9, 17, 16 in Township 04 North, Range 23 East.

11/12/97 Lydia Bailey Jim McGowan Damschen & Associates 5

Converted Arc/Info data to .dxf format. Seven sets of data - one for each FWP region. Each set contained the following data: regional boundary, counties, roads, streams, cities.

11/12/97 Jeff Hutten Jeff Copeland MFWP - Helena

WordPerfect 6.1 file of full output of Parks Report on diskette.

11/12/97 Jeff Hutten Ron Rhew USFWS

Bull trout data (mt_bull.tar.Z) ftp:164.159.7.175 ron_rhew@fws.gov

11/17/97 Angie Schmidt Donna Leeper DNRC

Requested the statewide hydrography layers along with the MRIS databases. FTP'd the data to : flathead.dnrc.mt.gov.

11/17/97 Angie Schmidt Leanne Hennessy Montana State Univ

Requested the Upper Yellowstone Drainage hydrography layers (10070001, 10070002) in a shapfile format for use in ArcView 3.0. email: glh3334@montana.edu.

11/17/97 Angie Schmidt Carol Fisher

Sent Carol MRIS stream list for the Upper Yellowstone, Stillwater, Clarks Fork of the Yellowstone, Flint Rock, Powder River Drainages, and Fishing access site maps for Regions 1, 2, 3, 5, 7.

11/20/97 Jeff Hutten Duane Anderson PSMFC

Species distribution coverages for western Montana: species 001, 003, 004, 005, 012, 090, 122, and 133.

11/20/97 Lydia Bailey James Colegrove Maxim Technology

Sent copies of my comments on the Backes Game Farm EA and Maxim Technology's use of FWP's big game GIS data. Also sent metadata for big game GIS data and verbally explained the process for correctly querying and displaying the data.

11/25/97 Lydia Bailey Don Childress

MFWP - Helena

Provided acres, square miles, and percent of types of land ownership by deer/elk hunting district. Analysis was performed in the Arc module of Arc/Info.

11/25/97 Lydia Bailey

Chris Lorentz

MFWP - Region 7

Maps of 1996 and 1997 noxious weed infestations collected using GPS in Makoshika State Park. Maps also included public land ownership, Makoshika park boundary, hydrography and detailed roads.

11/25/97 Angie Schmidt

Jon Winkelried

Private Consultant

Provided a full stream report of Deep Creek in the Teton Drainage.

12/1/97 Lydia Bailey

Ross Baty

DNRC

Provided two copies of statewide big horn sheep distribution map (one small, one large) with herd names, public land ownership, hydrography, highways, and cities.

12/2/97 Lydia Bailey

Brian Giddings

MFWP - Helena

Generated spatial data of lynx locations based on township, range, and section locations. Produced map depicting lynx locations using a range graded scaling method to illustrate locations with more than one lynx occurence.

12/3/97 Angie Schmidt

Rick Malta

MFWP - Region 1

Black and white, 8.5"x11" map of the Hungry Horse Reservoir revegetation sites.

12/3/97 Lydia Bailey

Ross Campbell

DNRC

Provided electronic copy of statewide big horn sheep distribution and public land ownership map in Adobe Illustrator format.

12/4/97 Lydia Bailey

Jon Schulman

USDA Forest Service

Sent copy of metadata for big game GIS layers. Data will be used for the Yellowstone Pipeline EIS.

12/8/97 Angie Schmidt

Kevin Redmond

MFWP - Helena

Provided a statewide copy of black and white 17"x11" maps displaying roads, cities, hydrography, and counties.

12/8/97 Angie Schmidt

Jim Darling

MFWP - Region 5

Provided a wall size map of the high moutain lakes within MFWP Region 5. The map displayed public land ownership, plss, lake watercode, and lake name.

12/10/97 Lydia Bailey

Glenn Erickson

MFWP - Helena

8.5 x 11 black and white maps of mule deer and white-tailed deer monitoring locations with

special management units, population units, hunting districts, hydrography, counties, and cities. One map for each species.

12/16/97 Jeff Hutten

John Woods

Plum Creek

Tabular data (ASCII delimited) for species 122 and 012 for western Montana and hydrography.

12/17/97 Lydia Bailey

Brian Peck

MT Wilderness Assoc

One with USFS grizzly bear linkage zones, grizzly bear subunits, and roadless security areas. One map with bull trout core areas and USFS old growth areas. One map depicting areas of overlap of at least 4 out of the 5 layers named above.

12/18/97 Lydia Bailey

Melissa Hart

MFWP Lab

Sent updated version of State Parks GIS layer and metadata.

12/19/97 Lydia Bailey

Gael Bissell

MFWP - Region 1

Wall map of proposed interest areas in the Thompson and Fisher drainages with land ownership, hydrography, highways, cities, and public land survey system.

12/21/97 Angie Schmidt

Gael Bissell

MFWP - Region 1

Two color 8.5"x11" maps of the Ray Kuhns Wildlife Management Area vicinity. One map displays White-tailed deer density along with roads, hydrography, and plss. The other displays White-tailed deer winter range and public land ownership.

12/29/97 Lydia Bailey

Glenn Erickson

MFWP - Helena

Updated mule deer monitoring location GIS data and sent maps to all regional wildlife managers reflecting the changes.

12/30/97 Lydia Bailey

Tom Reilly

MFWP - Helena

Modified regional state fishing access site maps for brochure. Converted to Adobe Illustrator format. Worked with pre-press technical staff in layout for 4 color process negatives for printer.

12/30/97 Lydia Bailey

Ray Heagney

MFWP - Region 3

Provide UTM 12 projected Arc/View shape files for Bannack, Parker Homestead, and Lewis & Clark Caverns state parks. Also sent hard copy maps for reference.

12/30/97 Lydia Bailey

Kathy Jewell

BLM

Sent fishing access site point GIS data and metadata.

12/31/97 Angie Schmidt

Bill Viste

MFWP - Region 6

Two black and white, 8.5"x11" maps. One of Fresno Reservoir and the other of Nelson Reservoir. Each map displays the surrounding Bureau of Reclamation land ownership.

IV. Oregon Department of Fish and Wildlife

PERIOD HIGHLIGHTS

Delivered several directories of event tables to PSMFC (Forsberg; Task 1.1).

Completed process of developing dbase programs to convert coastal coho distribution files into StreamNet format, combining them into one info file and distributed them to PSMFC (Forsberg; Task 1.1).

Completed final rectification Coho maps for Upper Rogue, Mid-Rogue, Illinois, and Applegate Basins and sent them to Steve Jacobs for final review (Forsberg; Task 1.1).

Compiled information on hatchery returns of adult and jack fall chinook by stock for Columbia Basin hatcheries upstream of Bonneville Dam. (Tinus; Task 1.1)

Compiled monthly Columbia Basin tributary sport harvest of fall chinook salmon by stock from monthly punch card estimates prior to 1970 in Oregon and 1964 to 1996 for Washington for fall chinook run reconstruction. (Tinus; Task 1.1)

Compiled information on natural spawning escapement by stock of fall chinook salmon adults and jacks for Columbia Basin tributaries in Washington upstream of Bonneville Dam. (Tinus; Task 1.1)

Compiled age composition data on early fall commercial fishery harvest, 1960 to present. (Tinus; Task 1.1)

Compiled Indian dip net harvest of fall chinook salmon in the Klickitat River (Tinus; Task 1.1)

Compiled spawner/recruit information for spring chinook salmon populations in Idaho, Oregon, and Washington (Tinus; Task 1.1)

Delivered two Map Gallery examples for web page to PSMFC (Forsberg; Task 1.1).

A total of 8 data, 49 document, 3 map/GIS related, and 5 other requests were answered during this quarter. (All staff; Task 5.1)

Assisted StreamNet's efforts to post a new Oregon Plan web page on the Internet by acquiring the necessary pieces of information. (Cooney)

Prepared the remaining prototype species distribution atlas pages for the Northeast Region and solicited/received comments from several staff members. (Forsberg, Cooney; Task 5.7)

Continued to negotiate with Human Resources on the Information Systems Specialist reclass appeal for ODFW StreamNet GIS Specialist. (Cooney; Task 6.0)

One or more staff members attended 4 Oregon Plan coordination meetings. (Forsberg, Cooney; Task 6.1)

One or more staff members attended 3 essential project coordination meetings. (Forsberg, Cooney, Bourne; Task 6.1)

Developed quarterly report for Oregon. (Cooney; Task 6.2)

Reviewed and commented on new StreamNet Internet query tools. (Cooney, Tinus; Task 6.8)

Provided StreamNet Library with a list of journals and publications that should be made available on the Library website. (Cooney)

PLANS FOR NEXT QUARTER

Complete hiring process for ODFW StreamNet GIS Specialist. (Cooney, Schmidt)

Complete the hiring process for the ODFW tabular data specialist (Cooney)

Complete the coho distribution reconciliation for the Siltcoos, North Umpqua, and Chetco HUC's. (Forsberg)

Modify and improve electronic Library request data entry system and continue to catalog pending and completed Library requests. (Cooney/Anderson/Bourne)

Provide updated adult abundance estimates and indices for anadromous species with available 1996 data. (Cooney)

Provide updated spawner-recruit data for PATH spring chinook run reconstructions. (Tinus, Cooney)

Provide 1996 age frequency data for natural spring chinook. (Tinus, Cooney).

Continue to answer information requests as received. (All).

DATA REQUEST/RESPONSE LOG

DATE	REQUESTER	ORGANIZATION	REQUEST	Who Responded
10/1/97	Don Bennett & Rob Laird	ODFW & David Brown and	Aquatic Inventory data for Sandy	Cedric
		Associates	River (Messinger Bottom area)	
10/3/97	Marv Yoshinaka	??	Lower Snake River data	Cedric
10/9/97	Leslie Sikora	WDFW	Oregon conventions for	CC/Barry McPherson
			distinguishing steelhead vs.	
			rainbow	
10/16/97	Susan Payne	Metro	Questions about finding/reporting	Forsberg
			fish streams in ORIS	
10/28/97	Duane Anderson	PSMFC	Barriers data documentation, via	Forsberg
			fax	
10/30/97	Rick Sheppard	Applied Ecosystem Services	ORIS download instructions	Forsberg
11/3/97	Holly Michael	ODFW-Clackamas	ORIS download instructions	Forsberg
11/4/97	Keith Hupperts	Defenders of Wildlife	Management coverages	Forsberg
11/14/97	Jerry Winterbothem	Private citizen	Tenmile Creek survey data	Cedric
11/18/97	Jennifer Budhabhatti	Metro Parks & Green Spaces	Fish Questions in the Metro area	Forsberg
11/20/97	Ted Williams	Steve Cramer & Assoc.	ORIS smolt carrying capacity	Forsberg
			questions	
11/25/97	Nick Beer	Univ. of Washington	Oregon GIS data	Cedric
12/9/97	Pat Keeley	ODFW-Clackamas	Simple Sandy Basin Stream Map	Forsberg
			examples	
12/18/97	June Johnson	Idaho Department of Fish and	1996 returns to Imnaha &	Cedric
		Game	Looking Glass hatchery	
12/18/97	Jeff Peterson	EMCON (consulting firm)	Info on fish distribution data for	Forsberg
			contamination risks project study	
12/19/97	Don Bennett	ODFW-Clackamas	Finalized 11x17 Sandy Basin	Forsberg
			map for watershed group	
10/9/98	Scott Chitwood	Quinault Fisheries Division	document	Gloria
10/15/98	Kurt Reidinger	CompuServe	2 documents	Gloria
10/15/98	Krista Shauer	CRITFC	2 documents	Gloria
10/16/98	Dick Ewing	BioTech	2 documents	Gloria

DATE	REQUESTER	ORGANIZATION	REQUEST	Who Responded
10/20/98	Inez Hopkins	BioAnalysts, Boise	document	Gloria/Cedric
10/20/98	Erling Westlien	Foster Wheeler Environmental	document	Gloria
10/20/98	Tom Harder	Max McGraw Wildlife	document	Gloria
		Foundation		
10/20/98	Steven Shepard	Gomez & Sullivan Engineers,	document	Gloria
		P.C.		
10/20/98	Erling Westlien	Foster Wheeler Environmental	document	Gloria
10/20/98	Jin-Won Seo	private	5 documents	Gloria
10/20/98	Ann Garrett	private	2 documents	Gloria
10/20/98	Brent Edwards	private	document	referred to CRITFC
10/21/98	Jon Bowers	Interrain Pacific	document	Gloria
10/21/98	John Hawksworth	SP Cramer & Assoc.	2 documents	Gloria
10/21/98	Patricia Arentz	BLM/FWS Interagency Library	document	Gloria
10/28/98	Mary Barczak	Hebo Ranger District	2 documents	Gloria
10/31/98	Kathy Hemtill	Davis & Evans Assoc.	3 documents	Gloria
10/31/98	Krista Shauer	CRITFC	3 documents	Gloria
11/5/98	Ken Witty	SP Cramer & Assoc.	document	Gloria
11/5/98	Ralph Browning	NOAA, Idaho	document	Gloria
11/7/98	Eleanor MacLean	Blacker-Wood Library of	2 documents	Gloria
		Biology, McGill University		
11/7/98	Tiffany ?	Accents Publications	document	Gloria
11/7/98	Judy	Library Acquisitions,	document	Gloria
		Willamette University		
11/7/98	Eric Dahler	Historical Multimedia	3 documents	Gloria
		Productions, Inc.		
11/10/98	Inez Hopkins	BioAnalysts	document	Gloria
11/10/98	John Hawksworth	S.P. Cramer & Assoc.	document	referred to CRITFC, back to Gloria
11/11/98	Ann Garrett	Graduate student	3 documents	Gloria
11/14/98	Sam Stephenson	Ontario Ministry of Natural	document	Gloria
		Resources		
11/17/98	Steve Vigg	S.P. Cramer & Assoc.	document	referred to CRITFC & Eric Olsen@
			_	Hood River
11/18/98	Allen Byrne	IDFG	document	Gloria
11/18/98	Dennis Rogers	student	8 documents	Gloria
11/18/98	Ms. Amanda McClaire	John Smith & Son (Glasgow) Ltd.	document	Gloria
11/18/98	Steve Cramer	S.P. Cramer & Assoc.	6 documents	referred part to CRITFC
11/21/98	Steve Cramer	S.P. Cramer & Assoc.	8 documents	Gloria
11/24/98	Michael Jones	Cascade Geographics Society	document	Gloria
11/26/98	Steve Cramer	S.P. Cramer & Assoc.	4 documents	Gloria
11/26/98	Steve Cramer	S.P. Cramer & Assoc.	3 documents	Gloria
11/26/98	David Saiget	USFS, Alaska	3 documents	Gloria
11/28/98	Paul Winkle	Chadwick Ecological	2 documents	Gloria
		Consultants		
11/28/98	Dr. Andrea Buffagni	Instituto di Ricerca sulle Acque, Italy	document	Gloria
11/28/98	Dr. M.S.M. Siddeck, Ph.D.	Sultan Qaboos University	document	Gloria
12/4/98	Prof. Ana Beatriz Prieto	Dept de Cap y Trans del	document	Gloria
14/7/70	1 101. Ann Dean E There	Dept de Cap y Trans der	accument	Giorna

DATE	REQUESTER	ORGANIZATION	REQUEST	Who Responded
12/10/98	Gretta Siegel	CRITFC	document	Gloria
12/13/98	Mike Sanchez	PEAK	5 documents	Gloria
12/16/98	Andrew Murdock	WDF, Wenatche, WA	document	Gloria
12/29/98	Beth Sanches	USFW, Crescent R.D.	5 documents	Gloria
12/29/98	Chris Brennan	CTWSF, Dept. F & W Natural Resources	3 documents	Gloria
12/30/98	?	AQUAPROGRAM S.R.S, Italy	document	Gloria

StreamNet GIS Data Downloads off the ODFW FTP Server

GIS Coverages	Number of Files Downloaded	Number of Different Users Downloading
		Files
Routed Streams	229	19
Fall Chinook	29	6
Spring Chinook	29	3
Chum	8	2
Coho	36	6
Winter Steelhead	28	6
Summer Steelhead	27	5
Coastal Salmon Plan Core Areas	741	324
Oregon Rivers Information System	367	63

V. Pacific States Marine Fisheries Commission

PERIOD HIGHLIGHTS

<u>Data Development</u>

Reviewed the status of all data development tasks with project participants.

Prepared a data plan for FY 99, including the identification of targets for each data type and participating organization.

Prepared an online version of the Fish and Wildlife Program Annual Implementation Work Plan.

Data Management

Completed data porting, application development, and testing for 3 all new Internet query systems; Data, Reference, and Map

Continued update and maintenance for the StreamNet web site.

Incorporated major data updates from Idaho.

Completed preliminary work on regional anadromous distribution coverages.

Prepared an updated description of StreamNet data holdings and an updated data dictionary.

Ported existing StreamNet data to the NT server for use on the StreamNet web site.

Revised the StreamNet data holdings document.

Revised the StreamNet data exchange format document.

Library/Reference System

Assisted CRITFC in preparing for the library open house, including editing of the library brochure and policy guidelines.

Worked with CRITFC to create a n updated version of the library query system.

River Reach System

Error checked and revised the 100K river reach system for the state of Washington. Reviewed progress in other states, including supplying directions to state teams on protocol for completing their tasks.

Maintained contact with regional river reach system users including the USFS, BLM, and states, in order to ensure compatibility of efforts.

Maintained frequent contact with the national NHD team.

Monitored progress of ODFW's efforts on conducting the visual pass of 100K hydrography for the state of Montana.

Maintained and revised the StreamNet 100K web site feature.

<u>Data Delivery</u>

Introduced a new graphic interface for the StreamNet home page, including new visuals, new button bar, and new layout.

Updated the StreamNet map catalog by deleting unnecessary or redundant maps and adding new ones.

Prepared and refined a test version of a new data query system, having data, map, and library reference components.

Added 6 sites to the related links section of the home page.

Edited the text of the StreamNet home page.

Enhanced the education portion of the StreamNet home page, including the addition of virtual photo tours, a kids pics feature, an ocean conditions links page, and an interactive life history feature.

Added approximately 20 terms to the fish resource glossary.

Maintained and revised the project management section to the home page.

Monitored use of the StreamNet web site (summary attached).

Responded to all web site "feedback" comments within 24 hours of receipt.

Prepared a list of StreamNet home page enhancement ideas and identified priorities for future home page improvements.

Responded to data requests (attached)

Project Management

Prepared and submitted a final version of the FY 98 work statement.

Prepared an updated version of the StreamNet brochure.

Met individually with the following sub-contractors to monitor progress in both data development and expenditure of funds: ODFW, IDFG, WDFW and CRITFC.

Held coordination meetings with NWPPC staff and the IRRIC hydro/fish team.

Scheduled and held the October Steering Committee meeting.

Made contact with project coordinators via telephone on at least a weekly basis.

Reviewed sub-contractor invoices and prepared BPA invoices.

Coordinated with BPA on administrative matters relevant to StreamNet.

PLANS FOR NEXT QUARTER

Data Development

Coordinate data development by participating agencies.

Data Management

Incorporate new data as received from participating agencies.

<u>Library</u>

Provide direction to library staff regarding library use policies and other appropriate issues.

Cooperate with library staff in updating source references.

Assist library staff in completing transfer of the NWPPC collection.

River Reach System

Consolidate Idaho and Oregon PNW files, error check and integrate into the regional system.

Data Delivery

Release the new online data query system.

Respond to requests for data and data services as needed.

Project Management

Prepare for a winter steering committee meeting.

Continue to monitor project progress, including overseeing work of subcontractors.

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

Prepare the FY 98 project description.

DATA REQUESTS / RESPONSE LOG

Data Requests

Name	Organization	Request	Date Requested	Data Delivered
Hileman Jim	Environmental Protection Agency	Temperature data from Aspen Database (jim.zip)	10/28/97	10/28/97
Frasier Pat	Oregon Department of Fish and Wildlife	Upwelling Data Request	11/17/97	11/14/97
Becker Westin	Water Resources Department	steelhead images	11/18/97	11/18/97
Williams Ted	S.P. Cramer & Associates, Inc.	SDM data for Steelhead in lower columbia - Williams.DB	11/20/97	11/20/97
Sasser Stephen	Northwest Power Planning Council	hard copy maps of subbasins used in project prioritization	11/25/97	12/3/97
Malin Debra	Bonneville Power Administration	Anadromous presence at selected dams, and status of fish passage facilities - file	11/26/97	12/5/97
Harrison John	Northwest Power Planning Council	Total hatchery releases for Mitchell Act Hatcheries	12/15/97	12/15/97
Welter Jim	Oregon South Coast Fishermen	Total coastal coho hatchery releases from ODFW hatcheries	12/15/97	12/15/97
Arthaud David	Unknown	Smolt production values for various drainages in the Salmon Basin	12/29/97	12/30/97

StreamNet Online Query System Access

Month	Web Page - Avg Files Delivered Daily	Web Page - Avg mb Delivered Daily	Query System Requests	Reference System Requests	Map System Requests
Oct	2,408	16.2	1,859	351	1,425
Nov	1,787	14.5	2,377	553	2,202
Dec	1,316	11.1	2,988	405	1,298

Technical Summary of Web Site Use

Month	Category	MB	# of Files
10	Fish Facts	70.996493	3
10	Maps	205.784442	448
10	NWPPC Project Data	21.297539	15
10	Project Management Files	13.058571	92
10	Reach Files	668.079761	192
11	Fish Facts	45.668994	56
11	Maps	206.633638	483
11	NWPPC Project Data	4.245115	4
11	Project Management Files	8.917413	42
11	Reach Files	671.7357729	963
12	Fish Facts	47.147621	79
12	Maps	268.386345	760
12	NWPPC Project Data	0.40046	5
12	Project Management Files	25.253393	37
12	Reach Files	367.65086	402

VI. Shoshone-Bannock Tribes

PERIOD HIGHLIGHTS

Reviewed and commented on new additions that are planned for release on the StreamNet web site.

Interviewed University of Idaho geneticists about incorporating their data with ours.

PLANS FOR NEXT QUARTER

Continue pursuing genetic information. My goal for this sub-project is to recommend what types of data we will be able to use with members at the next Steering Committee in order to discuss how we can devise a data transfer protocol to incorporate available genetic information.

DATA REQUESTS / RESPONSE LOG

No requests were received during this quarter. However, I assisted other biologist in retrieving information from our web site.

VII. U.S. Fish and Wildlife Service

PERIOD HIGHLIGHTS

Coordinated delivery of hatchery data from federal hatcheries to StreamNet, including cooperating with IDFG in reviewing data delivery issues concerning hatcheries in that state.

Attended StreamNet steering committee meeting in Boise.

PLANS FOR NEXT QUARTER

Attend Steering Committee meeting in Gladstone.

DATA REQUESTS / RESPONSE LOG

There were no data requests filled by the USFWS during the quarter.

VIII. Washington Department of Fish and Wildlife

PERIOD HIGHLIGHTS

General

At the start of this new year, we had some personnel and work assignment changes. Bill Kinney joins Dick O'Connor in a management role over day-to-day StreamNet activities at WDFW. Brodie Cox and Holly Ballantyne have left the project for other assignments and school, respectively. Responsibility for statewide hatchery returns data was re-assigned to headquarters staff (Leslie Sikora and Sarah Nielsen), while statewide natural spawner data will now be handled by Region 5 staff (Bob Woodard).

Leslie joined Dick at the kick-off Steering Committee meeting in Boise October 14-15 where we shared progress on various data and coordination tasks. Dick later met with project staff from the Joint Kalispell Stock Assessment project in Spokane, in order to assist them in their plans so that the data they collect will be easy to exchange with StreamNet. We held several telephone discussions aimed at coordinating work on the regional 100K river reach files and routes, based on differences between the Washington layers currently used by WDFW and PSMFC. Martin Hudson and his PSMFC counterpart Matt Fried have gotten together to discuss differences and are pursuing ways to merge their products into a single layer for the region to use.

Some WDFW biologists working in Region 3 (Yakima area) discovered the StreamNet project and sent Leslie some historical steelhead returns and harvest information. Some of these data are maintained by Yakama tribal staff, so we have a coordination challenge to address as we try to determine the most appropriate division of labor here between WDFW data compilers, Yakama tribal data compilers, and CRITFC compilers who coordinate work by individual tribes. Initial contacts have been positive, and we're confident a plan can be set in place during this project period.

Database Development

Tabular.

Columbia Basin salmon hatchery returns data are now complete through 1996, as are Columbia Basin salmon and steelhead natural spawner data. Columbia Basin steelhead returns need to be converted to version 11 of our internal format before exchange, and the rest of the returns (statewide) need to be compared to the NMFS statewide historical file before conversion. Work continued on expanding the redd count database to allow exchange of raw adult survey data from the Columbia Basin, with eventual addition of the coastal Washington and Puget Sound survey data. Gamefish hatchery release data prior to 1983 is being entered to complement the work on truthing and converting the 1983-1994 historical release file. Initial assessment indicates that 25% of the steelhead release records in the 1983-1994 file do not match corresponding records in the PSMFC historical CWT release database, so we are turning to paper records to identify and fix the incorrect data. This part of compiling has taken much longer than anticipated due to the extent of the discrepancies and no clear official version to use as a benchmark for comparison.

Spatial.

Work to reconcile the spawning extent of SaSI stocks with recently updated spawning data compiled by species continues, as we can arrange time for fish biologists to review the maps. Older resident fish data compiled under the old NED project have been converted to modern

format and have been transferred into the newer event tables to allow for display of both resident and anadromous fish data on the same 100K layer. Design and construction of a database for lakes began, in order to be able to identify all water bodies linked to the route of anadromous fish, as well as provide useful features to link resident fish data to in the future, if that becomes a project priority.

Systems Development

Tabular.

A pilot system for allowing local area network-based review and reporting of summary data destined for StreamNet exchange was developed and testing began. It is hoped that this will develop into a tool to ease interaction with the fish data experts in our Program so that the quality of data we compile for exchange can be reviewed before we convert and send it out. It also will provide access to Washington StreamNet data for those who do not yet have adequate hardware to browse the StreamNet Online Web site. A good deal of time was spent mapping internal (PSC-format) codes for locations, hatchery sites, and stocks to codes used in older historical databases to support StreamNet data conversion across all data categories. Cross-reference tables have been updated for this purpose. A small tool to convert hatchery returns data from WDFW new Form5" format to exchange format was built and shared with all data compilers.

Spatial.

Data dictionaries and data tracking tables were built for the StreamNet spatial data tables in order to assist users who need to know about the new organization of data. The programs that build tabular datasets from point coverages were improved to increase quality in the data locations captured. Tools were built to check and correct routes in the 100K reach files. By the end of this quarter, all HUC files had been checked and corrected, and data transfer to the corrected reach files had begun. Martin also built a series of routines to allow easy display, entry, and transfer of data related to lakes of Washington, in order to complete a task begun a few years ago under the NED project.

PLANS FOR NEXT QUARTER

Complete compilation of steelhead hatchery release/return data.

Complete digital coverage for bull trout.

Prepare StreamNet display for WDFW conference.

Prepare 100K coverage for shipment to region.

Participate in state-level river reach system activities (state framework group, USFS 24K development, etc.)

Visual pass of 100K will be postponed pending release of necessary materials by NHD.

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 spatial data requests, or "data releases". The table on the following pages (Appendix A) summarizes the people who requested data, the type of information they needed, and the date the information was delivered as part of the StreamNet project during this project reporting period. There were 156 data requests fulfilled during this time period, most of which were spatial data requests (generally maps and digital data).

We note that ftp provision of data continues to increase, as users find electronic transmission of data quicker and more convenient than the standard method of exchanging tape cartridges.

Requestor	Organization	Data Requested	Date Delivered
Marty Garman	WA Dept Of Transportation Olympic	Project no mc5420 SR 109 milepost 10.36 - 10.74	10/01/1997
Melissa Chaun	Michael P. Williams Consulting	Dickman Mill and Pritchard Reserve projects	10/01/1997
Wendy Schmidt	Okanogan County Dept Of Public Works	Proposed county road project in T33 R22E in Okanogan County	10/01/1997
Adam Escalona	Adapt Engineering Inc.	Proposed bridge construction T24N R07E Sec 6	10/07/1997
Ed Sewall	B-Twelve Associates Inc.	Proposed short plat-Erwin short plat #97-145	10/07/1997
John Hawksworth	SP Cramer and Associates	Development of a steelhead restoration plan for the Lower Ccolumbia ESU	10/07/1997
Nancy M. Thompson	WA Dept Of Transportation North	Proposed hwy construction project 1-3119 Ruby Cr. vicinity	10/07/1997
Nancy M. Thompson	WA Dept Of Transportation North	Proposed hwy construction projects on SR 90 and SR 97	10/07/1997
Stephanie Allen	Pentec Environmental	PSE pipeline construction project # 333-002	10/07/1997
Ed Sewall	B-Twelve Associates Inc.	Proposed short plat- Finkbeiner/Keller 97-106	10/08/1997
Marti Louther	Adolfson Associates Inc.	Habitat study for a residential development in King County	10/08/1997
Bradford Shea	Westech Co.	To prepare environmental documents for US Navy contract	10/09/1997
Gregory M. Poels	Shannon & Wilson Inc.	United Homes of Renton proposed purchase of 12- acres site near Lk. Sammamish	10/09/1997
Kent Lien	Golder Associates Ltd.	Assessment of watercourses crossed by the Yellowstone Pipeline Company	10/09/1997
Nathan Pate	Whitman County Dept Of Public Works	Proposed residential development by Carl Quist within T15N R46E Section 6	10/10/1997
Thomas J.	ATC Environmental Inc.	IAC wetlands delineation and	10/10/1997

Requestor	Organization	Data Requested	Date Delivered
Cammarata		rating	
Jim Dougherty	FEMA Region 10 Hazard Mitigation	Proposed Glenwood flood diversion project	10/13/1997
Michelle Dewey	Seattle City Light	Preparation of SEPA	10/14/1997
Marty Garman	WA Dept Of Transportation Olympic	State route 167 mp 9.06 - 10.19 project no ol-2082	10/15/1997
Matt Bennett	The Coot Company	Proposed city-owned stormwater detention facility	10/15/1997
Michael J. Rickel	Pacific International Engineer	SEPA for construction of a marina in Douglas County T20 R22E Section 13	10/15/1997
Nathan Pate	Whitman County Dept Of Public Works	Delbert Moore short plat T18N R44E Section 32	10/15/1997
Marty Garman	WA Dept Of Transportation Olympic	Coo583a, SR5 Pacific Ave i/c seismic retrofit mp 133.33 - 134.11	10/16/1997
Regina Simon	Public Request	Move homestead house to new location T18 R42E Section 36	10/16/1997
Scott Sissons	Apex Engineering	Bald Hill large lot file#25581/1	10/16/1997
Ed Bowlby	Olympic Coast Natl Marine Sanctuary	Use digital data to monitor coastal resources and management purposes	10/20/1997
Mike Marshall	Gibbs & Olson Inc.	Pe Ell and Toutle general sewer plans	10/20/1997
Peter C. Blansett	SA Newman Forest Engineers Inc.	Appraisal services	10/20/1997
Crilly R. Ritz	Snohomish County Public Works	SEPA/EIS for road corridor study in Granite Falls area in Snohomish County	10/22/1997
Kathleen Stephanick	Anchor Environmental	Simpson timber SEPA for the Goldsborough Cr. restoration project	10/22/1997
Kirsten Krueger	The ERC Group	City of Issaquah Pickering Reach improvements	10/22/1997
Randy Edwards	Pacific Groundwater Group	Stream/groundwater studies for Clark Public Utilities	10/22/1997

Requestor	Organization	Data Requested	Date Delivered
John S. Fleming	Polaris Engineering & Surveying	To evaluate property for potential purchaser within T29N R4W Sec 3,4,5,9,10	10/23/1997
Keitlyn Watson	Stevens County Conservation Div.	Provide PHS data to local school children in Stevens County	10/23/1997
Kathleen Neely	NOAA National Marine Fisheries Service	Statewide StreamNet digital data for mapping essential fish habitat	10/24/1997
Katie Walter	Shannon & Wilson Inc.	Yakima Training Center clean up site project # t-4118-05	10/24/1997
Laura Techico	WA Dept Of Transportation South	SR 90 Cabin Creek vic unstable slope	10/24/1997
Suzanne Dolberg	Ecology & Environment	Site assessments for EPA at four locations in the Port Angeles area	10/24/1997
Frederick L. Huston Jr.	Beak Consultants Inc.	Water right SEPA for Snohomish River Regional Water Authority	10/30/1997
Gary R. Beeman	WA Dept Of Transportation South	WR 970 Teanaway Tiver vicinity bridge 970/10	10/31/1997
John Gold	John Gold & Company Consulting	Preparing forest land management plans for land owners	11/04/1997
Theresa Henson	Natural Resource Consulting	Potential development of property by owner within T23 R07E Section 23	11/04/1997
Theresa Henson	Natural Resource Consulting	Potential development of property by owner within T23N R08E Sections 13, 24	11/04/1997
Gary R. Beeman	WA Dept Of Transportation South	SR 90 Cabin Creek vic. unstable slope-project revision	11/05/1997
Jack Dinniene	Northwest Valuation Services	Property appraisal for WDFW	11/05/1997
Jim Dougherty	FEMA Region 10 Hazard Mitigation	Glenwood flood diversion project-revised	11/05/1997
Marty Garman	WA Dept Of Transportation Olympic	SR16 road widening at Anderson Hill Road project no ol-3212	11/05/1997
	WA Dept Of Transportation	SR3 mp 3.65 to mp 8.96	

Requestor	Organization	Data Requested	Date Delivered
Marty Garman	Olympic	Shelton ECL to Agate Road project no ol-3181	11/05/1997
Michael J. Rickel	Pacific International Engineer	Blair Waterway channel deepening	11/05/1997
Steven Yach	WA Dept Of Transportation East	SR20/SR395 to Laundry Road	11/05/1997
Calvin Kelly Douglas	Shapiro And Associates Inc.	SEPA EIS for a proposed new arterial called the North Spar	11/12/1997
Chris Snapp	Green Crow	SEPA within T21 R14E Section 34	11/12/1997
Dale Morimoto	WA Dept Of Transportation North	SR 525 Maxwelton Road to Honeymood Road	11/12/1997
John Altmann	Talasaea Consultants	Land owner proposed development within T28N R04E Section 24	11/12/1997
Linda Foster	Ecology And Environment Inc.	EPA Region X CERCLA	11/12/1997
Rich Schumaker	Stevens County Conservation Div.	Jumpoff Joe watershed management plan	11/12/1997
Tim Young	US Fish And Wildlife Service	StreamNet digital data base	11/12/1997
William Kombel	Palmer Coking Coal Company	Permits for a gravel extraction operation within T21N R07E Section 30	11/12/1997
Debra Bouchard	Envirovision	Integrated aquatic vegetation mgt plan for Lake McMurray in Skagit County	11/14/1997
Joetta Zablotney	R2 Resource Consultants	Environmental studies for land owner	11/14/1997
Tom Angus	Ecology And Environment Inc.	Oeser Cedar site risk assessment for EPA	11/14/1997
Lynn Sharp	Woodward-Clyde Consultants	Skagit Co PUD No. 1 Judy Reservoir proposed dam raise	11/17/1997
Melissa K. Cohen		Wetland rating for property within Golden Gardens park	11/17/1997
Rick Spaulding	Ogden Environmental And Energy	EA for the WA Air National Guard at Fairchild AFB in Spokane	11/17/1997

Requestor	Organization	Data Requested	Date Delivered
Stacey M. Wenger	Adolfson Associates Inc.	Proposed Cowlitz Co. road widening along old Pacific Hwy	11/17/1997
Susan M. Callan	FEMA Region 10 Hazard Mitigation	Mineral Cr hazard mitigation project in Lewis Co.	11/17/1997
Andrea Escame- Hedger	King County Road Services Div.	SEPA for various projects	11/19/1997
Bertie Weddell	Draba	Proposed replacement of elevator scale within T18 R43E Section 15	11/19/1997
Marty Garman	WA Dept Of Transportation Olympic	Ol 2759 SR 510 Bingo Hall vicinity	11/19/1997
Marty Garman	WA Dept Of Transportation Olympic	Ol 3196 SR 101/107 intersection	11/19/1997
Nathan Pate	Whitman County Dept Of Public Works	Residence construction by Roger and Robert McKirnan within T14N R44E Sec 16	11/19/1997
Peter C. Blansett	SA Newman Forest Engineers Inc.	Land appraisal for Crown Pacific and others	11/19/1997
Steven Yach	WA Dept Of Transportation East	Lords Valley Cr. rechannelization within T22 R37 Section 26	11/19/1997
Sue Burgermeister	B-Twelve Associates Inc.	Permitting of residential development South Corp. job # 97-130	11/19/1997
Theresa R. Henson	Natural Resource Consulting	Wildlife survey for property owner prior to potential development	11/19/1997
Will Keller	US Natural Resources Conservancy	Jobs for the environment grant application for sites in Okanogan/Methow	11/19/1997
David Rolph	The Nature Conservancy	PHS, Heritage and Marbled Murrelet digital data	11/21/1997
Ed Sewall	B-Twelve Associates Inc.	Parking lot expansion within T21 R04E Section 28	11/21/1997
Greg Poels	Shannon & Wilson Inc.	BA for clean up of contaminants on site for Ft. Lewis training facility	11/21/1997
John Altmann	Talasaea Consultants	Proposed land owner development within T27	11/21/1997

Requestor	Organization	Data Requested R05E Sec 29	Date Delivered
Victoria Luiting	Raedeke Associates Inc.	Lonestar Quarry at Maury Is. # 97059	11/21/1997
Ben Klein	WA Dept Of Transportation Room	Planning for pile driving projects	11/26/1997
Dan Wiren	Green River Community College	PHS and HRTG digital data for Kittitas County	11/26/1997
Dr Frank Westerlund	UW Dept Of Urban Design And Planning	HRTG and StreamNet digital data for Spokane County coop project	11/26/1997
Jessica Escow	Champion Pacific Timberlands Inc.	PHS, HRTG digital data for Champion Pacific Timberlands	11/26/1997
Mark Mower	Green River Community College	Old growth digital data for Mt. Rainier National Park	11/26/1997
Matthew Boyle	Parametrix Inc.	Hazard waste cleanup environmental reports for City of Seattle	11/26/1997
W. Nicholas Beer	UW Columbia Basin Research	Statewide StreamNet digital data	11/26/1997
Catherine Conolly	Adolfson Associates Inc.	Port of Tacoma environmental documentation	12/01/1997
Dana Heller	Michael P. Williams Consulting	Pierce Co. Parks and Rec. proposed multi-use trail in the Carbon R. drainage	12/01/1997
David Lee	National Park Service Denver	Management plan and EIS for Ft. Vancouver Nat. Historic Reserve	12/01/1997
John Gold	John Gold & Company Consulting	Appraisals and management plans for property owners	12/01/1997
Marti Louther	Adolfson Associates Inc.	Habitat survey for proposed development	12/01/1997
Melanie Carpenter	ENSR Consulting And Engineering	SEPA review for Puget Sound Energy within T24N R07E	12/01/1997
Nancy M. Thompson	WA Dept Of Transportation North	Icicle Spillway slide repair l- 3243 SR2 mp 101 T24N R18E Section 7	12/01/1997
Joseph Arnett	Foster Wheeler Environmental	SEPA review for proposed golf resort at Bear Mtn.	12/02/1997

Requestor	Organization	Data Requested Ranch	Date Delivered
Adam E. Escalona	Adapt Engineering Inc.	NEPA checklist for proposed cellular tower within T21N R05W Sect 8	12/04/1997
Bruce Maclearnsberry	Maclearnsberry Engineers	Short plat within T25 R02E Section 29	12/04/1997
Cliff Palmer	Wetlands Resources Inc.	Wildlife study for proposed land owner development site	12/04/1997
Darrel Erfle	Jefferson County Dept Of Public Works	Jobs for the environment grant application	12/04/1997
Don E. Wyll	ERM-West Inc.	Wetlands rating information for potential land owner	12/04/1997
Joseph Arnett	Foster Wheeler Environmental	Environmental Assessment for the Makah Tribe Forest Mgt. Plan	12/04/1997
Micheleen O ■ Neill	Evergreen State College	Research project for college within T16N R04W Section 30 and 31	12/04/1997
Nathan Pate	Whitman County Dept Of Public Works	Short plat for land owners Don and Cheryl Smith within T14N R46E Section 17	12/04/1997
Priscilla Zieber	Emcom	Proj# 40358-016.004 remedial investigation for site within T09N R28E Sect 11	12/04/1997
Sarah Cassatt	Jones & Stokes Associates Inc.	Environmental reviews for the city of Sultan Sewer Ltd project	12/04/1997
Steve Yarbrough	CC Johnson & Malhofra PC	Environmental site assessment for US BLM	12/04/1997
Linda Krippner	Dames & Moore	Olympic pipeline project HRTG and PHS digital data	12/09/1997
James Hirsch	Pacificorp	Updated PHS, HRTG and spotted owl digital data for Lewis River watershed	12/10/1997
John Keates	City Of Enumclaw	PHS map for city of Enumclaw	12/10/1997
Marty Garman	WA Dept Of Transportation Olympic	Widening of SR510 between I5 and Pacific Avenue project ol-2497	12/10/1997

Requestor	Organization	Data Requested	Date Delivered
Matthew Boyle	Parametrix Inc.	Environmental reports for the RTA Everett to Seattle commuter rail project	12/10/1997
Nikolina Yonkow	Adolfson Associates Inc.	PHS data for government agency	12/10/1997
Peter C. Blansett	SA Newman Forest Engineers Inc.	Appraisial for WDFW	12/10/1997
Eric Doyle	NOAA National Marine Fisheries	Digital HUC, WRIA and state boundaries	12/11/1997
Dale Morimoto	WA Dept Of Transportation North	SR525, SR99 to SR526 132nd to Paine Field Blvd widening	12/12/1997
Donald K. Wills II	WA Dept Of Transportation North	SR 161 Jovita Blvd to S 369th St widening project mp 32.09 to mp 34.12	12/12/1997
Gail S. Brooks	Berger/Abam Engineers Inc.	Treemont residential subdivision EIS	12/12/1997
Margaret Spence	Parametrix Inc.	Proposed aerial tramway within the Olympic National Forest	12/12/1997
Nikolina Yonkow	Adolfson Associates Inc.	PHS data for government agency	12/12/1997
Steven Yach	WA Dept Of Transportation East	SR 31 bridge 31/36 and bridge 31/42 painting	12/12/1997
Steven Yach	WA Dept Of Transportation East	SR 395 north corridor channelization	12/12/1997
Tom Ehrlichman	Law Offices Of Tom Ehrlichman	Map of N. Lake Washington	12/12/1997
Heidi Reynolds	Snohomish County Public Works	Aquatic plant management plan for Lake Shoecraft	12/15/1997
Jerry Erickson	Beak Consultants Inc.	Proposed barge loading facility on the Duwamish waterway	12/15/1997
Marty Garman	WA Dept Of Transportation Olympic	Project ol-3198 paving SR307 between SR305 (Bond Rd) and SR104	12/15/1997
Peter Carr	Edaw Inc.	Feasibility study for the Calvinwood/Square Lake/McCormick Lake	12/15/1997

Requestor	Organization	Data Requested project	Date Delivered
Jessica Roque	WA Wetlands And Mitigation Co.	David Moore property within T36N R04E Sec 27	12/16/1997
Jessica Roque	WA Wetlands And Mitigation Co.	Wetland delineation for Murray property within T34N R05E Sec 30	12/16/1997
Alana Hess	WA State Parks And Recreation	Sequim Bay State Park project	12/18/1997
Debby Howe	Howe Consulting Inc.	Proposed Okanogan Co. PUD transmission line between Twisp and Pateros	12/18/1997
Janel London	King County Road Services Div.	SEPA review for Juanita Drive NE at NE 122nd Pl and 76th Pl NE	12/18/1997
Linda Newberry	Jamestown S'Klallam Tribe	Application for state IAC riparian protection grant with Clallam Cons. Dist.	12/18/1997
Pat Bahor	King County Road Services Div.	SEPA review for temporary storage and permanent fill site - Krain	12/18/1997
Thomas R. Strong Ph.D.	Terra Associates Inc.	Proposed residential development on the Sammamish plateau	12/18/1997
Tyler Patterson	USDA Forest Service	Watershed analysis in Puyallup basin	12/18/1997
Bill Wettengel	USFS Olympic National Forest	Digital StreamNet for Washington	12/23/1997
Chad H. Phillips	WA Dept Of Agriculture Lab	Three proposed treatment areas for gypsy moth eradication projects	12/23/1997
Holly Barnard	Trust For Public Land	Aid in identification of land with high conservation priority	12/23/1997
Jim Stephenson	Yakima Indian Nation	Digital data for ceded lands as well as the land under contract in TFW	12/23/1997
Liz Kriewald	WA Dept Of Transportation North	SR 530 mp 21.78 to mp 29.43 Stillaguamish River Br. 530/120 to 170th Ave.	12/23/1997
		Assessment and remediation	

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Margaret Clark	UXB International Inc.	at Camp Bonneville for US Army Corps of Eng.	12/23/1997
Michael M. Pollock	10,000 Years Institute	Digital StreamNet for the Willapa basin	12/23/1997
Teresa Vanderburg	Adolfson Associates Inc.	Proposed expansion of Cedar Creek Corrections Center	12/23/1997
Brady Engvall	Friends Of Grays Harbor	Permit review for Stafford Creek Correctional Center	12/25/1997
Ann Blakley	WDFW	Columbia River map of the four states	10/15/1997
Chris Mendoza	Aquatic Restoration Consultant	Anad. fish in Chehalis River basin	10/15/1997
Clark County	Clark County	Digital Tape of Statewide Steelhead info	10/15/1997
David Johnson	WDFW	general selection of available maps	10/15/1997
Steve Phelps	WDFW	Ringold Pond releases, returns & sport catch in the area	10/22/1997
Mike Malone	Private citizen	November Steelhead catch - Grande Ronde R.	10/28/1997
Betsy Reynolds	Northwest Renewable Resource	Three County maps of Fall Chinook	11/15/1997