



## Statement of Work Report

**Project Title:** Streamnet (Cis/Ned)  
**Project #:** 1988-108-04  
**Contract Title:** 198810804EXP STREAMNET  
**Contract #:** 28958  
**Province:** Systemwide      **Subbasin:** Systemwide Projects  
**Workorder ID:** 35794      **Task ID:** 1  
**Contract Type:** Contract (IGC)      **Pricing Type:** Cost Reimbursement (CNF)  
**Contractor(s):** Pacific States Marine Fisheries Commission (PSMFC) (Prime - PACISTAT00)  
**BPA Internal Ref:** CCR-9898  
**[SOW Validation:](#)** Last validated 06/12/2007 with 0 problems, and 4 reviewable items  
**Contract Documents:** There are no contract document attachments





**Contacts:**

Name	Role	Organization	Phone	Email	Address
John Piccininni	COTR	Bonneville Power Administration	(503) 230-7641	jppiccininni@bpa.gov	905 NE 11th Ave. Portland OR 97232
Kristi Van Leuven	Contracting Officer	Bonneville Power Administration	(503) 230-3605	kjvleuven@bpa.gov	P.O Box 3621 NSP-4 Portland OR 97208-3621
Bruce Schmidt	Contract Manager	Pacific States Marine Fisheries Commission (PSMFC)	(503) 595-3113	bruce_schmidt@psmfc.org	205 SE Spokane St Suite 100 Portland OR 97202-6413
Amy Millikin	Technical Contact	Pacific States Marine Fisheries Commission (PSMFC)	(503) 595-3100	Amy_millikin@psmfc.org	
Cedric Cooney	Technical Contact	Oregon Department Of Fish and Wildlife (ODFW)	(541) 757-4263 228	Cedric.Cooney@oregonstate.edu	28655 Hwy 34. Corvallis OR 97333
Stephen Pastor	Technical Contact	US Fish and Wildlife Service (USFWS)	(360) 604-2538	Stephen_Pastor@fws.gov	1211 SE Cardinal Court, Suite 100 Vancouver WA 98683-
Lenora Oftedahl	Technical Contact	Columbia River Inter-Tribal Fish Commission (CRITFC)	(503) 736-3581	oftl@critfc.org	
Phillip Roger	Technical Contact	Columbia River Inter-Tribal Fish Commission (CRITFC)	(503) 731-1301	rogp@critfc.org	729 NE Oregon St., Suite 200 Portland OR 97232
Dick O'Connor	Technical Contact	Washington Department of Fish and Wildlife (WDFW)	(360) 902-2778	oconnrjo@dfw.wa.gov	600 Capitol Way N Olympia WA 98501-1091
Janet Hess-Herbert	Technical Contact	Montana Fish, Wildlife and Parks (MFWP)	(406) 444-7722	jhessherbert@mt.gov	
Bart Butterfield	Technical Contact	Idaho Department of Fish and Game (IDFG)	(208) 287-2722	bbutterfield@idfg.idaho.gov	600 S Walnut St., Box 25 Boise ID 83707
Mike Banach	Interested Party	Pacific States Marine Fisheries Commission (PSMFC)	(503) 595-3152	mike_banach@psmfc.org	205 SE Spokane St Suite 100 Portland OR 97202-6413
Stan Allen	Supervisor	Pacific States Marine Fisheries Commission (PSMFC)	(503) 595-3100	stan.allen@psmfc.org	205 SE Spokane St Suite 100 Portland OR 97202-6413

**Work Element Table of Contents:**





<u>Work Element - Work Element Title</u>	<u>EC Needed*</u>	<u>Estimate</u>	<u>(%)</u>
A : 159. Submit/Acquire Data - Conduct site visits to obtain updated data from biologist		\$10,000	(0 %)
B : 159. Submit/Acquire Data - Develop anadromous fish distribution data (100K scale)		\$65,000	(3 %)
C : 159. Submit/Acquire Data - Develop resident fish distribution data (top priority for MFWP, lower priority for others)		\$65,000	(3 %)
D : 159. Submit/Acquire Data - Develop data for adult abundance in the wild		\$65,000	(3 %)
E : 159. Submit/Acquire Data - Develop hatchery return data		\$65,000	(3 %)
F : 159. Submit/Acquire Data - Develop dam and fish passage facility data (mid-priority, update every three years)		\$65,000	(3 %)
G : 159. Submit/Acquire Data - Develop hatchery facility data (update every three years)		\$65,000	(3 %)
H : 159. Submit/Acquire Data - Develop hydrography data		\$65,000	(3 %)
I : 159. Submit/Acquire Data - Develop fish barrier data		\$65,000	(3 %)
J : 159. Submit/Acquire Data - Develop fish age data		\$65,000	(3 %)
K : 159. Submit/Acquire Data - Develop other data sets		\$90,000	(4 %)
L : 159. Submit/Acquire Data - Library: Collection development		\$113,000	(5 %)
M : 160. Create/Manage/Maintain Database - System Administration		\$177,000	(8 %)
N : 160. Create/Manage/Maintain Database - Application and interface development		\$147,000	(7 %)
O : 160. Create/Manage/Maintain Database - Data (content) management		\$163,000	(7 %)
P : 160. Create/Manage/Maintain Database - Data exchange standard development		\$153,000	(7 %)
Q : 161. Disseminate Raw/Summary Data and Results - Develop and maintain Internet sites for data dissemination		\$61,000	(3 %)
R : 161. Disseminate Raw/Summary Data and Results - Respond to data/information requests		\$133,000	(6 %)
S : 161. Disseminate Raw/Summary Data and Results - Library: Provide access to the library collection		\$265,000	(12 %)
T : 189. Regional Coordination - Support regional efforts under the Fish and Wildlife Program		\$41,000	(2 %)
U : 189. Regional Coordination - Coordinate with and support data source agencies		\$40,033	(2 %)
V : 189. Regional Coordination - Coordinate with related activities outside of the FWP		\$20,000	(1 %)
W : 99. Outreach and Education - Professional and public involvement		\$24,500	(1 %)





<u>Work Element - Work Element Title</u>	<u>EC Needed*</u>	<u>Estimate</u>	<u>(%)</u>
X : 119. Manage and Administer Projects - Manage project activities		\$173,500	(8 %)
Y : 132. Produce (Annual) Progress Report - Annual report		\$60,000	(3 %)
Z : 185. Produce Pisces Status Report - Periodic Status Reports for BPA		\$5,000	(0 %)
Total:		\$2,261,033	

\* Environmental Compliance (EC) needed before work begins.

**Contract Description:**

StreamNet Project  
 BPA Project No.: 198810804  
 FY 2007 Work Statement  
 October 1, 2006 through September 30, 2007

Note 1: The StreamNet contract is being revised mid year to incorporate changes in data type and data service priorities as determined through a regional data management workshop and from guidance by CBFWA. This revision will result in shifts in effort among the various types of data served by the project and services provided to data sources and data users. There is no change in scope of the project or in the total budget.

Note 2: Project costs have, in most cases, been allocated equally across all individual titles within each Work Element, since it is not possible to accurately separate them for the large number of individual titles and the fact that in some cases given work effort (cost) can address several titles at the same time.

**Participants:**

Bruce Schmidt, Project Manager, Pacific States Marine Fisheries Commission  
 Phil Roger, Columbia River Intertribal Fish Commission  
 Bart Butterfield, Idaho Department of Fish and Game  
 Janet Hess-Herbert, Montana Fish Wildlife and Parks  
 Cedric Cooney, Oregon Department of Fish and Wildlife  
 Steve Pastor, U.S. Fish and Wildlife Service  
 Dick O'Connor, Washington Department of Fish and Wildlife

**Project Description**

StreamNet is a cooperative, multi-agency data compilation and data management project authorized by the Northwest Power Planning Council's Fish and Wildlife Program (FWP). It is funded primarily by the Bonneville Power Administration (BPA) through the FWP as part of its program to protect, mitigate, and enhance fish and wildlife resources affected by the development and operation of hydroelectric facilities on the Columbia River and tributaries. Other funding has also been obtained in the past from agencies including the Environmental Protection Agency and the National Marine Fisheries Service.

The Pacific States Marine Fisheries Commission (PSMFC) administers the project. PSMFC staff are also responsible for the regional components of the project, including maintaining the regional database, assuring regional data standardization, making data available in Geographic Information System (GIS) formats, building and operating Internet based data delivery systems, and posting the data for public access.

Three fourths of the project consists of sub-projects within the state fish and wildlife agencies, Columbia River Intertribal Fish Commission and US Fish and Wildlife Service to develop data and databases within the





respective agencies and facilitate data transfer in regionally consistent format. In addition to administratively housing the StreamNet sub-projects, these cooperating agencies also contribute in kind support. The kind and amount of support varies between agencies. All agencies provide at least some salary support for their respective StreamNet Project Leader (from one or two months to full time). Several agencies contribute use of servers or other computer equipment and services that are not covered by charges for indirect costs. All contribute time by biologists and in some cases data entry staff to provide data to the project.

StreamNet functions to obtain, standardize, georeference and disseminate fish related data. It focuses on the kinds of data primarily collected by the state, tribal and federal fisheries management agencies for use in management and research programs. Work is organized around eight BPA defined Work Elements:

1. WE 159 Submit / Acquire Data. The agency components of the project obtain various specific data sets from within their agencies and other agencies within their respective states or among member agencies. These data are then converted into regionally consistent formats so that all data are comparable despite agency of origin. The formats are agreed to by all participating agencies so that all are comfortable that data from different sources are being combined correctly. These data are then submitted to the regional database at PSMFC. In addition, source documents for all data are submitted to the StreamNet Library so that all data in the database are tied to source documents that are available through the library.
2. WE 160 Manage / Maintain Database. All components of the StreamNet project maintain databases and computer systems to support their work at both the source agency and regional levels. This work includes maintenance of the hardware systems themselves and maintenance, updating, management and quality control of the data. Also included is development of various software tools to assist in data management and manipulation, and development of the various standard data formats referred to as Data Exchange Formats (DEF) used to assure data consistency across the region. StreamNet also maintains a number of regional base data layers that are essential for management and depiction of data, including the PNW 1:100,000 routed hydrography (stream layer), a new interim mixed scale hydrography, and various general GIS layers.
3. WE 161 Disseminate Raw and Summary Data. Dissemination of data through the StreamNet website ([www.streamnet.org](http://www.streamnet.org)) entails development, maintenance and operation of various applications, including a tabular data query system, interactive map applications, a searchable Independent Data Sets archive, and various pre-selected data sets. Data services include responding to requests for information from individuals, subbasin planners, other FWP supported projects, watershed councils, agencies and regional entities. The StreamNet Library provides access to data source documents for all data in the StreamNet database, the entire NW Power and Conservation Council document collection, and a major collection of fish and wildlife related agency reports and documents (gray literature). They also provide various services such as document scanning and Interlibrary Loans to aid patrons in obtaining information.
4. WE 189 Coordination. StreamNet coordinates with a variety of other database projects and regional initiatives. Coordination with other databases is for the purpose of avoiding unnecessary duplication of effort and to facilitate data sharing. Coordination with regional initiatives (such as Subbasin Planning, CSMEP, PNAMP, NED) is to provide data services and share experience and expertise with regional data consolidation and dissemination and assist these initiatives in reaching their goals.
5. WE 99 Outreach and Education. StreamNet produces occasional documents and brochures that explain the project and how to use it to obtain data. Project members also participate in professional organization meetings to explain project data services, advertise data availability, and encourage greater flow of data to the project.
6. WE 119 Manage and Administer Projects. All project participants contribute to management of the project. Each agency manages its own portion of the project, and PSMFC manages the overall project. Management tasks include budget development and expenditure tracking, personnel supervision, and management of project activities to accomplish tasks contained in the statement of work. Participants contribute to project guidance through active participation in the StreamNet Steering Committee and serve as liaisons with their respective agencies





7. WE 132 Produce Annual Report. A detailed annual report will be prepared that describes the specific work accomplished by the project during the preceding fiscal year. In the past, detailed activities were reported in four quarterly reports. With the advent of Pisces, however, quarterly reports were converted to the abbreviated Pisces format, eliminating the former detail. As a result, we are redesigning the annual report to contain summaries of the detailed work done by Work Element and Milestone.

8. WE 185 Periodic Status Reports for BPA. This work element entails completing and submitting abbreviated quarterly and final status reports in the Pisces system.

Details of the actual tasks performed by the project are detailed in the Milestones under each Work Element.





## Statement of Work Report

### Work Element Details

#### **A: 159. Submit/Acquire Data**

**Title:** Conduct site visits to obtain updated data from biologist

**Description:** Conduct scheduled site visits to offices of biologists in state, tribal and federal agencies to obtain the most recently available field data. This approach is used by only one of the agencies cooperating in the StreamNet project.

**Planned Metrics:** <None>

**Deliverable Specification:** New data are obtained by the state StreamNet project to update the data categories listed in the other Data Development work element titles.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. MFWP capture fish data through scheduled visits to biologist offices	10/1/2006	8/15/2007	Active	MFWP will visit MFWP, other state agency and federal fisheries biologists in early 2007 to obtain fisheries field survey data collected during the 2006 field season. Data will include fish distribution; use type; survey, inventory and monitoring of target species; reptiles and amphibians and nongame species. They will update the data tables in MFISH with the new data collected from biologists and documents, reports and electronic files assigning data LLID for stream routes and lakes. The update will be done for the entire state. Additional fields may be collected for species undergoing a species assessment. This is the primary method of obtaining data for StreamNet in Montana, in contrast to the other state StreamNet components.
<b>Deliverable: B. Conduct site visits to obtain updated data from biologists</b>		8/15/2007	Active	<i>See the Deliverable Specification above</i>





**B: 159. Submit/Acquire Data**

**Title:** Develop anadromous fish distribution data (100K scale)

**Description:** Document the occurrence, distribution and life history characteristics of anadromous fish species. Efforts will be made to utilize the current mixed scale hydrography for these data, with intent to migrate to 24K when a regionally consistent 24K routed hydrography becomes available. Maintenance of this high priority data set will continue. The state StreamNet sub-projects will maintain the existing data on anadromous fish distribution and habitat use in their respective states. New distribution information will be incorporated as they become available. Updated distribution data will be conveyed ("exchanged") to the regional StreamNet database at PSMFC, where they will be incorporated into the database.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on the distribution and habitat use of anadromous fish are maintained, and updated as possible, by each of the state StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC and made available through the online data query system and interactive maps.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG development of anadromous fish distribution data	10/1/2006	9/30/2007	Active	IDFG, on an ongoing and opportunistic basis, will update, maintain, correct and exchange anadromous fish distribution and documentation information with the regional StreamNet database in the DEF tied to the current hydrography scale.
B. ODFW development of anadromous fish distribution data	10/1/2006	9/30/2007	Active	ODFW, on an ongoing and opportunistic basis, will update, maintain, correct and exchange anadromous fish distribution and documentation information with the regional StreamNet database in the DEF tied to the current and/or appropriate hydrography scale.
C. WDFW development of anadromous fish distribution data	10/1/2006	9/30/2007	Active	WDFW will perform any needed updates to Washington anadromous fish distribution data. Data will be converted to StreamNet format and exchanged when complete.
<b>Deliverable: D. Anadromous fish distribution data updated and maintained</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**C: 159. Submit/Acquire Data**

**Title:** Develop resident fish distribution data (top priority for MFWP, lower priority for others)

**Description:** Document the occurrence, distribution and life history characteristics of resident fish species, at the most current available hydrography scale. Existing resident fish distribution will be maintained, and project participants will begin expanding data for additional species. This is high priority for Montana, and new data will be developed by the other states as time allows. Updated distribution data will be exchanged to the regional StreamNet database at PSMFC, where they will be incorporated into the database.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on the distribution and habitat use of resident fish (species of primary interest) are maintained, and updated as possible, by each of the state StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC and made available through the online data query system and interactive maps..





Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG development and exchange of resident fish distribution data	10/1/2006	9/30/2007	Active	IDFG, on an ongoing and opportunistic basis, will update, maintain, correct and exchange resident fish distribution and documentation information with the regional StreamNet database in the DEF tied to the current hydrography scale.
B. MFWP development and exchange of resident fish distribution data	10/1/2006	9/1/2007	Active	MFWP will update, maintain, correct and exchange resident fish distribution and documentation information with the regional StreamNet database in the DEF tied to the current and/or appropriate hydrography scale, based on the information obtained through the scheduled visits to biologists offices. In addition, information from the UM genetics results for cutthroat trout and redband trout and information from the habitat restoration projects data will be used in determination of distributions.
C. MFWP participate in regional species assessments to develop distribution data	10/1/2006	9/30/2007	Active	MFWP will participate, organize and prepare materials for assessments of fish species of concern if they occur during the fiscal year. These assessments, with westslope and Yellowstone cutthroat trout scheduled for FY-07, provide valuable updates to the resident fish distribution, genetics, use type and barriers tables. MFWP will incorporate the results of the 2005 Bull trout assessment into MFISH.
D. ODFW development and exchange of resident fish distribution data	10/1/2006	9/30/2007	Active	ODFW, on an ongoing and opportunistic basis, will update, maintain, correct and exchange resident fish distribution and documentation information with the regional StreamNet database in the DEF tied to the current and/or appropriate hydrography scale.
E. WDFW development of priority resident fish distribution data	11/1/2006	9/30/2007	Active	WDFW will begin compiling Washington priority resident fish species (bull trout, cutthroat trout, rainbow trout) distribution data in a new two-year statewide mapping effort. Data will be converted to StreamNet format and exchanged when complete (anticipated in FY-08).
<b>Deliverable: F. Resident fish distribution data maintained, updated as possible</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**D: 159. Submit/Acquire Data**

**Title:** Develop data for adult abundance in the wild

**Description:** Develop and maintain (update) information on adult abundance for native fish species, resident and anadromous, including escapement, redd counts, peak spawner counts, trap counts, dam and weir counts, and resident fish populations (where calculated by other agencies). This is a high priority data type. Also included in this data category are data gathered during spawning ground surveys regarding straying of hatchery fish onto spawning areas, i.e., marked/unmarked ratio. These are lower priority under base funding. Updated data will be exchanged with the regional StreamNet database at PSMFC at least once per year in the Data Exchange Format (DEF).

**Planned Metrics:** <None>

**Deliverable Specification:** Data on the abundance of fish (species of primary interest) in the wild are maintained and updated by each of the state StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG development of adult abundance data	10/1/2006	6/1/2007	Active	IDFG will compile the 2006 field season spawner survey and weir count data from IDFG and submit them in the DEF to regional StreamNet.
B. MFWP development of adult abundance data	1/1/2007	9/30/2007	Active	MFWP will input all 2006 stream and lake fish survey data into MFISH, including trend, count and references. The data will include all fish surveys, including one time, index streams, lake netting and all other types. Data will be provided as an independent data set to the Data Store since the current DEF isn't established for resident fish surveys. If a DEF is adopted for resident fish abundance and becomes available, the data will be exchanged.
C. ODFW development of adult abundance data, first exchange	10/1/2006	4/13/2007	Active	ODFW will update and maintain existing anadromous, resident, and non-game abundance and index trends, and add new trends where possible based on provision of data by ODFW. This is the first of two planned exchanges of data.
D. ODFW development of adult abundance data, second exchange	4/17/2007	9/14/2007	Active	ODFW will maintain existing anadromous, resident, and non-game abundance and index trends. This is the second of two planned exchanges of data. This second update will focus on data types/trends that are represented in the Status of the Resource Report and those that fill Recovery Planning data needs.
E. WDFW development of adult abundance data	10/1/2006	5/31/2007	Active	WDFW will update and enhance the existing natural spawner database (escapement estimates and/or annual counts) for return year 2006. Data will be converted to StreamNet format and exchanged when complete.
<b>Deliverable: F. Fish abundance data are maintained and updated</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**E: 159. Submit/Acquire Data**

**Title:** Develop hatchery return data

**Description:** Develop and maintain (update all hatchery trends) information on the return, disposition and straying (e.g., from other hatcheries) of adult fish returning to hatcheries, including information on coded wire tags. This is an anadromous related task only. Priority will be placed on updating total return and egg take data through 2006. Development of disposition data is lower priority and would require additional resources. Updated data will be exchanged with the regional StreamNet database at PSMFC at least annually. This is a high priority data set.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on the return of anadromous fish to the hatcheries are maintained and updated by the state and FWS StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. FWS development of hatchery return data	10/1/2006	5/30/2007	Active	FWS will receive Fish Removal and Egg files from individual hatcheries, and add summarized data to the Hatchery Returns file up through return year 2006. Data will be exchanged with the regional StreamNet database.
B. IDFG development of hatchery return data	5/1/2007	9/30/2007	Active	IDFG will compile the 2006 field season hatchery return data from IDFG and submit in DEF to regional StreamNet.
C. ODFW development of hatchery return data	7/1/2007	9/30/2007	Active	ODFW will compile data on returns to ODFW hatchery facilities (updated through 2005 returns where possible) and exchange in the DEF to regional StreamNet.
D. WDFW development of hatchery return data	3/1/2007	6/30/2007	Active	WDFW will update the existing hatchery return database for return year 2005. Data will be converted to StreamNet format and exchanged when complete.
<b>Deliverable: E. Anadromous fish return to the hatchery data maintained and updated</b>		7/31/2007	Active	<i>See the Deliverable Specification above</i>





**F: 159. Submit/Acquire Data**

**Title:** Develop dam and fish passage facility data (mid-priority, update every three years)

**Description:** Data on dam and fish passage facilities will be maintained and updated on a rotating schedule every three years, with the next scheduled update in FY-08. Previously compiled data of this type, as available, may be exchanged this year.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on dam and fish passage facilities are maintained and updated by the state StreamNet sub-projects on a three year rotating basis, beginning in 2008. Previously compiled updated data are exchanged with the main StreamNet database at PSMFC in 2007.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG development of dam and fish passage facility data	10/1/2006	9/30/2007	Active	IDFG, on an ongoing, opportunistic basis, will capture and update dam and fish passage facility data as necessary or possible.
B. MFWP development of dam and fish passage facility data	1/1/2007	8/15/2007	Active	MFWP will update the dams facilities database one time during the year and exchange the data if there are any changes.
C. ODFW development of dam and fish passage facility data	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will maintain existing dam and fish passage facilities information and will exchange previously compiled data this year. This is a low priority task. Future updates will follow an every third year schedule, beginning in FY-08.
D. WDFW development of dam and fish passage facility data	10/1/2006	4/30/2007	Active	WDFW, on an ongoing basis, will maintain existing dam and fish passage facilities information and will exchange previously compiled data this year. This is a low priority task. Future updates will follow an every third year schedule, beginning in FY-08.
<b>Deliverable: E. Data on dam and fish passage facilities maintained and updated</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**G: 159. Submit/Acquire Data**

**Title:** Develop hatchery facility data (update every three years)

**Description:** Develop and maintain information on anadromous and resident hatchery facilities, including information on location, design, management and authorization. Information will be updated on a rotating schedule every three years, beginning in FY-07. Data will be updated as necessary and exchanged to the regional database at PSMFC.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on hatchery facilities are maintained and updated by the state StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC on three year rotating basis, beginning in 2007.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. FWS update the Hatchery Facility table	10/1/2006	9/30/2007	Active	FWS will collect any revised information on National Fish Hatcheries and submit updates to the regional StreamNet database.
B. IDFG development of hatchery facility data	10/1/2006	9/30/2007	Active	IDFG, on an ongoing, opportunistic basis, will capture and update hatchery facility data and exchange them to regional StreamNet.
C. MFWP development of hatchery facility data	5/1/2007	8/15/2007	Active	MFWP will update the public and private hatchery facilities database once during the year and exchange updated data with the regional StreamNet database.
D. ODFW development of hatchery facility data	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will maintain and update hatchery facility information, at least once per year as needed, based on errors and needed changes found in the Oregon hatchery facilities information, including facility location information. This is a low priority task.
E. WDFW development of hatchery facility data	10/1/2006	9/30/2007	Active	WDFW will update the hatchery facilities database, adding new records and improving field entries for existing records and related tables as warranted. Data will be converted to StreamNet format and exchanged when complete.
<b>Deliverable: F. Hatchery facilities data maintained and updated</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**H: 159. Submit/Acquire Data**

**Title:** Develop hydrography data

**Description:** Maintain the regionally consistent routed hydrography layer at the 1:100,000 (100K) scale for which StreamNet is the official keeper. This LLID based hydrography has been the basis for georeferencing and displaying locations for all other data in the StreamNet database, and as such is an essential data set. In FY-07 we will continue to maintain these data, but emphasis will shift to development and use of a mixed scale hydrography (100K plus 24K streams that have attached fish data) as an intermediate step toward the eventual conversion to 24K when a regionally consistent routed 24K hydrography becomes available from other entities (potentially several years away). Effort will also be expended toward developing 24K LLID based hydrography from NHD linework.

**Planned Metrics:** <None>

**Deliverable Specification:** The 1:100,000 PNW hydrography layer is maintained and updated as needed for internal use and posted on the StreamNet website for use by others. An interim "mixed scale" (100K X 24K) hydrography for use in posting StreamNet data is developed for StreamNet use until the PNW 1:24,000 scale NHD is completed by USGS.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG maintenance of hydrography for Idaho	10/1/2006	9/30/2007	Inactive	IDFG, on an ongoing basis, will maintain and update, as necessary, the 1:100,000 scale hydrography files for Idaho. Prototype LLID routing at 24K will be done on other funding.
B. MFWP maintenance of hydrography for Montana	10/1/2006	9/30/2007	Inactive	MFWP, using the NHD, will continue to update the routes using the updated NHD layer, including lakes; quality check the cross-references between the LLID system and MFWP's water code system; and participate in Steering Committee assignments for either the 1:24 K hydrography or the mixed scaled hydrography. NRIS became the steward of the NHD layers in FY-06 and will perform maintenance of the layer excluding the stream routes, which remain MFWP responsibility. MFWP will rely on NRIS for the development of the NHD 1:24 K layer through contracted services.
C. ODFW maintenance of hydrography for Oregon	10/1/2006	9/30/2007	Inactive	ODFW, on an ongoing basis, will maintain and update as necessary the 1:100,000 scale hydrography files for Oregon. They will also contribute to the development of a mixed scale (100k -24K) hydrography layer that will enable display of all distribution data in a linear format.
D. WDFW development of the Washington portion of the StreamNet mixed-scale hydrography layer	10/1/2006	9/30/2007	Inactive	WDFW will submit a mixed-scale (1:24,000) stream hydrography layer for Washington state, and respond to the outcomes of technical review by GIS staff from PSMFC and other project participants. WDFW will continue to maintain and update base stream and lake hydrography and high-priority attributes as needed to support spatial data exchange with the regional StreamNet office.
<b>Deliverable: E. The 100K hydrography is maintained and mixed scale hydrography is functional.</b>		9/30/2007	Inactive	<i>See the Deliverable Specification above</i>





**I: 159. Submit/Acquire Data**

**Title:** Develop fish barrier data

**Description:** Develop and maintain data sets for barriers to fish migration. Delivery of this data type is on a rotating basis every three years with exchange targeted for FY-09. Some preliminary work may be done in FY-07, and some already compiled data may be exchanged.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on fish barriers are maintained and updated by the state StreamNet sub-projects. Updated data are exchanged with the main StreamNet database at PSMFC. New sources of barrier data are located.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. IDFG development of fish barrier data, progress reported quarterly	10/1/2006	9/30/2007	Active	IDFG, on an ongoing, opportunistic basis, will capture and update barrier data.
B. MFWP development of fish barrier data	10/1/2006	8/15/2007	Active	MFWP will maintain barrier location, species affected and other fields on stream barriers in Montana. Information will be collected on all species regardless of life history. Barriers data will be exchanged in the StreamNet DEF.
C. ODFW development of fish barrier data	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will update and maintain Oregon's Barrier data based on new and/or previously un-incorporated barrier information, including information from non-ODFW sources. Species-specific upstream and downstream passage information for adults and juveniles will be included in the ODFW Barrier Database, and will be submitted to Regional StreamNet when a DEF is adopted.
D. WDFW development of fish barrier data	10/1/2006	3/30/2007	Active	WDFW will update the fish migration barrier data records, adding new records and improving field entries for existing records as warranted. Convert and exchange data when complete.
<b>Deliverable: E. Fish barrier data maintained and updated</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**J: 159. Submit/Acquire Data**

**Title:** Develop fish age data

**Description:** Develop and maintain information on age/sex composition of returning adults, primarily for anadromous species. Emphasis on this data type will increase in FY-07 now that the DEF is finalized.

**Planned Metrics:** <None>

**Deliverable Specification:** Data on age composition of returning adult fish is available through the StreamNet website.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC development of fish age data	10/1/2006	9/30/2007	Active	CRITFC will exchange 2006 and initial 2007 CRITFC age data on fish populations sampled at Bonneville Dam.
B. FWS development of fish age data	10/1/2006	9/30/2007	Active	FWS will process Fish Return and Age data through return year 2006 into the new StreamNet Age table format, once a final format has been settled on, and exchange the data with the regional StreamNet database.
C. IDFG development of fish age data	5/1/2007	9/30/2007	Active	IDFG will compile and submit the 2006 field season age data from IDFG.
D. ODFW development of fish age data	3/12/2007	9/15/2007	Active	ODFW will maintain and update existing age data records on a limited basis as data are made available.
E. WDFW development of fish age data	3/1/2007	9/30/2007	Active	WDFW will compile age data from 2006 natural spawner data and from 2005 hatchery returns data. Data will be converted to StreamNet format and exchanged in company with the related datasets.
<b>Deliverable: F. Development of fish age data in new format is initiated</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**K: 159. Submit/Acquire Data**

**Title:** Develop other data sets

**Description:** On an opportunistic basis, develop other types of data as available or as requested by FWP participants. This relates to data relevant to StreamNet objectives which would be developed by StreamNet cooperators and also includes data developed by other agencies or projects. Actual acquisition, standardization, georeferencing and distribution of these data will be dependent on available time and funding. These data may be included in the DEF in the future, or may be obtained and distributed as independent data sets in native format in the Data Store. Development of other data by StreamNet is a low priority under current base funding. Receiving and posting independent data sets from other entities in the Data Store is a high priority.

**Planned Metrics:** <None>

**Deliverable Specification:** Other fish related data (in addition to the standard StreamNet data categories) are obtained and made available through the StreamNet website as they become available on an opportunistic basis. Data sets that do not fit into the StreamNet data exchange formats are posted as independent data sets in their native format in the StreamNet Data Store.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC development of other data sets	10/1/2006	9/30/2007	Active	CRITFC will provide appropriate non-standard data sets developed through other activities as opportunities arise.





Milestone Title	Start Date	End Date	Status	Milestone Description
B. IDFG development of other data sets	10/1/2006	9/30/2007	Active	IDFG, on an opportunistic basis, will work with other projects in Idaho to assist them with submission of their data sets to StreamNet for archiving and dissemination as part of the formal DEF or as independent data sets in the Data Store.
C. MFWP development of other data sets	10/1/2006	9/30/2007	Active	MFWP will compile updated genetic results information on Montana's species of concern and update other datasets which will be provided as independent data sets to the Data Store. They will also explore providing other data sets if time allows and as desired by regional staff.
D. MFWP development of diversion screening data	10/1/2006	9/30/2007	Inactive	MFWP will collect diversion screening data from the MFWP Habitat Bureau resulting from FRIMA and other screening activities in Montana. Exchange data if DEF becomes available.
E. MFWP develop habitat restoration projects data	10/1/2006	9/30/2007	Inactive	Restoration project data will be maintained and updated as needed, and the user interface will be enhanced.
F. ODFW development of other data sets	10/1/2006	9/30/2007	Active	ODFW, as requested and within budget/time constraints, will work with FWP supported projects in the state, as well as ODFW and other agency staff to facilitate either the incorporation of their data into StreamNet or independently posting their data in the StreamNet Data Store (opportunistically, and as time allows).
G. ODFW development of harvest data, first data exchange	10/1/2006	4/13/2007	Inactive	ODFW will maintain the existing harvest records and will update the records with new data already received. Future updates will be dependent on regional priorities. This is the first of two planned data exchanges.
H. ODFW development of harvest data, second data exchange	4/16/2007	9/14/2007	Inactive	ODFW will maintain the existing harvest records and will update the records with new data already received. Future updates will be dependent on regional priorities. This is the second of two planned data exchanges.
I. PSMFC development of other data sets and data for the Data Store	10/1/2006	9/30/2007	Active	The Region, on an ongoing and opportunistic basis, will work with StreamNet cooperators, FWP funded projects and other projects and agencies in the region to identify data sets appropriate for inclusion in the Data Store archive, encourage submission of those data sets to the Data Store, and if requested, assist them with data development and the submission process. The Region will also continue to manage and further develop, as necessary and possible under existing funding, the data obtained through the PNAMP Monitoring Inventory project that began developing a catalog of information on who was doing what monitoring where.
J. WDFW development of other data sets	10/1/2006	9/30/2007	Active	WDFW, on an opportunistic basis, will work with FWP supported projects in the state to assist them with submission of their data sets to StreamNet for archiving and dissemination as part of the formal DEF or as independent data sets in the Data Store.
<b>Deliverable: K. Other data are developed on an ad hoc basis as possible</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**L: 159. Submit/Acquire Data**

**Title:** Library: Collection development

**Description:** The StreamNet Library, with input from the other project participants, will develop a collection of materials applicable to the mission of StreamNet. We will collect, catalog and organize materials to document data sources, Fish and Wildlife Program activities and reports, and other gray literature for access by regional scientists, agencies, interested parties, and other libraries. The project participants will submit reference documents for all data contained in the StreamNet database to the StreamNet Library.

**Planned Metrics:** <None>

**Deliverable Specification:** The collection in the StreamNet Library is maintained and increased by addition of pertinent publications and reports and by reference documents supporting the data added to the StreamNet database.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC StreamNet Library collection development	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will: 1. Develop a collection of materials related to the Columbia Basin, including reports from other Fish & Wildlife Program projects, other agency documents as they relate to the Basin, and other published and unpublished materials as requested by clients. 2. Receive, coordinate, and incorporate source document submissions for data compiled by project participants and entered into the StreamNet database. This includes references for data included in the data query system and also data in the independent data sets in the Data Store. 3. Develop and maintain a collection of journals related to fisheries and aquatic sciences and related scientific topics. 4. Digitize collections of historic documents, especially as they relate to the Columbia Basin.
B. StreamNet participants provide data reference documents	10/1/2006	9/30/2007	Active	CRITFC, FWS, IDFG, MFWP, ODFW, WDFW, and PSMFC, on an ongoing basis, will obtain reference documents for all data developed under WE 159 by their part of the project and submit them to the StreamNet Library for inclusion in the collection and catalog.
<b>Deliverable: C. Library collection maintained and increased</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**M: 160. Create/Manage/Maintain Database**

**Title:** System Administration

**Description:** All StreamNet cooperators will manage and maintain the computer systems (hardware and software) necessary for acquiring, quality checking, formatting in regionally consistent format, georeferencing, backing up, and transmitting tabular and GIS data to the StreamNet database at PSMFC, and for storing, managing, documenting, backing up, quality checking and disseminating the data at PSMFC. This is a high priority work element that is essential to proper functioning of the project, even though it operates largely in the background.

**Planned Metrics:** <None>

**Deliverable Specification:** The computer systems used to obtain, store, manage, back up, and distribute data (hardware and software) are maintained in functioning condition and updated as needed at PSMFC and the cooperating agencies.





Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC computer system administration	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will manage, maintain and enhance the computer systems (hardware and operating software) necessary for supporting the StreamNet Library and CRITFC StreamNet data, including system administration, backup and recovery, hardware and software upgrades, and security.
B. FWS computer system administration	10/1/2006	9/30/2007	Active	FWS, on an ongoing basis, will manage and maintain the computer systems (hardware and operating software) necessary for supporting the FWS StreamNet tabular data, including system administration, backup and recovery, hardware and software upgrades, and security.
C. IDFG computer system administration	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis, will manage, maintain and enhance the computer systems (hardware and operating software) necessary for supporting Idaho StreamNet tabular and GIS data, including system administration, backup and recovery, hardware and software upgrades, and security.
D. MFWP computer system administration	10/1/2006	9/30/2007	Active	MFWP, on an ongoing basis, will manage and maintain and enhance the computer systems (hardware and operating software) necessary for supporting the MFWP StreamNet tabular and GIS data and serving needs of MFWP system administrators.
E. ODFW computer system administration	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will manage, maintain and enhance the computer systems (hardware and operating software) necessary for supporting Oregon StreamNet tabular and GIS data systems, including system administration, backup and recovery, hardware and software upgrades, and security.
F. PSMFC computer system administration	10/1/2006	9/30/2007	Active	The Region, on an ongoing basis, will maintain and update, as necessary, the hardware and software necessary to accomplish StreamNet's mission, including system administration, system backup and recovery, and security. Specific functions include: 1. Management and maintenance of the GIS system, including GIS software (ArcGIS, ArcSDE, ArcIMS), extensions, and projects, and all associated hardware, that constitute the regional Geographic Information System; 2. Maintenance and upgrade of the StreamNet web server and software, including programming, system security, etc., with a target of the web server being on line and operational over 99.5% of the time; 3. Maintenance and management of database servers, SQL Server software & databases, including installation of updates, patches & service packs as they become available, management of logins, user permissions & client access tools, routine backup of all databases, assistance with purchasing, and preparation of disaster recovery plans; and, 4. Assistance with development of XML schemas based options for both incoming and outgoing data and continuing exploration of how XML can enhance data exchange.





Milestone Title	Start Date	End Date	Status	Milestone Description
G. WDFW computer system administration	10/1/2006	9/30/2007	Active	WDFW, on an ongoing basis, will manage, maintain and enhance the computer systems (hardware and operating software) necessary for supporting Washington StreamNet tabular and GIS data, including system administration, backup and recovery, hardware and software upgrades, and security.
<b>Deliverable: H. Computer systems maintained</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**N: 160. Create/Manage/Maintain Database**

**Title:** Application and interface development

**Description:** All StreamNet cooperators will develop and maintain computer applications and interfaces that facilitate the entry, management and dissemination of tabular and GIS data at the regional and subcontracting agency levels. This will include development of new applications and tools as well as maintenance or modification of existing applications. To the degree possible, cooperators will share code and applications between agencies and with other data source agencies to maximize project efficiency.

**Planned Metrics:** <None>

**Deliverable Specification:** The databases, computer applications and interfaces necessary for obtaining, storing, managing and disseminating data are developed and maintained in such a way that they support accomplishment of project goals.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular data to support Library operations and to provide reference data to PSMFC.
B. FWS development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	FWS, on an ongoing basis, will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of FWS StreamNet tabular data.
C. IDFG development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis, will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.
D. MFWP development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	MFWP will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data.
E. ODFW development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of Oregon StreamNet tabular and GIS data, including work on the Recovery Planning application.





Milestone Title	Start Date	End Date	Status	Milestone Description
F. PSMFC development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	The Region, on an ongoing basis, will: 1. Archive the LLID/NHD hydrography conversion tool. We will track the efforts of others, including the USGS, to build crosswalks between the LLID and NHD route systems and seek opportunities to collaborate; 2. Research the creation of an Online Event Mapper that allows users to create event tables based on 1:100,000 scale hydrography over the Internet; 3. Modify the web data query system to add the capability of displaying data conforming to changes in the DEF, particularly age data, since the new Age DEF is approved and ready for implementation in FY-07; and, 4. Develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of tabular and GIS data. They will assist cooperating agencies with tool development, as requested. Tools may include input interfaces, error checking routines, geographic locators, etc.
G. PSMFC design interface for online Data Store submissions	5/1/2007	9/30/2007	Inactive	Design an Internet-based program for submitting data sets to the StreamNet Data Store through use of a web browser. This program will replace the currently available executable program that requires installation on host computers. Work in FY-07 will include conceptual development and design, with actual development of the program to be conducted in FY-08.
H. WDFW development and/or maintenance of applications and interfaces	10/1/2006	9/30/2007	Active	WDFW, on an ongoing basis, will develop and/or maintain computerized databases, applications and interfaces that facilitate the entry, compilation, management and dissemination of Washington StreamNet tabular and GIS data.
<b>Deliverable: I. Applications are developed and maintained.</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**O: 160. Create/Manage/Maintain Database**

**Title:** Data (content) management

**Description:** The StreamNet project will manage data at the regional and subcontracting agency levels to assure timely and accurate data flow from source to final distribution. Activities include exchange of data to PSMFC, data loading, updating data, quality assurance procedures, metadata development, etc. Emphasis will increase on improving timeliness of data development and dissemination, and we will initiate work to develop metadata templates, by data type and over time, in pilot subbasins.

**Planned Metrics:** <None>

**Deliverable Specification:** Data are maintained and managed at PSMFC and the cooperating projects so that they are available through the StreamNet website and cooperating agency websites. A data delivery timeline application will be posted on the StreamNet website. Work will have started on developing metadata templates. Metadata are published as Web Services.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC data content management, QA/QC	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will perform comprehensive QA/QC on all datasets maintained by CRITFC.





Milestone Title	Start Date	End Date	Status	Milestone Description
B. FWS data content management, QA/QC	10/1/2006	9/30/2007	Active	FWS on an ongoing basis, will manage data at the agency level, conduct quality checks, and exchange data to PSMFC as specified in this Statement of Work.
C. IDFG data content management, QA/QC	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis, will manage data at the agency level, conduct quality checks, develop and maintain FGDC compliant metadata, and exchange data to PSMFC as specified in this Statement of Work.
D. MFWP data content management, QA/QC	10/1/2006	9/30/2007	Active	MFWP will manage all data related to deliverables in the SOW at the agency level, develop and maintain FGDC compliant metadata for GIS data, and exchange data to PSMFC according to deadlines specified in this work statement.
E. ODFW data content management, QA/QC	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will manage ODFW - NRIMP and StreamNet data, including metadata development/maintenance, QA/QC activities, and work with regional staff as necessary to assure seamless loading of data into the regional database.
F. PSMFC support for data content management	10/1/2006	9/30/2007	Active	The Region, on an ongoing, as needed basis, will assist data contributing agencies in development of data, including formatting, coding, data entry, error checking, and submitting to the regional database.





Milestone Title	Start Date	End Date	Status	Milestone Description
G. PSMFC GIS data content management	10/1/2006	9/30/2007	Active	<p>The Region, on an ongoing basis, will manage GIS data content for the StreamNet project through the following actions by the GIS Specialist:</p> <ol style="list-style-type: none"><li>1. Whenever new tabular data with a spatial component are submitted to the Region (e.g., fish distribution, hatchery facilities, etc.), create regional GIS layers from this information where possible. He will verify correct format, accuracy and logical consistency of spatial data sets and attributes through coordination with state GIS contacts and then load data to the regional database in coordination with the database manager. He will post mapable layers to the online query system, the ArcIMS interactive mapping system, and as downloadable layers for StreamNet GIS users;</li><li>2. Maintain a library of StreamNet GIS layers for internal use and as downloadable data on the web site with complete documentation (metadata);</li><li>3. Obtain and refine layers such as ESUs, ecoregions, or elevations, and create cross tables for use by the query system;</li><li>4. Assist the database manager with the spatial component of data and its implementation online;</li><li>5. Coordinate efforts by the StreamNet partners to maintain and update, as necessary, the 1:100,000 scale hydrography files for the states and the PNW region;</li><li>6. Maintain the 100K hydrography and integrate the interim "mixed scale" hydrography as it becomes available. In particular, this transition will enable StreamNet to display the best available fish distribution data region wide. Progress on the development of a regionally consistent 24k routed hydrography by the USGS and partners will be closely monitored;</li><li>7. Integrate the functioning of the GIS system with the StreamNet fisheries and habitat database in support of the query system, and maintain up-to-date cross tables used via the StreamNet web interface to select information by geographic area; and,</li><li>8. Ensure that all published spatial data is documented to meet FGDC metadata requirements and will manage and maintain a metadata web service that makes StreamNet and Data Store metadata available for inclusion in regional and national data portals (e.g, NED, Geospatial One-Stop, NBII and others).</li></ol>





Milestone Title	Start Date	End Date	Status	Milestone Description
H. PSMFC tabular data content management, QA/QC	10/1/2006	9/30/2007	Active	The Region, on an ongoing basis through the Regional Database Manager will: 1. Update and append data to the regional StreamNet database as they are submitted by StreamNet participants, maintain logs of data submissions, and provide feedback to agency compilers to promote data exchanges that are consistent with others throughout the Columbia region; 2. Update StreamNet database schemas to accommodate changes in the official data exchange format. Indexes and triggers will be created and maintained for efficient processing, storage and retrieval of data. He will maintain database logins, user permissions, and client access tools. He will create views and stored procedures for use by the web based query system and in data loading and validation processes, develop and run QA/QC processes on new and existing data tables to isolate missing, erroneous or duplicative data, and work with source agencies to correct problems and continue to improve error-checking capabilities; 3. Periodically produce a downloadable version of StreamNet's primary fish enumeration data in Access database format, downloadable ASCII formatted files of primary StreamNet data tables and maintain an online data dictionary; 4. Routinely assist the StreamNet Librarian in exporting the library reference database of StreamNet documents and import StreamNet citations into the regional StreamNet database for use by the web query system to cite references for all StreamNet data records; and, 5. Provide the regional staff and steering committee with guidance and supporting analysis of data issues, shortcomings and recommended improvements.
I. WDFW data content management, QA/QC	10/1/2006	9/30/2007	Active	WDFW will develop and manage all Washington StreamNet data, including development of FGDC compliant metadata for spatial data, and exchange data with the StreamNet Regional Office at PSMFC using StreamNet standard Data Exchange Format codes and conventions.
<b>Deliverable: J. Data are maintained and updated, metadata are developed, and data timeline is posted.</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**P: 160. Create/Manage/Maintain Database**

**Title:** Data exchange standard development

**Description:** The project will establish and maintain data exchange standards to ensure regionally consistent content and format of data that originate from multiple data sources. We will maintain adopted and develop proposed data exchange formats for data categories described under Work Element 159. This task will provide coordination and technical assistance regarding interpretation of database structures and codes. The formal process for creating new and revising old DEFs may require significant amounts of time, potentially more than a year, for complex data categories.

**Planned Metrics:** <None>





**Deliverable Specification:** The formal Data Exchange Formats that are used to standardize data regionally are maintained and updated as needed. Additions and changes to the DEF are made in accordance with the DEF guidance document. At least one new updated DEF version is adopted during the year.





Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
B. FWS development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	FWS, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
C. IDFG development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
D. MFWP development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	MFWP, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
E. ODFW development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
F. PSMFC development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	The Region, on an ongoing, as needed basis, will work cooperatively through the Steering Committee, following the DEF change process document, to revise existing and develop new DEFs to assure regional data consistency and allow for inclusion of new data types. The Regional Biologist will serve as the primary coordinator of the DEF process and is responsible for updating and publishing the official DEF document.
G. PSMFC development and maintenance of data exchange standards, EMAP-based data sets.	4/16/2007	9/30/2007	Active	The Region will investigate the special needs for the capture, storage, and dissemination of data collected following an EMAP GRTS (Generalized Random Tessellation Stratified) sampling approach. They will work toward a strategy for obtaining, managing and appropriately disseminating data collected under an EMAP GRTS sampling approach.
H. WDFW development and maintenance of data exchange standards	10/1/2006	9/30/2007	Active	WDFW, on an ongoing basis and as scheduled by the Steering Committee, will work cooperatively through the Steering Committee, following the DEF Process document, to revise existing and/or develop new DEFs to assure regional data consistency and allow for inclusion of new data types.
<b>Deliverable: I. Data are maintained and updated.</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**Q: 161. Disseminate Raw/Summary Data and Results**

**Title:** Develop and maintain Internet sites for data dissemination

**Description:** StreamNet will continue to maintain and enhance the StreamNet Internet sites to provide access to tabular and GIS data from the StreamNet database. PSMFC will maintain and enhance the primary project website (www.streamnet.org) and associated applications, including the data query system, the interactive map applications and the Data Store. Partner agencies will assist with routine periodic review and comment on the primary website and may disseminate data through websites associated with their agency's StreamNet project and references housed in the StreamNet Library. Priority will be given to incorporating data and references developed through Work Element 159. The website will also be used to archive data sets developed by FWP participants for data that do not fit within the StreamNet DEF (Data Store archive function), including the means to index and search the archive. Metadata will be published as a web service, making all data findable through external portals.

**Planned Metrics:** <None>

**Deliverable Specification:** Internet sites for the dissemination of data at PSMFC and the cooperating agencies are maintained and functional. New web pages and features are developed as necessary to maximize the availability and utility of data. Metadata are published as web services.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC StreamNet Internet site maintenance and development	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will provide review of the StreamNet website (StreamNet's primary data dissemination tool) through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.
B. IDFG StreamNet Internet site maintenance and development	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis, will provide review of the StreamNet website (StreamNet's primary data dissemination tool) through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.
C. MFWP StreamNet Internet site maintenance and development	10/1/2006	9/30/2007	Active	MFWP, on an ongoing basis, will provide review of the StreamNet website (StreamNet's primary data dissemination tool) through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.
D. ODFW StreamNet Internet site maintenance and development	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will provide review of the StreamNet website (StreamNet's primary data dissemination tool) through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.
E. ODFW internal Internet site maintenance and development	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will manage and maintain Oregon's web-based data integration, communication, and data transfer systems and their links to StreamNet.





Milestone Title	Start Date	End Date	Status	Milestone Description
F. PSMFC Internet site maintenance and development	10/1/2006	9/30/2007	Active	<p>The Region, on an ongoing basis, will maintain and improve the StreamNet Internet site (the primary means of disseminating StreamNet data), through the following actions:</p> <ol style="list-style-type: none"> <li>1. Correcting errors, adding or fixing links, improving performance, improving looks and usability, etc.;</li> <li>2. Guide development and enhancement of the StreamNet web query system from the perspective of data users, and review changes to the web query system to ensure they are implemented appropriately and do not create unforeseen problems;</li> <li>3. Maintain the GIS Data, Map, and PNW Reach File Internet pages;</li> <li>4. Maintain, update as necessary, and improve the Internet mapping component to the StreamNet web site to allow users to access StreamNet data through interactive map interfaces. Improvements might include modifications to the mapping interface, improving data content (background imagery and vector data), and mapping trend locations selected via the web query system;</li> <li>5. Research integration of 4th, 5th and 6th field HUC boundary layers into a single region-wide dataset and plan improvements to the web-query system and Internet map application as this improved base data becomes available;</li> <li>6. Deploy, as needed, new query system components and data categories that are approved by the Steering Committee;</li> <li>7. Maintain logs of web query history and error events, track and report Internet site usage by month, and investigate web query system errors encountered;</li> <li>8. Maintain and enhance the functionality, look and usability of the StreamNet web-based query system; and,</li> <li>9. Begin planning for a complete redesign of the query system and website, with actual development to begin in FY-08.</li> <li>10. Maintain the PNAMP monitoring inventory web page.</li> </ol>
G. WDFW StreamNet Internet site maintenance and development	10/1/2006	9/30/2007	Active	<p>WDFW, on an ongoing basis, will provide review of the StreamNet website (StreamNet's primary data dissemination tool) through routine use of the site, providing feedback to StreamNet staff at PSMFC on any problems, errors or needed improvements.</p>
<b>Deliverable: H. StreamNet Internet sites maintained and functional</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**R: 161. Disseminate Raw/Summary Data and Results**

**Title:** Respond to data/information requests

**Description:**





Receive and respond to requests for data, maps and other information; source materials; and custom data products at the regional and cooperating agency levels, as appropriate. Response to requests will be honored within the limits of available resources, with priority given to information requests having direct relevance to the Fish and Wildlife Program and data source agencies/departments. Other priorities will include implementation of the Endangered Species Act and federal, state, and tribal natural resource management activities. Custom data development will be dependent on available resources.

**Planned Metrics:** <None>

**Deliverable Specification:** Requests for information or assistance are responded to in a timely manner (within one business day at PSMFC). If within StreamNet capabilities, requested help or information is provided as rapidly as reasonably possible within existing resources.





Milestone Title	Start Date	End Date	Status	Milestone Description
A. FWS respond to and track data/information requests	10/1/2006	9/30/2007	Active	FWS, on an ongoing basis, will respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.
B. IDFG respond to and track data/information requests	10/1/2006	9/30/2007	Active	IDFG, on an ongoing basis, will respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.
C. MFWP respond to and track data/information requests	10/1/2006	9/30/2007	Active	MFWP, on an ongoing basis, will respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.
D. ODFW respond to and track data/information requests	10/1/2006	9/30/2007	Active	ODFW, on an ongoing basis, will respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.
E. PSMFC respond to and track data/information requests	10/1/2006	9/30/2007	Active	The Region, on an ongoing basis, will respond within one business day to requests for data, information or help, and will log and report responses to all requests received. Data requests will be satisfied on an "as possible" basis (based on data availability and time required) and for large requests, within the limitations of available staffing and funding.
F. PSMFC maintain and post Protected Areas data	10/1/2006	9/30/2007	Inactive	The Region, on an ongoing basis, will maintain and provide access to the Protected Areas data through the online query system and the interactive map application. The Region will add a web page that explains the Protected Areas and points users to all related resources. We will explore the means necessary to resolve Protected Areas locations to the mixed scale hydrography as the hydrography is developed in each state.
G. WDFW respond to and track data/information requests	10/1/2006	9/30/2007	Active	WDFW, on an ongoing basis, will respond to requests for data, maps, technical assistance, source materials, or custom data products at the agency level, within the capabilities provided by base funding. Requests will be logged and reported.
<b>Deliverable: H. Responses to requests are provided rapidly and tracked</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**S: 161. Disseminate Raw/Summary Data and Results**

**Title:** Library: Provide access to the library collection

**Description:** The StreamNet Library will provide user access to the materials described in the collection development work element by providing facilities for storage of paper and electronic copies of documents, an online catalog of all documents in the collection, and staff to answer location questions and respond to requests. They will provide library services to the StreamNet user community, the Council's Fish and Wildlife Program, and the general public. They will network with other agency and regional library service providers to provide better access to other collections that will enhance the StreamNet Library and to avoid unnecessary duplication of effort and materials.

**Planned Metrics:** <None>

**Deliverable Specification:** The StreamNet Library is opened to patrons on all business days, and patrons have full access to the collection in person and through phone or Internet requests and to services such as Interlibrary Loan, document searches, etc.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC provide access to the StreamNet Library collection	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will: 1. Provide and maintain appropriate facilities for the storage and public use of the StreamNet Library Collections. 2. Catalog and organize materials for ease of use by patrons. 3. Update web catalog and archive data by providing copies of the database to the Regional Data Manager on at least a monthly basis. 4. Maintain a plan to place electronic documents in the catalog and on the library website. 5. Provide access to reference documents supporting data in the StreamNet data query system and independent data sets in the Data Store.
B. CRITFC provide library services to patrons to support dissemination of information	10/1/2006	9/30/2007	Active	CRITFC, on an ongoing basis, will: 1. Provide information and reference services to patrons. 2. Evaluate changes in technology and new feature requests for improved services to library patrons. 3. Provide interlibrary lending and borrowing services for access to unique materials in the library collections and materials not owned by the library. 4. Provide consultations for groups and other agencies on library organization and services. 5. Coordinate with other StreamNet libraries, library clients, and other libraries (through professional memberships) to improve service to clients and limit duplication of effort.
C. ODFW organize ODFW Library documents	3/5/2007	9/30/2007	Inactive	ODFW, on an ongoing basis, will continue organization of ODFW Library documents and update the library bibliography with new titles as they are identified.
<b>Deliverable: D. Library access is available all business days</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**T: 189. Regional Coordination**

**Title:** Support regional efforts under the Fish and Wildlife Program

**Description:**





Participate in planning, development and/or coordination meetings with regional projects and programs under the Fish and Wildlife Program to help develop a regional data management framework, to establish data type and data service priorities, and to provide advice in the area of data management, as requested. Provide input on ways StreamNet can effectively contribute to the programs and general advice about data management. Participate in coordination groups (e.g., CBFWA), advisory groups, task forces, and other groups (e.g., PNAMP, NED, CSMEP) whose purpose is to enhance the effectiveness of the Fish and Wildlife Program relative to its data development activities. This also includes planning for the next round of subbasin planning and related activities.

**Planned Metrics:** <None>

**Deliverable Specification:** StreamNet staff have participated actively in and supported a number of projects funded through the FWP, including CBFWA, PNAMP, NED and CSMEP. StreamNet is a recognized component of the regional data management framework. Regional agreement is reached on priorities for StreamNet data development for the remainder of the three year funding cycle.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	CRITFC, on an as needed or requested basis as base level resources will allow, will work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program and serve as a data management resource to the FWP. This will include assisting with development of strategies for ESA recovery planning
B. IDFG provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	IDFG, on an as needed or requested basis as base level resources will allow, will work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program and serve as a data management resource to the FWP.
C. MFWP provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	MFWP, on an as needed or requested basis as base level resources will allow, will work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program and serve as a data management resource to the FWP.
D. ODFW provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	ODFW, on an as needed or requested basis as base level resources will allow, will work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program and serve as a data management resource to the FWP.





Milestone Title	Start Date	End Date	Status	Milestone Description
E. PSMFC provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	The Region, on an opportunistic basis and within budgeted resources, will work with regional entities to contribute data management expertise toward development of projects and activities within the scope of the Fish and Wildlife Program and serve as a data management resource to the FWP. Specific activities may include: 1. Continued participation on the Steering Committee for the Council's project to develop a Northwest Environmental Data-network (NED) to convey recommendations based on experience in the development of a regional approach to data dissemination; 2. Continued participation in the Steering Committee of the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) for watershed and fishery data coordination, and other R, M & E groups, including the Action Agencies, Federal Caucus and CBFWA, to provide support and data management expertise; 3. Continued participate with CBFWA in support of data management efforts, including work with the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP), the Status of the Resource Report and the Data Management Framework Subcommittee. 4. Provide support (expertise and guidance) to other FWP related programs and projects as requested and as possible under existing resources.
F. WDFW provide support to Fish and Wildlife Program development activities	10/1/2006	9/30/2007	Active	WDFW will work with regional entities to contribute data management expertise toward development of activities within the scope of the Fish and Wildlife Program such as the Data Management Framework or subbasin planning, serving as a professional data management resource to the FWP.
<b>Deliverable: G. Data related support is provided to FWP related activities</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**U: 189. Regional Coordination**

**Title:** Coordinate with and support data source agencies

**Description:** Coordinate with state, tribal and federal fish and wildlife agencies/departments that develop data of interest to StreamNet's mission to streamline data capture, determine agency data management needs and work to improve their internal data management and data transfer to StreamNet. Demonstrate data management tools and applications developed by StreamNet staff and others to increase interest in and adoption of similar tools to improve data flow and automation. Support development of internal data management capabilities and data automation to the degree possible under existing funding, and attempt to link data tools to reporting and decision making. Encourage data sharing in exchange for help with data management.

**Planned Metrics:** <None>

**Deliverable Specification:** Data capture and management tools demonstrated to agencies and regional groups. Increased involvement with tribes and development of plans to increase capture of tribal data. Commitment of agencies to increased data flow automation.





Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC coordination with data source agencies	10/1/2006	9/30/2007	Active	CRITFC, on an opportunistic basis and within budgeted resources, will coordinate with member tribal organizations to determine data availability and resources needed to develop future delivery of relevant data to StreamNet
B. IDFG coordination with data source agencies	10/1/2006	9/30/2007	Active	IDFG StreamNet will coordinate with IDFG in efforts to develop data management systems that will speed the flow of data and make more data available to StreamNet.
C. MFWP coordination with data source agencies	10/1/2006	9/30/2007	Active	MFWP StreamNet will coordinate with MFWP to support enhanced data flow to StreamNet.
D. MFWP assist Fisheries Division in preparation of a Statewide Fisheries Management Plan	10/1/2006	9/30/2007	Inactive	MFWP will provide support, technical expertise and guidance, and products for the development of the Fisheries Division Statewide Fisheries Management Plan.
E. MFWP assist the Fisheries Division in standardized field survey techniques and forms	10/1/2006	9/30/2007	Inactive	MFWP will provide guidance, support and review to the activities of the Fisheries Division in their effort to standardize data processes and procedures from the field to data delivery.
F. ODFW coordination with data source agencies	10/1/2006	9/30/2007	Active	ODFW, on an opportunistic basis and within budgeted resources, will coordinate with data sources to provide guidance and assistance with data processes to support efficient data flow and to determine future data management needs. Focus this year will be to work with Rec Plan, run-reconstruction staff and others to identify the core datasets used in recovery planning and run-reconstruction. Once core Recovery Plan and/or run-reconstruction datasets have been identified, create and/or fully populate existing metadata for these datasets.
G. ODFW StreamNet coordination with ODFW on Data Summit	10/1/2006	9/30/2007	Inactive	ODFW StreamNet will take the lead in planning and building support for an ODFW Data Summit in FY-08. This effort will include contributing to and showcasing ODFW datasets and/or applications that support ODFW priorities.
H. ODFW coordination with ODFW GIS Coordination Group	10/1/2006	9/30/2007	Inactive	ODFW StreamNet will continue to spearhead the ODFW GIS Coordination Group's efforts to develop an agency Strategic and Implementation Plan.
I. Region coordination with data source agencies	10/1/2006	9/30/2007	Inactive	The Region, on an opportunistic basis and within budgeted resources, will work with the StreamNet partners to coordinate with agencies and organizations that collect data to determine their data availability, data management capabilities and needs, and interest in providing data to StreamNet. We will work toward supporting the data source agencies in developing the capabilities and tools to facilitate increased data flow.
J. WDFW coordination with data source agencies	10/1/2006	9/30/2007	Inactive	WDFW, on an opportunistic basis and within budgeted resources, will coordinate with data sources to provide guidance and assistance with data processes to support efficient data flow and to determine future data management needs.
<b>Deliverable: K. Support provided to data source agencies</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**V: 189. Regional Coordination**

**Title:** Coordinate with related activities outside of the FWP

**Description:** Maintain communications between StreamNet and other applicable regional, federal, tribal, private and state-level agencies and activities beyond the Council's Fish and Wildlife Program to identify means for collaboration on data capture and management. On request or as possible, work toward capture of data not currently being entered in StreamNet.

**Planned Metrics:** <None>

**Deliverable Specification:** Coordination with fish and wildlife programs outside of the FWP on additional data types not in StreamNet is conducted as possible or needed

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC coordination with related activities outside of the FWP	10/1/2006	9/30/2007	Active	CRITFC, on an opportunistic basis and within budgeted resources, will coordinate with other agencies, regional groups, non-profits, etc. that are not part of the Fish and Wildlife Program for the purpose of enhancing the collection and management of data related to the StreamNet project mission.
B. IDFG coordination with related activities outside of the FWP	10/1/2006	9/30/2007	Active	IDFG, on an opportunistic basis and within budgeted resources, will coordinate with other agencies, regional groups, non-profits, etc. that are not part of the Fish and Wildlife Program for the purpose of enhancing the collection and management of data related to the StreamNet project mission.
C. MFWP coordination with related activities outside of the FWP	10/1/2006	9/30/2007	Active	MFWP, on an opportunistic basis and within budgeted resources, will coordinate with other agencies, regional groups, non-profits, etc. that are not part of the Fish and Wildlife Program for the purpose of enhancing the collection and management of data related to the StreamNet project mission.
D. ODFW coordination with related activities outside of the FWP	10/1/2006	9/30/2007	Active	ODFW, on an opportunistic basis and within budgeted resources, will coordinate with other agencies, regional groups, non-profits, etc. that are not part of the Fish and Wildlife Program for the purpose of enhancing the collection and management of data related to the StreamNet project mission.
E. PSMFC coordinate with related activities outside of the FWP	10/1/2006	9/30/2007	Active	The Region, on an opportunistic basis and within budgeted resources, will coordinate with other state, federal, or tribal agencies and various regional interagency planning and management work groups outside the FWP to enhance the collection and management of data related to management of fish and wildlife resources.
F. WDFW coordination with related activities outside of the FWP	10/1/2006	9/30/2007	Active	WDFW, on an opportunistic basis and within budgeted resources, will coordinate with other agencies, regional groups, non-profits, etc. that are not part of the Fish and Wildlife Program for the purpose of enhancing the collection and management of data related to the StreamNet project mission.
<b>Deliverable: G. Coordination outside the FWP is accomplished as needed</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**W: 99. Outreach and Education**





**Title:** Professional and public involvement

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

**Planned Metrics:** \* # of general public reached: 500

\* # of teachers reached: 100

**Deliverable Specification:** Materials describing the project are made available, and professional groups are informed about the project and its services.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. CRITFC support for professional and public involvement	10/1/2006	9/30/2007	Active	CRITFC, on an opportunistic basis and within budgeted resources, will prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the StreamNet project.
B. IDFG support for professional and public involvement	10/1/2006	9/30/2007	Active	IDFG, on an opportunistic basis and within budgeted resources, will prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the StreamNet project.
C. MFWP support for professional and public involvement	10/1/2006	9/30/2007	Active	MFWP, on an opportunistic basis and within budgeted resources, will prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the StreamNet project.
D. ODFW support for professional and public involvement	10/1/2006	9/30/2007	Active	ODFW, as needed or requested within budget and time constraints, will prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the project.
E. PSMFC support for professional and public involvement	10/1/2006	9/30/2007	Active	The Region, on an opportunistic basis and within budgeted resources, will participate in and prepare and deliver presentations to scientific and professional meetings to demonstrate project capabilities and accomplishments, advertise StreamNet services, and to solicit additional data and coordination. Such professional groups may include various units of the American Fisheries Society, the Organization of Fish and Wildlife Information Managers, and other local, regional or national groups.
F. PSMFC support for professional and public involvement and publication of newsletter	10/1/2006	9/30/2007	Active	The Region will publish at least two (preferably four, depending on availability of 'news') editions of the StreamNet Newsletter during the fiscal year, providing readers with information about StreamNet activities, available data, data updates, new data services, etc. Target publication dates are 3/31/2007 and 9/30/2007.





Milestone Title	Start Date	End Date	Status	Milestone Description
G. PSMFC support professional and public involvement, produce public materials	10/1/2006	9/30/2007	Active	The Region, as needed, will develop and distribute materials to support the project and improve public materials such as the StreamNet brochure, data inventories, etc. as needed. They will maintain and update explanatory materials such as the Query System User Guide and other documents explaining data categories and data structures and/or prepare new materials, as necessary.
H. WDFW support for professional and public involvement	10/1/2006	9/30/2007	Active	WDFW, on an opportunistic basis and within budgeted resources, will prepare and deliver presentations to public, scientific and professional meetings to demonstrate project capabilities, services and accomplishments and to solicit additional data and involvement or coordination with the StreamNet project.
<b>Deliverable: I. Materials prepared and presentations given as needed</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>

**X: 119. Manage and Administer Projects**

**Title:** Manage project activities

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

**Planned Metrics:** <None>

**Deliverable Specification:** Project staff and budgets are effectively managed, work detailed in the SOW is accomplished, and required SOW/budget documents are prepared and submitted on schedule.





Milestone Title	Start Date	End Date	Status	Milestone Description
A. Project oversight and guidance: Project management and Steering Committee	10/1/2006	9/30/2007	Active	All StreamNet cooperators will perform project oversight and guidance (at both cooperator and Regional levels) and will participate cooperatively in the StreamNet Steering Committee to guide the direction of the project, coordinate among agencies and resolve policy and technical issues for the project.
B. Project oversight and guidance: Supervision	10/1/2006	9/30/2007	Active	All StreamNet cooperators, except for FWS, will supervise project staff and provide guidance and staff development.
C. Project oversight and guidance: Budget control	10/1/2006	9/30/2007	Active	All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
D. StreamNet cooperators provide input for the FY-08 draft SOW/budget package	5/1/2007	6/16/2007	Active	Project cooperators will provide their respective input to the FY-08 Statement of Work and budget to PSMFC 105 days prior to the end of the FY-07 contract period.
E. PSMFC develop FY-08 draft SOW/budget package	4/3/2007	6/30/2007	Active	PSMFC will oversee development and submission of the FY-08 SOW and budget. Guidance will be provided to project cooperators 120 days before the end of the Fiscal year. PSMFC will utilize input from the cooperators to develop the final proposed FY-08 Statement of Work and budget and submit it to BPA 90 days prior to the end of the FY-07 contract period.
F. Accrual - Submit June estimate to BPA	10/1/2006	6/10/2007	Active	PSMFC, with input from the cooperating projects, will produce the June interim accrual estimate and submit it to BPA.
G. Accrual - Submit September estimate to BPA	7/1/2007	9/10/2007	Active	Provide BPA with an estimate of contract work that will occur prior to September 30 but will not be billed until October 1 or later. Generally, this should be done by September 10.
H. Administration of the new PNAMP inventory	10/1/2006	12/31/2006	Completed	The Region will administer the PNAMP Monitoring Inventory Project which is being conducted on other BPA funding. StreamNet contributions to this project will include hiring of technicians, supervision of technicians, development of the inventory questionnaire and database, development of GIS and tabular output interfaces, and oversight over development of the project report.
<b>Deliverable: I. Project management accomplished</b>		9/30/2007	Active	<i>See the Deliverable Specification above</i>





**Y: 132. Produce (Annual) Progress Report**

**Title:** Annual report

**Description:** Produce a detailed annual report for FY-06 project activities within 60 days of the end of the fiscal year.

**Planned Metrics:** <None>

**Deliverable Specification:** The FY-06 annual report is submitted to BPA and uploaded to the BPA reports page.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC submit FY-2006 annual report to BPA	10/1/2006	2/23/2007	Completed	The Region, with input from all cooperators, will submit the FY-06 annual progress report to BPA. The format will be changed beginning this fiscal year to include detailed information about project activities throughout the fiscal year at the Work Element Title level. This change is due to BPA requiring the quarterly reports to be submitted in Pisces, eliminating the detail previously provided in the quarterly reports.
<b>Deliverable: B. Annual report submitted to BPA</b>		11/30/2006	Active	<i>See the Deliverable Specification above</i>

**Z: 185. Produce Pisces Status Report**

**Title:** Periodic Status Reports for BPA

**Description:** The Contractor shall report on the status of milestones and deliverables in Pisces. Reports shall be completed either monthly or quarterly as determined by the BPA COTR. Additionally, when indicating a deliverable milestone as COMPLETE, the contractor shall provide metrics and the final location (latitude and longitude) prior to submitting the report to the BPA COTR.

**Planned Metrics:** <None>

**Deliverable Specification:**

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Oct-Dec 2006 (10/1/2006 - 12/31/2006)	1/1/2007	1/15/2007	Completed	
B. Jan-Mar 2007 (1/1/2007 - 3/31/2007)	4/1/2007	4/15/2007	Completed	
C. Apr-Jun 2007 (4/1/2007 - 6/30/2007)	7/1/2007	7/15/2007	Active	
D. Final Jul-Sep 2007 (7/1/2007 - 9/30/2007)	9/16/2007	9/30/2007	Active	

