



## Statement of Work Report

**Project Title:** StreamNet - Coordinated Information System (CIS)/ Northwest Environmental Database (NED)  
**Project #:** 1988-108-04  
**Contract Title:** 1988-108-04 EXP STREAMNET  
**Contract #:** 66435 [ISSUED]  
**Province:** Non-Provincial      **Subbasin:** Basinwide  
**Workorder ID:** 35794      **Task ID:** 1  
**Perf. Period Budget:** \$2,084,576      **Perf. Period:** 10/1/2014 - 9/30/2015  
**Contract Type:** Contract (IGC)      **Pricing Type:** Cost Reimbursement (CNF)  
**Contractor(s):** Pacific States Marine Fisheries Commission (Prime - PACISTAT00)  
**BPA Internal Ref:** 66435  
**SOW Validation:** Last validated 08/01/2014 with 0 problems, and 0 reviewable items  
**Contract Documents:** [Property Inventory \(07/31/2014\)](#)      StreamNet Property Inventory  
                                  [Budget - Contract \(08/01/2014\)](#)      FY 2015 Budget with Subcontracts

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**Work Element Table of Contents:**

<u>Work Element - Work Element Title</u>	<u>EC Needed*</u>	<u>Estimate</u>	<u>(%)</u>
A : 159. Transfer/Consolidate Regionally Standardized Data - Support transfer of data into secure and accessible repositories		\$49,125	(2 %)
B : 160. Create/Manage/Maintain Database - Maintain StreamNet Data Store as a secure and accessible repository		\$3,654	(0 %)
C : 189. Coordination-Columbia Basinwide - CA Data - coordination		\$101,461	(5 %)
D : 160. Create/Manage/Maintain Database - CA Data - DES and database		\$121,515	(6 %)
E : 159. Transfer/Consolidate Regionally Standardized Data - CA Data - compile data		\$222,221	(11 %)
F : 160. Create/Manage/Maintain Database - CA Data - automated data exchange		\$107,637	(5 %)
G : 161. Disseminate Raw/Summary Data and Results - CA Data - dissemination		\$17,102	(1 %)
H : 159. Transfer/Consolidate Regionally Standardized Data - Compile traditional StreamNet data and explore CA-like process for other fish metrics		\$213,049	(10 %)
I : 160. Create/Manage/Maintain Database - Data exchange standards and database for resident fish and other metrics		\$67,203	(3 %)
J : 189. Coordination-Columbia Basinwide - Regional Coordination		\$173,563	(8 %)
K : 161. Disseminate Raw/Summary Data and Results - Disseminate Data		\$68,947	(3 %)
L : 160. Create/Manage/Maintain Database - Enhance data efficiency - system development		\$222,520	(11 %)
M : 189. Coordination-Columbia Basinwide - Coordinate testing of field data capture devices & software		\$62,807	(3 %)
N : 161. Disseminate Raw/Summary Data and Results - Metadata exchange through Monitoring Explorer pilot project		\$11,717	(1 %)
O : 161. Disseminate Raw/Summary Data and Results - Data sharing agreements		\$13,707	(1 %)
P : 160. Create/Manage/Maintain Database - Infrastructure and base operations		\$248,751	(12 %)
Q : 119. Manage and Administer Projects - Manage project activities		\$281,458	(14 %)
R : 132. Produce (Annual) Progress Report - Annual Report 1/1/2014 - 12/31/2014		\$52,461	(3 %)
S : 185. Produce Pisces Status Report - Periodic Status Reports for BPA		\$39,412	(2 %)



<u>Work Element - Work Element Title</u>	<u>EC Needed*</u>	<u>Estimate</u>	<u>(%)</u>
T : 202. Produce BiOp RPA Report - Produce Calendar Year 2014 BiOp Report		\$6,266	(0 %)
Total:		\$2,084,576	

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

**Contract Description:**

1988-108-04 EXP STREAMNET (CIS-NED) FY15

StreamNet is a cooperative, regional scale data compilation and dissemination project that acquires fish related data from the management agencies, standardizes and georeferences them to the hydrography (stream network), and makes them widely available through online data query systems. The project also provides data management related services to a variety of regional entities, including the agencies that create the biological data, and regional groups that have interest in regional scale fish monitoring data.

The StreamNet project is undergoing significant changes in response to new regional data priorities. For FY-2015, data development work on the traditional data types continues to be a secondary priority, with primary emphasis on generating a flow of data to satisfy the Coordinated Assessments project, and to support the archiving of data to secure data repositories that are available to appropriate regional scale entities. More specific work priorities for this year are:

1. Based on the FY-13 inventory of fish monitoring data, work to ensure that data created by BPA funded projects are archived in suitably secure and accessible data repositories, as listed in monitoringresources.org.
2. Assure annual updates of available indicators and metrics as defined by the Coordinated Assessments (CA) project, and work to support improved data flow efficiency. Work toward establishing automated data feeds from the CA database to NOAA Fisheries for the Salmon Population Status database, and as agency capabilities improve, automate data feeds from the agencies to the CA database. As the CA project expands focus to additional types of indicators, such as for hatchery performance, lead the development of Data Exchange Standards (DES) for the project and incorporate them into the CA database.
3. Finalize a DES for juvenile abundance estimates and include this data type as part of the traditional data types in StreamNet. Assure that juvenile data are included in the CA data flow, and work to acquire juvenile data that are broader than just CA metrics for inclusion in the StreamNet database, as a lower priority.
4. Explore the potential to add fish population productivity estimates to the traditional StreamNet data types.
5. Implement a Data Sharing Agreement template to facilitate data sharing through StreamNet and other regional scale databases.
6. Expand use of web services to utilize information from various regional databases such as Taurus, mm.org, monitoringresources.org, etc. to facilitate development of metadata and query capabilities for data in StreamNet, with a goal of increasing efficiency by eliminating the need for data sources to enter the same information more than once.
7. Prepare to receive and maintain data from the Northwest Habitat Institute as directed by the Northwest Power and Conservation Council.

Any work to update the traditional StreamNet data types will be attempted only when work to address the new priorities has been completed. Some resumption of updating the more traditional data may begin in FY-15, but complete updating of standard data trends will not be possible due to other priorities.

Ongoing work to support the project will include maintenance of the databases and computer infrastructure needed to manage and disseminate the data, regional coordination to integrate StreamNet efforts with other regional efforts to maximize efficiency of data flow and support regional approaches to data management and sharing, and administration of the project.

Details of the specific tasks to be performed in FY-2015 are presented in this Statement of Work.



## Statement of Work Report

### Work Element Details

#### **A: 159. Transfer/Consolidate Regionally Standardized Data**

**Title:** Support transfer of data into secure and accessible repositories

**Description:** Work with BPA project sponsors and others, as needed, to assist in assuring that data are archived and backed up in repositories, as listed at [monitoringresources.org](http://monitoringresources.org), that are secure from catastrophic loss and are web accessible to specified data users.

**Deliverable Specification:** StreamNet participants assist sponsors in securing data in appropriate repositories, as requested. Data are stored in appropriate repositories.

**Primary Focal Species:** Chinook - All Populations | Chum - Columbia River ESU | Coho - Lower Columbia River ESU | Coho - Unspecified Population | Sockeye - All Populations | Steelhead - All Populations | Lamprey, Pacific | Cutthroat Trout, Coastal - All Anadromous Populations | Trout, Bull | Trout, Interior Redband

**Data Repositories:** StreamNet Data Store ([http://www.streamnet.org/datastore\\_search.cfm](http://www.streamnet.org/datastore_search.cfm))  
StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	PSMFC StreamNet will assist BPA project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility to BPA and other appropriate entities. For data that will be archived in the StreamNet Data Store, staff will assist project sponsors with metadata creation and data upload if requested and within staff resources.
B. CTRC Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	CTRC StreamNet will assist tribal project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
C. FWS Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	FWS StreamNet will assist FWS project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
D. IDFG Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	IDFG StreamNet will assist IDFG project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
E. MFWP Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	MFWP StreamNet will assist MFWP project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
F. ODFW Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	ODFW StreamNet will assist ODFW project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
G. WDFW Assist project sponsors transfer of data to secure and accessible repositories	10/1/2014	9/30/2015	Active	WDFW StreamNet will assist WDFW project sponsors in locating appropriate data repositories, as listed in <a href="http://monitoringresources.org">monitoringresources.org</a> , for secure storage and accessibility. For data that will be archived in the StreamNet Data Store, staff will assist sponsors with metadata creation and data upload or refer sponsors to PSMFC for assistance.
<b>Deliverable: H. Support transfer of data into secure &amp; accessible repositories</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

#### **B: 160. Create/Manage/Maintain Database**

**Title:** Maintain StreamNet Data Store as a secure and accessible repository



**Description:** Continue to manage and improve the StreamNet Data Store as a repository for unstructured data. Expand linkage with metadata in mm.org, Taurus, etc. to simplify metadata creation for project sponsors submitting data for archiving. Additional support may be provided for fixing bugs or further streamlining metadata requirements. Metadata should be consistent with the PNAMP MMX and should use standard schema adopted by the PNAMP metadata working group as used in the monitoring resources "Metadata builder".

**Deliverable Specification:** The Data Store data submission procedure is improved, efficient, and is increasingly used as an archive for unstructured data, particularly from BPA project sponsors. The Data Store tools integrate with mm.org and cbfish.org.

**Data Repositories:** StreamNet Data Store ([http://www.streamnet.org/datastore\\_search.cfm](http://www.streamnet.org/datastore_search.cfm))  
StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC enhance function of Data Store for dissemination of BPA project and other unstructured data	10/1/2014	9/30/2015	Active	PSMFC will improve functionality of the Data Store for disseminating data created by BPA-funded and other projects through integration with data in monitoringmethods.org, cbfish.org, etc. Standard procedures will include review and processing of each data set and related metadata within one business day of submission, with confirmation when the sponsor's data set is made live on the Data Store. Procedures for handling data sets with non-universal access, if established, will be implemented in appropriate cases.
<b>Deliverable: B. Maintain StreamNet Data Store as secure and accessible repository</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

**C: 189. Coordination-Columbia Basinwide**

**Title:** CA Data - coordination

**Description:** The Coordinated Assessments project seeks to improve basin-wide assessments of salmon and steelhead population abundance and productivity indicators by improving how data are shared among agencies and tribes. StreamNet will provide leadership and coordination for the project, particularly its technical aspects. StreamNet will continue serving on the CA Core Team and the Planning Group (CAPG). StreamNet will lead the DES Development Team to manage existing contents and to expand to new data types, and will participate in project meetings and workshops. StreamNet will work with partners to establish an exchange node on the EPA network for CA data.

**Deliverable Specification:** StreamNet provides leadership and coordination for the Coordinated Assessments project, including participation in the CA core team and planning group, leadership of the DES Development Team, leadership of the technical aspects of the project, and overall project participation and coordination. An exchange node on the EPA network is created.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will continue in a leadership role in the Coordinated Assessments project, including serving as technical lead, serving on the CA Core Team, participating in the CA Planning Group, leading the DES Development Team, discussing expansion of a CA-like process for new data types, such as resident fish, and coordinating with the agencies that provide and use the CA data.
B. CTCR Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	The Colville Tribe StreamNet project will participate in the several workshops and web meetings which are held throughout the year in which updates are given and coordination is made among various participants.
C. IDFG Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	IDFG StreamNet will coordinate with the CAPG, IDFG, and other data source agencies in Idaho to support efficient flow of data to the Coordinated Assessments project, and will coordinate with project participants including participation in workshops, meetings or web meetings.
D. ODFW Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	ODFW StreamNet will coordinate with the CAPG, ODFW, and other data source agencies in Oregon to support efficient flow of data to the Coordinated Assessments project, and will coordinate with project participants including participation in workshops, meetings or web meetings.
E. WDFW Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	WDFW StreamNet will coordinate with the CAPG, WDFW, and other data source agencies in Washington to support efficient flow of data to the Coordinated Assessments project, and will coordinate with project participants including participation in workshops, meetings or web meetings.
F. FWS Coordinate and support the Coordinated Assessments project	10/1/2014	9/30/2015	Active	FWS StreamNet project will participate in the several workshops and web meetings which are held throughout the year in which updates are given and coordination is made among various participants.
<b>Deliverable: G. Coordinated Assessment Leadership</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

<b>Title:</b>	CA Data - DES and database
<b>Description:</b>	<p>Manage the existing Coordinated Assessments Data Exchange Standard (DES) for the initial indicators and metrics. Expand the DES to include additional metrics as they are adopted by the CAPG and participating state and tribal agencies. New indicators may be recommended by the CAPG and incorporated into the work plan. Manage and QA the CA data in a database conforming to the CA DES. Assist partners in creation of a database on the EPA node. Primary focus will be on maintaining the DES and database for the following Indicators:</p> <ol style="list-style-type: none"><li>1. NOSA (Natural Origin Spawning Adults)</li><li>2. SARs (Smolt to Adult returns)</li><li>3. RperS (Recruits per Spawner)</li><li>4. Juvenile Productivity</li><li>5. Hatchery spawners (pHOS),</li><li>6. PNI, (Percent Natural Influence)</li><li>7. Egg to release survival,</li><li>8. Hatchery SAR, and</li><li>9. RperS (Hatchery recruits per spawner)</li></ol>
<b>Deliverable Specification:</b>	The CA DES is maintained and updated to include new indicators and their supporting metrics and metadata, and CA data are loaded and QA'd in a conforming database. A node on the EPA network is created and an indicator database for the same data exists on StreamNet and is linked effectively to that node.
<b>Data Repositories:</b>	StreamNet Database      ( <a href="http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&amp;NewQuery=BuildCriteria">http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&amp;NewQuery=BuildCriteria</a> )



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Lead development of database	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will lead the development of a database for Indicator level data on the StreamNet website, including access and security as defined in the applicable Data Sharing Agreement for CA. PSMFC StreamNet staff will maintain the CA database indicator and metric database on the EPA node in conformity with the Coordinated Assessments DES. Staff will load the Indicators and Metrics provided by the participating agencies into the database, develop stored procedures to perform QA/QC to assure data quality, and assure that the data are available for dissemination to users through web services. PSMFC will maintain and improve the CA database as necessary until such time as an Exchange Network approach can be implemented among all project members, and at that time lead the central management function for the network.
B. PSMFC Lead development of DES	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will lead the DES Development Team to manage and update the existing CA Data Exchange Standard and work to add additional indicators to include derived estimates and field level measures of juveniles summarized as trends on an annual basis to the DES as directed by the CAPG. PSMFC staff will coordinate with data providers to ensure the DES is interpreted and implemented consistently among data sources. Improve creation and management of juvenile abundance estimates through development of software and hardware tools that assist project managers with collecting and managing data. Work with project partners to develop consistent approaches to capturing rotary screw trap data and calculating smolt production and share results. PSMFC StreamNet staff will improve and promote the smolt trap data collection, management, and analysis system that was created under USFWS funding for implementation in the Columbia Basin. Where features, such as analysis routines, from this robust system could enhance other existing systems, the code will be provided for use in those systems. If agencies wish to adopt this system, PSMFC staff will assist new users with installation and implementation of the system. Workshops or webinars will be held to demonstrate system capabilities and for training.
C. CTRC Development and maintenance of CA data exchange standards and database	10/1/2014	9/30/2015	Active	The Colville Tribe StreamNet project will participate in maintenance of the existing CA Data Exchange Standard and in development of new DES contents, as needed throughout the year. In order to conform to the Coordinated Assessment processes and goals, changes or additions to the OBMEP database will be made to incorporate the Coordinated Assessments Data Exchange Standard.
D. IDFG Development and maintenance of CA data exchange standards and database	10/1/2014	9/30/2015	Active	IDFG StreamNet staff will participate in the management and modifications to the CA Data Exchange Format to assure consistent organization and flow of data. IDFG will develop a database and user interface for data entry and data management of Coordinated Assessments indicators developed and managed by IDFG biologists.
E. ODFW Development and maintenance of CA data exchange standards and database	10/1/2014	9/30/2015	Active	ODFW will participate in the management and modifications to the CA Data Exchange Format to assure consistent organization and flow of data. ODFW will develop database systems for data entry and/or data management of Coordinated Assessments indicators developed and managed by ODFW biologists.
F. WDFW Development and maintenance of CA data exchange standards and database	10/1/2014	9/30/2015	Active	WDFW StreamNet will manage their databases to incorporate the CA data (indicators, metrics and metadata) in DES format, and participate in management of the CA DES.
G. FWS Development and maintenance of CA data exchange standards and database	10/1/2014	9/30/2015	Active	FWS will participate in the development and maintenance of the CA DES, and CA related data will be organized and managed in project databases.
<b>Deliverable: H. The CA DES is maintained and updated and a node on the EPA network is created.</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

**E: 159. Transfer/Consolidate Regionally Standardized Data****Title:** CA Data - compile data**Description:** Obtain the available CA indicator and supporting metrics, convert them into the DES format, and exchange them with the interim CA database at PSMFC StreamNet until such time as an exchange database is functional on the EPA node. Work with partners to assist in data exchange between agency databases and the node.





**Deliverable Specification:** All available CA indicators and metrics are obtained, updated, converted to the DES format, and exchanged with the CA database.

**Primary Focal Species:** Chinook - Deschutes River Summer/Fall ESU | Chinook - Lower Columbia River ESU | Chinook - Mid-Columbia River Spring ESU | Chinook - Snake River Fall ESU | Chinook - Snake River Spring/Summer ESU | Chinook - Upper Columbia River Spring ESU | Chinook - Upper Columbia River Summer/Fall ESU | Chinook - Upper Willamette River ESU | Steelhead - Lower Columbia River DPS | Steelhead - Middle Columbia River DPS | Steelhead - Snake River DPS | Steelhead - Upper Columbia River DPS | Steelhead - Upper Willamette River DPS

**Data Repositories:** StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC will ensure that annual work plan includes measurable goals and objectives for data compilation	10/1/2014	9/30/2015	Active	PSMFC: StreamNet staff will ensure that the CAPG annual work plan includes measurable goals and objectives for compilation of data. These goals will be clearly communicated to partners and PSMFC staff will provide guidance, coordination, and will assist partners with data compilation issues. A database for indicator level data will be provided on the StreamNet website, and data will be exchanged.
B. CTCR compile data relevant to Coordinated Assessments indicators and metrics	10/1/2014	9/30/2015	Active	CTCR: Data related to the Coordinated Assessments will be managed in the OBMEP database system, and any available indicators and metrics will be exchanged to the CA database at PSMFC and to the EPA node as it becomes operational.
C. IDFG Compile data relevant to Coordinated Assessments	10/1/2014	9/30/2015	Active	IDFG StreamNet Data related to the Coordinated Assessments will be managed in the IFIS database system, and any available indicators and metrics will be exchanged to the CA database at PSMFC and to the EPA node as it becomes operational.
D. ODFW Compile data relevant to Coordinated Assessments	10/1/2014	9/30/2015	Active	ODFW StreamNet Data related to the Coordinated Assessments will be incorporated into the Salmon & Steelhead Recovery Tracker database system, and any available indicators and metrics will be exchanged to the CA database at PSMFC and to the EPA node as it becomes operational.
E. WDFW Compile data relevant to Coordinated Assessments	10/1/2014	9/30/2015	Active	WDFW StreamNet Data related to the Coordinated Assessments will be managed in the WDFW database system, and any available indicators and metrics will be exchanged to the CA database at PSMFC and to the EPA node as it becomes operational.
F. FWS will compile and deliver hatchery indicators and metrics	10/1/2014	9/30/2015	Active	FWS will compile and deliver available hatchery indicators and metrics to the CA database at PSMFC.
<b>Deliverable: G. CA indicators and metrics are compiled</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** CA Data - automated data exchange

**Description:** Establish automated feeds of the CA data to the CA database at PSMFC StreamNet and then to the exchange network at EPA via web services or other automated means.

**Deliverable Specification:** Automated feeds of CA data to the CA database are implemented and evaluated for effectiveness, and automated data feeds to NOAA are initiated.

**Data Repositories:** StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Improve systems to manage data feeding CA indicators	10/1/2014	9/30/2015	Active	PSMFC: StreamNet staff will work with participants in the CA project to develop automated flow of indicator and metric data in CA DES format to the CA database at PSMFC and then to the EPA exchange network as it becomes operational. PSMFC StreamNet staff will maintain, and enhance as needed, the automated feed of CA indicators and supporting metrics to the NOAA Fisheries Salmon Population Status database that was initiated in FY-13.
B. IDFG : Improve systems to manage data feeding CA indicators	10/1/2014	9/30/2015	Active	IDFG: will develop corporate data sets and services to deliver CA data to StreamNet repositories automated method as determined by the Coordinated Assessments Exchange Configuration Team.
C. CTCR Improve systems to manage data feeding CA indicators	10/1/2014	9/30/2015	Active	CTCR: will develop corporate data sets and services to deliver CA data to StreamNet repositories via automated method as determined by the Coordinated Assessments Exchange Configuration Team.
D. WDFW Improve systems to manage data feeding CA indicators	10/1/2014	9/30/2015	Active	WDFW: will develop corporate data sets and services to deliver CA data to StreamNet repositories via Data.Wa.Gov or other automated method as determined by the Coordinated Assessments Exchange Configuration Team.
E. ODFW Improve systems to manage data feeding CA indicators	10/1/2014	9/30/2015	Active	ODFW: will develop corporate data sets and services to deliver CA data to StreamNet repositories via automated method as determined by the Coordinated Assessments Exchange Configuration Team.
<b>Deliverable: F. Automated feeds of CA data to the CA database are implemented and evaluated</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** CA Data - dissemination

**Description:** StreamNet will disseminate the CA indicator data by hosting a database for this data on the StreamNet website. Searchability and access to this information will be provided consistent with a Data Sharing Agreement. Indicator and metric data will be stored on the EPA exchange node, and made accessible for use by regional fish managers for review and decision-making.

**Deliverable Specification:** The CA indicators, metrics and metadata are available, consistent with a Data Sharing Agreement on either the StreamNet website or EPA node.

**Primary Focal Species:** Chinook - All Populations | Chum - Columbia River ESU | Coho - Lower Columbia River ESU | Coho - Unspecified Population | Cutthroat Trout, Coastal - All Anadromous Populations | Sockeye - All Populations | Steelhead - All Populations | Lamprey, Pacific | Trout, Bull | Trout, Interior Redband

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC disseminate the CA indicators and metrics	10/1/2014	9/30/2015	Active	PSMFC: StreamNet will establish means to disseminate the CA indicators through the StreamNet website and will work with partners to establish means to disseminate the CA metrics through the EPA node.
<b>Deliverable: B. CA indicators, metrics and metadata are available</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

**H: 159. Transfer/Consolidate Regionally Standardized Data**

**Title:** Compile traditional StreamNet data and explore CA-like process for other fish metrics

**Description:** Resume updating traditional data in the standard StreamNet database (redd counts, spawner counts, estimates of spawning population, dam and weir counts, hatchery return counts, age composition, barriers, and distribution), as time and staffing permit. Update the existing trends and exchange with the StreamNet database at PSMFC. Work on this task and maintenance of traditional StreamNet data will be secondary to progress on the existing Coordinated Assessments if prioritization is an issue. As regional priorities are established through collaboration and coordination, additional traditional data types may be included in a CA-type process for regional standardization, necessitating additional partnerships, such as with resident fish data managers. StreamNet will work with these partners collaboratively to develop, select indicators, compile data, and automate data flow as regional fish managers determine priorities for potential standardization of these new data types.

**Deliverable Specification:** Data sets are updated as time and staffing allow. State hydrography layers, including streams and lakes, are maintained and updated as necessary. Compile fish data on adult abundance, spawner counts, and estimates of spawning populations, hatchery returns, age composition, habitat, barriers, distribution, juvenile abundance, resident fish, hydrography, and related metrics. As regional priorities for resident fish and other fish metric data are established via a CA-like process, and as time and resources allow, survey fish managers to determine the availability of resident fish and other fish metric data, by priority, to detail the availability, type, and location of data.



**Primary Focal Species:** Chinook - All Populations | Steelhead - All Populations | Coho - Lower Columbia River ESU | Coho - Unspecified Population

**Data Repositories:** StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	PSMFC: Traditional data is uploaded and made available on StreamNet without interfering with progress on Coordinated Assessments. PSMFC StreamNet staff conduct a review of data use patterns and report recommendations on prioritization. Develop a prioritized list of traditional data types and categories for review. Focus future updates and maintenance on data types that are most useful to the region.
B. CTCR Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	The Colville StreamNet project will compile data on adult steelhead enumeration in the Okanogan River. Compiling these data may require building new tables and routines in the OBMEP database.  Colville StreamNet will compile data on juvenile steelhead abundance in the Okanogan. Compiling these data may involve building new tables, routines, or scripts to expand snorkel observations into fish densities
C. FWS Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	FWS will compile data for 2013 hatchery returns and related age composition and exchange the data in DES format to the StreamNet database at PSMFC
D. IDFG Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	IDFG will extract redd count, spawner count, hatchery return, age composition, and spawning population estimate data from its internal databases, convert to StreamNet DES Format and submit to the central StreamNet database.  After a juvenile abundance DES is formalized and after surveying available juvenile count data, IDFG will initiate the compilation of juvenile abundance data into StreamNet DES format and submit available data to the central StreamNet database. These data may be for populations or species besides those where the CA indicators and metrics are calculated, and may be calculated at less than a population scale.
E. WDFW Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	WDFW will update traditional StreamNet data sets as staff time permits.
F. ODFW Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	ODFW will update traditional StreamNet datasets for listed populations, and compile new priority data types as time and resources allow.
G. MFWP Compile and deliver fish data to StreamNet databases.	10/1/2014	9/30/2015	Active	MFWP: After a juvenile abundance DES is formalized and after surveying available juvenile count data, MFWP will initiate the compilation of juvenile abundance data into StreamNet DES format and submit available data to the central StreamNet database. Update, maintain, correct and exchange resident fish abundance data including trends (redd counts), summarized population count and references. Compile updated genetic results information on Montana's species of concern/native trout and provide to StreamNet as an independent data set to the Data Store. 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.
H. ODFW Compile and deliver hydrography to StreamNet databases.	10/1/2014	9/30/2015	Active	ODFW will maintain and update the mixed scale hydrography (NHD-derived whole stream routes) dataset for Oregon. Primary focus will be on maintaining stream routes onto the NHD geometry.
I. WDFW Compile and deliver hydrography to StreamNet databases.	10/1/2014	9/30/2015	Active	WDFW will maintain 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 update base stream and lake hydrography and high-priority attributes to support spatial data exchange with StreamNet. Updates will be submitted to StreamNet when complete.
J. MFWP Compile and deliver hydrography to StreamNet databases.	10/1/2014	9/30/2015	Active	MFWP will continue to update the routes using the updated NHD layer, including lakes; will participate in Steering and Technical Committee assignments for either the 1:24 K hydrography or the mixed scaled hydrography. MFWP will continue to collaboratively work with the Montana State Library's Natural Resource Information System (NRIS), stewards of the NHD, and other state partners towards the development of the NHD 1:24 K layer. MFWP will participate in the development of a whole-stream identifier in the 24k hydrography with StreamNet and NRIS.



Milestone Title	Start Date	End Date	Status	Milestone Description
K. PSMFC Determine availability of resident fish data and other fish metrics as prioritized	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will work with state, tribal and federal partner agencies to determine the availability resident fish and other fish metric data in each agency as priorities are established. Discussions are held with states and tribes to determine data availability and data form. Initial reports are provided and previous reports updated.
L. CTCR Determine the availability of resident fish data or other fish metrics as prioritized	10/1/2014	9/30/2015	Active	CTCR: Colville Tribe StreamNet, after development of DESs, will survey the availability of resident fish and other fish metric data and report the information to PSMFC. Focus will be on tribal priority species.
M. IDFG Determine the availability of resident fish data or other fish metrics as prioritized	10/1/2014	9/30/2015	Active	IDFG StreamNet, after development of DESs, will survey the availability of resident fish and other fish metric data and report the information to PSMFC.
N. MFWP Determine the availability of resident fish data or other fish metrics as prioritized	10/1/2014	9/30/2015	Active	MFWP StreamNet, after development of DESs, will survey the availability of resident fish and other fish metric data and report the information to PSMFC. MFWP StreamNet staff will exchange resident fish data in DES format where available. If no DES is available, data will be submitted to the Data Store as independent data sets. Additionally MFWP StreamNet staff makes data publically available through MFWP websites.
O. ODFW Determine the availability of resident fish data or other fish metrics as prioritized	10/1/2014	9/30/2015	Active	ODFW StreamNet, after development of DESs, will review and update existing availability information for resident fish and survey the availability other fish metric data and report the information to PSMFC.
P. WDFW Determine the availability of resident fish data or other fish metrics as prioritized	10/1/2014	9/30/2015	Active	WDFW StreamNet, after development of DESs, will survey the availability of resident fish and other fish metric data and report the information to PSMFC.
<b>Deliverable: Q. Data sets are updated and a CA process for other fish metrics is explored</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

### **I: 160. Create/Manage/Maintain Database**

<b>Title:</b>	Data exchange standards and database for resident fish and other metrics
<b>Description:</b>	Continue development of regional data exchange standards, including measures of resident fish abundance, using the regional coordination and collaboration approach as developed in the CA project. Manage and maintain the existing StreamNet Data Exchange Standard for current data sets (redd counts, spawner counts, estimates of spawning population, dam and weir counts, hatchery return counts, age composition, barriers, and distribution). Assure the ability to integrate data with the Upper Columbia tribal resident fish database and resident fish data from the state and other tribal agencies.
<b>Deliverable Specification:</b>	Discussions are held with states, tribes, NPCC staff, and others concerning development of DES for resident fish and other fish metrics. Timelines and priorities are established for developing regional DESs. The existing StreamNet DES and database for fish abundance, resident fish presence, and other fish metrics are maintained and data are loaded into the StreamNet database and quality assured as they are received.
<b>Data Repositories:</b>	StreamNet Database ( <a href="http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&amp;NewQuery=BuildCriteria">http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&amp;NewQuery=BuildCriteria</a> )



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC StreamNet Participate in regional development of DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will work with states, tribes, NPCC staff, and others to identify specific defined data needs and priorities for resident fish and other fish metrics. PSMFC, as directed by regional fish managers, will help to develop DES, databases, and related tools that would then be used to provide needed data in collaboratively developed regional exchange standards, using the methodology of the CA project.
B. PSMFC StreamNet maintain and manage the existing Data Exchange Standard	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will maintain and manage as necessary the existing Data Exchange Standard for these data types currently in the StreamNet database, and will log, QA, return to compiler or load, and then manage these data as they are submitted by the StreamNet partner agencies.
C. Colville StreamNet revises existing and/or develops new DESs for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	CTCR: The Colville StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish managers, to assure regional data consistency and allow for inclusion of new data types. Focus will be on tribal priority species.
D. FWS revises existing and/or develops new DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	FWS StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish to assure regional data consistency and allow for inclusion of new data types.
E. IDFG revises existing and/or develops new DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	IDFG, StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish to assure regional data consistency and allow for inclusion of new data types.
F. MFWP revises existing and/or develops new DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	MFWP. StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish to assure regional data consistency and allow for inclusion of new data types.
G. MFWP reviews and revises StreamNet resident fish DES	10/1/2014	9/30/2015	Active	MFWP StreamNet staff will review existing StreamNet DES' for their appropriateness for resident fish data. If deemed necessary, new draft DES' will be developed according to the established process.
H. ODFW revises existing and/or develops new DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	ODFW, StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish managers to assure regional data consistency and allow for inclusion of new data types.
I. WDFW revises existing and/or develops new DES for resident fish and other fish metrics	10/1/2014	9/30/2015	Active	WDFW, StreamNet project will work cooperatively to revise existing and/or develop new DESs for resident fish and other fish metrics as these priorities are developed by regional fish managers to assure regional data consistency and allow for inclusion of new data types.
<b>Deliverable: J. Development of DES for new fish metrics are discussed and existing DES are maintained</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

**J: 189. Coordination-Columbia Basinwide**

**Title:** Regional Coordination

**Description:** Participants in the StreamNet project will coordinate with a wide range of entities to assure data flow, improve data sharing, promote data standards, and encourage widespread adoption of modern information technology to improve fish and wildlife management and recovery programs. Highest priority for coordination activities will be for entities participating in the Fish and Wildlife Program (BPA, NPCC, PNAMP, Federal Caucus, FWP project sponsors, etc.) and the agencies and tribes in the StreamNet program. Additional coordination may take place to promote the acquisition of priority data, learn about data management developments, and to inform others about StreamNet functions. The project will be promoted through participation in technical and professional groups on an opportunistic basis.

**Deliverable Specification:** StreamNet participants coordinate with regional entities to manage and improve data sharing at the Columbia Basin scale. Coordinated Assessment-like efforts are initiated to determine specific target data needs and then collaboratively develop standards and methods that simplify, standardize, and automate data flow to meet regional priorities.



Milestone Title	Start Date	End Date	Status	Milestone Description
A. Collaborate to display locations and types of monitoring data available	10/1/2014	9/30/2015	Active	StreamNet participants continue to collaborate with the Monitoringresource.org Monitoring Explorer pilot in development of web services to display locations and types of monitoring data available in StreamNet along with data from other participating agencies and projects.
B. PSMFC Coordination with data source agencies inside and outside the Fish & Wildlife Program	10/1/2014	9/30/2015	Active	PSMFC will work with the StreamNet partners and other data sources to help support the data source agencies in developing the capabilities and tools (including database systems) to facilitate increased data flow, with particular emphasis placed on supporting systems to flow data efficiently to and coordinate with CRITFC, NOAA and USFWS for periodic population assessments of listed species, the Columbia Basin Coordinated Assessments, and NPCC High Level Indicators. Specific activities may include: 1) Top priority will be to coordinate with all entities involved with the Coordinated Assessments and sponsors of BPA funded projects; 2) Participate with the Pacific Northwest Aquatic Monitoring Partnership by serving on the PNAMP Steering Committee, the Data Management Leadership Team, Coordinated Assessment Core Team, and various PNAMP work groups, including Metadata, Monitoring Explorer, Effectiveness Monitoring, etc. 3) Work with PNAMP, BPA, NPCC and others to assist with development of a consistent approach to fish and aquatic data management and sharing to support data flow in the Columbia Basin; 4) Continue to participate with the NPCC and others in support of data flow to High Level Indicators; 5) Work with Sitka, PNAMP, and others to complete a survey and assessments of hand held technologies and jointly host a workshop on developments in hardware and software technology for the region; 6) Provide data related support (expertise and guidance) to other FWP related programs and projects as requested and as possible under existing resources.
C. COTR StreamNet coordinate to support the Fish & Wildlife Program	10/1/2014	9/30/2015	Active	CTCR StreamNet will coordinate with a variety of entities in the Columbia Basin to support efficient and effective development and implementation of information technology to support improved data flow. Coordination efforts will be prioritized first towards support of the Fish and Wildlife Program, including the Coordinated Assessments project and other High Level Indicator efforts as for NPCC. Coordination will be maintained with programs within the Colville Tribe to facilitate data flow and IT technology improvements, and with other data source agencies if they produce information of use to the tribe and its other regional scale coordination efforts. Coordination with other entities outside the Fish and Wildlife Program will be conducted on an as needed and as time permits basis to promote coordination of data flow to and from the Colville Tribe.
D. FWS coordinate with national fish hatcheries to assist with data acquisition	10/1/2014	9/30/2015	Active	FWS will coordinate with national fish hatcheries and other data sources as needed to promote efficient acquisition of data for exchange with the StreamNet database.
E. IDFG coordination with the Fish and Wildlife Program	10/1/2014	9/30/2015	Active	IDFG will continue to coordinate regional fish data efforts including participation in Coordinated Assessments, the PNAMP Data Management Leadership Team and other PNAMP efforts regarding regional data management. IDFG StreamNet will coordinate with other agencies, tribes, regional groups, non-profits, etc. for the purpose of enhancing the collection and management of data related to the StreamNet project mission and efficient flow of data to the StreamNet database and Coordinated Assessments. StreamNet staff will closely coordinate within the agency in an effort to ensure that data is managed and maintained in an efficient and effective manner.
F. ODFW provide support to F&W Program development activities	10/1/2014	9/30/2015	Active	ODFW continue to coordinate regional fish data efforts including participation in Coordinated Assessments, the PNAMP Data Management Leadership Team and other PNAMP efforts regarding regional data management. ODFW StreamNet will coordinate with other agencies, tribes, regional groups, non-profits, etc. for the purpose of enhancing the collection and management of data related to the StreamNet project mission and efficient flow of data to the StreamNet database and Coordinated Assessments. StreamNet staff will closely coordinate within the agency in an effort to ensure that data is managed and maintained in an efficient and effective manner.
G. MFWP provide support to F&W Program development activities	10/1/2014	9/30/2015	Active	MFWP will continue to coordinate regional fish data efforts including participation in efforts on resident fish. MFWP StreamNet will coordinate with other agencies, tribes, regional groups, non-profits, etc. for the purpose of enhancing the collection and management of data related to the StreamNet project mission and efficient flow of data to the StreamNet database. StreamNet staff will closely coordinate within the agency in an effort to ensure that data is managed and maintained in an efficient and effective manner.



Milestone Title	Start Date	End Date	Status	Milestone Description
H. MFWP coordinates multi-state Yellowstone cutthroat assessment	10/1/2014	9/30/2015	Active	MFWP: StreamNet staff will take the lead on providing organization, coordination and will assist in the completion of the multi-state, multi-agency Yellowstone cutthroat trout assessment. This standardized dataset is updated annually with results submitted to the StreamNet Data Store.
I. WDFW provide support to Fish and Wildlife Program development activities	10/1/2014	9/23/2015	Active	WDFW continue to coordinate regional fish data efforts including participation in Coordinated Assessments, the PNAMP Data Management Leadership Team and other PNAMP efforts regarding regional data management. WDFW StreamNet will coordinate with other agencies, tribes, regional groups, non-profits, etc. for the purpose of enhancing the collection and management of data related to the StreamNet project mission and efficient flow of data to the StreamNet database and Coordinated Assessments. StreamNet staff will closely coordinate within the agency in an effort to ensure that data is managed and maintained in an efficient and effective manner.
J. StreamNet partners promote the project through technical and professional organizations	10/1/2014	9/30/2015	Active	StreamNet partners will participate in technical and professional groups to promote the flow of data to StreamNet and to publicize the data and services available from the project through attendance and presentations at meetings and workshops, publications, and related means.
K. PSMFC maintains a data integration forum amongst PSMFC database projects	10/1/2014	9/30/2015	Active	PSMFC StreamNet will work to coordinate and integrate functions and sharing of data among the PSMFC database projects, including PTAGIS, RMIS, StreamNet, and the SNPs genetics database project. Discussions will serve to identify regional data coordination needs, foster integration of functions among projects, and development of integrated data sharing platforms and processes.
L. PSMFC support documentation of monitoring protocols	10/1/2014	9/30/2015	Active	PSMFC will work with BPA and BPA project sponsors to support sponsors in describing the data management components of their fish monitoring protocols. Staff will assist project sponsors to upload data and data analysis forms to their protocols and methods, and participating in discussions of standardizing monitoring protocols and field data capture. StreamNet staff and data stewards will work with Sitka, PNAMP, and agency biologists to create standard data entry and data analysis forms (See CHaMP and SRFB effectiveness protocol as examples).
M. PSMFC supports implementation of BPA data management strategy	10/1/2014	9/30/2015	Active	PSMFC will continue to work with PNAMP in supporting the implementation of BPA's data management strategy actions, and will help coordinate data management in the basin. A series of discussion topics will be developed with BPA and PNAMP, and workshops, webinars, or training sessions will be held in the region on these topics.
<b>Deliverable: N. StreamNet coordinates to improve data sharing, data standards, and automated data flow</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Disseminate Data

**Description:** Maintain effective web-based tools that allow self-directed access to information on StreamNet. Respond to requests for data, maps and other information; source materials; and custom data products, with priority given to information requests having direct relevance to BPA, the Fish and Wildlife Program and data source agencies/departments. Develop and provide automated, user driven tools that integrate with data users to reduce workload.

**Deliverable Specification:** Website provides functional, attractive, and relevant access to key data, including CA indicators. Requests for information or assistance are responded to within one business day at PSMFC. If within StreamNet capabilities, requested help or information is provided as rapidly as reasonably possible within existing resources.

All data that are submitted by the source agencies are available for review and download through the StreamNet online query systems and as web services.

**Primary Focal Species:** Chinook - All Populations | Chum - Columbia River ESU | Coho - Lower Columbia River ESU | Coho - Unspecified Population | Cutthroat Trout, Coastal - All Anadromous Populations | Sockeye - All Populations | Steelhead - All Populations | Lamprey, Pacific | Sturgeon, White - Lower Columbia River | Sturgeon, Green | Cutthroat Trout, Coastal - Resident Populations | Cutthroat Trout, Westslope | Cutthroat Trout, Yellowstone | Kokanee | OBSOLETE-Pikeminnow, Northern | Sturgeon, White - All Populations except Kootenai R. DPS | Sturgeon, White - Kootenai River DPS | Trout, Bull | Trout, Rainbow | Trout, Interior Redband | Whitefish, Mountain



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Website and database maintenance	10/1/2014	9/30/2015	Active	PSMFC StreamNet will develop and maintain web services that ease access to data, including CA indicator data, for cooperators and the public. PSMFC StreamNet staff will make data provided by the source agencies available for viewing and download through the StreamNet online data query systems, periodic Access database dumps, and as web services. An externally accessible SQL Server database is mirrored with StreamNet data for data compilers to query against.
B. PSMFC respond and track data and information requests	10/1/2014	9/30/2015	Active	PSMFC StreamNet , will respond within one business day to requests for data, information or help, and will log and report responses to all requests received.
C. FWS respond to and track data and information requests	10/1/2014	9/30/2015	Active	FWS 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. CTCR respond to and track data and information requests	10/1/2014	9/30/2015	Active	CTCR 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. IDFG respond to and track data and information requests	10/1/2014	9/30/2015	Active	IDFG 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.
F. MFWP respond to and track data and information requests	10/1/2014	9/30/2015	Active	MFWP 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.
G. ODFW respond to and track data and information requests	10/1/2014	9/30/2015	Active	ODFW 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.
H. WDFW respond to and track data and information requests	10/1/2014	9/30/2015	Active	WDFW 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: I. Data availability is maintained and enhanced</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Enhance data efficiency - system development

**Description:** Assist agencies in development of database systems and data management procedures for CA data, traditional StreamNet data, and other fish metric information that increase the efficiency of data flow internally and externally, with focus on data collected as part of the regional fish and wildlife program.

**Deliverable Specification:** Agency database systems and procedures are enhanced over time to improve data flow efficiency. Web services are established, and automated flow of data to StreamNet is tested.

**Data Repositories:** StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria> )





Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Develop automated data flow to central StreamNet database	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will work with partner agencies to investigate and, if possible implement means of automating the flow of data from the agencies to the StreamNet database. PSMFC staff will also work with regional entities, on request, to assist them with using the StreamNet web services to obtain data.
B. PSMFC Assist agencies with development of internal database systems	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will assist partner agencies with development of internal database systems that will provide improved efficiency for organizing, standardizing and submitting data to StreamNet.
C. CTCR Develop automated data flow to central StreamNet database	10/1/2014	9/30/2015	Active	CTCR: In addition to building automated reports, routines, and queries for the specific work elements already mentioned, there are other data types and data requests that are made throughout the year from StreamNet, CRITFC, PTAGIS, and DART. For regular data requests, the OBMEP database will be updated to enable automatic data dissemination to appropriate data systems. Additionally, the OBMEP database will be modified to automate data acquisition from sources that are currently being input manually (i.e. water quality data being collected at PIT tag arrays in the Okanogan Basin), so they may in turn be disseminated more rapidly and in a more automated fashion.
D. IDFG Develop automated data flow to central StreamNet database	10/1/2014	9/30/2015	Active	IDFG: Will assist with the maintenance of systems to compile agency data that feed the StreamNet and Coordinated Assessments databases. After completion of automated flow of Coordinated Assessments high level indicators to a central repository, IDFG will investigate the potential for delivering other data to the central StreamNet database using Web services.
E. MFWP Develop automated data flow to central StreamNet database	10/1/2014	9/30/2015	Active	MFWP: As part of the overall MFWP FIS centralized data system, the development of web services to exchange data with StreamNet will be explored. MFWP StreamNet staff will continue to assist in the scoping and development of the Fisheries Information System (FIS) which will enhance the flow of data from the field to a centralized database and subsequently to StreamNet and other data dissemination systems.
F. ODFW Develop automated data flow to central StreamNet database	10/1/2014	9/30/2015	Active	ODFW, as resources allow, will continue efforts to improve overall data flow from the field and then more efficiently to StreamNet by continuing the development of a data management and delivery system that also provides benefits to field projects, focusing on the system described in Oregon's CA Data Management Strategy and CA DES data elements. Staff will, on an opportunistic basis, update source contact information and attempt to acquire updated datasets and reports for upload to ODFW web applications, with priority given to mid-level metrics associated with CA data.
<b>Deliverable: G. Enhanced agency database procedures and systems</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

**M: 189. Coordination-Columbia Basinwide**

**Title:** Coordinate testing of field data capture devices & software

**Description:** PSMFC will work with PNAMP, private sector experts and other interested parties to coordinate ongoing field trials and conduct an evaluation of selected handheld electronic data capture devices, to assess devices, applications, 'cloud' database systems, and processes. Make recommendations to managers in the region on expanded use of this hardware and software in reports and workshops on this topic.

**Deliverable Specification:** Conduct a comprehensive survey (to include a wide variety of devices and users) on the durability and utility of these devices in various field settings. Results are posted on the StreamNet website, and shared at professional meetings and in publications. Results are reported at a workshop held during the FY, and used to guide additional work in the future.



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will work with PNAMP, private sector vendors and other cooperators to survey and report on field data collection device tests, and will conduct a survey of users. Initial results will be reported, along with recommendations for appropriate uses for the technology. The groups will jointly sponsor a workshop on the use and application of this technology.
B. CTCR Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	CTCR StreamNet staff will participate in the field testing of data capture devices as possible under current resources, and work with PSMFC to establish effective management of the data.
C. IDFG Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	IDFG StreamNet staff will participate in the development of field trials of selected handheld electronic data capture devices and assist IDFG field staff with training and trials.
D. MFWP Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	MFWP StreamNet staff will participate in the development of field trials of selected handheld electronic data capture devices, as possible within existing resources.
E. ODFW Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	ODFW StreamNet will participate in the development of field trials of selected handheld electronic data capture devices and assist field staff with training and trials.
F. WDFW Share information on field trials of data capture devices	10/1/2014	9/30/2015	Active	WDFW StreamNet staff will participate in the development of field trials of selected handheld electronic data capture devices and assist field staff with training and trials.
G. PSMFC Continue to implement field trials of handheld electronic data capture devices	10/1/2014	9/30/2015	Active	PSMFC, in collaboration with participating agencies/projects and regional entities, will continue to assist cooperators in the deployment and evaluation of electronic data capture devices and the upload, storage and management of data in a cloud database environment. PSMFC StreamNet staff will purchase, manage and deploy a limited number of handheld electronic data capture devices, including programming of the devices and design of forms to meet agency specifications, for selected new data and project types. For existing projects where development is more mature, PSMFC StreamNet staff will work with PNAMP, CRITFC, private sector experts, and other cooperators to assist in further placement and testing of devices and software. Data systems able to capture and store data from the devices will be designed and tested.
<b>Deliverable: H. Test, survey, and report on field data capture devices</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Metadata exchange through Monitoring Explorer pilot project

**Description:** StreamNet will work with PNAMP and Sitka Technologies to provide metadata for an online project and data locator tool on the MonitoringExplorer.org website. The goal is to develop a common platform to display sampling/data locations from multiple types of projects on a common geographic scale.

**Deliverable Specification:** Metadata for the pilot explorer are provided to Sitka via web services in conformity with the project metadata exchange standards.

**Primary Focal Species:** Chinook - All Populations | Chum - Columbia River ESU | Coho - Lower Columbia River ESU | Coho - Unspecified Population | Cutthroat Trout, Coastal - All Anadromous Populations | Sockeye - All Populations | Steelhead - All Populations | Trout, Bull | Trout, Interior Redband | Trout, Rainbow

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC participate in regional effort to share metadata to locate monitoring activities	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff will participate with PNAMP and private sector experts to develop the Monitoring Explorer pilot with the intent of using metadata to geographically locate and display the different types of monitoring throughout the basin.
<b>Deliverable: B. Metadata provided to ME.org pilot</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Data sharing agreements

**Description:** The Data Sharing Agreements for CA and the StreamNet Data Store guide release and use of data sets. Provisions of the Agreements are implemented effectively, and the use of these agreements as templates for further sharing are explored for other databases.

**Deliverable Specification:** Data Sharing Agreements are implemented effectively for CA and the Data Store.



**Primary Focal Species:** Chinook - All Populations | Chum - Columbia River ESU | Coho - Lower Columbia River ESU | Coho - Unspecified Population | Cutthroat Trout, Coastal - All Anadromous Populations | Sockeye - All Populations | Steelhead - All Populations | Trout, Bull | Trout, Interior Redband | Trout, Rainbow

Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC implements Data Sharing Agreements	10/1/2014	9/30/2015	Active	PSMFC StreamNet staff, in conjunction with cooperators and other entities throughout the region, implement existing Data Sharing Agreements effectively. Explore the use of these agreements with other data managers and databases.
<b>Deliverable: B. Data Sharing Agreements are implemented</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Infrastructure and base operations

**Description:** Maintain the infrastructure necessary for acquiring, managing and disseminating regionally standardized and georeferenced data, including system administration, databases, website pages, query systems, web services, and various data related applications. Maintain access to existing and historic data sets. Perform necessary operations to georeference, QA, maintain and manage data, and provide reference documents for all data to the StreamNet Library. Provide support and training to staff to maintain up to date operational system skills.

**Deliverable Specification:** Project infrastructure and databases are maintained and updated as needed to acquire, manage and disseminate referenced data.  
 Specific actions may include:  
 1. Computer system administration, including maintenance and upgrades to hardware and software, backup and recovery, and system security, as necessary  
 2. Application of appropriate data management and QA/QC procedures in loading and managing data and creation of metadata  
 3. Creation and maintenance of interfaces and applications to enhance data flow efficiency  
 4. Participation in routine management and improvement of the StreamNet Data Exchange Standard working through the Steering Committee.  
 5. Obtain reference documents for all data developed under WE 159 and submit them for inclusion in the collection and catalog, and,  
 6. Encourage and support the flow of agency reports and publications related to Columbia Basin fish and wildlife resources to the library.  
 7. Maintain and further develop integrated search capabilities based on the Fish Species geo-spatial datasets.

**Data Repositories:** StreamNet Data Store ([http://www.streamnet.org/datastore\\_search.cfm](http://www.streamnet.org/datastore_search.cfm))  
 StreamNet Database (<http://q.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria>)



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	PSMFC, will maintain and update the hardware and software necessary to accomplish StreamNet's mission, including system administration, system backup and recovery, and security. In addition to the actions listed in the deliverable specifications, PSMFC StreamNet staff will perform: 1) Management and maintenance of the GIS system, servers, software & databases. 2) Maintenance and upgrade of the StreamNet web server and software, including design, programming, and system security, with a target of the web server being on line and operational over 99.5% of the time. 3) Maintenance and improvement to the StreamNet Internet site, including maintaining logs of web query history and error events, and site usage by month.  4) Correcting errors, adding or fixing links, improving performance, improving appearance and usability. 5) Maintain and update (as needed) the NPCC Protected Areas data set. 6) Successfully transition historic HEP project data into the StreamNet Library and/or a protected repository accessible through the StreamNet Data Store. Maintain the HEP repository. 7) Management and maintenance of the Data Store to improve ease of use and integrate with off-site resources such as monitoringmethods.org and CBFish.org. 8) Develop procedures to acquire, validate, and disseminate data through automated feeds such as web services. 9) Development and operation of the CA database, integrating operations on StreamNet and the EPA node. 10) Implementing system improvements and operations to maintain and enhance functionality as technological advances are made and to enhance the functionality of StreamNet for data providers and users. 11) Manage and improve query systems, including use of species population layers from NOAA and the CRITFC Population Crosswalk population names. 12) Maintain and manage database Data Exchange Standards (DES).
B. CTRC infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	CTRC StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from the tribe to the StreamNet database
C. FWS infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	FWS StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from the FWS to the StreamNet database
D. IDFG infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	IDFG StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from IDFG to the StreamNet database.
E. MFWP infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	MFWP StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from MFWP to the StreamNet database
F. ODFW infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	ODFW StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from ODFW to the StreamNet database.
G. WDFW infrastructure maintenance and base operations	10/1/2014	9/30/2015	Active	WDFW StreamNet will maintain its computer infrastructure and operations to assure efficient and effective management and flow of data internally and from WDFW to the StreamNet database
<b>Deliverable: H. Project infrastructure and databases are maintained</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

**Title:** Manage project activities

**Description:** Program direction will be provided by a Strategic Plan and an Executive Committee made up of policy level representatives of StreamNet partners and regional management agencies and organizations. The focus of this group will be to ensure that StreamNet is aligned with the data management needs and regional priorities established in the NPCC F&W program, recovery plans for listed species, and the participating agencies and tribes. Implementation of this direction and the SOW will be completed with the help of a Steering Committee, made up of data management professionals from each partner agency, as well as representatives of other groups and organizations involved in data management. The oversight of personnel, work statement and budget preparation, coordination among participating agencies, and implementation of the program will be completed by PSMFC StreamNet staff and funded employees embedded in partner organizations.

**Deliverable Specification:** Regional data management priorities are addressed and project staff and budgets are effectively managed. Work detailed in this SOW is accomplished. Required SOW and budget documents are prepared and submitted on schedule.



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Effective program management will be maintained	10/1/2014	9/30/2015	Active	PSMFC: The Executive Committee will provide oversight, guidance, and program direction. The Steering Committee will provide direction on program implementation. PSMFC will effectively manage the program. All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
B. CTCR Effective program management will be maintained	10/1/2014	9/30/2015	Active	CTCR: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
C. FWS Effective program management will be maintained	10/1/2014	9/30/2015	Active	FWS: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
D. IDFG Effective program management will be maintained	10/1/2014	9/30/2015	Active	IDFG: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
E. MFWP Effective program management will be maintained	10/1/2014	9/30/2015	Active	MFWP: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
F. ODFW Effective program management will be maintained	10/1/2014	9/30/2015	Active	ODFW: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
G. WDFW Effective program management will be maintained	10/1/2014	9/30/2015	Active	WDFW: All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
H. PSMFC submit contract renewal package (SOW, Excel budget, property inventory) to BPA COTR	5/1/2015	7/1/2015	Active	PSMFC, with input from the participating agencies, will develop the statement of work (SOW) in Pisces, including a line-item budget (LIB) and property inventory (PI), and the package submitted to the COTR for review via Pisces 90 days prior to the end of the FY-15 contract period.
I. PSMFC Attach FISMA Compliance Attestation (BPA risk category Low)	5/1/2015	7/2/2015	Active	<p>PSMFC: As described in the terms and conditions of the contract, BPA contractors are required to protect their data and electronic systems consistent with the federal FISMA law (Federal Information Security Management Act of 2002). Your contract has been rated as "low risk" by BPA Cyber Security. Please obtain a signed attestation confirming your organization's compliance with FISMA. The designated signatory for your organization may vary. Attestations can be in the form of a formal memorandum, letter, or email. An email will need to be cut and pasted into a word processing program. All attachments must be PDF.</p> <p>Upload the attestation to Pisces under the new "FISMA Attestation" File Type, subtype "Low Risk per BPA" and insert the title as "FISMA attestation". This milestone is considered complete when the contractor has uploaded an electronic copy of a signed attestation at the contract level.</p>
J. Address comments and revise SOW, LIB, and PI as needed to get BPA manager approval	7/1/2015	8/1/2015	Active	PSMFC: COTR and BPA manager comments are responded to and changes made, as needed prior to forwarding of the package to the Contracting Officer.
K. Return signed contract to BPA's Contracting Officer within 30 days	8/1/2015	9/1/2015	Active	Signed contract returned to the BPA Contracting Officer (CO) within 30 days.
L. Submit final invoice for prior contract within 90 days to facilitate contract closeout	9/30/2015	9/30/2015	Active	Within 90 days of the last day of the PRIOR contract, the contractor shall issue a final invoice. In instances where more than 90 days is needed (e.g., because subcontractors have not invoiced), the contractor shall: 1. review records, 2. estimate all outstanding costs, and 3. provide BPA with a single, cumulative estimate of all completed, but un-invoiced work. This amount shall be emailed to FWinvoices@bpa.gov and the COTR.
M. Accrual - Submit September estimate to BPA	8/10/2015	9/11/2015	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. Data must be input in to Pisces by September 10 (begins Aug 10, ends Sep 10).



Milestone Title	Start Date	End Date	Status	Milestone Description
N. Facilitate inputting Cost Share information into Pisces at the Project level	9/30/2015	9/30/2015	Active	PSMFC will solicit cost share information for the previous federal FY from project partners and enter previous FY's Cost Share information on the Project Cost Share tab by Nov 15 for all project partners. The subcontractors under this project will provide federal FY Cost Share information to PSFMC by Nov 1. (Milestone starts Sep. 30 and ends Nov. 15 for PSMFC, and ends Nov 1 for subcontractors)
O. Project oversight and guidance: Project management Executive and Steering Committees	10/1/2014	9/30/2015	Active	All StreamNet cooperators will perform project oversight and will participate cooperatively on the StreamNet Steering Committee to implement the direction of the Executive Committee, coordinate among agencies and resolve technical issues for the project.
P. Project oversight and guidance: Supervision	10/1/2014	9/30/2015	Active	All StreamNet cooperators will supervise requisite project staff and provide guidance and staff development.
Q. Project oversight and guidance: Budget Control	10/1/2014	9/30/2015	Active	All StreamNet cooperators will manage expenditures to accomplish the jobs in the Statement of Work within the approved budget.
R. Attach initial FISMA Compliance Attestation (BPA risk category Low)	10/1/2014	9/30/2015	Active	<p>BPA contractors are required to protect their data and electronic systems consistent with the federal FISMA law (Federal Information Security Management Act of 2002). Your contract has been rated as low risk by BPA Cyber Security. The designated signatory for your organization may vary.</p> <p>Check with your COTR to see if BPA has already obtained, or will soon obtain through previous contracts, the attestation. If not, please work with your COTR to obtain a signed attestation confirming your organizations compliance with FISMA. Attestations can be in the form of a formal memorandum, letter, or email. An email will need to be cut and pasted into a word processing program. All attachments must be saved and uploaded as PDF. A sample attestation communication that describes the minimum information required can be found as a Pisces attachment at <a href="https://pisces.bpa.gov/release/documents/DocumentViewer.aspx?doc=P137862">https://pisces.bpa.gov/release/documents/DocumentViewer.aspx?doc=P137862</a>.</p> <p>Upload the attestation to Pisces under the new FISMA Attestation File Type, and type in the title as Low-risk FISMA attestation. This milestone is considered complete when the contractor has uploaded an electronic copy of a signed attestation. Deadline: Start and end dates are both the first day of the contract.</p>
S. Confirm that FISMA compliance documentation for any subsequent contract is current	10/1/2014	9/30/2015	Active	<p>Contact your COTR and check in Pisces to confirm that the FISMA compliance documentation for your subsequent contact is still current. If not, work with COTR to update documentation. (Due 125 days before the contract end date).</p> <p>BPA contractors are required to protect their data and electronic systems consistent with the federal FISMA law (Federal Information Security Management Act of 2002). Your contract will be rated as low risk by BPA Cyber Security.</p>
<b>Deliverable: T. Project is successfully administered</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

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

- Title:** Annual Report 1/1/2014 - 12/31/2014
- Description:** Produce a detailed annual report for Calendar year 2015, using BPA reporting tools in Taurus.
- Deliverable Specification:** Finalize and submit 2015 Annual Report to BPA for upload into Pisces and cbfish
- Planned Metrics:**
  - \* Start date of reporting period : 1/1/2014
  - \* End date of reporting period : 12/31/2014



Milestone Title	Start Date	End Date	Status	Milestone Description
A. PSMFC Produce Annual Report	1/1/2015	3/1/2015	Active	PSMFC: will consolidate input from all project participants to prepare and submit a detailed annual report for Calendar year 2014 in draft form for internal review and to BPA by the end of January, with the final due March 1.
B. CTCR Produce Annual Report	1/1/2015	3/1/2015	Active	CTCR: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
C. FWS Produce Annual Report	1/1/2015	3/1/2015	Active	FWS: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
D. IDFG Produce Annual Report	1/1/2015	3/1/2015	Active	IDFG: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
E. MFWP Produce Annual Report	1/1/2015	3/1/2015	Active	MFWP: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
F. ODFW Produce Annual Report	1/1/2015	3/1/2015	Active	ODFW: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
G. WDFW Produce Annual Report	1/1/2015	3/1/2015	Active	WDFW: Project participants submit their input to the 2015 annual progress report to PSMFC 15 days prior to the date the report is due to BPA. Draft is due to BPA by the end of January.
<b>Deliverable: H. Annual report submitted to BPA</b>		3/31/2015	Active	<i>See the Deliverable Specification above</i>

**S: 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. StreamNet will produce Status Reports quarterly. 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.  
**Deliverable Specification:**

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Oct-Dec 2014 (10/1/2014 - 12/31/2014)	1/1/2015	1/15/2015	Active	
B. Jan-Mar 2015 (1/1/2015 - 3/31/2015)	4/1/2015	4/15/2015	Active	
C. Apr-Jun 2015 (4/1/2015 - 6/30/2015)	7/1/2015	7/15/2015	Active	
D. Final Jul-Sep 2015 (7/1/2015 - 9/30/2015)	9/16/2015	9/30/2015	Active	

**T: 202. Produce BiOp RPA Report**

**Title:** Produce Calendar Year 2014 BiOp Report  
**Description:** Produce a calendar year 2014 BiOp report for upload into Pisces and cbfish.  
**Deliverable Specification:** Finalize and submit Calendar Year 2014 BiOp Report to BPA for upload into Pisces and cbfish.



Milestone Title	Start Date	End Date	Status	Milestone Description
A. Download RPA questions from cbfish.org	1/1/2015	2/27/2015	Active	To prepare for your RPA report, 1) Go to www.cbfish.org and log in, 2) Navigate to your project and select "BiOp Annual Report" from the menu on the left, 3) Click on "Input Needed" for each applicable RPA to find your RPA reporting requirements so you will know how much time to set aside for this task. You may also click the "download RPA doc" button to get all RPA questions in one MS Word document. 4) Use "Request Review" link to email COTR or BPA RM&E RPA lead to request help or for review of draft content. For further guidance, see: <a href="http://www.cbfish.org/Content/tutorials/Reporting_Guidance_BiOp_2013.pdf">http://www.cbfish.org/Content/tutorials/Reporting_Guidance_BiOp_2013.pdf</a> (Milestone start/end: July 1 – September 30)
B. Draft calendar year report in cbfish.org	1/1/2015	3/1/2015	Active	For guidance on completing your report, see: <a href="http://www.cbfish.org/Content/tutorials/Reporting_Guidance_BiOp_2013.pdf">http://www.cbfish.org/Content/tutorials/Reporting_Guidance_BiOp_2013.pdf</a> . If you have questions or would like BPA to review your draft, you may email <a href="mailto:RMESupport@bpa.gov">RMESupport@bpa.gov</a> and your COTR to send them your working draft in Word or notify them to review in cbfish.org by using the "Request Review" email icon link to e-mail your COTR & BPA RM&E RPA lead. (Milestone start/end: September 30 - February 28)
C. Finalize calendar year report in cbfish.org and click Publish by March 15	3/2/2015	3/16/2015	Active	The final version is due by March 15. (Milestone start/end: December 31 - March 15)
<b>Deliverable: D. Produce Calendar Year 2014 BiOp Report</b>		9/30/2015	Active	<i>See the Deliverable Specification above</i>

Inadvertent Discovery Instructions

BPA is required by section 106 of the National Historic Preservation Act (NHPA) to consider the effects of its undertakings on historic properties (16 USC 470). Prior to approving the expenditure of funds or conducting a federal undertaking, BPA must follow the section 106 process as described at 36 CFR 800. Even though BPA has completed this process by the time an undertaking is implemented, if cultural materials are discovered during the implementation of a project, work within the immediate area must stop and the significance of the materials must be evaluated and adverse effects resolved before the project can continue (36 CFR 800.13(b)(3)). The Inadvertent Discovery of Cultural Resources Procedure form outlines the steps to be taken and notifications to be made. If the undertaking takes place on tribal lands (16 USC 470w), BPA must also "comply with applicable tribal regulations and procedures and obtain the concurrence of the Indian tribe on the proposed action" (36 CFR 800.13(d)).

Inadvertent Discovery of Cultural Resources Procedure form:

<http://www.efw.bpa.gov/IntegratedFWP/InadvertentDiscoveryProcedure.pdf>