

A USER'S GUIDE TO REGISTERING AND MAINTAINING DATA SERVICES IN HIS CENTRAL 2.0



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September 2014

DISCLAIMERS

The HIS Central application and accompanying documentation are supported by the National Science Foundation under [Grant No. 1248152](#). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.

Each user uses the WDC at her/his own risk. Data accessed through the WDC are provided “as is”. CUAHSI does not verify the accuracy of data submitted by users. CUAHSI makes no representations or warranties, express or implied, with respect to the WDC and specifically disclaims all warranties to the fullest extent permitted by law (including, but not limited to, merchantability or fitness for a particular purpose). CUAHSI will not accept liability for damages of any kind that result from using the WDC.

TECHNICAL SUPPORT

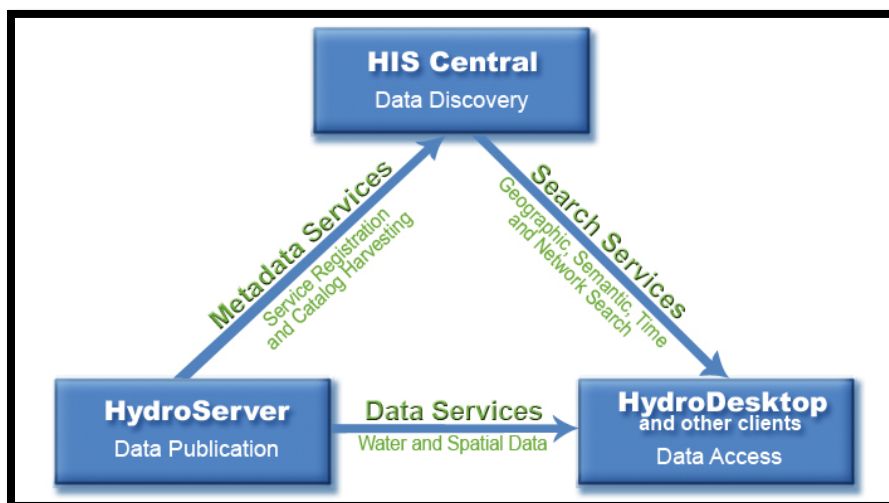
Ongoing technical support for HIS Central is provided by the CUAHSI Water Data Center. Contact CUAHSI staff by emailing help@cuahsi.org or calling 339-221-5400.

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INTRODUCTION TO THE HYDROLOGIC INFORMATION SYSTEM

The CUAHSI Hydrologic Information System has been developed in order to enable the sharing of water data between researchers and groups located anywhere in the world. It works like common search services such as Google. HIS Central, the primary subject of this document, is a metadata data catalog (like the catalogs developed by Google). This catalog holds information about data sources (like Google holds information about websites) and one discovers and browses information using a client in the same way that one uses a web browser to browse websites.



The CUAHSI Hydrologic Information System (HIS) is designed for publishing time series data, that is observations collected over time at a fixed point, such as a record of stream stage or a series of water-quality observations at a station. These data are stored in a database called the Observations Data Model (ODM) which has defined a standard metadata profile for water data.

Within ODM, a time series is defined as collection of data having the same value for the following five attributes:

1. Site (e.g., USGS Site 08158000, Colorado River at Austin, TX)
2. Property measured (e.g., Alkalinity)
3. Method (e.g., Gran Titration)
4. Source (the collecting agency, e.g., University of Texas)
5. Quality Control Level (e.g., level of review of the data, e.g., "raw", or "edited")

These data sources are made available in the HIS through the registration of a web service URL on HIS Central. Registration, described later in this document, enables HIS Central to catalog the information contained in a data source makes the data source discoverable through search services using clients like HydroDesktop¹.

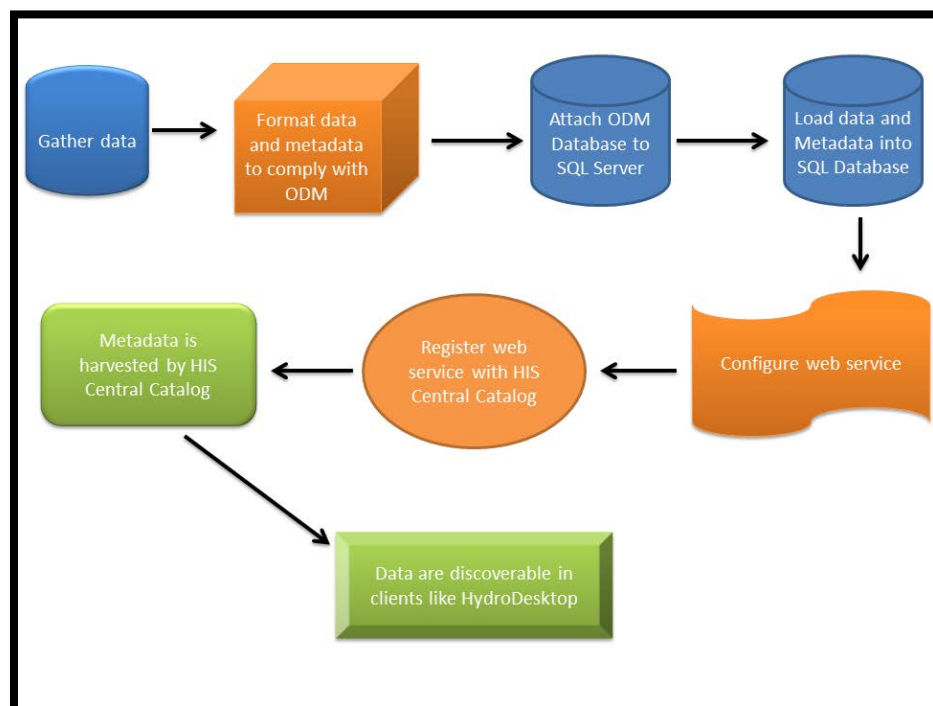
¹ <http://www.hydrodesktop.org>

OVERVIEW OF HIS CENTRAL

HIS Central is the web application which provides an interface for adding and managing registered water data services and the HIS central metadata catalog. The central metadata catalog is designed to maintain observation series information, including site information, variable information, period of record, as well as project metadata – for all registered data sources of hydrologic observations. These two components are in the center of the CUAHSI HIS architecture.

There are several user roles associated with HIS Central. Data managers, who have gone through the task of creating a WaterOneFlow data service for their observational data, use it to register the service to the central registry, to make it possible for HIS users to discover and access the data, and integrate it with information from other similarly registered data sources. The HIS Central Administrators are responsible for maintaining hydrologic metadata from sources other than those compatible with WaterOneFlow services such as U.S. federal agency repositories. In addition, this role is responsible for periodically updating the metadata catalog and managing all aspects of the HIS Central application. The metadata catalog also maintains a hydrologic ontology so that well established concepts can be used to search across multiple water data sources, which may be using different terminology for their respective variables. An ontology curator is responsible for maintaining and evolving the ontology, and managing associations between ontology concepts and variables. Once data are published and registered in HIS Central, they are accessed by metadata catalog users, via online and desktop clients. In addition to the concept-based search enabled by the ontology mappings, the metadata catalog maintains spatial and temporal indexes assisting in spatio-temporal searches across multiple observation series.

WORKFLOW FOR DATA PUBLICATION



Generally, there are seven steps that comprise the workflow for publishing data in the HIS, which are displayed in the flow chart above. The role HIS Central plays is in making existing data available through web services. Before this occurs, however, a researcher must gather or otherwise create data and format the data to comply with the HIS' information model, The Observations Data Model² (ODM). Typically, the ODM is manifested as an SQL Relational Database. Next, the WaterOneFlow Web Service is configured and connected to the database. The web service creates a URL endpoint that can be registered with HIS Central. This permits a web crawler from HIS Central to index the contents of the database and enables discovery and download of the database's contents.

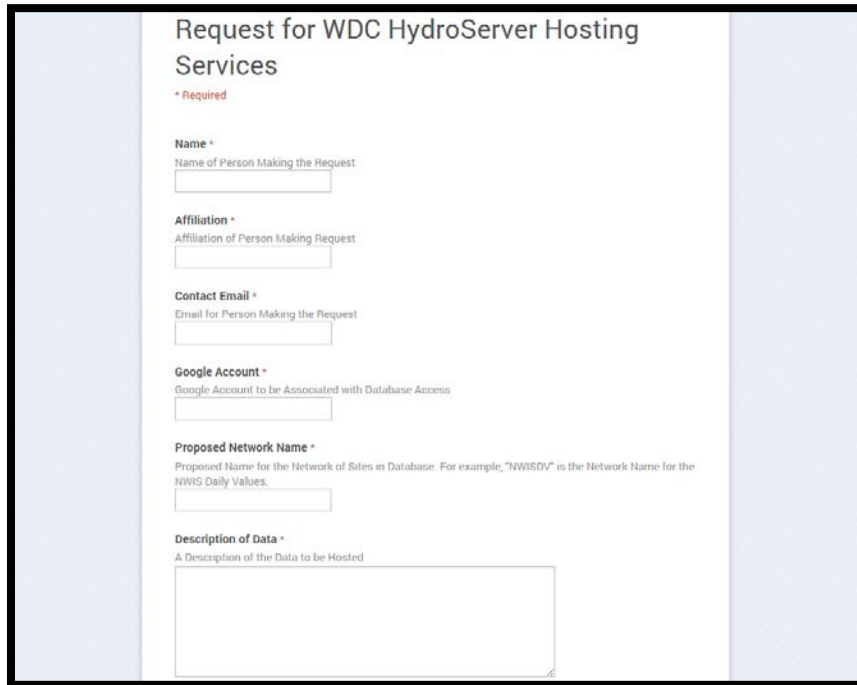
The WDC provides hosting services that simplify this workflow for many researchers. WDC staff will setup the database and web service for a respective researcher or group, but it remains the researcher or group's responsibility to format the data properly as well as to complete the registration process with HIS Central. To request hosting services, visit <http://histools.cuahsi.org>.

² Horsburgh, J. S., D. G. Tarboton, D. R. Maidment, and I. Zaslavsky (2008), A relational model for environmental and water resources data, *Water Resour. Res.*, 44, W05406, doi:10.1029/2007WR006392.

ADDING A NEW DATA SERVICE

WDC HOSTING SERVICES

If you are hosting your own database and web service externally from the CUAHSI WDC, please skip to the next section, *Registering a New Service*. This section briefly describes the process of requesting hosting services from the WDC, which includes the information that the WDC staff will need, and the information the WDC staff gives to the data publisher that is needed to complete a registration.



The screenshot shows a web form titled "Request for WDC HydroServer Hosting Services". Below the title, there is a red asterisk and the word "Required". The form contains several input fields, each preceded by a label and an asterisk indicating it is required. The labels are: "Name", "Affiliation", "Contact Email", "Google Account", "Proposed Network Name", and "Description of Data". Below each label is a text input field. The "Description of Data" field is a larger text area. The form is set against a light blue background with a white central area for the form fields.

To request hosting services from the WDC for time series data to be registered with HIS Central, visit <http://histools.cuahsi.org>. You will be prompted to log in with a Google Account. If your Google Account does not have a database associated with it then you will be brought to a request form. Provide the required information and CUAHSI staff will contact you once your information has been processed.

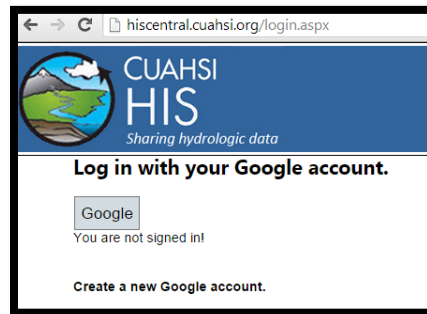
If you need assistance, or do not have a Google Account, contact CUAHSI staff by emailing help@cuahsi.org.

REGISTERING A NEW SERVICE

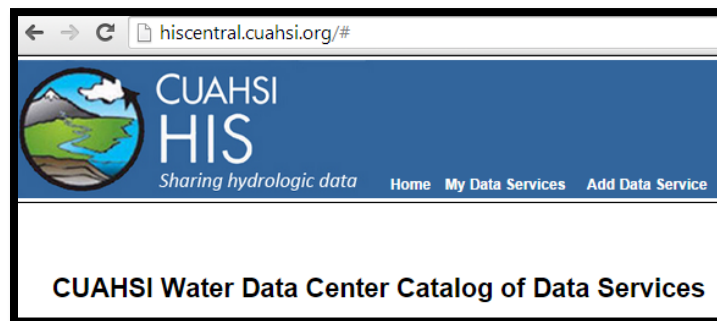
The following list contains the steps necessary for registering a new data source with HIS Central.

Below we present an outline of a step-by-step process that data managers are expected to follow when registering their data in the HIS Central.

1) Login to HIS Central using a Google Account at <http://hiscentral.cuahsi.org>



2) Click Add Data Service



3) Enter Data Service Information

A screenshot of the 'Register Data Service' form in the CUAHSI HIS system. The browser's address bar shows 'hiscentral.cuahsi.org/addnetwork.aspx'. The page has a blue header with the CUAHSI HIS logo and the tagline 'Sharing hydrologic data'. Navigation links include 'Home', 'My Data Services', 'Add Data Service', 'All Data Services', 'Forum', and 'Search Grants'. The form is titled 'Register Data Service' and contains the following fields:

- Service Title:** Global Rivers Observatory. Below the field, it says 'This will appear atop the page associated with your service.'
- Network Name:** GlobalRiversObservatory. Below the field, it says 'This is a unique code associated with your service. The network name used when configuring your webservice is appropriate. This value is unique across this system.'
- Service WSDL:** http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/cua. Below the field, it says 'Enter the full web URL to your webservice WSDL. This value is unique across this system.'

At the bottom of the form, there is a checkbox labeled 'I have read and agree to the Data Service Agreement' which is checked. To the right of the checkbox is a 'Next >>' button.

4) Enter Data Service Metadata

Data Service Details:
[View Public Details Page](#)

Data Service Title: Global Rivers Observatory
 Network Vocab: GlobalRiversObservatory
 Service WSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/uaahsi_1_1.asmx?WSDL

Source Info:
 Organization:
 URL:

Contact Info:
 Name:
 Email:
 Phone:


Citation:

Abstract:

LastHarvested:
 Not Approved

[Edit Details](#)
[Edit Funding Sources](#)
[Copy Report URL](#)
[Test Service](#) Use this page to test the methods on your service.

[Change Images](#)
 Upload a custom logo and map icon to be used for your data service



Additional Metadata?
[Descriptions](#)
[Contacts](#)
[Links](#)

[Tag Variables](#) After your service has been harvested, you need to tag your variables with using the Hydrologic Ontology. Additionally, you can view the harvested data by listing the variables and sites.
[List Variables](#)
[Sites Info](#)

Data Service Details:
[View Public Details Page](#)

Service Title: Global Rivers Observatory
 Network Vocab: GlobalRiversObservatory
 Service WSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/uaahsi_1_1.asmx?WSDL


Source Info:
 Organization: The Global Rivers Observatory
 URL: <http://www.globalrivers.org/>
 What organization is publishing this data?

Contact Info:
 Name: Bernhard Peucker-Ehrenb
 Email: bpeucker@whoi.edu
 Phone: 508-289-2518
 Who is the primary contact?
☐ Is service public?
 Service must be public to be accessible through this portal.

Citation:

Abstract:
 Scientists from the Woods Hole Research Center and the Woods Hole Oceanographic Institution have joined with partners from around the world to investigate river chemistry in...
 Provide a brief description about your project and how you collected your data.

[Change Images](#)
 Upload a custom logo and map icon to be used for your data service



[Test Service](#) Use this page to test the methods on your service.

Additional Metadata?
[Descriptions](#)
[Contacts](#)
[Links](#)

[Tag Variables](#) After your service has been harvested, you need to tag your variables with using the Hydrologic Ontology. Additionally, you can view the harvested data by listing the variables and sites.
[List Variables](#)
[Sites Info](#)

5) Test the data service using the test page to make sure data values and metadata appears as expected. There is additional information for testing services in the next section of this document, *Managing your Data Service(s)*.

Service Test Page:

NetworkName: GlobalRiversObservatory Get Sites
 NetworkWSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/cuahsi_1_1.asmx?WSDL

Site: CHILR:Chilcotin River Get Site info

Chilcotin River
 EPSG:4326
 Oxygen, Dissolved, Percent Saturation
 2009-08-09 - 2011-05-28 Get Values

Select	Code	Name	Description	Units
Select	ShaleNetwork:DO_PS	Oxygen, Dissolved		Percent Saturation
Select	ShaleNetwork:DO_mgL	Oxygen, Dissolved		milligrams per liter
Select	ShaleNetwork:TDS	Solids, total dissolved		milligrams per liter
Select	ShaleNetwork:pH	pH		pH Unit

< August 2009 >

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

< May 2011 >

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

☒ Use Start Date 2009-08-09 Set Date ☒ Use End Date 2011-05-28 Set Date

Raw XML Response:

```
<timeSeriesResponse xmlns:gml="http://www.opengis.net/gml" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:wtr="http://www.cuahsi.org/waterML/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://www.cuahsi.org/waterML/1.1/"><queryInfo><creationTime>2014-09-12T13:46:23.2005999-04:00</creationTime><criteria MethodCalled="GetValues"><parameter name="site" value="GlobalRiversObservatory:CHILR" /><parameter name="variable" value="ShaleNetwork:DO_PS" />
```

5) Change the status of your service to public in order to make data retrievable in search results.

Data Service Details: [View Public Details Page](#)

Service Title: Global Rivers Observatory
 Network Vocab: GlobalRiversObservatory
 Service WSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/cuahsi_1_1.asmx?WSDL

Source Info:
 Organization:
 URL:
 What organization is publishing this data?

Contact Info:
 Name:
 Email:
 Phone:
 Who is the primary contact?

Citation:

 How do you want your data to be cited when downloaded?

Abstract:

 Provide a brief description about your project and how you collected your data.

☐ Is service public?
 Service must be public to be accessible through this portal.

Update Cancel

6) A metadata harvester operates every Saturday, which downloads metadata from the data service in order to enable search and discovery of data. A data service will not appear in search results until it has been harvested. To request a harvest before the weekend, email help@cuahsi.org.

7) Verify Tagging of Variables to Ontological Concepts. HydroTagger is the name of the tool used to tag the variables in an ODM database to the concepts of HIS Central's ontology and is accessible from each data service's service details page by clicking the Tag Variables link, which can be seen in the lower left of the screenshot below. **Note:** If a data publisher conforms to using CUAHSI's Controlled Vocabulary³ then the majority of variables will be mapped automatically. It is the data publisher's responsibility to review these mappings to ensure that they are acceptable to the data publisher.

Data Service Details:
[View Public Details Page](#)

Data Service Title: Global Rivers Observatory
 Network Vocab: GlobalRiversObservatory
 Service WSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/cuahsi_1_1.asmx?WSDL

Source Info:
Organization: The Global Rivers Observatory
 URL: <http://www.globalrivers.org/>

Contact Info:
Name: Bernhard Peucker-Ehrenbrink
 Email: bpeucker@vthoi.edu
Phone: 508-289-2518

Service is public

LastHarvested: 8/15/2014 2:06:11 PM
Not Approved

[Edit Details](#)

[Edit Funding Sources](#)

[Copy Report URL](#)

[Test Service](#)

Use this page to test the methods on your service.

[Tag Variables](#)
[List Variables](#)
[Sites Info](#)


After your service has been harvested, you need to tag your variables with using the Hydrologic Ontology. Additionally, you can view the harvested data by listing the variables and sites.

Citation:

Abstract:

(This is a prototype service setup by CUAHSI staff for the Global Rivers Observatory scientists so that they can evaluate the use of HIS. Data and metadata are subject to change without notice. Scientists from the Woods Hole Research Center and the Woods Hole Oceanographic Institution have joined with partners from around the world to investigate river chemistry in Earth's most significant river systems. Now active in 18 watersheds around the world.)

[Change Images](#)

Upload a custom logo and map icon to be used for your data service
 

Additional Metadata?

[Descriptions](#)
[Contacts](#)
[Links](#)

Provide any additional information you may want included on your service's public page.

³ http://his.cuahsi.org/mastercvreg/edit_cv11.aspx?tbl=VariableNameCV&id=821577965

To map a variable, select it in the table in the lower left of the page. Next, pan the hierarchy or terms or search for a term in the *Search* box. Search results will be highlighted with red triangles, which can be seen in the screenshot below. Select a term to map the variable to by double clicking on the respective term in the hierarchy and clicking *Map!* To delete a mapping, click the *delete* button next to the applicable Variable and Keyword.

CUAHSI Ontology - March 2010

Star Trees created with Inxight VizServer™

inxight

Variable Name	Code	Medium
discharge	shalenetworkcd	surface water select

Variable:

Mapping:

Map!

Variable	Keyword	
oxygen, dissolved	oxygen, dissolved	delete
oxygen, dissolved	oxygen, dissolved	delete
specific conductance	specific conductance	delete
solids, total dissolved	solids, total disso...	delete
solids, total dissolved	solids, total disso...	delete

▶ ▶▶

8) Once your variables are tagged, your data are available to be discovered and downloaded in data access clients like HydroDesktop.

MANAGING YOUR DATA SERVICE(s)

TESTING A DATA SERVICE

TESTING A SERVICE ON HIS CENTRAL

Data Service Details: [View Public Details Page](#)

Data Service Title: Global Rivers Observatory **jtpollak@gmail.com**
Network Vocab: GlobalRiversObservatory
Service WSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/kuahsi_1_1.asmx?WSDL

Source Info:
Organisation:
URL:

Contact Info:
Names:
Email:
Phone:


Citation:

Abstract:

LastHarvested: Not Approved

[Edit Details](#) [Edit Funding Sources](#) [Copy Report URL](#) [Test Service](#)

[Change Images](#) Upload a custom logo and map icon to be used for your data service



To test a data service at any time, go to the details page for the specific service and click Test Service. The resulting page will contain an interface for querying for the sites in your service, variables at a specific site, and finally data values for a specific variable at a specific site filtered by date. The page also displays the raw XML response for the query at the bottom of the page.

Service Test Page:

NetworkName: GlobalRiversObservatory [Get Sites](#)
NetworkWSDL: http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/kuahsi_1_1.asmx?WSDL

Site: CHILR: Chilcotin River [Get Site info](#)

Service Variable Details

Select	Code	Name	Description	Units
Select	ShaleNetwork:DO_PS	Oxygen, Dissolved		Percent Saturation
Select	ShaleNetwork:DO_mgl	Oxygen, Dissolved		milligrams per liter
Select	ShaleNetwork:TDS	Solids, total dissolved		milligrams per liter
Select	ShaleNetwork:pH	pH		pH Unit

August 2009

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

May 2011

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

☒ Use Start Date ☐ Use End Date

[Set Date](#) [Set Date](#)

Raw XML Response:

```
<timeSeriesResponse xmlns:gml="http://www.opengis.net/gml" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:kuahsi="http://www.w3.org/1999/xlink" xmlns:crs="http://www.cuahsi.org/waterML/1.1/"><QueryInfo>
<creationTime>2014-09-12T13:46:23.2005999-04:00</creationTime><criteria MethodCalled="GetValues"><parameter
name="site" value="GlobalRiversObservatory:CHILR" /><parameter name="variable" value="ShaleNetwork:DO_PS" />
```

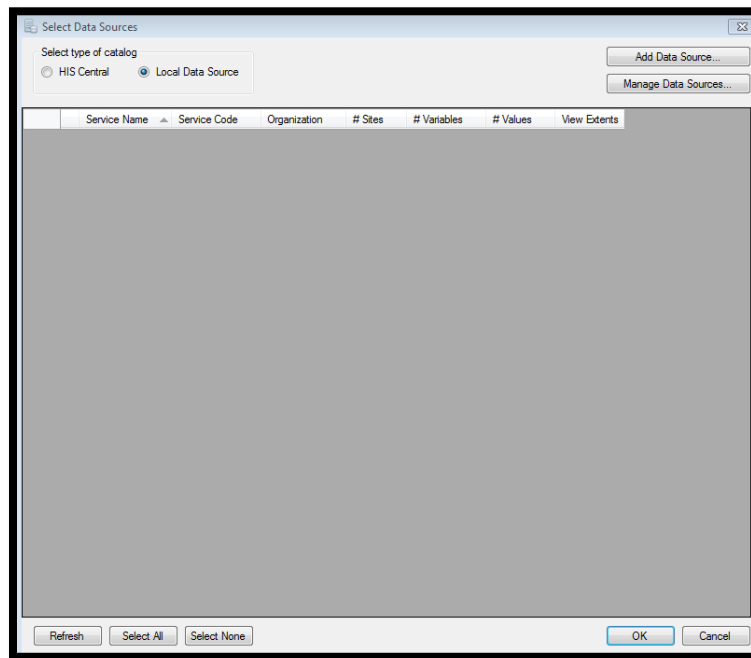
TESTING A SERVICE IN HYDRODESKTOP

HydroDesktop is a free, open source GIS software application for Windows that can interact with the other pieces of the HIS. As of the writing of this document the latest version is HydroDesktop 1.6. The workflow described below, and screenshots, are from this version.

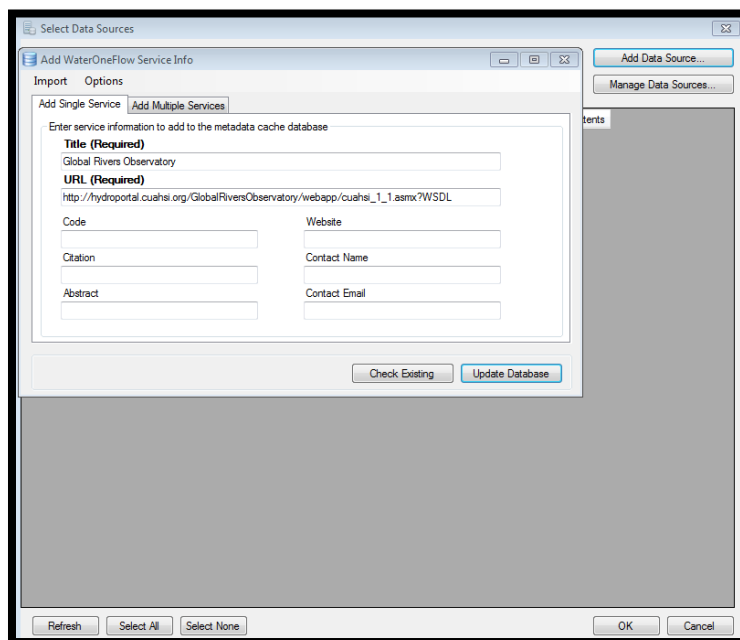
The screenshot displays the ArcGIS Desktop interface with the following components:

- Top Menu Bar:** File, Map, Search, Table, Graph, Edit, HydroR, Help.
- Search Panel (Top Right):** Includes a search bar with the placeholder "[Enter Keyword]", a "Select Multiple Keywords" button, and a "Time Range" section with "Start" (9/15/2009) and "End" (9/15/2014) date pickers. Other buttons include "Select Dates", "Select Data Sources", "Search", "Show Attribute Table", "Show Map Popups", "Download Settings", and "Download Selected".
- Legend Panel (Bottom Left):** Titled "Legend", it contains a tree view of map layers:
 - ☒ Map Layers
 - ☒ North America Data
 - ☒ World Rivers
 - ☒ Online Basemap
 - ☒ World Lakes
 - ☒ U.S. Counties
 - ☒ U.S. HUC
 - ☒ U.S. States
 - ☒ NAME
 - ☒ Canadian Provinces
 - ☒ World Countries
 - ☒ NAME
- Main Map View (Right):** Displays a map of the Mid-Atlantic region, showing the Chesapeake Bay, the Potomac River, and the Delaware River. The map is overlaid with various data layers, including the U.S. Counties and U.S. HUC layers. The map is titled "Mid Atlantic" and "Mohawk R".

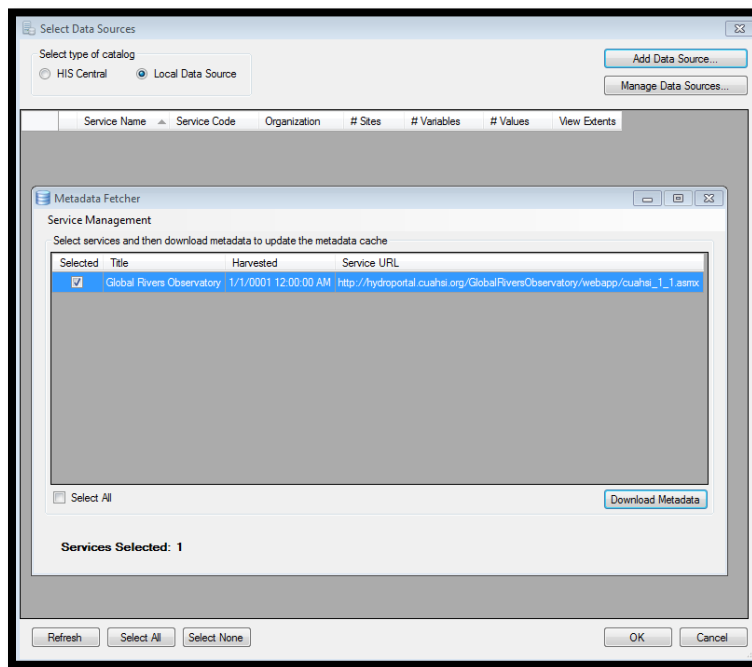
In the Select Data Sources window, choose the Local Data Source radio button. The Local Data Source screen enables the direct input of a WSDL for a data service.



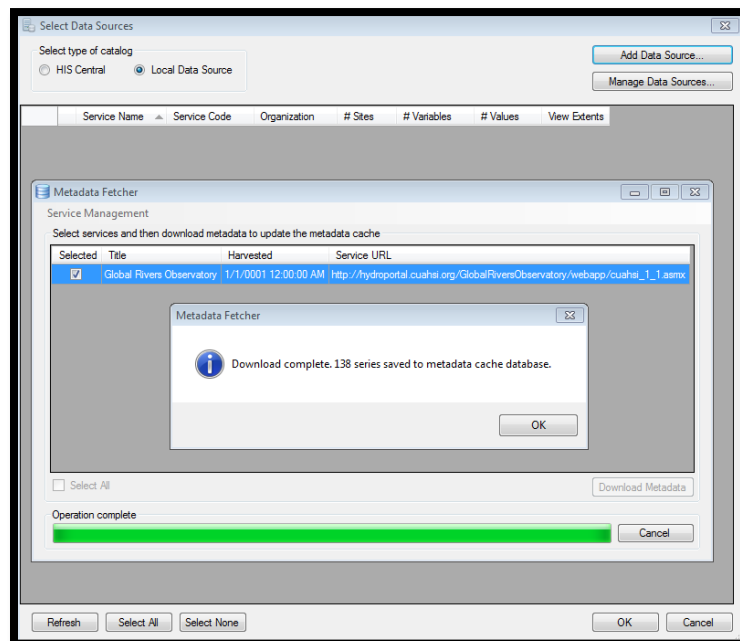
The Add Data Source button will bring up a new screen where a Title and URL (for the WSDL) can be entered.



The last step to bring this data source into HydroDesktop is to download the metadata for the service to HydroDesktop's local storage. Click Update Database then choose to download the metadata from the service in the Metadata Fetcher window.



If this download is successful, then HIS Central’s harvester will be able to harvest the metadata from the service during the registration process.



At this point, the service is discoverable locally using the search tools in HydroDesktop. The data are not publicly available until the HIS Central registration process is complete, which is described in the preceding section of this document.

VIEWING METRICS FOR A DATA SERVICE

Metrics for data services can be accessed from the My Data Services page by clicking Usage Report (located on the left).

My Services:				
	NetworkName	ServiceWSDL	ContactName	Organization
Details Test Usage Report	MuddyRiver	http://hydroportal.cuahsi.org/muddyriver/cuahsi_1_0.asmx?WSDL	Ferdi Heilweger	Northeastern University
Details Test Usage Report	GlacialRidge	http://hydroportal.cuahsi.org/glacialridge/cuahsi_1_1.asmx?WSDL	Philip J. Gerla	University of North Dakota
Details Test Usage Report	LaSelvaStreamdischarge	http://hydroportal.cuahsi.org/LaSelvaStreamdischarge/cuahsi_1_1.asmx?WSDL	Dr. David P. Genereux	North Carolina State University, Department of Marine, Earth and Atmospheric Sciences
Details Test Usage Report	TuolumneMdw	http://hydroportal.cuahsi.org/TuolumneMdw/cuahsi_1_1.asmx?WSDL	Jessica Lundquist	University of Washington - Seattle
Details Test Usage Report	Hassberge	http://hydroportal.cuahsi.org/hassberge/cuahsi_1_1.asmx?WSDL	Dr. N Loes MB van Schaik	Technische University Munchen
Details Test Usage Report	Weierbach	http://hydroportal.cuahsi.org/weierbach/cuahsi_1_1.asmx?WSDL	Dr. N Loes MB van Schaik	Karlsruher Institut für Technologie
Details Test Usage Report	IRWA	http://hydroportal.cuahsi.org/ipswich/cuahsi_1_1.asmx?WSDL	Ryan O'Donnell	Ipswich River Watershed Association
Details Test Usage Report	IEER at Wilkes University	http://hydroportal.cuahsi.org/Wilkes/cuahsi_1_1.asmx?WSDL	Brian Naberezny	The Institute for Energy & Environmental Research at Wilkes University
Details Test Usage Report	Panola ODM	http://hydroportal.cuahsi.org/panolaemma/webapp/cuahsi_1_1.asmx?WSDL	Rick Hooper	United States Geological Survey
Details Test Usage Report	Swedish Monitoring Data	http://hydroportal.cuahsi.org/SwedishMonitoringData/webapp/cuahsi_1_1.asmx?WSDL	Kevin Bishop	Swedish Agency for Marine and Water Management
Details Test Usage Report	UBWPAD	http://hydroportal.cuahsi.org/umassblackstone/webapp/cuahsi_1_1.asmx?WSDL	Elizabeth Finn	University of Massachusetts Water Resources Research Center
Details Test Usage Report	GlobalRiversObservatory	http://hydroportal.cuahsi.org/GlobalRiversObservatory/webapp/cuahsi_1_1.asmx?WSDL		

The resulting page will display a graph of usage statistics and contains links to download the metrics as a .csv file.



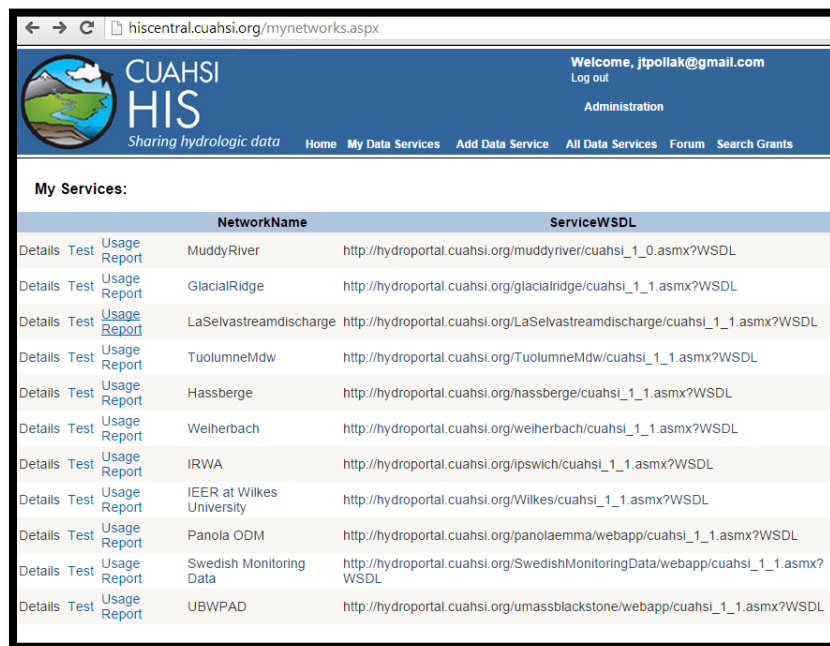
If there are no metrics being displayed, ensure that the Network Name used during service registration matches the Network Name defined in the WaterOneFlow Web Service Application. Need assistance accessing metrics? Let us know: help@cuahsi.org.

ADDING AND EDITING FUNDING SOURCES

A new feature in HIS Central 2.0 enables a data publisher to tag funding sources to Organizations from the Sources table in ODM. For example, if an ODM database has two organizations contributing data and one has been funded

by the National Science Foundation while one was funded by the U.S. Environmental Protection Agency, both funding sources can be acknowledged with the applicable grant number and supporting hyperlinks. To add a funding source, follow the steps outlined below.

1. From the My Data Services Page, click the Details link in the column farthest to the left in order to access the service details page for the data service you wish to add/edit funding information for.



hiscentral.cuahsi.org/mynetworks.aspx

Welcome, jtpollak@gmail.com
Log out
Administration

CUAHSI HIS
Sharing hydrologic data

Home My Data Services Add Data Service All Data Services Forum Search Grants

My Services:

		NetworkName	ServiceWSDL
Details	Test	Usage Report	MuddyRiver http://hydroportal.cuahsi.org/muddyriver/cuahsi_1_0.asmx?WSDL
Details	Test	Usage Report	GlacialRidge http://hydroportal.cuahsi.org/glacialridge/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	LaSelvastreamdischarge http://hydroportal.cuahsi.org/LaSelvastreamdischarge/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	TuolumneMdw http://hydroportal.cuahsi.org/TuolumneMdw/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	Hassberge http://hydroportal.cuahsi.org/hassberge/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	Weierbach http://hydroportal.cuahsi.org/weierbach/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	IRWA http://hydroportal.cuahsi.org/lpswich/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	IEER at Wilkes University http://hydroportal.cuahsi.org/Wilkes/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	Panola ODM http://hydroportal.cuahsi.org/panolaemma/webapp/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	Swedish Monitoring Data http://hydroportal.cuahsi.org/SwedishMonitoringData/webapp/cuahsi_1_1.asmx?WSDL
Details	Test	Usage Report	UBWPAD http://hydroportal.cuahsi.org/umassblackstone/webapp/cuahsi_1_1.asmx?WSDL

- From the Service Details Page, click Edit Funding Sources.

hiscentral.cuahsi.org/network.aspx

Welcome, jtpollak@gmail.com
Log out
Administration

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Home My Data Services Add Data Service All Data Services Forum Search Grants

Data Service Details: View Public Details Page

Data Service Title: The Institute for Energy & Environmental Research at Wilkes University
Network Vocab: IEER
Service WSDL: http://hydroportal.cuahsi.org/Wilkes/cuahsi_1_1.asmx?WSDL

Source Info:
Organization: The Institute for Energy & Environmental Research at Wilkes University
URL: http://energy.wilkes.edu/

Contact Info:
Name: Brian Naberezny
Email: brian.naberezny@wilkes.edu
Phone:

Citation:
SRBC Remote Water Quality Monitoring Network (http://www.srb.net/). Republished by The Institute for Energy & Environmental Research at Wilkes University.

Abstract:
The present IEER database contains re-published water quality data from the Susquehanna River Basin Commission (http://www.srb.net/). SRBC's Remote Water Quality Monitoring Network is guided by six primary objectives: 1. To establish a real-time monitoring network at areas of concern in the Susquehanna River Basin; network provides monitoring data to resource agencies, the regulated community and the public to allow timely

LastHarvested: 7/8/2014 11:38:13 AM
Not Approved

[Edit Details](#)
[Edit Funding Sources](#)
[Copy Report URL](#)
[Test Service](#) Use this page to test the methods on your service.

[Change Images](#) Upload a custom logo and map icon to be used for your data service

- The resulting page will display all Organizations included in the Sources table of the ODM database for the service. Click Add/Edit on the right side of the table to add or change funding information for each organization.

hiscentral.cuahsi.org/FundingNetwork.aspx

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Home My Data Services Add Data Service All Data Services Forum Search Grants

The Institute for Energy & Environmental Research at Wilkes University

Display 10 records Search:

Source ID	Organization	Agency Name	Award ID	
292654	Susquehanna River Basin Commission (SRBC)			Add

Showing 1 to 1 of 1 entries First Previous 1 Next Last

[Reset](#)

4. Select an Agency Name, enter the AwardID, Start Date (optional), End Date (Optional), Grant URL (optional) and check the box to the far right if the grant is complete.

Agency Name	Award ID	Start Date	End Date	Grant URL	Complete?
Pennsylvania Dept	EE12003	MM/DD/YYYY	MM/DD/YYYY	Grant URL	<input checked="" type="checkbox"/>

5. Click OK in the table, and then click Save to commit your edits to the database.

Display 10 records Search:

Source ID	Organization	Agency Name	Award ID
292654	Susquehanna River Basin Commission (SRBC)	Pennsylvania Department of Environmental Protection	EE12003

Showing 1 to 1 of 1 entries First Previous 1 Next Last Reset

6. Once the funding information has been saved it is searchable via the Search Grants page, the link for which is located on the header of HIS Central. To search for a data service based upon its granting agency and grant number, go to the Search Grants and enter the Granting Agency and Award ID.

Granting Agency: Pennsylvania Department of

Award ID: 12003

Search

7. A successful search will yield a report webpage with simple statistics related to the grant

Susquehanna River Basin Commission (SRBC)

Report

The Institute for Energy & Environmental Research at Wilkes University

Pennsylvania Department of Environmental Protection

Grant Number: 12003
Start Date: N/A
End Date: N/A
Number of Time Series: 231
Total Number of Observations: 231
Total Number of Variables: 38

8. Click Report to access a statistical report about the data associated with the grant. This page has a unique URL that is meant to be included in reports such as those required by the National Science Foundation.

The Institute for Energy & Environmental Research at Wilkes University

Agency = Pennsylvania Department of Environmental Protection Grant Number = 12003

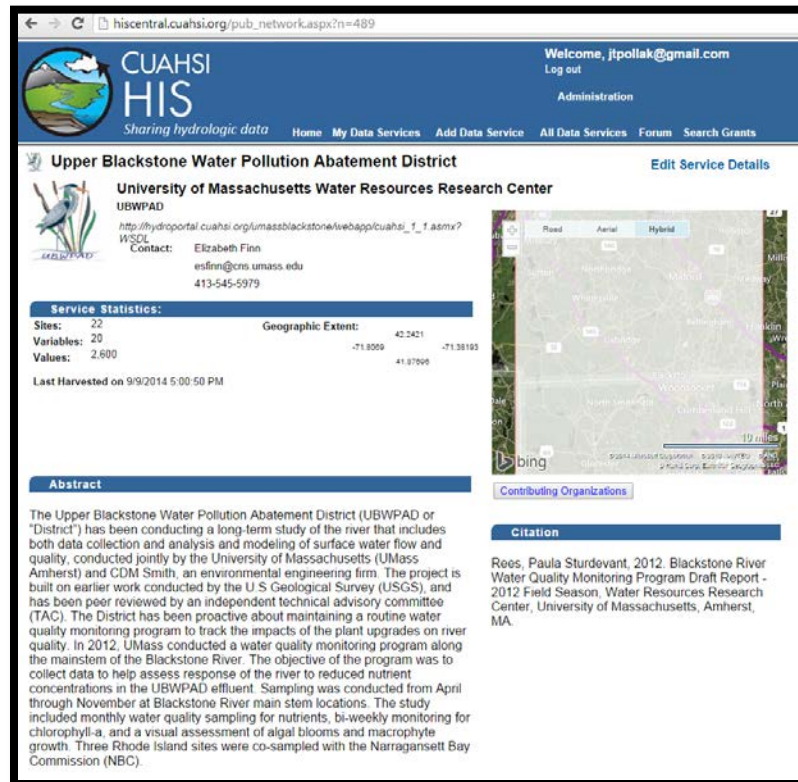
[Copy Uri](#)

NetworkId	Sources	Sites	Variables	Series	Values
292	1	56	38	231	1,956,391

Source	SourceId	Number of Variables	Number of Sites	Number of Series	Total Values
Susquehanna River Basin Commission (SRBC)	292654	38	5	231	1,956,391

BROWSING THE CATALOG AND DOWNLOADING DATA

The HIS Central webpage⁴ contains a list of all public data services registered with the catalog. Additionally, each service has a service details page that contains information about the data service including statistics, geographic extents, as well as a description or summary of the data source.



The screenshot displays the HIS Central website interface. At the top, the CUaHSI logo and navigation links are visible. The main content area features the title "Upper Blackstone Water Pollution Abatement District" and "University of Massachusetts Water Resources Research Center". Below this, a "Service Statistics" table provides key data points:

Service Statistics:	
Sites:	22
Variables:	20
Values:	2,600

Geographic Extent: 42.2421, -71.8009, -71.38183, 41.87009

Last Harvested on 9/9/2014 5:00:50 PM

The "Abstract" section describes the UBWPAD's long-term study of the river, including data collection and modeling of surface water flow and quality. It mentions the involvement of the University of Massachusetts (UMass Amherst) and CDM Smith, an environmental engineering firm. The project is built on earlier work conducted by the U.S. Geological Survey (USGS) and has been peer-reviewed by an independent technical advisory committee (TAC). The District has been proactive about maintaining a routine water quality monitoring program to track the impacts of plant upgrades on river quality. In 2012, UMass conducted a water quality monitoring program along the mainstem of the Blackstone River. The objective of the program was to collect data to help assess response of the river to reduced nutrient concentrations in the UBWPAD effluent. Sampling was conducted from April through November at Blackstone River main stem locations. The study included monthly water quality sampling for nutrients, bi-weekly monitoring for chlorophyll-a, and a visual assessment of algal blooms and macrophyte growth. Three Rhode Island sites were co-sampled with the Narragansett Bay Commission (NBC).

The "Citation" section provides the following reference: Rees, Paula Sturdevant, 2012. Blackstone River Water Quality Monitoring Program Draft Report - 2012 Field Season, Water Resources Research Center, University of Massachusetts, Amherst, MA.

HYDRODESKTOP

The most common tool used for data discovery and download for data registered in HIS Central is HydroDesktop. To download the most recent version of HydroDesktop, or for more information, visit www.hydrodesktop.org.

⁴ <http://hiscentral.cuahsi.org>