

Northwest Indian Fisheries Commission  
**Water Quality Data Exchange**

**DRAFT**



*Trading  
Partner  
Agreement*

**Version 1.1**  
July 2009

## ***Partnership Overview***

United South and Eastern Tribes, Inc. has implemented an Exchange Network Node on the US EPA's National Environmental Information Exchange Network to deploy an ambient water quality data flow. It is intended that USET will be able to provide this information to the EPA through the Central Data Exchange (CDX), as well as to their partners and related systems (AquaScape and Aquarius). USET implemented the initial data flow to satisfy the Tribes' requirement of their EPA water quality grants to routinely report water quality monitoring information to the EPA Water Quality Exchange (WQX-STORET warehouse).

This agreement is a voluntary agreement between \_\_\_\_\_, hereinafter referred to as \_\_\_\_\_, and United South and Eastern Tribes, hereinafter referred to as USET, for the exchange of ambient water quality data via the National Environmental Information Exchange Network, hereinafter referred to as the Exchange Network.

### **Purpose and Parties**

This Trading Partner Agreement (TPA) is between USET and Member Tribes providing and/or hosting data to be exchanged through the Exchange Network. This TPA defines the terms and conditions under which ambient water quality monitoring data and data source metadata will be exchanged under the framework implemented in the Exchange Network.

This agreement does not supersede any existing agreement between the parties, or any future agreement, it is intended to deal with the specifics of the Exchange Network flow.

### **Definition of Data**

The Partners will exchange data using the instructions in a supported version of the Flow Configuration Document. Water quality monitoring data includes information about samples, measurements, and observations of the quality and quantity of water, sediment, soil, and biological tissues and populations. The USET WQX Node Database will only contain "sharable" water quality data. The definition of what is "sharable" is the Tribes' responsibility.

## ***Definition of Roles and Responsibilities***

### **Legal Framework**

This TPA does not fulfill any specific Federal reporting requirements unless stated by amendment to this TPA. Participation does not supersede any data or information management and reporting requirement.

### Dispute Resolution

Parties shall make a good faith effort to resolve any data exchange issues in a timely fashion. If at any time one of the partners finds a problem with data quality or completeness, they should start the resolution procedures.

USET and the Member Tribes’ data administrators will resolve disputes whenever possible. (Data administrators are those assigned with the overall management of the water quality data.) The data administrator will contact his or her counterpart, either by telephone, email, or by writing. If the data administrators cannot resolve the dispute within two weeks, they will bring it to the attention of their immediate supervisors.

### Exchange Mechanism

Exchange of the data between partners will employ a mixture of mechanisms due to different degrees of node readiness.

1. *Node Client Partners* – periodically submit (push) water quality data to the USET Node and periodically request (pull) water quality data of the USET WQX Node database through the USET Node.
2. *Node Partners* – make water quality monitoring data available to the Exchange by pulling from their node.
3. *USET Node Partner* – make Node Client partners’ water quality monitoring data available to the Exchange by pulling from the USET WQX Node database through the USET Node.

### Exchange Schedule

Water quality data will be submitted to the USET Node at a minimum of once per year, if the Tribal partner agrees to sharing their water quality data with USET. Water quality data may be accessed from the USET Node at a minimum of once per month. Data submission frequency may vary from trading partner to trading partner. Each partner shall make a good-faith effort to meet agreed reporting schedules.

1. *Node Client & Node Partners* – water quality data from closed projects (i.e., no further water quality data will be added to project) need not be repeatedly submitted, once the Node Client partner is satisfied that the project data as represented on the USET WQX Node database is complete and correct. Water quality data from ongoing projects will be submitted on a schedule determined by the Node Client and/or Node Partner. Maximum frequency of exchange is daily.

*Node Client Partners Exchange of Water Quality Monitoring Data:*

| Organization/Program | Minimum Frequency | Maximum Frequency |
|----------------------|-------------------|-------------------|
|----------------------|-------------------|-------------------|

|                         |  |       |
|-------------------------|--|-------|
| <i>*tribal program*</i> | Weekly, Monthly, Quarterly,<br>Bi-Annual, Annual | Daily |
|-------------------------|--|-------|

2. *USET Node Partner* – a good faith effort will be made to submit Node Client partners’ data to the EPA CDX within 7 working days of receiving the approved EPA data submission from the partner.

### Exchange Failure

Data exchange failures may be classified as failure due to invalid file format or as failure due to invalid data. Invalid file format includes the use of an invalid organization identifier or the use of an invalid or unsupported schema to load the USET WQX Node Database. Procedures to load the USET WQX Node Database and error handling associated with invalid file format errors are documented in the Flow Configuration Document. If the failure is due to invalid data, or data are otherwise identified to be removed from the USET WQX Node Database, the submitting partner will coordinate with USET to remove the data. For the USET WQX Node Database, the data will be removed at the project level. The project may be reloaded, with valid data, into the USET WQX Node Database.

### System Failure and Data Reconciliation

In the event of system failure, USET will make a good faith effort to restore the USET WQX Node Database from the last available backup files in a timely manner. USET will back up the USET WQX Node Database with a minimum frequency of weekly and a maximum frequency of once per business day. USET will arrange for data reconciliation with partners affected by the system failure. Data reconciliation will involve resubmission of data to the USET WQX Node Database.

### Record Retention

To aid in data reconciliation in the event of system failure, partners will retain a copy of data submission files. Partners should retain USET WQX Node Database files successfully submitted for a period of at least one month.

## Data Stewardship

### Data Ownership

Adherence to the principles of data stewardship is essential to the success of this Agreement. The respective stewardship responsibilities of the two partners are established and acknowledged by this Agreement. Each partner will provide notification and documentation to the other partner when a determination is made that data quality, completeness, or timeliness has fallen short of the expectations and standards. The partners will be responsible for the stewardship of their own data.

Data stewardship includes the management systems and protocol of data ownership, quality, standards, security, reconciliation protocols, and asset management. The approach includes:

1. The USET Node will serve as the primary gateway for publishing and maintaining available data flows.
2. The EPA NAAS application will be used as the first level of user account authorization. If the NAAS option is not feasible for certain Data Consumers/Providers, private Node user account authentication will be used.

### Use and Distribution of Data

Data from the USET WQX Node database will be made available to any Exchange Network partner with a valid NAAS account authentication and to all parties with whom they are legally required to disclose data. The USET WQX Node Database will only contain “sharable” water quality data. The definition of what is “sharable” is the Tribes’ responsibility.

The flow configuration for the Exchange Network treats all users as anonymous, and does not differentiate between classes of users. The flow cannot test whether a request comes from a party with a legal requirement for disclosure. Therefore it is responsibility of the partner to protect restricted data from unauthorized disclosure.

### Data Elements

The Partners will submit data into the Exchange Network using data elements as defined in a supported version of the Data Exchange Template. The Data Exchange Template defines Water Quality Monitoring and Data Source Metadata by identifying and describing the data elements as well as defining the optionality, data type, and business rules associated with each data element. These data elements are described in the WQX XML schema found at <http://www.exchangenetwork.net>.

### Data Content and Coverage

The content of the data exchanged covers all water quality monitoring data and data source metadata as previously defined. The data exchanged includes both historical and current data. The actual date range of the data will vary between trading partners. The content includes information about data sources (aka providing organization), monitoring projects, stations and locations (and well information as appropriate), field events (sample collections and field-level assessments), and results (including in situ measurements and observations). Contact information is included at each data level (providing organization, project, station, field event, and result).

Data elements may refer to example lists or valid value lists, as documented in the Data Exchange Template. Example lists are suggested values to provide context for the data element. Valid value lists, or enumerated lists, are required values. The content of these data elements are enforced by business rules encoded in the appropriate xml schema.

The Data Exchange Template provides validation lists for all code values with the exception of the codes/names for units of measure, analytes/characteristics, taxonomy, and methods for collecting and analyzing samples. Data elements for analyte and taxon names and identifiers allow for references to be made using the classification of the data provider's choice as long as a qualifying contextual element is supplied. As an example, if a chemical analyte name was obtained from the EPA Chemical Registry, then the name and the classification system used will be defined.

### **Data Quality**

The USET Node data exchanged will have been collected under a wide variety of geopositioning, sampling, analytical, and quality assurance regimes. Trading partners are responsible for documenting the quality of these various regimes and presenting that documentation with the data, when such information is available. Inclusion in the USET WQX Node Database does not indicate that any particular level of data quality may be imputed. Data that partners make available to the USET Node does not necessarily represent the complete data holdings of that partner. Data users should be aware of these qualifications, and use data from the USET Node with caution.

The data exchange partners will cooperate to ensure that the data being exchanged is current, accurate and complete. Reconciliation of data duplicates, discrepancies, or other quality issues will be in accordance with the process outlined in the section Dispute Resolution.

### **Data Timeliness**

Different trading partners will have different levels of resource available for data entry. Parties shall make a good faith commitment to timely data entry and availability.

## ***Agreement Administration***

### **Period of Agreement / Termination**

This TPA becomes effective on the date of signatures by all partners. This TPA will continue in effect unless modified by mutual consent of all parties. This TPA will be reviewed each year and will be amended or revised as needed if agreeable to all parties. Any partner may withdraw from the agreement at any time by providing a letter of the notification of intent to do so.

## Points of Contact

The following individuals have been identified as points of contacts within each partner:

### USET Water Quality Data Exchange

#### Coordination and TPA Administration

Lisa Berrios  
Environmental Liaison's Office Director  
United South and Eastern Tribes  
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#### Primary Point of Contact

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#### Node Implementation & Data Steward

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### **\*\*tribal\*\* Water Quality Data Exchange**

#### Coordination and TPA Administration

\*\*Name\*\*  
\*\*Title\*\*  
\*\*Tribe\*\*  
\*\*Address\*\*  
\*\*email address\*\*

#### Primary Point of Contact

\*\*Name\*\*  
\*\*Title\*\*  
\*\*Tribe\*\*  
\*\*Address\*\*  
\*\*email address\*\*

#### Node Implementation & Data Steward

\*\*Name\*\*  
\*\*Title\*\*

\*\*Tribe\*\*  
\*\*Address\*\*  
\*\*email address\*\*

**Approval Signatures**

\_\_\_\_\_  
Lisa Berrios  
Environmental Liaisons Office  
Director  
United South and Eastern Tribes

\_\_\_\_\_  
Date

\_\_\_\_\_  
XXXXX XXXXX  
\*\*Title\*\*  
\*\*Tribe\*\*

\_\_\_\_\_  
Date

**Appendix**

## *Glossary of Terms*

### **Central Data Exchange (CDX)**

The Node (point of entry) for US EPA on the Environmental Information Exchange Network (Exchange Network) for environmental data exchanges with the Agency.

### **Data Exchange Template (DET)**

A standardized format that identifies the types of information required/allowed in a particular document or data exchange. Data exchange templates contain no data, but they define the format for exchange according to data standards and trading partner agreements.

### **Flow Configuration Document (FCD)**

A document that captures the detailed data exchange processing design and roles governing the data exchange using narrative text, diagrams and examples.

### **Metadata**

Data or information that describes other data. Examples include data that describe how or where the data were collected, whether or not the data comply with agreed-upon data standards, or how the data will be used.

### **NAAS (Network Authorization and Authentication Services)**

A set of centralized information security services that Exchange Network partners can use to authenticate and authorize their users. NAAS provides an efficient way for Exchange Network participants to exchange data, without having to build and maintain their own security system.

### **National Environmental Information Exchange Network (Exchange Network)**

An Internet and standards-based information network among EPA and its partners in states, tribes, and territories that allows partners to securely and automatically exchange environmental data.

### **Node**

An Exchange Network partner's point of presence on the Network. Essentially, a Node is a piece of software that securely initiates and responds to requests for information. With properly configured Nodes, Network partners can seamlessly exchange data regardless of hardware, operating system, or programming environment.

### **Node Client**

A stand-alone application that can initiate Exchange Network requests. Node clients can submit, request, and receive results from a request on the Exchange Network. However, clients cannot respond to data queries, and therefore cannot publish data on the Exchange Network.

**Schema**

An XML schema defines the structure of an XML document. An XML schema defines things such as which data elements and attributes can appear in a document; how the data elements relate to one another; whether an element is empty or can include text; which types of data are allowed for specific data elements and attributes; and what the default and fixed values are for elements and attributes.

**STORET**

Short for **STO**rage and **RE**trieval, STORET is a repository for water quality, biological and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens and many others.

**Trading Partner Agreement (TPA)**

A written agreement that defines, for a specific data flow, the participating partners' individual and joint responsibilities in stewardship, security, and other items essential for the effective exchange of information between two or more trading partners on the Exchange Network.

**WQX (Water Quality Exchange)**

A framework that allows Exchange Network partners to submit and share ambient water quality data with over the Internet.

**XML (Extensible Markup Language)**

An open standard language used to create files for exchanging and displaying data.