# Reusable Component Services (RCS)

2011 Exchange Network
National Meeting

John Harman, OIC April 2011





### What is RCS?

- The Reusable Component Services:
  - A registry of IT services, components, tools, solutions and other assets
  - A metadata catalog
    - Each record contains metadata about an asset
      - E.g., Name, description, contact
    - Capability to act as repository
      - E.g., data models or code
  - A flexible tool that is highly extensible
    - New assets and metadata fields can easily be added

## Purpose of RCS

- Enable discovery and access of IT assets
  - Centralizes in one place a variety of IT assets created across silos and organizations
  - IT asset records can be made publicly visible or restricted to authorized users
- Improve management of IT assets
  - First step in management is to know what you have
- Serve as the "hub" registry
  - Acts as registry of record for certain IT assets
  - Harvests IT asset records from other registries
  - Identifies how assets are associated to one another

# What is registered in RCS?



### RCS presently catalogs the following IT assets:

- XML Schema
- Exchange Network Services (from ENDS)
- Nodes (from ENDS)
- REST Web services
- SOAP Web services
- Systems (from EPA's system inventory)
- Software Tools
- Code libraries
- Widgets

### Examples of future IT asset types include:

- Data Sets (from dataset registry)
- Data Models
- Data Dictionaries (from data dictionary registry)

## Benefits of RCS

- Enables discovery of IT assets
- Promotes knowledge transfer about IT assets
  - One organization interested in developing an IT asset can identify other organizations that have developed similar assets
    - Sharing lessons learned
- Supports reuse or partnering on asset development
- Adds meaning and value by showing relationships among the assets and classifying the assets with taxonomies or classification schemes
- Can help organizations manage their assets
  - Organizations "own" their records
    - EPA program, State, or Tribe can catalog its IT assets in RCS
    - Promotes management of assets is through stewardship
      - Stewards update their records through login and password

## RCS Demonstration Screenshots







### **Welcome to Reusable Component Services**

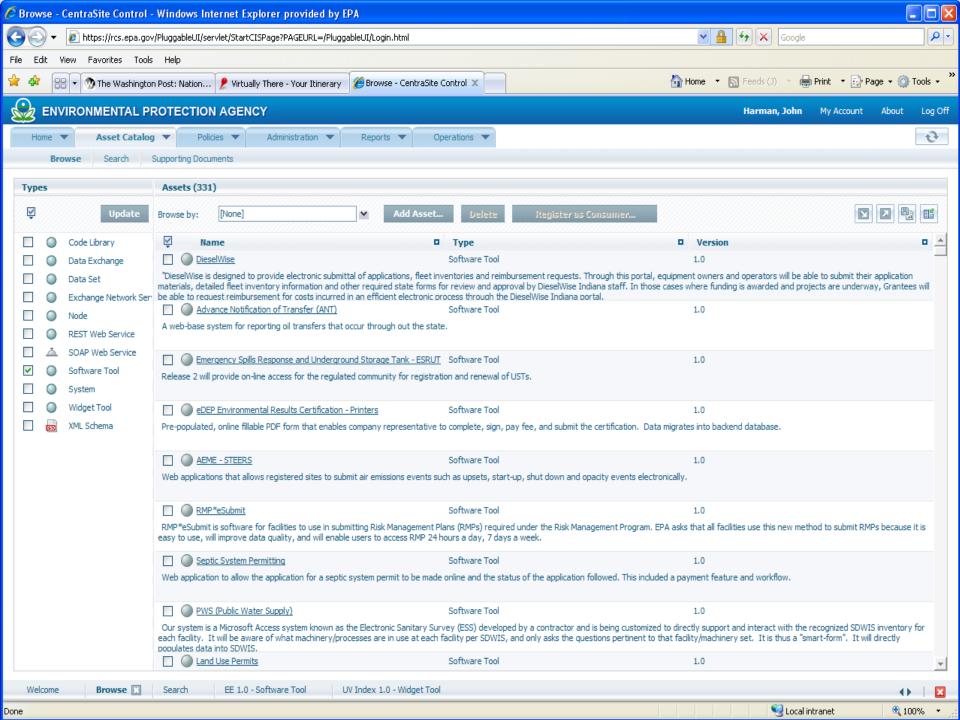
What do you want to do next?

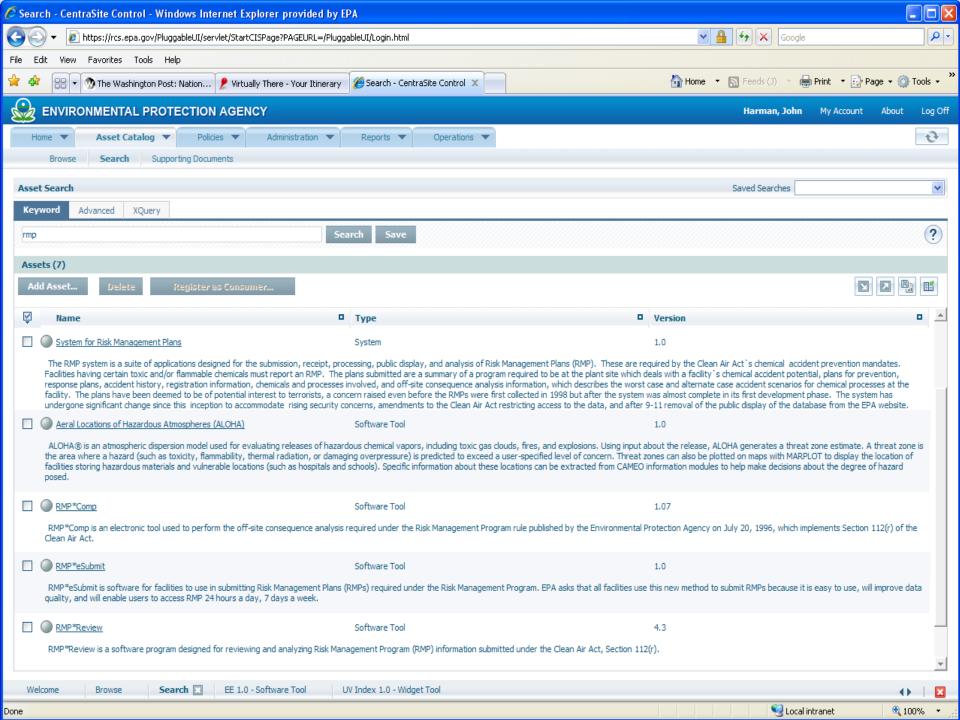


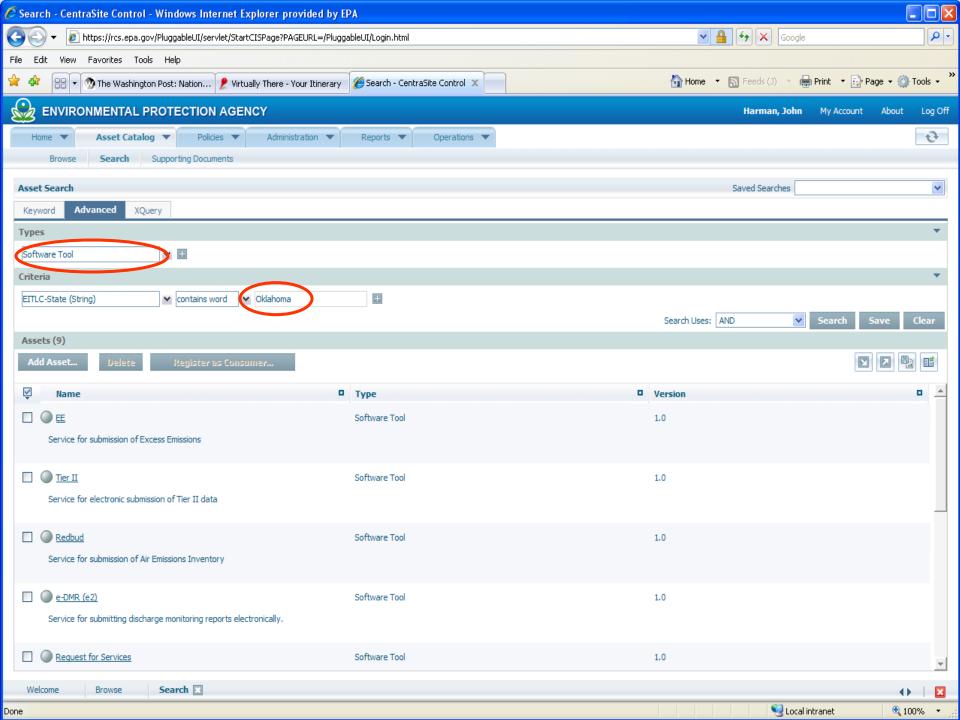


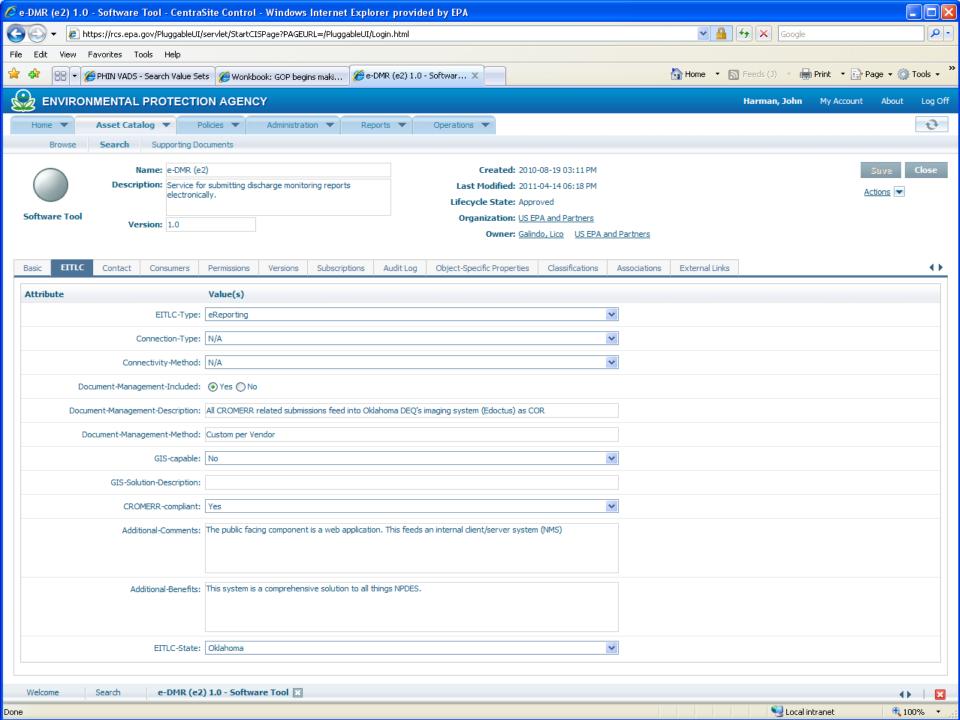


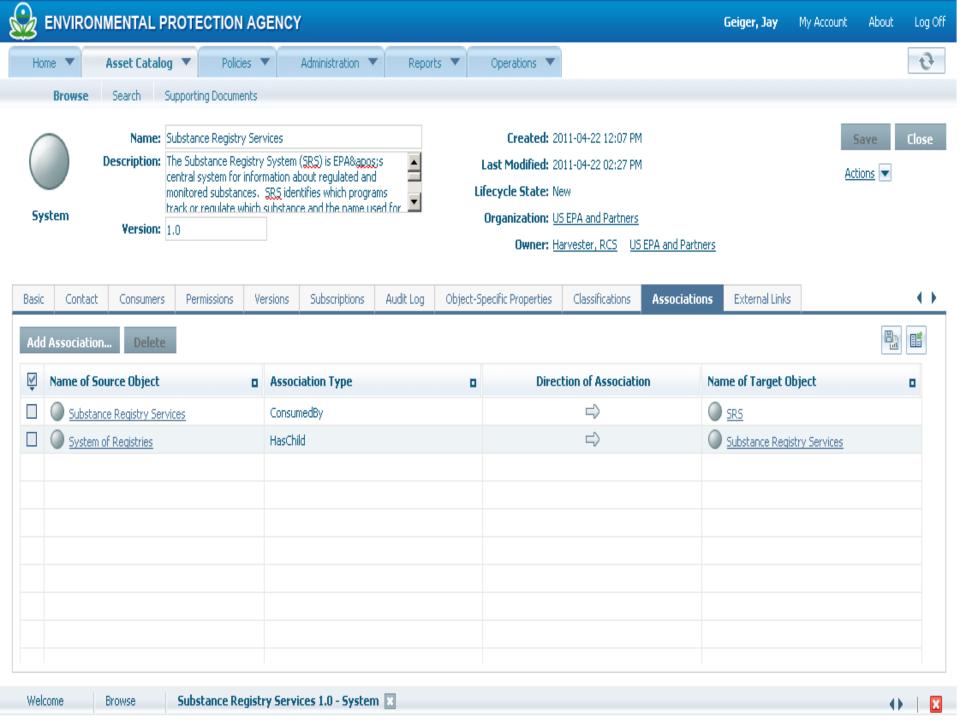
More Settings

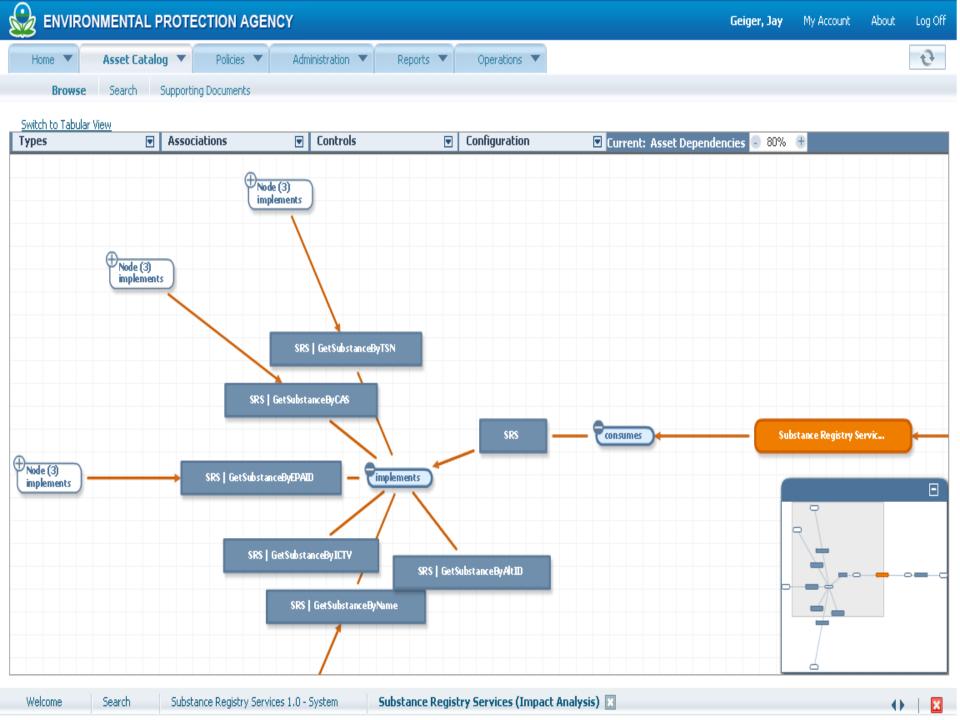








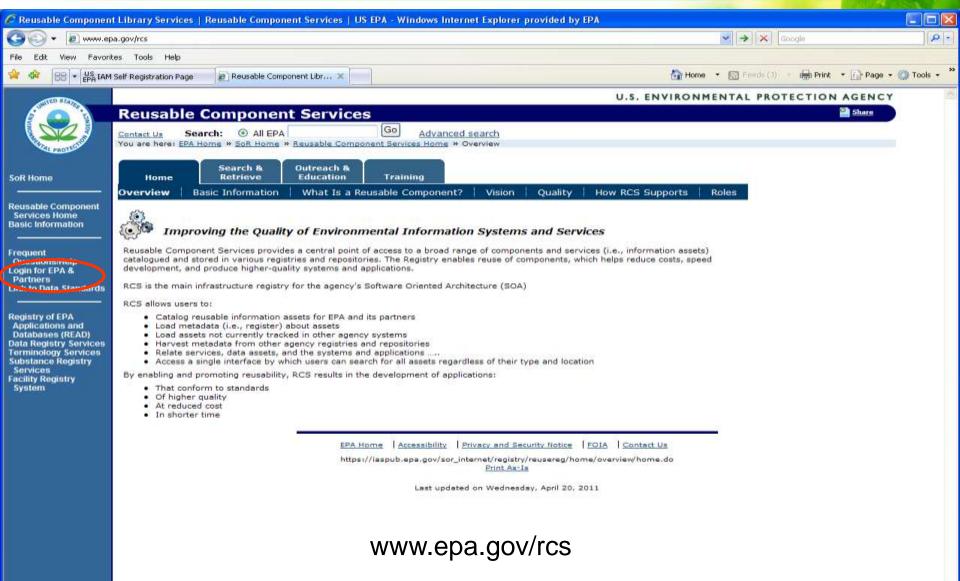




### Outreach on RCS

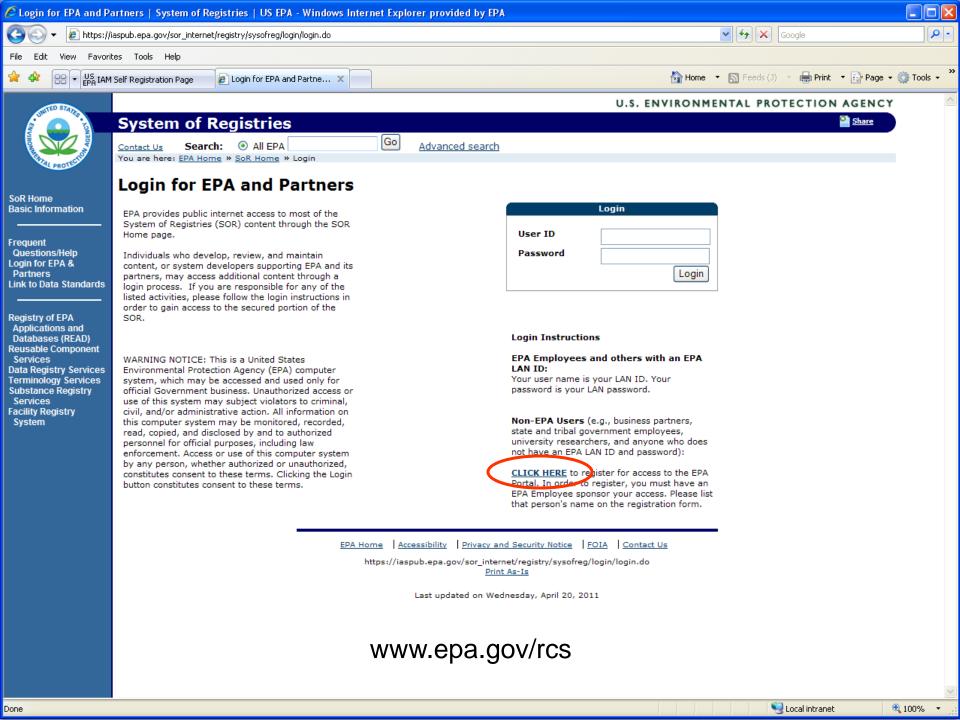
- EPA/OEI is conducting outreach to EPA program offices and other partners on RCS
  - Meeting with the owners of all significant systems
  - New EPA staff is tasked with leading outreach
  - EPA/OEI will register assets
    - Then transfer ownership to asset owners
- EPA would like to learn from State and Tribal agencies how to conduct outreach on RCS and to provide RCS demonstrations

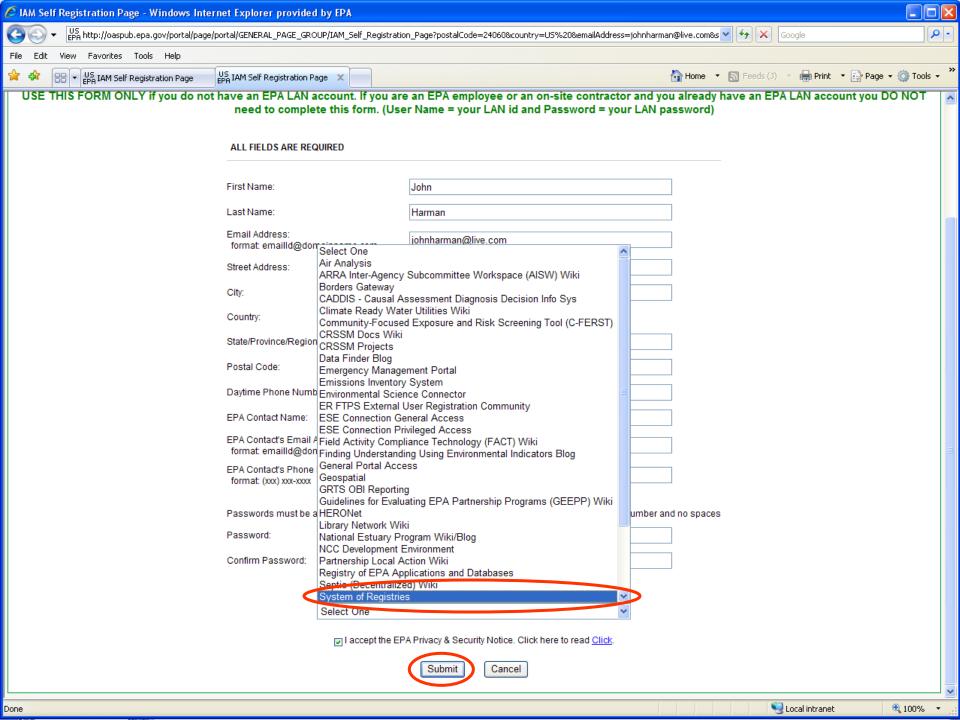
# Requesting a User ID and Password



Local intranet

100%

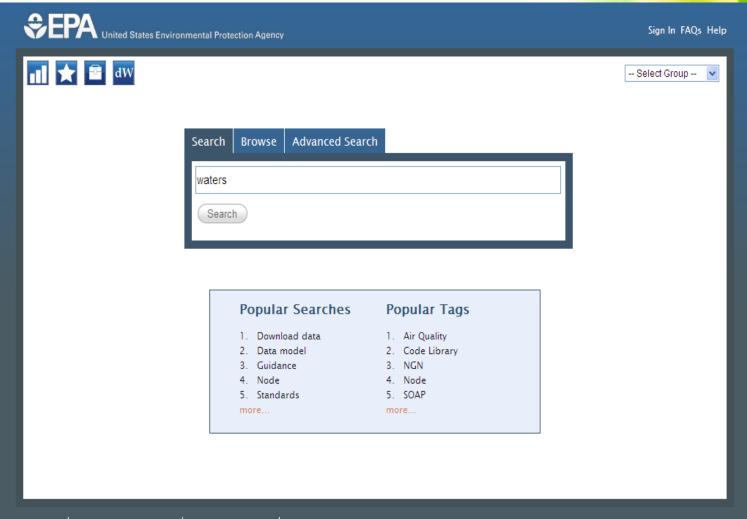




## Next Steps

- Harvest records from EPA's data set registry and from EPA's data dictionary registry
  - Create associations with other assets already registered in RCS
- Continue outreach to EPA program offices and partners to identify new assets
- Work with EPA program offices and partners to improve metadata for existing records
- Develop RCS widgets to enable users to create linkages from their websites to RCS

# Improving the User Interface



24 results for

"waters" X

#### **Asset Types**

Code Library

Data Exchange

Data Set

Exchange Network Service

Node

**REST Web Service** 

SOAP Web Service

Software Tool

System

Widget Tool

XML Schema (active)

#### **EPA Offices**

Office of Air and Radiation

Office of Chemical Safety and

Pollution Prevention

Office of Enforcement and

Compliance Assurance

Office of Environmental

Information

#### Classification

Data Categories

Data Set Types

EPA Media

Exchange Network Classification

Scheme

ISO Topic Categories

Service Component Reference

Model

#### Lifecycle Phase

Planning

### Search

#### **WATERS JavaScript Library**

The WATERS JavaScript Library provides an easy to use interface that hides the complexities of calling the WATERS HTTP services. The library supports both AJAST and AJAX style requests. The below diagram depicts how the library fits into a consumer application and the WATERS Service architecture.

Source: Exchange Network

Tags:water, library, services

Helpful? ★ ★ ★ ★ (2 votes) Version: 2.0 Lifecycle: Production

#### **Washington Fish Tissue**

Interagency exchange of fish tissue monitoring data in an effort to better integrate environmental data with human health data. The Department of Health uses web services to access fish tissue sampling results located on the secure Network Node at the Department of Ecology.

Source: Registry of EPA Applications and Databases (READ)

Tags:data exchange, node 📎

Helpful? \* \* \* \* \* (0 votes) **Version**: 1.0 **Lifecycle**: Development

#### Point Indexing Service

The Point Indexing service is a subset component of the Event Indexing Service providing a simplified point indexing function for linking a point to the National Hydrography Dataset via either a straightforward shortest distance snap or via raindrop indexing utilizing the NHDPlus flow direction grid...

Source: Data Registry Services

Tags:SOAP, web service



votes) Version: 5a Lifecycle: Production

#### Get Entities Miles by Lat/Long Service

Query for identifying details of all water entities within a given radius of a specified geographic location for specific WATERS programs.

Source: Terminology Services

14 results for

"waters" X

XML Schema X

#### Asset Sub-Types

EN-PRI EN-SEC EN-SSC EPA Other

#### **EPA Offices**

Office of Chemical Safety and Pollution Prevention Office of Enforcement and Compliance Assurance Office of Environmental Information

Office of Air and Radiation

#### Classification

Data Categories
Data Set Types
EPA Media
Exchange Network Classification
Scheme

ISO Topic Categories
Service Component Reference

Model

#### Lifecycle Phase

Planning
Development
Production
Retired

javascript

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Helpful? ★★★★ (2 votes) Version: 2.0 Lifecycle: Production

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Query for identifying details of all water entities within a given radius of a specified geographic location for specific WATERS programs.

Source: Terminology Services

Tags:soap, web service, water

Helpful? ★★★★ (2 votes) Version: 1.0 Lifecycle: Production

#### Water Quality (WQDE)

The WQDE builds on the Water Quality eXchange (WQX) and features an enhanced WQX schema and web services for submitting project descriptions, images, and data. It supports the sharing of water quality data among federal, state, private, and non-profit partners.

Source: Data Registry Services

Tags:data exchange, water

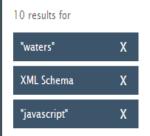
Helpful? ★★★★ (10 votes) Version: 1.0 Lifecycle: Production

#### **Pesticide Product Registration and Licensing**

System allows manufacturers of pesticide products to register their products online and license pesticide applicators.

Source: Substance Registry Services

Tags:software tool, pesticide



#### Asset Sub-Types

EN-PRI

EN-SEC

EN-SSC

EPA

Other

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#### Lifecycle Phase

Planning

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Production

### Search

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Helpful?  $\star \star \star \star \star \star (2 \text{ votes})$ 

Version: 2.0

Lifecycle: Production

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Version: 1.0

Lifecycle: Production

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Helpful?  $\star \star \star \star \star \star (10 \text{ votes})$ 

Version: 1.0

Lifecycle: Production

#### Superfund Enterprise Management System

The Superfund Enterprise Management System (SEMS) is an integration of OSWERs four primary Superfund data collection, reporting and tracking systems: ICTS, SeFACTS, CERCLIS, and SDMS. It will serve as the single official source of primary site activity data, records, support documentation: Essentially all Superfund data and documents.

Source: Registry of EPA Applications and Databases (READ)

