StreamNet Quarterly Progress Report

(January - March 1998)



Submitted to: Bonneville Power Administration

Submitted by: Pacific States Marine Fisheries Commission

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PERIOD HIGHLIGHTS

Cataloging

StreamNet Library References Module: Cataloged 34 new StreamNet documents

Textworks catalog: 482 new records were cataloged on OCLC and added to the library catalog; 570 records were either edited or deleted during a clean-up/edit effort

Collection Management

IAMSLIC duplicate exchange program: received 85 needed journal issues and technical reports; prepared annual list for distribution to exchange members and shipped over 20 boxes of materials to other libraries.

Had further discussions with NPPC staff regarding the transfer of their library collection.

Processed and shelved cataloged materials; completed routine shelf-reads; prepared shelf-list and conducted comprehensive inventory of collection in search of errors to repair.

Renewed journal subscriptions which were not processed in the fall; initiated a few new subscriptions.

Services

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

Meetings/Training

Attended February StreamNet steering committee meeting (Gretta, Phil, Hilary)

Hosted Library Open House in January (Gretta, Krista) - event attended by approximately 25 people.

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

Attended Oregon Library Association annual conference in March (Gretta)

Tribal Data Coordination

Provided training on the StreamNet system to staff at Yakama. They will compile data for new trends and update existing trends as new counts become available.

Developed data entry system for Warm Springs migrant trap data. Contract is being finalized.

Prepared for Umatilla nad Nez Perce data compilation.

Miscellaneous

Wrote quarterly project report

Conducted interviews for Assistant Librarian Position; hired Lenora Oftedahl who began work on February 9, 1998.

Revised library web page.

LIBRARY STATISTICS

Reference requests: conservative estimate: 100 liberal estimate: 150

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

Interlibrary loan requests: 37 borrows; 4 loans

Circulation: journals - 4, books, videos, maps and technical reports - 80

Photocopy usage: 800 - CRITFC staff; 560 - public/other agencies

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

| D. | A CC*1* . * | N. CD | A |
|---------------|---------------------|---|-----------------------------------|
| Requestor | Affiliation | Nature of Request | Action |
| T. Murray and | NE Community | background materials for 4th- | Oriented to project, library, and |
| D.Geary | School | 8th grade unit on salmon | website |
| Berkson, J. | CRITFC | ODFW wild fish policy | contacted Gloria and Cedric |
| Hopkins, I. | BioAnalysts Library | pages from 1945 document | faxed |
| Talbot, A. | CRITFC | background text on steelhead | provided |
| Evans, A. | CRITFC | article from conference | provided |
| Hans, K. | USGS-BRD | subject search/hatchery practices | performed and delivered |
| Hopkins, I. | BioAnalysts Library | subject search/ stocking sterile fish | performed and delivered |
| Fryer, J. | CRITFC | subject search - ocean growth/survival | performed and delivered |
| Stein, R. | public | TRP and CRITFC Annual Reports | provided for reading |
| Ellis, R. | consultant | CZES reports; fish transport documents | provided for reading |

| Rhodes, J. | CRITFC | document request | procured |
|------------------------------------|---|--|--|
| "Mary and Kate" (7th-8th grade) | NE Community School | reference questions re: salmon run sizes | provided documents to read |
| Bayer, J. | USGS-BRD | 1961 Fishery Bulletin | referred to Leetown (USGS) library |
| Gresch, T. | Interrain Pacific | reference question | answered |
| Hopkins, I. | BioAnalysts Library | reference question re: tribal fishing regulations, zone 6, 1957-1967 | referred to CRITFE and tribal offices |
| Hahn, L. | OSU | reference question | answered |
| Scott, J. | NMFS | reference inquiry re: StreamNet | answered |
| Beeson, M. | GeoEngineers | to read Fish Cnsumption Survey | provided for reading |
| Olson, P. | PBS/DFO | WDFW report | not held, referred to NRB Lib in Olympia |
| Lee, G. | YIN | resident fish info on StreamNet | referred to Hilary |
| Lee, G. | YIN | requirements for H2O testing lab | referred to WA Dept of Ecol Quality Assurance Program |
| Roels, S. | CRITFC | Federal Register contents for 7 weeks | provided |
| Stone, R. | CRITFC | web assistance | provided |
| Stone, R. | CRITFC | reference request re: book | answered/referred |
| Hopkins, I. | BioAnalysts Library | image of juvenile chinook on web | not found |
| Fenker, J. | BPA Libriary | document request | not held |
| Gresch, T. | Interrain Pacific | assistance with NPPC reports | provided |
| Voeltz, B. | Nebraska Game and Parks | subject search: underwater fishing | provided |
| Mitchell, D. | Washington State Library | reference question | answered |
| Swanson, L. | NMFS | subject search: louvres, fish screens | provided |
| Hopkins, I. | BioAnalysts Library | citation verification | not found, referred to DFO in BC |
| Maxson, K. | Nova SE University Oceanographic Center | search for journal duplicates (Progressive Fish Culturist) | not found |

| Swanson, M. | Manitoba NR Lib. | reference request | referred to FW Reference Service |
|-----------------|-----------------------------------|--|---|
| Watanabe, A. | CRITFC | document request | not held - referred to Jon Rhodes |
| Yoshinaka, M. | USFWS | document request | delivered |
| Porter, A. | Seattle University | reference question | referred to SU science lib'n |
| Kirk, V. | Nez Perce | article | sent |
| Kirk, V. | Nez Perce | citation clarification | done |
| Kirk, V. | Nez Perce | citation request | provided |
| Bowers, J. | Interrain Pacific | appt. to use library | assitance provided |
| Yuen, H. | CRITFC | problems with StreamNet website | worked with Duane, Henry, Brent to solve |
| Beaty, R. | CRITFC | reference question | answered |
| McClure, M. | CRITFC | reference question | answered |
| Martin, S. | Willamette Univ. | research inquiry | assistance and referral provided |
| Lear, J. | University of Idaho Law School | document request | lent via ILL |
| Shelley, C. | PSU | literature search / documents | provided both in-house |
| Hopkins, I. | BioAnalysts Library | info on ORULS | referred |
| Spencer, P. | NMFS - Tiburon | StreamNet document | provided |
| Fryer, J. | CRITFC | citation search | found reference |
| Strong, T. | consultant | document requests (5) | provided 3 |
| Ory, J. | CRITFC | book requests | found and provided |
| Tinus, E. | ODFW | document request | provided |
| Chandler, D. | Grant County PUD | Corp report | not held |
| ? | Nez Perce | StreamNet data inquiry | referred |
| Peterson, S. | CRITFC | StreamNet document | located |
| Moller, C. | PSU | research assistance | provided |
| O'Leary, K. | PSU | term paper research | referred |
| Taki, D. | Sho-Ban | StreamNet document | located and offered |
| Berkson, J. | CRITFC | Science Citation search | provided |
| Yuen, H. | CRITFC | reports form WDFW | requested |
| Decker-Hess, J. | MFWP | assistance with cataloging/database issues | provided |

| Hopkins, I. | BioAnalysts Library | subject search/ double handling and mortality | provided |
|--------------|---------------------|--|---|
| Crow, J. | CRITFC | data request | coordinated w/ Duane and Henry |
| Ory, J. | CRITFC | subject search/ drop structures | provided |
| Peterson, S. | CRITFC | new document request | provided from WWW |
| Jordan, L. | CRITFC | reference request - Federal register | provided |
| Berkson, J. | CRITFC | reference assistance - document procurement: Colorado endangered species | requested and received |
| Netto, J. | CRITFC | reference question | answered |
| Backman, T. | CRITFC | reference question | answered |
| Jordan, L. | CRITFC | document request | located |
| Taki, D. | Sho-Ban | assistance with library usage | provided |
| Gresch, T. | Interrain Pacific | document request | located and provided in-house |
| Hopkins, I. | BioAnalysts Library | CRITFC doc request | mailed extra copy |
| Jonason, O. | Oregon DEQ Library | subject search: Lahontan cutthroat and redband trout | provided results |
| Heinith, B. | CRITFC | rush document needed | advised of local locations for it (not held here) |

II. Idaho Department of Fish and Game

PERIOD HIGHLIGHTS

Completed 1997 anadromous fish data updates.

Completed initial draft of spawning ground report.

Coordinated with MIS personnel in the development and distribution of the most recent version of the Standard Stream Survey (SSS) Database and data entry program. Tested and debugged the program. Began entering data on transect locations. Data will be stored in a centralized Oracle database. Data will include juvenile abundance, fish distribution and aquatic habitat information.

Completed conversion of bull trout distribution to dynamic segmentation. Provided shape files to StreamNet regional GIS Coordinator.

Began development of lakes database and data entry program. Moving species codes and reference tables to central Oracle database. Geographic referencing in database is closely linked to GIS and StreamNet? s 1:100,000 hydrography layer.

Matched approximately 400 lakes with their corresponding Fish and Game catalog number.

Provided StreamNet and SSS update to IDFG Anadromous fish managers at their annual meeting in January.

Coordinated with Snake River Resources Review program to enter last section of the Snake River historical waterfowl data.

Met with IDFG General Parr Monitoring personnel to review and provide final edits to SSS database and entry program.

Met with IDFG Fisheries Bureau personnel, to review and discuss data needs.

Completed entry of 1940-1966 historical stocking data. Began editting.

PLANS FOR NEXT QUARTER

Provide test Juvenile Abundance dataset to Regional Data Manager.

Complete edits of 1940-1966 historical stocking information.

In coordination with SR3 program, finish entry of historical waterfowl data.

Review Idaho portion of regional 1:100,000 hydrography layer.

Review Smolt Capacity data on the StreamNet homepage. Update if necessary.

Continue to work on getting Redband/Rainbow and Cutthroat distribution information to StreamNet regional GIS coordinator.

Continue work on barriers information.

Continue work on lakes database and entry program, and tie to StreamNet 1:100,000 layer.

Continue routing unnamed streams.

Continue data entry into Standard Stream Survey database.

Begin entering non-BPA project data into Projects Database.

DATA REQUESTS

| Record# | End_date | User_org | Supplier | Data_type |
|---------|----------|-----------------|-----------------|-------------------|
| | | | | |
| 229 | 01/12/98 | IDFG: Fisheries | Elms | Redd Counts |
| | | Bureau | | |
| 240 | 01/22/98 | Plum Creek | Butterfield | fish distribution |
| | | Timber Co | | data |
| 241 | 01/22/98 | IDFG | EB,Hartpence | 5 graduated |
| | | | | maps;SALRSF, |
| 242 | 01/27/98 | CH2MHILL | Butterfield | rare fish |
| | | | | distributions |
| 243 | 01/27/98 | Boise NF | Butterfield | bull trout key |
| | | | | watershed |
| 245 | 01/30/98 | IDFG | Butterfield | map of bull trout |
| | | | | dist |
| 246 | 01/30/98 | IDFG | EB,Hartpence,El | |
| | | | ms | SULFRC,LEMH |
| | | | | IR strata,tra |
| 249 | 03/26/98 | | S.Brown/L.Hartp | River mileage |
| | | | ence | |
| 250 | 03/26/98 | USDAFS-PAYE | EB | bulltrout for lwr |
| | | TTE NF | | Salmon |
| 251 | 04/20/98 | IDFG | EB | EPARR# Hell's |
| | | | | C-Shoshone |
| 252 | 04/13/98 | IDWR | Hansen | Protected Areas |
| | | | | Info |

III. Montana Department of Fish, Wildlife & Parks

Period Highlights

Resident Fish

Continued to update resident fish data including distribution, natural production and survey records through the review of the <u>Stream Assessment and Rating</u>. Have received all but 4 biologists reviewed information back and began inputting into the computer.

Updated the <u>Bull Trout GIS coverage</u> to reflect the state and federal biologists 1997 bull trout updates. Will distribute data to US Fish & Wildlife Service (Portland, OR), and Plum Creek Timber Co. (Columbia Falls, MT).

Created a program in Access for the data entry and reporting of <u>Unauthorized Fish Introductions</u> for the state. Existing GIS data layer was cross-referenced to the tabular data using a unique ID for each introduction.

Continued to receive and input <u>electrophoretic results</u> from the University of Montana Genetics Lab.

Created a coverage of survey sections from FWP and USFS fisheries biologist input.

Met with Front Desk Software to discuss the restructuring of the MRIS Edit/Entry Program. Reviewed layout with StreamNet Steering Committee at February meeting.

Produced regional and statewide <u>Fisheries Biologist Responsibility Area</u> maps. These maps display public land ownership, hydrography, hydrounit boundaries, and regional boundaries. Allow for the identification of biologist area for update purposes.

Habitat

Completed the update of <u>Bull trout Restoration/Conservation Areas</u>; digitized the <u>Nodal Areas</u> and named the <u>Core Habitat Areas</u>. Used the GIS to itemize the acreage of the various public land ownership types within each Core Habitat Area and summarize them by Restoration/Conservation Area.

Began discussions with FWP Biologists concerning a <u>Standardized Stream Survey Form</u> to include core habitat variables; will draft a version to distribute next quarter.

Facilities

Modified regional <u>Fishing Access Sites</u> maps for FWP brochure; publishing occurred in March with StreamNet logo on brochure.

Aquatic Mitigation and Restoration Projects

Met with Mark Lere, Future Fisheries Program Coordinator, to discuss creating a tabular database for the Future Fisheries/Restoration Database to store project information and location data that could be plotted using GIS. Mark used the regional dataset created by StreamNet staff in Idaho for his version. Met with Mark and Brad Shepard, FWP Future Fisheries Biologist, and compared Brad's data base with Mark's and created a draft data structure for Jeff Hutten to create an edit/entry program in Access. Met with FWP Region 1 BPA Mitigation staff to discuss inclusion of their mitigation projects into same dataset. They were interested.

Data Reference

Hired temporary employee to enter Fisheries Division Library documents into an InMagic program. Worked with Duane Anderson and Gretta Seigal to be standardized with StreamNet databsae, protocols to writing abstracts, obtained StreamNet reference numbers for Montana and received general guidance for the temporary employee. 200 records have been entered to date; work progressing smoothly. FWP Fisheries Division supporting project by providing work location in Helena, operations support and technical information on various documents.

Wildlife

Generated spatial data using Arc/Info's relate environment and report of <u>lynx occurrences</u> by year and county from Wildlife Division's tabular data. Also generated summary report of frequency of lynx occurrences per year by county. The data were generated using the Public Land Survey System (township, range, and section) GIS layer.

Began final stage of <u>WMA atlas</u> map production. Completed and plotted all maps and township, range and section mylar overlays. Began assembling regional and statewide atlases. Atlases will be complete by mid-April. Will scope information gathering process for tabular report with Wildlife Managers.

Data Management

Completed <u>metadata</u> (data about data) to be compliant with standards established by the Federal Geographic Data Committee (FGDC) for half of the GIS layers created and maintained by FWP GIS Unit. Will complete next quarter.

River Reach System

Made progress on attaching LLID to western Montana stream hydrography. Met with USFS fisheries biologists/GIS staff working on creating their own system. Coordinated these parallel efforts by receiving a HUC from them, cleaning it up and sending it to Matt Fried. Will evaluate process next quarter and move forward on assigning LLIDs.

Data Delivery

See attached Data Request Log.

Reviewed modifications and enhancements to StreamNet web page.

Project Management/Coordination

Lydia Bailey presented at the March <u>GIS Seminar</u>, program coordinated by NRIS. The seminar covered StreamNet's methods for creating spatial data from historic, traditional tabular datasets by using the township, range, and section values and river reach numbers stored in these data sets.

Was asked to give a talk on StreamNet at the Montana/Idaho GIS User's Conference in Butte at the end of April. Provided abstract to conference organizers.

Attended FWP Fisheries Division meeting in February and participated in poster session with StreamNet display. Provided various GIS products to participants.

NRIS

Met with the MRIS project director to discuss developing interactive map applications to support several FWP projects, including MRIS. MRIS data from the Ruby basin will be used in one of the prototypes. Provided a presentation to teachers and citizens at Volunteer Water Monitoring workshops. Provided a presentation on data sources access by NRIS and on the US EPA Basins Compact Disk product to several classes of the U of M Environmental Studies Program. Presented a tour of the NRIS web pages at this years Montana Environmental Education Association Conference at Fairmont Hot Springs. The contract to support the Upper Clark Fork Steering Committee watershed planning efforts was signed during the reporting period. Impaired stream information from the MRIS data base will be used to support the project.

REQUESTS FOR MONTANA STREAMNET DATA

| PP | Request for MRIS reports and threatened & endangered species, fragile and sensitive species and habitats, unique scenic and geology for three bore hole for Red Lodge area. |
|--------|--|
| USFS | Request for any hydrologic info for 43 - 7.5 minute quads in Montana to fill in gaps in the Forest Services CFF's. Sent e-mail referring Wendy to our MRIS webpage. |
| PP | Request for fisheries info for North Fork of the BlackFoot River RR#'s 0580000, 0580010, 0580020, 0580030. |
| PP | Request for information on the 'best' fishing sites in Montana. Used Fisheries map on our website to locate streams and reach #'s of interest and produced a full stream report for three different locations. |
| PNP | Request for fisheries resource and water quality values for five different properties on or near where conservation easements. |
| A | Email request for help with MRIS, BASINS and asking for help to link them to a new website. |
| PP | Request for any available water quality, fisheries and habitat info for the Marysville-Silver Creek area. |
| SDNRC | Request for any fisheries information on Krohn Lake area on the Silver King Mountain Quad. |
| F-USGS | Request for direct access to MRIS. NRIS staff completed a full report for the patron. |
| F-USFS | Requested full stream reports for all of Nevada Creek and all its tributaries flowing into the Helena National Forest. |
| A | Requested stream reach, & other basic information for Butler Creek just of Missoula. |

IV. Oregon Department of Fish and Wildlife

Period Highlights

Complete the coho distribution reconciliation for the Siltcoos, North Umpqua, and Chetco HUC's. (Forsberg; Task 1.1).

Proposed modifications to the StreamNet Barriers database and submitted 8 sample records. Included were electronic photos of the barriers. Slight changes to the Map Catalog exchange format were also proposed. (Donaghy Cannon; Task 1.1).

Verified and/or updated over 300 trends in the adult abundance database with available 1996 estimates and provided to PSMFC. (Cooney, Donaghy Cannon; Task 1.1)

Created 2,174 new trends from 1996 Oregon coastal coho spawning survey data and proposed several database exchange format modifications that would allow additional information display and improved query capabilities. (Donaghy Cannon, Cooney; Task 1.1)

Finished compiling spawner-recruit estimates for spring chinook index populations in Idaho, Oregon, and Washington and submitted to PSMFC. (Tinus; Task 1.1)

Updated various fish distribution coverages as part of the Oregon Division of State Lands essential salmon habitat identification efforts. (Forsberg; Task 1.3).

A total of 8 data, 61 document, 11 map/GIS related, and 6 other requests were answered during this quarter. (All staff; Task 5.1)

Reviewed and commented on new or modified StreamNet Internet features. (Cooney, Donaghy Cannon, Forsberg; Task 5.2)

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

Hired Misty Donaghy Cannon to fill our tabular data assistant position. (Cooney; Task 6.0)

Attended 2 Oregon Plan coordination meetings. (Cooney; Task 6.2)

One or more staff members participated in 4 essential project coordination meetings. (Cooney, Donaghy Cannon, Forsberg; Task 6.2)

Compiled and developed quarterly report information for Oregon. (Cooney; Task 6.3)

Attended National Freshwater Fisheries Database Summit in San Diego California. (Cooney, Task 6.5)

Attended the Oregon Chapter AFS Meeting Feb 11-13 in Sunriver. (Donaghy Cannon, Forsberg; (Task 6.5)

Plans for Next Quarter

Finalize coverages illustrating historic spawning distribution of spring chinook, fall chinook, and coho salmon in OR portions of the Columbia basin and provide to PSMFC. (Forsberg; Task 1.1)

Convert all coastal coho distribution event tables into StreamNet format and provide to PSMFC. (Forsberg; Task 1.1)

Reach agreement on proposed Barriers data exchange modifications and submit an event table of Oregon barriers . (Cooney, Donaghy Cannon, Forsberg; Task 1.1)

Provide updated adult abundance estimates and indices for anadromous species with available 1996 and 1997 data. (Cooney, Donaghy Cannon; Task 1.1)

Reach agreement on proposed Abundance data exchange modifications and submit new coastal coho spawning survey data . (Cooney, Donaghy Cannon; Task 1.1)

Provide 1996 age frequency data for natural spring chinook. (Tinus, Cooney; Task 1.1).

Provide finalized LLid-IBM Code cross-reference to PSMFC.(Forsberg; Task 1.4)

Continue the hiring process for ODFW StreamNet GIS Specialist. (Cooney, Schmidt; Task 6.0)

Complete the hiring process to replace our tabular data assistant. (Cooney; Task 6.0)

Continue to answer information requests as received. (All, Task 5.1).

Data Request/Response Log

| DATE | REQUESTER | ORGANIZATION | REQUEST | Who Responded |
|---------|---------------------------------|---|---|------------------|
| 1/5/98 | Scott Cressey | IMI | 2 documents | Gloria |
| 1/5/98 | Diane Biddy | Public, California | document | Gloria |
| 1/5/98 | Jim Lichatowich | Alder Fork Consulting | 2 documents | Gloria |
| 1/5/98 | Steve Cramer | S.P.Cramer & Assoc. | 8 documents | Gloria |
| 1/6/98 | Don Bennett | ODFW - Clackamas | Large species maps for the Sandy Basin | Forsberg |
| 1/7/98 | Bob Stuart | EVS Consultants | 3 documents | Gloria |
| 1/7/98 | Judy | Will. Univ. Library Acquisitions | document | Gloria |
| 1/8/98 | Director Greer | ODFW | Large WRD Basin map with 250k rivers for meeting | Forsberg |
| 1/8/98 | Director Greer | ODFW | Large map of ODFW Fish Districts with WRD Basins and Hydro Units | Forsberg |
| 1/9/98 | Ron Costello | Harza Engineering, Washington | 3 documents | Gloria |
| 1/13/98 | Pricilla Coe | ODFW NE Region | Boundary coverages for ODFW regions, fish districts, HUCs, and WRD Basins | Forsberg |
| 1/13/98 | Steve Jacobs | ODFW Corvallis Lab | Postscript files of Coho Survey map compositions. | Forsberg |
| 1/15/98 | Pricilla Coe | ODFW - NE Region | Wildlife District coverage | Forsberg |
| 1/15/98 | Dan Edwards/Don Whittaker | ODFW - Wildlife Div | Wildlife District coverage | Forsberg |
| 1/15/98 | Kia Collins | Aquaculture Research Institute, Moscow, ID | 2 documents | Gloria |
| | Sean Darey | Confederated Tribes of Grande Ronde | document | Gloria |
| | Natalie Richards | Hydraulic Eng Fed Highways, Vancouver, WA | document | Gloria |
| | Krista Shauer | CRITFC StreamNet Library | 4 documents | Gloria |
| 1/26/98 | Bob Ruediger | BLM, Salem | document | Gloria |

| 1/26/98 | Stan Kahn | Public, Astoria | document | Gloria |
|---------|---------------------------------------|--|--|----------|
| 1/27/98 | Mark Lewis | ODFW - Corvallis-lab | Coverages for cities, hucs and hatcheries. | Forsberg |
| 1/27/98 | Jose Setka | EBMUD, F&W Div, Orinda, Calif. | 2 documents | Gloria |
| 1/27/98 | David Swendseid | Public, Aloha, OR | document | Gloria |
| | Nick Gayeski | Washington Trout | 2 documents | Gloria |
| 1/29/98 | Sue Visser | Hagler Bailly, Inc., Library Boulder, CO | document | Gloria |
| 1/30/98 | J. Scott Foott | Fish & Wildlife Service, Anderson, CA | document | Gloria |
| | | D.B. Lister & Assoc., Ltd., Chillawack, B.C., Canada | 3 documents | Gloria |
| | | Public | Document | Gloria |
| | Dr. Siddeek | Private | document | Gloria |
| 2/6/98 | John Colby | Coos Watershed Assoc. | Salmon Plan Core Area Map for Coos | Forsberg |
| | Bruce Baker | WDFW, Olympia | document | Gloria |
| | Dan Con | Public | 2 documents | Gloria |
| 2/12/98 | Patrick C. Trotter, Ph D | Consultant, Seattle, WA | document | Gloria |
| 2/12/98 | James R. Harbeck | Dept F&W, Michigan State Univ. | document | Gloria |
| 2/12/98 | Tom Kahler | FRI, U of W, Seattle | 5 documents | Gloria |
| 2/12/98 | Ann Blakley | WDFW, Olympia, WA | 2 documents | Gloria |
| 2/13/98 | Mr. Dana Atagi | Ministry Env, Lands & Parks, Smithers, B.C., Canada | 2 documents | Gloria |
| 2/17/98 | Gordon Miller | Fish & Oceans, Nanaimo, B.C., Library | inquiry | Gloria |
| 2/18/98 | Mike Sanchez | PEAK, Corvallis | document | Gloria |
| 2/19/98 | John Rancher | Public | 8 documents | Gloria |
| 2/20/98 | John Hawksworth | S.P. Cramer & Assoc. | 8 documents | Gloria |
| 2/26/98 | Steve Fick | Fishhawk Fisheries | Spring chinook productivity indices | Tinus |
| 2/27/98 | Brian Walters | Student, Galveston, TX | document | Gloria |
| 3/3/98 | Susan Hughes | librarian | document | Gloria |
| 3/4/98 | Brian Caviness | Consultant to Oregon City | Anadromous Fish Distribution in Sandy Basin directed to ORIS & INFO data on ODFW FTP site. | Forsberg |
| 3/4/98 | Gary Christofferson | PSMFC | Correct ODFW IBM codes for certain streams | Forsberg |
| 3/4/98 | Susannah Iltis | UofW Research Group, Seattle | document | Gloria |
| 3/4/98 | Bob Ryan | public | document | Gloria |
| | · · · · · · · · · · · · · · · · · · · | | | |

| 3/5/98 | Gordon Miller | Fish & Oceans, Nanaimo, B.C., Library | inquiry | Gloria |
|---------|---------------------|--|---|----------------------------------|
| 3/5/98 | Mark Smyth | Nature Conservancy | document | Gloria |
| 3/6/98 | Julie Firman | ODFW - Corvallis lab | Corrected Coho data files and final maps for Upper Rogue, Middle Rogue, Applegate, & Illinois Basins | Forsberg |
| 3/6/98 | Barb Taylor | PGE | 4 documents | Gloria |
| 3/6/98 | Tukes Munthali | Accents, Silver Spring, MD | document | Gloria |
| 3/9/98 | Nancy Leibowitz | ODFW - NW Habitat. Bio | Comparison between OSIS & ORIS for reviewing permits | Forsberg |
| | Eric Metz | DSL | Missing coverages for Winter & Summer Steelhead, Spring & Fall Chinook, and Coho from event tables - put on FTP site. | Forsberg |
| | Serials Dept. | Univ. of Idaho, Moscow | 3 documents | Gloria/to Karla @Corvallis |
| | Seth Tauriainen | student, Nikiski, AK | 2 documents | Gloria |
| | Sue Ludeman | PA Library | 6 documents | Gloria |
| | Steve Cramer | S.P. Cramer & Assoc. | document | Gloria |
| | Dave Daily | private | document | Gloria |
| | Chuck Lang | private | document | Gloria |
| | Ted Williams | S.P. Cramer & Assoc. | 2 documents | Gloria |
| 3/16/98 | Ray ??? | DSL - Permits | Wanted in-water work timings for several projectsreferred to ODFW web site. | Forsberg |
| 3/16/98 | Steve Jacobs | ODFW - Corvallis | Dbase files of corrected final coho data and maps for Siltcoos, N. Umpqua, and Chetco basins | Forsberg |
| 3/17/98 | Norma Jean Sands | Alaska F & G, Juneau | document | Gloria |
| 3/17/98 | Diane Mitchell | NRB Library, Wash St. Library | 3 documents | Gloria |
| 3/18/98 | Julie Firman | ODFW - Corvallis | Dbase files of corrected final coho data for N Umpqua & Chetco basins | Forsberg |
| | | Hebo Ranger Station | document | Gloria |
| | Steve Cramer | S.P. Cramer & Assoc. | 8 documents | Gloria |
| 3/18/98 | Earl Webber | CRITFC | document | Gloria |
| | Sandy Dunn | BLM, Anchorage, AK | document | Gloria |
| | S.J. Westrheim | private, B.C., Canada | document | Gloria |
| 3/19/98 | Julie Firman | ODFW - Corvallis | Dbase files of corrected final coho data and map for Siltcoos basin. | Forsberg |
| 3/19/98 | Phaedra Budy | USFWS | Mainstem exploitation and conversion rates of URB and SRB stocks | Tinus |
| 3/19/98 | Phaedra Budy | USFWS, Vancouver | 3 documents | Gloria |

| 3/19/98 | Mary Barczak | Hebo Ranger Station | document | Gloria |
|---------|----------------|----------------------|----------------------------------|----------|
| 3/19/98 | Gordon Miller | Fish & Oceans, | 2 documents | Gloria |
| | | Nanaimo, BC, Library | | |
| 3/20/98 | Charlie | ODFW - Fish Division | ORIS printout of Recreational | Forsberg |
| | Corrarino | | resources of boating and fishing | |
| | | | rivers per basin. | |
| 3/20/98 | | ODFW-Clackamas | Proportion at age of Deschutes | Tinus |
| | Beamesderfer | | River fall chinook. | |
| 3/20/98 | Marv Yoshinaka | USFWS, Wash. | 6 documents, in library search | Gloria |
| 3/21/98 | Marv Yoshinaka | USFWS | 2 electronic documents | Gloria |
| 3/24/98 | Steve Cramer | S.P. Cramer & Assoc. | 31 documents, in library search | Gloria |
| 3/25/98 | Steve Cramer | S.P. Cramer & Assoc. | 3 documents | Gloria |
| | Peggy Busby | NMFS, Seattle | 3 documents | Gloria |
| 3/26/98 | Ted Williams | S.P. Cramer & Assoc. | 45 documents | Gloria |
| 3/27/98 | Steve Cramer | S.P. Cramer & Assoc. | 7 documents | Gloria |

StreamNet GIS Data Downloads off the ODFW FTP Server

| GIS Coverages | Number of Files Downloaded | Number of Different Users Downloading Files |
|-------------------------------------|-------------------------------|---|
| Fall Chinook | 113 | 3 |
| Spring Chinook | 117 | 3 |
| Chum | 30 | 4 |
| Coho | 69 | 4 |
| Winter Steelhead | 107 | 4 |
| Summer Steelhead | 106 | 3 |
| Oregon Rivers Information System | 119 | 23 |
| Routed Streams | 459 | 24 |
| Coastal Salmon Plan Core Areas | 327 | 153 |
| Misc. other coverages | 19 | 12 |

V. Pacific States Marine Fisheries Commission

PERIOD HIGHLIGHTS

Data Development

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

Prepared a proposal for development of an online version of the Fish and Wildlife Program Annual Implementation Work Plan.

Data Management

Incorporated major data updates from WDFW.

Incorporated 650 photographs into the online system.

Incorporated region-wide anadromous distribution coverages and bull trout coverages. Also incorporated resident salmonid coverages for western Montana.

Incorporated new Oregon escapement data.

Revised the StreamNet data holdings document.

Revised the StreamNet data exchange format document.

Prepared GIS coverages of major dams for posting to the web site.

Prepared prototype GIS coverages of the Umatilla Basin including data from subbasin planning and Fish and Wildlife Program enhancement projects.

Library/Reference System

Assisted CRITFC in preparing for and implementing the transfer of the NWPPC collection.

Assisted the library in holding an open house.

River Reach System

Error checked and revised the 100K river reach system for Idaho, Oregon, and Washington. Coordinated enhancement activities within the states.

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.

Maintained and revised the StreamNet 100K web site feature.

Data Delivery

Introduced the updated version of the StreamNet online query system, including mapping and tabular reporting capabilities. Incorporated an online data holdings feature.

Continued update and maintenance of other features in the StreamNet web site.

Revised the StreamNet map catalog by drawing links to adhoc mapping features.

Refined a test version of a new data query system.

Added to the StreamNet home page an explanation of the various features included in the home page.

Enhanced the education portion of the StreamNet home page by adding two new children's features and enhancing other Fish Facts features.

Added approximately 50 terms to the fish resource glossary.

Maintained and revised the project management section to the home page, principally by posting new project documents as these were produced.

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

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

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

Responded to data requests (attached).

Project Management

Monitored andf participated in project selection activities.

Held coordination meetings with NWPPC and CBFWA staff.

Scheduled and held the March 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

<u>Data Development</u>

Continue to coordinate data development by participating agencies.

Enhance the StreamNet glossary.

Data Management

Incorporate new data as received from participating agencies. Significant additions are anticipated from both ODFW and WDFW.

Consult with BPA, NWPPC, and CBFWA regarding an online version of the FY99 Annual Implementation Work Plan. Prepare an online product based on these discussions.

Enhance the visual appeal of the StreamNet Internet site by inserting appropriate images at the beginning of the various web site features.

Library

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. (NWPPC was able to transfer only a portion of the collection in the January to March time period.)

River Reach System

Complete the review and revision of the 1:100,000-scale PNW hydrography.

Data Delivery

Continue to enhance the online data query system as per the existing enhancement plan.

Respond to requests for data and data services as needed.

Project Management

Hold coordination meetings with CRITFC, IDFG, ODFW, and WDFW. Contact other participants via telephone.

Prepare for and conduct a June 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 and conduct briefings on the project to applicable CBFWA managers' caucuses.

DATA REQUESTS / RESPONSE LOG

| Last Name | First Name | Company | Non Standardized Request | Date of Request | Respon- se Date |
|-----------|------------|--|---|--------------------|--------------------|
| McKenzie | Stuart | | Temperature data from Aspen mainstem temp/gas database | 01/05/98 | 09-Jan- 98 |
| Smith | David L. | | Ascii version of damcount data | 01/09/98 | 16-Jan- 98 |
| Ellis | Bob | | Weekly dam counts at BON, 94-96 - Boncount.dbf | 01/20/98 | 20-Jan- 98 |
| Boyce | Ron | Oregon Department of Fish and Wildlife | Total steelhead releases in the Snake River - SNAKEREL.XLS | 01/22/98 | 23-Jan- 98 |
| Roger | Phil | Columbia River Inter- Tribal Fish Commission | Spreadsheet of total miles by use, by hab qual for 2 species in 3 subbasins - HABMILES.XLS | 01/22/98 | 22-Jan- 98 |
| Paquet | Peter | Northwest Power Planning Council | Protected areas report for McKenzie Basin | 01/29/98 | 29-Jan- 98 |
| Ashe | Becky | Nez Perce Tribe | SDM data for Su St in the Imnaha - imnasust.xls | 02/02/98 | 02-Feb- 98 |
| Harlan | Lisa | Washington Department of Fish and Wildlife | Total hatchery releases in the Columbia River Basin - harlan.xls | 02/04/98 | 04-Feb- 98 |
| Hatch | Keith | Columbia River Inter- Tribal Fish Commission | Dist. maps for spring and fall chinook in various CR Basins | 02/04/98 | 04-Feb- 98 |
| Richards | Steve | Washington Department of Fish and Wildlife | Fish Images | 02/09/98 | 09-Feb- 98 |
| Gebhards | John | Nez Perce Tribe | SDM data for Salmon basin - Salm_sdm.xls | 02/25/98 | 25-Feb- 98 |
| Bisbal | Gustavo | Northwest Power Planning Council | Map showing select list of hatcheries where BPA funds CWT activities | 03/03/98 | 05-Mar- 98 |
| Gordon | Sloan | Beak Consultants, Inc. | Steelhead release data from ODFW historical dataset (prelim) st_rel.xls | 03/05/98 | 05-Mar- 98 |
| Cramer | Steve | S. P. Cramer & Assoc. | ODFW hatchery and species codes from historical hatchery release database | 03/06/98 | 06-Mar- 98 |
| Cramer | Steve | S. P. Cramer & Assoc. | files spcall.xls and spc4748.xls | 03/27/98 | 27-Mar- 98 |

FTP Activity for 1st Quarter, 1998 (Jan -Mar)

| Fish Facts | 284.1 | 520 |
|-----------------------------|-------|-----|
| Static Maps | 302.1 | 851 |
| NWPPC Project Data | 1.9 | 4 |
| Project Management Files | 93.6 | 141 |
| Reach Files | 520.9 | 601 |

WEB Site Activity for 1st Quarter, 1998 (Jan - Mar)

| Total Hits | 322,026 |
|----------------|----------|
| Total MB | 1,943.31 |
| Daily Avg Hits | 3,578 |
| Daily Avg MB | 21.59 |

VI. Shoshone-Bannock Tribes

PERIOD HIGHLIGHTS

Confirmed that the University of Idaho will allow StreamNet the use of all of their genetic data. Since this is a new category a data exchange format will have to be developed and Duane is already working on it. I attended the quarterly meeting in Gladstone. The rest of my time was spent reviewing the new additions to our site as well as suggestions for changes.

PLANS FOR NEXT QUARTER

Continue pursuing genetic information. Now that one lab has supported us my priority will be to catalogue streams that have been sampled and ask (again) for more data from other labs.

DATA REQUESTS / RESPONSE LOG

No requests were received during this quarter.

VII. U.S. Fish and Wildlife Service

Period Highlights

Some progress was made in understanding the StreamNet exchange format for return information. Further effort will be required to produce a reliable method of producing information in this format.

Attended the Steering Committee meeting in Gladstone.

Several Fish & Wildlife employees report frequent use of the StreamNet library and map functions. Dam count information was also accessed this quarter.

Plans for Next Quarter

Continue translating return information to the exchange format.

Data Request/Response Log

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

VIII. Washington Department of Fish and Wildlife

Period Highlights

General

The Steering Committee met once at PSMFC (February 23-24) and twice via conference call. We found the calls a very productive use of time and much cheaper than travel expenses. At the February meeting, Dick led a discussion on stock status (health) data and data sharing potential, based on Washington's work on the Salmonid Stock Inventory (SaSI). The calls were used to give input to next year's draft plans and to clear up some personnel assignment confusion, as WDFW's long-time CBFWA representative took a position at NMFS.

We spent some time in follow-up, both at the February meeting and in subsequent calls, to continue to monitor data coordination opportunities with people collecting data in the Yakima Basin. WDFW has Yakima Basin studies originating in at least two field offices, in addition to tribal work and the WDFW headquarters staff working on the research hatchery. Future work with Hilary Forrest of CRITFC (who helped organize the tribal datasets) is planned for next quarter. We recruited and hired Mark Henry, long-time WDFW hatchery manager, to replace Brodie Cox to work on hatchery-related data, so our compiler staff is back to full strength.

Dick attended the National Freshwater Fisheries Database Summit in San Diego February 9-11. Duane Anderson (PSMFC) gave a StreamNet Online live presentation at the Monday night show-and-tell, and both Dick and Cedric Cooney (ODFW) assisted in answering questions. While there, Dick participated as reporter for the Data Access Issues Group.

Database Development

Tabular. Emphasis this quarter was on adult returns data, both natural spawners and hatchery returns. Bob took over the statewide natural spawners data compilation that Brodie Cox had started for us, and spent time organizing electronic data and keying in some paper records for data prior to 1997. He also completed compilation and verification of the 1997 spring chinook natural spawner data below McNary Dam, and has completed initial compilation of 1997 fall chinook data for the lower Columbia. Leslie concentrated on determining the outstanding data integrity issues with 1981-1994 steelhead hatchery stocking data, and presented a detailed report to one of the WDFW biologists for his guidance. It appears many of the discrepancies will have to be settled by Leslie? s best judgement, as the paper record trail is often non-existent. Mark and Sarah worked on pre-1981 hatchery stocking data entry; Sarah finished the initial entry (a several month chore!), and Mark has begun doing spot checks for verification.

<u>Spatial</u>. Most of Cindy's time was spent in data entry and attachment of old data to a new GIS layer of Washington lakes. When completed, the lakes that are visible on 1:100,000 resolution maps (USGS 15-minute equivalent) will be pulled into the 100K stream layer to enhance Washington? s hydro layer. Cindy also coordinated the addition of summer chinook distribution and use data in some overlooked areas of Washington and responded to a series of map and data requests.

Systems Development

<u>Tabular</u>. Larry made some minor changes to the ? B11" internal data management system our compilers use for data that will be exchanged with StreamNet. He also spent some time on the design of some new needed features for version ? B12" and is exploring the Delphi programming language as a means of migrating his systems to more advanced Windows-based platforms.

<u>Spatial</u>. Martin identified and corrected several small errors in the 100K stream layer using his new, thorough checking routines. The corrected reach files were sent to PSMFC for regional review. He wrote programs to transfer and check all of the anadromous presence and use data to the new reach files, and began testing the transfer of resident fish presence data (starting with bull trout). The lakes data entry system he built to support Cindy? s work was enhanced to perform careful checks by county to find overlooked or missing lakes. He also added a feature to generate IRICC standard Lat-Long ID (LLID) codes when dumping the data to an ASCII file. *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.

Most of the data requests fulfilled during this time period were spatial data requests (generally maps and digital data). Lori Guggenmos and Terry Johnson of the Habitat Program spent a good deal of time handling these requests that use StreamNet-generated GIS layers. However, internal WDFW re-organization and budget adjustments will begin to transfer much of the data request handling over to StreamNet staff, which may affect the number of requests handled next quarter until we can get our staff up to speed.

We note that ftp access to data remains an increasingly preferred option, as many users find electronic transmission of data quicker and more convenient than the standard method of exchanging tape cartridges.

| Requestor | Organization | Data Requested | Date Delivered |
|-------------------------|------------------------------------|---|----------------|
| Andrea Escame-Hedger | King County Road Services Div. | Dorre Don Cr. and 244th Ave SE-replacing existing culvert | 01/06/1998 |
| Bob Gietz | WA Military Dept Emergency Mgt. | Proposed project South Whidbey State Park within T30N R02W section 29 | 01/06/1998 |
| Crilly R. Ritz | Snohomish County Public Works | SEPA/EIS for road improvement project on 112th St SW in south Snohomish Co. | 01/06/1998 |
| Gary R. Beeman | WA Dept Of Transportation South | SR 90 Highline Canal to Elk Heights | 01/06/1998 |
| Hugh Mortensen | The Watershed Company | Proposed commercial retail development within T26N R06E section 24 | 01/06/1998 |
| Nancy M. | WA Dept Of | Various proposed state highway | 01/06/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|-----------------------|--|---|----------------|
| Thompson | Transportation North | improvements | |
| Nathan Pate | Whitman County | Dan Antoni short plat within T14N R44E section 16 | 01/06/1998 |
| Peter C. Blansett | SA Newman Forest Engineers Inc. | Potential acquisition apprisal for WA State Parks and Rec. | 01/06/1998 |
| Rosanne Peterson | City Of Vancouver | Flood repair work within T04N R02E section 22 | 01/06/1998 |
| Steven Wolfe | Woodward-Clyde | Environmental study for WA National Guard at Centralia armory | 01/06/1998 |
| Chris Fairbanks | Cascades Environmental Service | Environmental assessment of Mt. Baker Hwy | 01/08/1998 |
| David Desvoigne | HDR Engineering Inc. | Environmental impact analysis for proposed BNSF railway project | 01/08/1998 |
| John Jacobson | The Adopt-A-Stream Foundation | Salmonid habitat assessment within the Sammamish subbasin | 01/08/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed project within T15N R42E section 16 | 01/09/1998 |
| Kittie Ford | Herrera Environmental Consultants | Potential impacts from railroad construction/additions | 01/12/1998 |
| Scott J. Rozenbaum | Rozewood Environmental Services | Wetland rating with T35N R01E sections 13 and 14 | 01/12/1998 |
| Dale Morimoto | WA Dept Of Transportation North | SR11 mp12 vic. to rest area vic. rock wall replacement settlement | 01/14/1998 |
| Debra Bouchard | | Aquatic vegetation mgt plan for Loomis Lake | 01/14/1998 |
| Melanie Carpenter | ENSR Consulting and Engineering | Cascade Natural Gas pipeline extension | 01/14/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed GTE Willow Cr. microwave communications facility | 01/14/1998 |
| Tim Young | US Fish and Wildlife Service | Updated PHS and HRTG data for Washington State | 01/14/1998 |
| Tony Hartrich | Quinault Indian Nation- DNR | Updated PHS, HRTG and StreamNet for Quinault usual and accustomed areas | 01/14/1998 |
| Michael | Tulalip Tribe | 8 maps for HUC 17110010, Anad | 01/15/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|---------------------|--------------------------------------|---|----------------|
| McHugh | | presence | |
| Sabina Renn | Parametrics | 8 maps and Digital tape of State wide anadromous | 01/15/1998 |
| Alana Hess | WA State Parks and Recreation | Wallace Falls State Park storage building replacement | 01/16/1998 |
| Diane Ryba | | To determine buffer widths around wetlands within T16N R04E section 6 | 01/16/1998 |
| Jeff Sawyer | WA Dept Of Transportation Olympic | SR101 ol-3190 and ol-3191 mp 228.60 to mp 231 vic. Lake Crescent slides | 01/16/1998 |
| Kevin D. Stuber | WA Dept Of Transportation North | Sr 548 Harrison Avenue slide repair | 01/16/1998 |
| Kevin D. Stuber | WA Dept Of Transportation North | Sr 92 84th St. vicinity to Granite Falls wetland mitigation | 01/16/1998 |
| Laurel A. Andrew | US Dept Of Agriculture | Lk Mayfield village, Lewis Co. water and sewer project | 01/16/1998 |
| Suki Cupp | CH2M Hill | City of Vancouver sewer extension project number 143815.07.03 | 01/16/1998 |
| Tony Fuchs | Puget Sound Energy | SEPA checklist for a proposed substation within T17N R02W section 4 | 01/16/1998 |
| Bob Gietz | WA Military Department | Proposed road project by Yakama nation within T6N R16E sections 1 and 12 | 01/20/1998 |
| Dale Morimoto | WA Dept Of Transportation North | SR20 mp 49.71 junction Reservation Road signalization | 01/20/1998 |
| Gary Maynard | Parametrix Inc. | Environmental checklist for a wetland mitigation project in city of Auburn | 01/20/1998 |
| Gary Maynard | Parametrix Inc. | Environmental checklist for the city of Tukwila and Seatac permit apps | 01/20/1998 |
| Jeff Sawyer | WA Dept Of Transportation Olympic | Ol 3192 SR12 Alfredson Rd. to Black R. Br. mp 33.82 mp 37.58 | 01/20/1998 |
| Jeff Sawyer | WA Dept Of Transportation Olympic | Ol 3296 SR101 Chehalis and Riverside bridges | 01/20/1998 |
| Jerry Erickson | Beak Consultants Inc. | Environmental effects of a proposed barge loading facility on | 01/20/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|-----------------------|------------------------------------|---|----------------|
| | | SE Maury Is. | |
| Michael Pollock | 10,000 Years Institute | Project StreamNet dig. data for Willapa Bay from state plane to UTM | 01/22/1998 |
| Peter Morrison | Sierra Biodiversity Institute | Updated statewide PHS, HRTG and StreamNet digital data | 01/22/1998 |
| Sabina Renn | Parametrix | Statewide digital StreamNet database and 8 StreamNet maps | 01/22/1998 |
| Steven Wolfe | Woodward-Clyde | 8 copies of PHS maps for WA National Guard Centralia armory | 01/22/1998 |
| Kathryn March | Region 2 WDFW office | 8 maps for HUC 17020011 | 01/25/1998 |
| Donald K. Wills II | WA Dept Of Transportation North | SR 513 Montlake Br. seismic retrofitting, deck replacement and other upgrades | 01/26/1998 |
| John Gold | John Gold & Company Consulting | Permits/appraisal for Lindberg, Shayes and Jordan tracts | 01/26/1998 |
| Peggy Bartels | Clark County Community Develop. | PHS, HRTG, NWI and StreamNet digital data for Clark County | 01/26/1998 |
| Peter C. Blansett | SA Newman Forest Engineers Inc. | Consulting and appraisal for WA DNR lands | 01/26/1998 |
| Sarah Cassatt | Jones & Stokes Associates Inc. | Environmental review for Snohomish Co. Parks Dept. Centennial Trail project | 01/26/1998 |
| Cliff Palmer | Wetland Resources Inc. | Wildlife study and habitat assessment for land owner | 01/27/1998 |
| Kelly Canode | Shapiro and Associates | Proposed project within Cowlitz county | 01/27/1998 |
| Linda Newberry | Jamestown S'Klallam Tribe | Grant applications for wetlands in Sequim Bay | 01/27/1998 |
| Rachel Wahlers | WA State Parks and Recreation | Management plan for Beacon Rock State Park | 01/27/1998 |
| Susanna Cornwell | Parametrix Inc. | Environmental checklist for proposed project in Bellevue, WA | 01/27/1998 |
| Susanna Cornwell | Parametrix Inc. | Environmental checklist for proposed project in Port Orchard, WA | 01/27/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|------------------------|--|---|----------------|
| Peter Alexander | College Professor | Historic returns of salmon to the mouth of the Columbia River. | 01/28/1998 |
| Eric Beach | Weyerhaeuser | Watershed analysis for upper Newaukum | 01/29/1998 |
| Zach Schwartz | People For Puget Sound | Conservation and restoration site selection | 01/29/1998 |
| Alana Hess | WA State Parks and Recreation | South Whidbey State Park trail repair | 01/30/1998 |
| Bertie Weddell | Draba Consulting | Critical areas ordinance compliance within T15N R45E section 25 | 01/30/1998 |
| Bruce Johnson | WA Wetlands and Mitigation Commission | Land owner wetlands delineation within T35N R04E section 13 | 01/30/1998 |
| Kenneth E. Neiman | Resource Analysis and Management | Potential project impacts for land owner within T22N R06E section 9 | 01/30/1998 |
| Kevin Stuber | WA Dept Of Transportation North | SR 536 Bennett Rd. interchange realignment | 01/30/1998 |
| Lawrence E. Riegert | Hammond Collier & Wade- Livings | Biosolids application Tenelco project HCW-l project no 96840 | 01/30/1998 |
| Liz Kriewald | WA Dept Of Transportation North | SR 542 Nugents vicinity bridges replace 542/9, 10 & 11 | 01/30/1998 |
| Liz Kriewald | WA Dept Of Transportation North | SR2/SR9 interchange vic. to SR522 mp 4.50 to mp 14.27 channelization and safety | 01/30/1998 |
| Melissa Chaun | Michael P. Williams Consulting | Cedar Grove park site | 01/30/1998 |
| Polly Harris | Adolfson Associates Inc. | Proposed road improvement and bridge replacement projects in Pacific Co. | 01/30/1998 |
| Todd M. Hudak | Pharos Corporation | Ocean Shores marina restoration project | 01/30/1998 |
| Tom Van Buren | Seattle Public Utilities | Digital PHS, HRTG and spotted owl site centers for HCP | 01/30/1998 |
| Ed Sewall | B-Twelve Associates Inc. | Proposed residential development for M&H properties/Black Diamond #95-137 | 02/03/1998 |
| Eldon Ladd | Personal | Historic sport harvest of salmon in Washington Tributaries by month. | 02/03/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|---------------------------|-------------------------------------|---|----------------|
| Jeff Heinlen | USFS Tonasket Ranger District | 100K quad maps and reports for lynx | 02/03/1998 |
| Peter C. Blansett | SA Newman Forest Engineers Inc. | Appraisal services for WA DNR | 02/03/1998 |
| Peter Bahls | Port Gamble S'Klallam Tribe DNR | Proposed purchase of riparian habitat along Chimacum Creek | 02/04/1998 |
| Calvin Kelly Douglas | Shapiro & Associates Inc. | City of Bellevue highway SR520 access study | 02/09/1998 |
| Debra Peterson | King County | PHS King County map and T24N R05E sections 5, 8, 9 maps | 02/09/1998 |
| Donald K Wills II | WA Dept Of Transportation North | SR 516 ACP overlay and safety (SR 509 to I-5 vicinity) | 02/09/1998 |
| Donald K Wills II | WA Dept Of Transportation North | SR522 multi-modal project (I-5 to SR 405) | 02/09/1998 |
| Ellen Barayuga | ICF Kaiser Engineers Inc. | Site assessment within T22N R01W section 26 & 27 | 02/09/1998 |
| Greg James | Tetra Tech Em Inc. | City of College Place wetland restoration in the Garrison Cr. drainage | 02/09/1998 |
| Matt Bennett | The Coot Company | Mason Co. Public Works Dept. road alignment analysis | 02/09/1998 |
| Urania Perez- Freedman | King County Wastewater Treatment | SEPA checklist for applications of reclaimed water with the Fort Dent Park | 02/09/1998 |
| Edward W. Young | US Bureau Of Reclamation | Digital data for studies and analysis aimed at improving habitat | 02/11/1998 |
| Bob Gietz | WA Military Dept Emergency Man. | Proposed relocation of 21 camp ground sites within T19N R06W section 29 | 02/12/1998 |
| Claton Belmont | WA Dept Of Transportation North | Proposed highway construction project l-pending Manson to Howser Road | 02/12/1998 |
| Francis Naglich | Ecological Landscape Services | Proposed residential development for land owner Mr. Brian Wirkkala | 02/12/1998 |
| Greg Yi | WA State Parks and Recreation | O'Neal Island potential WA water trail site within T36N R03W section 20 | 02/12/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|-------------------------|--|---|----------------|
| Holly Barnard | Trust For Public Land | To evaluate parcels for natural resource and recreational value | 02/12/1998 |
| Kim Berry | Skagit County | Updated PHS and HRTG digital data for Skagit County | 02/12/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed CSZ for residential development for Loyde and Cynthia Wheeler | 02/12/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed residential development by land owner James Parvin | 02/12/1998 |
| Denise Brown | Puyallup Tribal Fisheries | 8 maps of Puyallup watershed for Anad presence | 02/15/1998 |
| Tyler Patterson | North Bend Ranger Station | 8 maps for HUC 17110014, Statewide Bulltrout | 02/15/1998 |
| Amy Renkert | Raedeke Associates Inc. | Consulting for landowner | 02/18/1998 |
| Chris Schaefer | Cowlitz County GIS | Updated PHS, HRTG and StreamNet digital data for Cowlitz County | 02/18/1998 |
| Dean Gettinger | Dames & Moore | Planning and analysis for Banks Lake environmental rpt and resource mgt pln | 02/18/1998 |
| Gary Beeman | WA Dept Of Transportation South | SR 97 Toppenish Creek bridge 97/116 | 02/18/1998 |
| Gary Beeman | WA Dept Of Transportation South | Sr 97 vicinity of Satus Creek bridge 97/106 | 02/18/1998 |
| Bill Munro | IES Associates | Wildlife evaluation for property owner | 02/19/1998 |
| Calvin Kelly Douglas | Shapiro & Associates Inc. | Dally Homes Inc. proposed sites for commercial development | 02/19/1998 |
| Chris Regan | WA State Parks and Recreation | Proposed rock climbing areas for Peshastin Pinnacles and exit 38 crags | 02/19/1998 |
| Crilly R. Ritz | Snohomish County Public Works | Construction of engineered log jams in NF of the Stillaguamish River | 02/19/1998 |
| James B. Prudente | WA Dept Of Transportation East | SR 20, mp 311.96 to SR 395 roadway paving project | 02/19/1998 |
| Mark C. Schulz | WA State Parks and Recreation | Riverside State Park McClellan trailhead improvement project | 02/19/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|----------------------|--|--|----------------|
| Polly Harris | Adolfson Associates Inc. | Biological review for proposed development by land owner in Snohomish Co. | 02/19/1998 |
| Charles McCormick | Public Request | General species list for Chehalis basin | 02/20/1998 |
| David Desvoigne | HDR Engineering Inc. | Environmental impact analysis for proposed King Co. project job no 5434 | 02/20/1998 |
| Roy Brunskill | WA Department Of Agriculture | Species list by county for <i>Spartina</i> control and eradication project | 02/20/1998 |
| Zach Schwartz | People For Puget Sound | StreamNet database for Skagit River basin | 02/20/1998 |
| Jonathan Olds | Entranco | Proposed management plans for Capitol Lake project # 97034-60 | 02/25/1998 |
| Matt Bennett | The Coot Company | Mason Co. transportation corridor project | 02/25/1998 |
| Nikolina Yonkow | Adolfson Associates Inc. | City of Woodinville proposed flood control job #9784 | 02/25/1998 |
| Charles Repath | JS Jones and Associates | Wildlife studies of two sites for land owners | 02/26/1998 |
| Cliff Palmer | Wetland Resources Inc. | Wildlife and habitat study for land owners | 02/26/1998 |
| Dale Morimoto | WA Dept Of Transportation NW | SR 525 mp 0.87-1.57 Swamp Cr Park & Ride lot expansion and direct access | 02/26/1998 |
| Priscilla Zieber | EMCON | Cleanup of property by previous land owner | 02/26/1998 |
| Tom Angus | Ecology and Environment Inc. | Ecological risk assessment for the proposed mixed waste facility | 02/26/1998 |
| Bill Frenger | Spokane County Public Works | Dartford Dr. bridge project | 02/27/1998 |
| Cynara Solberg | Applied Environmental Services | Wildlife assessment report for land owner | 02/27/1998 |
| David T. Mcdonald | Courtroom Lawyer | Freedom of information act | 02/27/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed residential development for land owners Irvin & Joanne | 02/27/1998 |

| Requestor | Organization | Data Requested | Date Delivered |
|----------------------|--|--|----------------|
| | | Bailey | |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed residential development for land owners Larry & Sherri Farr | 02/27/1998 |
| Pat Borchers | King County Wastewater Treatment | NF Issaquah Creek fish passage improvements | 02/27/1998 |
| Chad Armour | Hart Crowser Inc. | Site development for land owner within T30N R05E section 4 | 03/03/1998 |
| Claton Belmont | WA Dept Of Transportation North | Proposed highway construction projects | 03/03/1998 |
| Donald K Wills II | WA Dept Of Transportation North | SR 167 improvements from 15th St. in Auburn to SR 167/I-405 interchange | 03/03/1998 |
| Ellen Barayuga | ICF Kaiser Engineers Inc. | Environmental site assessment for Postal Service | 03/03/1998 |
| Gary Beeman | WA Dept Of Transportation South | Lewis and Clark Trail State Park flood control | 03/03/1998 |
| Jessica Roque | WA Wetlands and Mitigation Co. | PHS information for land owner Bill Frans within T35N R03E section 32 | 03/03/1998 |
| Keith | Kitsap County Dept Of Public Works | StreamNet digital for the Kitsap Peninsula | 03/03/1998 |
| Liz Kriewald | WA Dept Of Transportation North | SR5 Blaine vicinity ramps ACP reconstruction, overlay and safety | 03/03/1998 |
| Patricia Scott | Eastern Washington University | Stevens and Spokane Co. PHS maps for research project | 03/04/1998 |
| Randy Arnold | Northwest Biological Consultants | Wetlands delineation for land owner within T28N R05E section 1 | 03/04/1998 |
| Edward W. Young | US Bureau Of Reclamation | PHS, HRTG, and NWI for analysis and studies (additional areas) | 03/06/1998 |
| Mark C. Schulz | WA State Parks and Recreation | ADA vault toilet installation project within T20N R44E sec. 10 Steptoe Butte | 03/06/1998 |
| Melissa Chaun | Michael P. Williams Consulting | Proposed condominium project site within T24N R17E section 12 | 03/06/1998 |
| Nathan Pate | Whitman County Dept Of Public Works | Proposed residential development for land owner James Parvin T16N R44E sec. 36 | 03/06/1998 |

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|-----------------------|--|---|----------------|
| Sandy Mosconi | USFS Colville National Forest | Quartzite watershed analysis | 03/06/1998 |
| Ben Klein | WA Dept Of Transportation | Proposed WA state ferries projects | 03/10/1998 |
| Craig Baker | Cross Country Land Services | In preparation to lay fiber optic cable from Canada to Portland | 03/10/1998 |
| Alana Hess | WA State Parks and Recreation | Proposed roadway repair at Camano Island State Park | 03/12/1998 |
| Claton Belmont | WA Dept Of Transportation North | Proposed highway construction project Rock Island Dam talus slopes | 03/12/1998 |
| Claton Belmont | WA Dept Of Transportation North | Proposed traffic signal 1-3048 monitor intersection signals | 03/12/1998 |
| Cynara Solberg | Applied Environmental Services | Wildlife study for land owner | 03/12/1998 |
| Gary R. Beeman | WA Dept Of Transportation South | Highway project SR 125 Oregon State Line to College Place | 03/12/1998 |
| Heidi Haslinger | Pioneer Spirit Ent. Inc. /JW Morris | Wetland ratings for proposed business devlp. within T17N R02W section 4 | 03/12/1998 |
| Melanie Carpenter | ENSR Consulting and Engineering | Environmental assessment for Fort Lewis | 03/12/1998 |
| Brad Montgomery | King County Information Services | Updated PHS and HRTG digital data for King County | 03/13/1998 |
| Janine M. Donoho | League Of Women Voters | Info to help develop system of indicators for booklet Sustainable Kitsap | 03/13/1998 |
| Jennifer Goodridge | Adolfson Associates Inc. | Biological review for wastewater extension of service | 03/13/1998 |
| Kirsten Krueger | The ERC Group | City of Newcastle China Falls development review | 03/13/1998 |