

# NSDSS Interface Specifications

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## 1. About This Document

This chapter provides a general overview of this document and contains the following major sub-sections:

- Document Purpose
- Document Audience
- Using this Document
- References

## 2. Document Purpose

This document serves as the Reference guide for the NSDSS Web Services Prototype. It explains how to operate and use the NSDSS Web Services (NSDSS WS) after it has been installed and pre-configured. In particular, the document focuses on how to access NSDSS Web Services and perform tasks such as:

- Data Permissions
- Operations and Maintenance
- Exception Handling

In summary, this document is intended to serve the following purposes:

- Give you a general overview of the NSDSS Web Services.
- Explain how to operate and administer NSDSS WS.

## 3. Document Audience

### 3.1. Pre-Requisites

The following knowledge, skills, and experience are recommended before reading this document:

- Working knowledge of the installation facility's network topology and the interconnections between the facility's components and target client network topology.
- Working knowledge of how to perform administration on Windows Server 2008.
- Working knowledge of how to perform administration on IIS.
- Basic proficiency in using one of the following web browsers:
  - Microsoft® Windows® Internet Explorer® 7 (or up)
  - Mozilla Firefox™ 2.0 (or up)

### 3.2. Out-of-Scope Content

The following topics are not covered by this document but may be available in other referenced documents (see references):

- Functional specifications
- Installation instructions
- Configuration instructions
- Application programming interface (API) descriptions
- Any other out-of-scope content is not covered by any part of the NSDSS documentation suite.

### 3.3. Optional Content

## 4. Using This Document

### 4.1. Document Structure

This document is divided into the following chapters:

### 4.2. Typographical Conventions

The following sections describe the typographical conventions used in this document.

#### 4.2.1. Formatting Styles

Formatting Description	Element or Information Type	Examples
Arial	Field names  (Includes drop-down lists, check boxes, radial buttons, and other lists and selections)	
	API method or operation names	
ARIAL SMALL CAPS	Keystrokes	
<b><i>Calibri Bold Italics</i></b>	References to other documents or source material	

	Screen, window, pop-up, and tab names.  (First letter capitalized)	
<u><b>Calibri Bold + Italics + Underline, Blue</b></u>	Cross-references (links) to other headings or sections in this document	
<i>Calibri Italics</i>	Emphasis to a block of text	
Courier New	Code samples  (Such as scripts, file formats, XML data, and so on)	
	Directory paths	
	Filenames	
<b>Courier New Bold</b> < <i>Courier New Bold Italics</i> >	Input (text) that the user must enter  (Variables are expressed in italics surrounded by angle brackets <>)	

### 4.2.2. Special Icons

The following special icons are used in this document to alert the reader to important pieces of information:

Icon	Description	
	<p><b>Note:</b> Extra or supplementary information that needs to be emphasized to the reader. Can provide further context, instructions, or understanding.</p>	
	<p><b>Tip:</b> Useful tips or pointers that can help the reader while they are using the product or this document.</p>	
	Reference	Description
	<p><b>Warning:</b> Alerts the reader to a potential action, practice, or situation that can result in major damage to data or the system. Damage is permanent and irreversible. Results may be contrary to what is expected or intended.</p>	

### 4.3. References

The latest versions of the following documents should be used in conjunction with this NSDSS WS Reference guide. They provide other useful, supplementary information about the product.

Reference	Description



## 5. Overview

### Description

Interface Specifications for all NSDSS Services, implemented or non-implemented. Some services were not deemed necessary for the NSDSS prototype and may be partially specified. Those services that are not used are clearly marked "NOT IMPLEMENTED" and largely serve as design suggestion as to how a production model might implement the function in a more robust manner.

### Remarks

NOTE: For methods requiring the authtoken a root authtoken that overrides the LDAP server may be specified. Under normal security operations the system would do a validation against the LDAP database but this can be bypassed by using a token string that is specified ONLY in the Resources section of the VB project/solution for each server that uses the authentication module. For security reasons this string is not specified in the documentation.

This root authtoken behaviour can be disabled by setting the Resource App\_Authtokens to any string value other than "ENABLED".

### Sources

Name	Description
<a href="#">NSDSS Catalog Service</a>	Web service which provides access to the NSDSS Metadata Catalog
<a href="#">NSDSS Model Publishing Interface</a>	(NOT IMPLEMENTED) Web service for publishing and retrieving NSDSS model definitions from the NSDSS model database.
<a href="#">NetCDF Web Service</a>	Web service which extracts time series from specifically formatted NetCDF files.
<a href="#">ODM Service</a>	Web service which acts as a wrapper around the standard CUAHSI ODM Web Service which permits the calculation of unit conversions and downscaling of time series at the server instead of the client.
<a href="#">ODM Publishing Service</a>	Web service for publishing series to an ODM database and consequently to the NSDSS Metadata Catalog.
<a href="#">Unit Conversion Service</a>	Web service for storing and retrieving data about units for use in unit conversions.
<a href="#">NCDProxy</a>	Proxy Web Service which formats NDCD REST time series data queries into GetValues style time series data results.
<a href="#">WaterOneFlow (UAF Observations)</a>	ODM Web Service containing UAF Observation time series data.
<a href="#">WaterOneFlowWrapper (UAF Observations)</a>	ODM Web Service Wrapper for corresponding WaterOneFlow Service

---

Name	Description
<a href="#">WaterOneFlow (UAF WERC)</a>	ODM Web Service containing UAF WERC time series data.
<a href="#">WaterOneFlowWrapper (UAF WERC)</a>	ODM Web Service Wrapper for corresponding WaterOneFlow Service
<a href="#">WaterOneFlowWrapper (Publish)</a>	ODM Web Service Wrapper for corresponding WaterOneFlow Service

---

## 5.1. NSDSS Catalog Service Web Service

**Description**

Web service which provides access to the NSDSS Metadata Catalog

**Type**

SOAP

**Style**

Document

**See Also**

- Methods

---

### 5.1.1. Methods: NSDSS Catalog Service

**Methods**

Name	Description
<a href="#">AddNameToCode</a>	This method associates variable codes to terms in the StandardNames.
<a href="#">AddStandard</a>	This method creates new standard names.
<a href="#">AddSynonym</a>	This method creates new synonyms for standard names.
<a href="#">AddVariableName</a>	This method creates new terms in the VariableNameCV.
<a href="#">GetAuthCode</a>	Returns a session authorization token for access to restricted resources.
<a href="#">GetCatData</a>	This method searches in the catalog for datasets within a lat/long quadrangle. The Dataset returned can be used for dataset selection.
<a href="#">GetCatDataDetail</a>	This method searches in the catalog for datasets within a lat/long quadrangle. It will return detailed data for a limited number of data items. This call returns sufficient detail to perform proxy web service calls to retrieve data.
<a href="#">GetCatDataDetailByID</a>	This method retrieve metadata for a single dataset in the catalog for ODM Based Data based on the series catalog ID.
<a href="#">GetSeriesServices</a>	This method returns the entire series service table for the catalog.
<a href="#">GetStandard</a>	This method returns the entire standard table for the catalog.
<a href="#">GetStandardNamesToVariableCodes</a>	This method returns the entire standard to variable code table for the catalog.
<a href="#">GetSynonyms</a>	This method returns the entire synonym table for the catalog.
<a href="#">GetVariableNames</a>	This method returns the entire variable name table for the catalog.
<a href="#">ModifyDataSetByID</a>	This method modifies the dataset fields in the catalog's Series Catalog. The series ID of the series to be changed must be supplied. Empty strings will leave the field unchanged. Specify the string '#NULL#' to clear the field.
<a href="#">UpdateCatalog</a>	This method updates an existing data source within the NSDSS Data Catalog.

---

### 5.1.1.1. Method: AddNameToCode

**Description**

This method associates variable codes to terms in the StandardNames.

**Action**

<http://uaf.edu/namespaces/nsdss/AddNameToCode>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddNameToCode having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	Existing Standard Name
code	string	0..1	Existing Variable Code
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddNameToCodeResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddNameToCodeResult	string	0..1	String containing Name and Code (name:code)

---

### 5.1.1.2. Method: AddStandard

**Description**

This method creates new standard names.

**Action**

<http://uaf.edu/namespaces/nsdss/AddStandard>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddStandard having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	New Standard Name
units	string	0..1	Existing Units Name for Standard Name
description	string	0..1	Description for New Standard Name
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddStandardResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddStandardResult	string	0..1	String containing Name and Description (name:description)

---

### 5.1.1.3. Method: AddSynonym

**Description**

This method creates new synonyms for standard names.

**Action**

<http://uaf.edu/namespaces/nsdss/AddSynonym>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddSynonym having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	Existing Standard Name
synonym	string	0..1	New Synonym for Standard Name
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddSynonymResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddSynonymResult	string	0..1	String containing Synonym and Name(synonym:name)

---

**5.1.1.4. Method: AddVariableName****Description**

This method creates new terms in the VariableNameCV.

**Action**

<http://uaf.edu/namespaces/nsdss/AddVariableName>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddVariableName having the structure defined by the following table.

Name	Type	Occurs	Description
term	string	0..1	New Variable Name
definition	string	0..1	Definition fo new Variable Name
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddVariableNameResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddVariableNameResult	string	0..1	String containing Term and Definition(term:definition)



---

### 5.1.1.5. Method: GetAuthCode

**Description**

Returns a session authorization token for access to restricted resources.

**Action**

<http://uaf.edu/namespaces/nsdss/GetAuthCode>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetAuthCode having the structure defined by the following table.

Name	Type	Occurs	Description
username	string	0..1	NSDSS system username
password	string	0..1	NSDSS system password

**Output (Literal)**

The output of this method is the argument GetAuthCodeResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetAuthCodeResult	string	0..1	Returns valid authtoken.

---

### 5.1.1.6. Method: GetCatData

**Description**

This method searches in the catalog for datasets within a lat/long quadrangle. The Dataset returned can be used for dataset selection.

**Action**

<http://uaf.edu/namespaces/nsdss/GetCatData>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetCatData having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	Search String for variable/synonym/code
xmin	float	1..1	Minimum Longitude for valid data
ymin	float	1..1	Minimum Latitude for valid data
xmax	float	1..1	Maximum Longitude for valid data
ymax	float	1..1	Maximum Latitude for valid data
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetCatDataResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetCatDataResult	anyType (restriction)	0..1	Mutable summary list of time series in the catalog which meet the specified criteria.

### 5.1.1.7. Method: GetCatDataDetail

#### Description

This method searches in the catalog for datasets within a lat/long quadrangle. It will return detailed data for a limited number of data items. This call returns sufficient detail to perform proxy web service calls to retrieve data.

#### Action

<http://uaf.edu/namespaces/nsdss/GetCatDataDetail>

#### Style

Document

#### Input (Literal)

The input of this method is the argument GetCatDataDetail having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	Search String for variable/synonym/code
xmin	float	1..1	Minimum Longitude for valid data
ymin	float	1..1	Minimum Latitude for valid data
xmax	float	1..1	Maximum Longitude for valid data
ymax	float	1..1	Maximum Latitude for valid data
tmin	string	0..1	Minimum Date for valid data
tmax	string	0..1	Maximum Date for valid data
units	string	0..1	Destination Units to convert valid data to
interval	string	0..1	Interval for time interpolation of time series
statistic	string	0..1	Statistic operation for interpolation of time series
authtoken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument GetCatDataDetailResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetCatDataDetailResult	anyType (restriction)	0..1	Detailed catalog entries (XML structure) of time series data which meets the specified criteria.

### 5.1.1.8. Method: GetCatDataDetailByID

#### Description

This method retrieve metadata for a single dataset in the catalog for ODM Based Data based on the series catalog ID.

#### Action

<http://uaf.edu/namespaces/nsdss/GetCatDataDetailByID>

#### Style

Document

#### Input (Literal)

The input of this method is the argument GetCatDataDetailByID having the structure defined by the following table.

Name	Type	Occurs	Description
seriesid	int	1..1	ID of specific time series in the catalog (SeriesCatalog primary key)
xmin	float	1..1	Minimum Longitude for valid data
ymin	float	1..1	Minimum Latitude for valid data
xmax	float	1..1	Maximum Longitude for valid data
ymax	float	1..1	Maximum Latitude for valid data
tmin	string	0..1	Minimum Date for valid data
tmax	string	0..1	Maximum Date for valid data
units	string	0..1	Destination Units to convert valid data to
interval	string	0..1	Interval for time interpolation of time series
statistic	string	0..1	Statistic operation for interpolation of time series
authtoken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument GetCatDataDetailByIDResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetCatDataDetailByIDResult	anyType (restriction)	0..1	Detailed catalog entry (XML structure) of time series data which meets the specified criteria.

---

### 5.1.1.9. Method: *GetSeriesServices*

**Description**

This method returns the entire series service table for the catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSeriesServices>

**Style**

Document

**Input (Literal)**

The input of this method is the argument *GetSeriesServices* having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument *GetSeriesServicesResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetSeriesServicesResult	string	0..1	Returns XML structure containing all SeriesServices (NetCDF, ODM sources, NDCD REST) known to the NSDSS Catalog.

---

**5.1.1.10. Method: GetStandard****Description**

This method returns the entire standard table for the catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/GetStandard>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetStandard having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetStandardResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetStandardResult	string	0..1	Returns XML structure containing all known Standards in the NSDSS Catalog.

---

### 5.1.1.11. Method: *GetStandardNamesToVariableCodes*

**Description**

This method returns the entire standard to variable code table for the catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/GetStandardNamesToVariableCodes>

**Style**

Document

**Input (Literal)**

The input of this method is the argument `GetStandardNamesToVariableCodes` having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument `GetStandardNamesToVariableCodesResponse` having the structure defined by the following table.

Name	Type	Occurs	Description
<code>GetStandardNamesToVariableCodesResult</code>	string	0..1	Returns XML structure with all known mappings between Standard Names and Variable Codes in the NSDSS Catalog.

---

**5.1.1.12. Method: GetSynonyms****Description**

This method returns the entire synonym table for the catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSynonyms>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSynonyms having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetSynonymsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSynonymsResult	string	0..1	Returns an XML structure of all known Synonyms in the NSDSS Catalog.



---

### 5.1.1.13. Method: *GetVariableNames*

**Description**

This method returns the entire variable name table for the catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/GetVariableNames>

**Style**

Document

**Input (Literal)**

The input of this method is the argument *GetVariableNames* having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument *GetVariableNamesResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
<i>GetVariableNamesResult</i>	string	0..1	Returns an XML structure with all the known Variable Names in the NSDSS Catalog

### 5.1.1.14. Method: *ModifyDataSetByID*

#### Description

This method modifies the dataset fields in the catalog's Series Catalog. The series ID of the series to be changed must be supplied. Empty strings will leave the field unchanged. Specify the string '#NULL#' to clear the field.

#### Action

<http://uaf.edu/namespaces/nsdss/ModifyDataSetByID>

#### Style

Document

#### Input (Literal)

The input of this method is the argument `ModifyDataSetByID` having the structure defined by the following table.

Name	Type	Occurs	Description
sid	int	1..1	SeriesID for the specific series in the Series Catalog
dataset	string	0..1	New Dataset for the time series
type	string	0..1	New Datatype for the time series
description	string	0..1	New Description for the time series
contact	string	0..1	New Contact for the time series
datasourceurl	string	0..1	New DataSourceURL for the time series
moreinfourl	string	0..1	New MoreInfoURL for the time series
modelparameters	string	0..1	New ModelParameters for the time series
authtoken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument `ModifyDataSetByIDResponse` having the structure defined by the following table.

Name	Type	Occurs	Description
<code>ModifyDataSetByIDResult</code>	string	0..1	Returns sid, dataset, type and description (sid:dataset:type:description)

---

### 5.1.1.15. Method: UpdateCatalog

**Description**

This method updates an existing data source within the NSDSS Data Catalog.

**Action**

<http://uaf.edu/namespaces/nsdss/UpdateCatalog>

**Style**

Document

**Input (Literal)**

The input of this method is the argument UpdateCatalog having the structure defined by the following table.

Name	Type	Occurs	Description
dataSourceType	string	0..1	Existing DataSourceType in the Series Catalog
address	string	0..1	New address for the data source
network	string	0..1	New network (ODM) for the data source
ssid	int	1..1	New SeriesServiceID for the datasource
dataset	string	0..1	New dataset for the data source.
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument UpdateCatalogResponse having the structure defined by the following table.

Name	Type	Occurs	Description
UpdateCatalogResult	string	0..1	returns either "Update Succeeded" or "Update Failed"

## 5.2. NSDSS Model Publishing Interface Web Service

### Description

(NOT IMPLEMENTED)

Web service for publishing and retrieving NSDSS model definitions from the NSDSS model database.

### Remarks

Note that this module is not currently used by the NSDSS Prototype. Models are currently added to the MetaData Catalog directly using the ModelParameters field in the SeriesCatalog of the Metadata Catalog database.

This service is largely unimplemented and serves as a stub example for how a Model Database might be implemented in the future if one becomes necessary.

### See Also

- [Methods](#)

---

### 5.2.1. Methods: NSDSS Model Publishing Interface

**Methods**

Name	Description
AddModel	Add an XML document to the Model Database
FindModels	Find an XML document in the Model Database based on the content of nodes
GetModelByID	Extract a specific model from the Model Database based on the ID of the model

**5.2.1.1. Method: AddModel****Description**

Add an XML document to the Model Database

**Action**

<http://uaf.edu/namespaces/nsdss/AddModel>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddModel having the structure defined by the following table.

Name	Type	Occurs	Description
xdoc	anyType (restriction)	0..1	XML representation of new Model
token	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddModelResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddModelResult	int	1..1	ID of the inserted model

---

### 5.2.1.2. Method: FindModels

**Description**

Find an XML document in the Model Database based on the content of nodes

**Action**

<http://uaf.edu/namespaces/nsdss/FindModels>

**Style**

Document

**Input (Literal)**

The input of this method is the argument FindModels having the structure defined by the following table.

Name	Type	Occurs	Description
searchterm	string	0..1	Search term for model database document
token	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument FindModelsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
FindModelsResult	anyType (restriction)	0..1	Returns XML representation of XML documents in the Model database which meet the specified criteria.

---

### 5.2.1.3. Method: *GetModelByID*

**Description**

Extract a specific model from the Model Database based on the ID of the model

**Action**

<http://uaf.edu/namespaces/nsdss/GetModelByID>

**Style**

Document

**Input (Literal)**

The input of this method is the argument *GetModelByID* having the structure defined by the following table.

Name	Type	Occurs	Description
modelid	int	1..1	ModelID (Model Table primary key ID) of model to retrieve
token	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument *GetModelByIDResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetModelByIDResult	anyType (restriction)	0..1	Returns XML representation of record associated with specified modelid.



---

### 5.3. NetCDF Web Service Web Service

#### Description

Web service which extracts time series from specifically formatted NetCDF files.

#### Remarks

Note that all NetCDF files are located and expected to be located under a base directory set in the service's web configuration. All file references are relative to that path. The NetCDF DLL will not be able to locate source NetCDF files if this directory is set incorrectly, and there is no provision to enable multiple directories.

Note also that auth codes are relative to each service. Calls to individual web services will require GetAuthCode calls for each web service URL. AuthCodes can expire after a time limit specified in the service's code.

Some of the "GetValues" calls are not functional. They were specified in the original prototype but were deemed unnecessary for the final prototype. The signatures were left in the service in order to maintain version compatibility (during compile).

#### See Also

- [Methods](#)

---

### 5.3.1. Methods: NetCDF Web Service

#### Methods

Name	Description
AddToVarCV	Adds a variable descriptor to the Variable CV.
GetAuthCode	Returns a session authorization token for access to restricted resources.
GetCVList	Returns a list of the valid descriptors in the CVs.
GetFile	Returns Metadata for NetCDF File
GetFiles	Returns Metadata for Multiple NetCDF Files based on filename search spec and x,y extents. Partially implemented, returns all filenames in store for all criteria
GetSiteInfo	Not Implemented. Declared for WaterML Compatibility
GetValues	Returns Values for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of limited time series vectors.
GetValuesMultiple	Returns Multiple Values for a specific Variable inside multiple NetCDF File as a NetCDFbatch containing a subgrid of limited time series vectors.
GetValuesP	Returns Values for a specific Variable inside a NetCDF File as a XML containing an unlimited time series vector.
GetValuesUT	Returns Values for a specific Variable inside a NetCDF File as a XML containing a subgrid of unlimited time series vectors.
GetVariableInfo	Returns Metadata for Variable inside a NetCDF File
LoadNetCDFFile	Loads a file previously downloaded into the services loading directory into the service NetCDF data cache and inserts specified metadata into the NetCDF service metadatabase.
NGetValues	Returns Values for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of limited time series vectors. Returns a file.

---

### 5.3.1.1. Method: AddToVarCV

**Description**

Adds a variable descriptor to the Variable CV.

**Action**

<http://uaf.edu/namespaces/nsdss/AddToVarCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddToVarCV having the structure defined by the following table.

Name	Type	Occurs	Description
term	string	0..1	New term to add to the VariableCV
definition	string	0..1	New definition of new term.
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddToVarCVResponse that is always empty.

---

**5.3.1.2. Method: GetAuthCode****Method: GetAuthCode****Description**

Returns a session authorization token for access to restricted resources.

**Action**

<http://uaf.edu/namespaces/nsdss/GetAuthCode>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetAuthCode having the structure defined by the following table.

Name	Type	Occurs	Description
username	string	0..1	NSDSS system username
password	string	0..1	NSDSS system password

**Output (Literal)**

The output of this method is the argument GetAuthCodeResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetAuthCodeResult	string	0..1	Returns valid authtoken.

---

### 5.3.1.3. Method: GetCVList

**Description**

Returns a list of the valid descriptors in the CVs.

**Action**

<http://uaf.edu/namespaces/nsdss/GetCVList>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetCVList having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetCVListResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetCVListResult	anyType (restriction)	0..1	Returns XML structure containing all records in the VariableCV Table.

---

**5.3.1.4. Method: GetFile****Method: GetFile****Description**

Returns Metadata for NetCDF File

**Action**

<http://uaf.edu/namespaces/nsdss/GetFile>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetFile having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	file name of NetCDF File
AuthToken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetFileResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetFileResult	anyType (restriction)	0..1	Returns XML structure containing metadata for specified NetCDF file

### 5.3.1.5. Method: GetFiles

#### Description

Returns Metadata for Multiple NetCDF Files based on filename search spec and x,y extents. Partially implemented, returns all filenames in store for all criteria

#### Action

<http://uaf.edu/namespaces/nsdss/GetFiles>

#### Style

Document

#### Input (Literal)

The input of this method is the argument GetFiles having the structure defined by the following table.

Name	Type	Occurs	Description
varname	string	0..1	Search term for variable in the NetCDF portion of the NetCDF catalog.
Xmin	float	1..1	Minimum longitude of the time series
Ymin	float	1..1	Minimum latitude of the time series
Xmax	float	1..1	Maximum longitude of the time series
Ymax	float	1..1	Maximum latitude of the time series
AuthToken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument GetFilesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetFilesResult	anyType (restriction)	0..1	Returns the metadata in XML form of all NetCDF files which meet the search criteria.

---

**5.3.1.6. Method: GetSiteInfo****Description**

Not Implemented. Declared for WaterML Compatibility

**Action**

<http://uaf.edu/namespaces/nsdss/GetSiteInfo>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSiteInfo having the structure defined by the following table.

Name	Type	Occurs	Description
site	string	0..1	Site name
AuthToken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetSiteInfoResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSiteInfoResult	string	0..1	Returns the XML site info for the specified site name



### 5.3.1.7. Method: *GetValues*

#### Description

Returns Values for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of limited time series vectors.

#### Action

<http://uaf.edu/namespaces/nsdss/GetValues>

#### Style

Document

#### Input (Literal)

The input of this method is the argument *GetValues* having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin	float	1..1	Minimum longitude of the time series
YMin	float	1..1	Minimum latitude of the time series
Xmax	float	1..1	Maximum longitude of the time series
YMax	float	1..1	Maximum latitude of the time series
TMin	string	0..1	Minimum datetime of the time series
TMax	string	0..1	Maximum datetime of the time series
Units	string	0..1	Units to which to convert values before presentation
AuthToken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument *GetValuesResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesResult	anyType (restriction)	0..1	Return XML representation of all values in the NetCDF files meeting the specified search criteria.

### 5.3.1.8. Method: *GetValuesMultiple*

#### Method: **GetValuesMultiple**

#### Description

Returns Multiple Values for a specific Variable inside multiple NetCDF File as a NetCDFbatch containing a subgrid of limited time series vectors.

#### Action

<http://uaf.edu/namespaces/nsdss/GetValuesMultiple>

#### Style

Document

#### Input (Literal)

The input of this method is the argument *GetValuesMultiple* having the structure defined by the following table.

Name	Type	Occurs	Description
Filename_1	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_1	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_1	float	1..1	Minimum longitude of the time series
YMin_1	float	1..1	Minimum latitude of the time series
Xmax_1	float	1..1	Maximum longitude of the time series
YMax_1	float	1..1	Maximum latitude of the time series
TMin_1	string	0..1	Minimum datetime of the time series
TMax_1	string	0..1	Maximum datetime of the time series
Units_1	string	0..1	Units to which to convert values before presentation
Filename_2	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_2	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_2	float	1..1	Minimum longitude of the time series
YMin_2	float	1..1	Minimum latitude of the time series
Xmax_2	float	1..1	Maximum longitude of the time series
YMax_2	float	1..1	Maximum latitude of the time series
TMin_2	string	0..1	Minimum datetime of the time series
TMax_2	string	0..1	Maximum datetime of the time series

Name	Type	Occurs	Description
Units_2	string	0..1	Units to which to convert values before presentation
Filename_3	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_3	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_3	float	1..1	Minimum longitude of the time series
YMin_3	float	1..1	Minimum latitude of the time series
Xmax_3	float	1..1	Maximum longitude of the time series
YMax_3	float	1..1	Maximum latitude of the time series
TMin_3	string	0..1	Minimum datetime of the time series
TMax_3	string	0..1	Maximum datetime of the time series
Units_3	string	0..1	Units to which to convert values before presentation
Filename_4	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_4	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_4	float	1..1	Minimum longitude of the time series
YMin_4	float	1..1	Minimum latitude of the time series
Xmax_4	float	1..1	Maximum longitude of the time series
YMax_4	float	1..1	Maximum latitude of the time series
TMin_4	string	0..1	Minimum datetime of the time series
TMax_4	string	0..1	Maximum datetime of the time series
Units_4	string	0..1	Units to which to convert values before presentation
Filename_5	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_5	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_5	float	1..1	Minimum longitude of the time series
YMin_5	float	1..1	Minimum latitude of the time series
Xmax_5	float	1..1	Maximum longitude of the time series
YMax_5	float	1..1	Maximum latitude of the time series
TMin_5	string	0..1	Minimum datetime of the time series
TMax_5	string	0..1	Maximum datetime of the time series
Units_5	string	0..1	Units to which to convert values before presentation

Name	Type	Occurs	Description
Filename_6	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_6	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_6	float	1..1	Minimum longitude of the time series
YMin_6	float	1..1	Minimum latitude of the time series
Xmax_6	float	1..1	Maximum longitude of the time series
YMax_6	float	1..1	Maximum latitude of the time series
TMin_6	string	0..1	Minimum datetime of the time series
TMax_6	string	0..1	Maximum datetime of the time series
Units_6	string	0..1	Units to which to convert values before presentation
Filename_7	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_7	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_7	float	1..1	Minimum longitude of the time series
YMin_7	float	1..1	Minimum latitude of the time series
Xmax_7	float	1..1	Maximum longitude of the time series
YMax_7	float	1..1	Maximum latitude of the time series
TMin_7	string	0..1	Minimum datetime of the time series
TMax_7	string	0..1	Maximum datetime of the time series
Units_7	string	0..1	Units to which to convert values before presentation
Filename_8	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_8	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_8	float	1..1	Minimum longitude of the time series
YMin_8	float	1..1	Minimum latitude of the time series
Xmax_8	float	1..1	Maximum longitude of the time series
YMax_8	float	1..1	Maximum latitude of the time series
TMin_8	string	0..1	Minimum datetime of the time series
TMax_8	string	0..1	Maximum datetime of the time series
Units_8	string	0..1	Units to which to convert values before presentation
Filename_9	string	0..1	Filename of the source NetCDF file in which to locate the required time series

Name	Type	Occurs	Description
VarName_9	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_9	float	1..1	Minimum longitude of the time series
YMin_9	float	1..1	Minimum latitude of the time series
Xmax_9	float	1..1	Maximum longitude of the time series
YMax_9	float	1..1	Maximum latitude of the time series
TMin_9	string	0..1	Minimum datetime of the time series
TMax_9	string	0..1	Maximum datetime of the time series
Units_9	string	0..1	Units to which to convert values before presentation
Filename_a	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName_a	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin_a	float	1..1	Minimum longitude of the time series
YMin_a	float	1..1	Minimum latitude of the time series
Xmax_a	float	1..1	Maximum longitude of the time series
YMax_a	float	1..1	Maximum latitude of the time series
TMin_a	string	0..1	Minimum datetime of the time series
TMax_a	string	0..1	Maximum datetime of the time series
Units_a	string	0..1	Units to which to convert values before presentation
AuthToken	string	0..1	Authorization Token

### Output (Literal)

The output of this method is the argument `GetValuesMultipleResponse` having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesMultipleResult	anyType (restriction)	0..1	Returns an XML representation of all XML Values structures which meet the specified search criteria.

---

### 5.3.1.9. Method: *GetValuesP*

**Description**

Returns Values for a specific Variable inside a NetCDF File as a XML containing an unlimited time series vector at a specific point location.

**Action**

<http://uaf.edu/namespaces/nsdss/GetValuesP>

**Style**

Document

**Input (Literal)**

The input of this method is the argument *GetValuesP* having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName	string	0..1	Variable Name in the source NetCDF file to retrieve
X	float	1..1	Specific longitude of time series location
Y	float	1..1	Specific latitude of time series location
Units	string	0..1	Units to which to convert values before presentation
AuthToken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument *GetValuesPResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesPResult	anyType (restriction)	0..1	Return XML representation of all values in the NetCDF files meeting the specified search criteria.

### 5.3.1.10. Method: *GetValuesUT*

#### Description

Returns Values for a specific Variable inside a NetCDF File as a XML containing a subgrid of unlimited time series vectors.

#### Action

<http://uaf.edu/namespaces/nsdss/GetValuesUT>

#### Style

Document

#### Input (Literal)

The input of this method is the argument *GetValuesUT* having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin	float	1..1	Minimum longitude of the time series
YMin	float	1..1	Minimum latitude of the time series
Xmax	float	1..1	Maximum longitude of the time series
YMax	float	1..1	Maximum latitude of the time series
Units	string	0..1	Units to which to convert values before presentation
AuthToken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument *GetValuesUTResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesUTResult	anyType (restriction)	0..1	Return XML representation of all values in the NetCDF files meeting the specified search criteria.

---

**5.3.1.11. Method: GetVariableInfo****Description**

Returns Metadata for Variable inside a NetCDF File

**Action**

<http://uaf.edu/namespaces/nsdss/GetVariableInfo>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetVariableInfo having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName	string	0..1	Variable Name in the source NetCDF file to retrieve
AuthToken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetVariableInfoResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetVariableInfoResult	anyType (restriction)	0..1	Returns XML representation of metadata for variable meeting the specified search criteria.



---

### 5.3.1.12. Method: LoadNetCDFFile

**Description**

Loads a file previously downloaded into the services loading directory into the service NetCDF data cache and inserts specified metadata into the NetCDF service metadatabase.

**Action**

<http://uaf.edu/namespaces/nsdss/LoadNetCDFFile>

**Style**

Document

**Input (Literal)**

The input of this method is the argument LoadNetCDFFile having the structure defined by the following table.

Name	Type	Occurs	Description
filename	string	0..1	Filename (including relative path from base NetCDF directory specified in web service) for the new NetCDF time series file to be added to the NetCDF Metadata Catalog.
metadata	string	0..1	string containing XML form of the metadata to be added to the NetCDF catalog.
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument LoadNetCDFFileResponse having the structure defined by the following table.

Name	Type	Occurs	Description
LoadNetCDFFileResult	anyType (restriction)	0..1	

**5.3.1.13. Method: NGetValues****Description**

Returns Values for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of limited time series vectors. Returns a file.

**Action**

<http://uaf.edu/namespaces/nsdss/NGetValues>

**Style**

Document

**Input (Literal)**

The input of this method is the argument NGetValues having the structure defined by the following table.

Name	Type	Occurs	Description
Filename	string	0..1	Filename of the source NetCDF file in which to locate the required time series
VarName	string	0..1	Variable Name in the source NetCDF file to retrieve
XMin	float	1..1	Minimum longitude of the time series
YMin	float	1..1	Minimum latitude of the time series
Xmax	float	1..1	Maximum longitude of the time series
YMax	float	1..1	Maximum latitude of the time series
TMin	dateTime	1..1	Minimum time of the time series
TMax	dateTime	1..1	Maximum time of the time series
Units	string	0..1	Units to which to convert values before presentation
AuthToken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument NGetValuesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
NGetValuesResult	anyType (restriction)	0..1	Return XML representation of all values in the NetCDF files meeting the specified search criteria.

---

## 5.4. ODM Service Web Service

### Description

Web service which acts as a wrapper around the standard CUAHSI ODM Web Service which permits the calculation of unit conversions and downscaling of time series at the server instead of the client.

### Type

SOAP

### Style

Document

### See Also

- [Methods](#)

---

#### 5.4.1. Methods: ODM Service

Name	Description
<a href="#">GetValues</a>	Given a site number, a variable, a start date, and an end date, this method returns a time series. Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and 'NetworkName:Variable'
<a href="#">GetValuesUnitOnly</a>	Given a site number, a variable, a start date, and an end date, this method returns a time series. Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and 'NetworkName:Variable'

### 5.4.1.1. Method: *GetValues*

#### Description

Given a site number, a variable, a start date, and an end date, this method returns a time series. Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and 'NetworkName:Variable'

#### Action

<http://www.cuahsi.org/his/1.0/ws/GetValues>

#### Style

Document

#### Input (Literal)

The input of this method is the argument *GetValues* having the structure defined by the following table.

Name	Type	Occurs	Description
location	string	0..1	Sitecode of series
variable	string	0..1	Variable name of series
startDate	string	0..1	Minimum datetime for time series data
endDate	string	0..1	Maximum datetime for time series data
units	string	0..1	Units to which to convert base time series data
interval	string	0..1	Interval for time interpolation of time series
statistic	string	0..1	Statistic operation for interpolation of time series
authToken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument *GetValuesResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesResult	string	0..1	Return XML representation of all values in the ODM database meeting the specified search criteria. Unit Conversion and Temporal Interpolation will be applied to all values.

### 5.4.1.2. Method: *GetValuesUnitOnly*

#### Description Description

Given a site number, a variable, a start date, and an end date, this method returns a time series. Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and 'NetworkName:Variable'

#### Action

<http://www.cuahsi.org/his/1.0/ws/GetValuesUnitOnly>

#### Style

Document

#### Input (Literal)

The input of this method is the argument *GetValuesUnitOnly* having the structure defined by the following table.

Name	Type	Occurs	Description
location	string	0..1	Sitecode of series
variable	string	0..1	Variable name of series
startDate	string	0..1	Minimum datetime for time series data
endDate	string	0..1	Maximum datetime for time series data
units	string	0..1	Units to which to convert base time series data
authToken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument *GetValuesUnitOnlyResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesUnitOnlyResult	string	0..1	Return XML representation of all values in the ODM database meeting the specified search criteria. Unit Conversion will be applied to all values.

---

## ODM Publishing Service Web Service

### Description

Web service for publishing series to an ODM database and consequently to the NSDSS Metadata Catalog.

### Remarks

The standard ODM service provided by CUAHSI does not provide for adding data into an ODM format database. This service creates the capability of storing results into an ODM database. A subset of all the tables available can be manipulated by this service - Get operations are provided to allow the data publisher to check and modify various subtables in the ODM database in order to maintain consistency, which is required for the standard ODM service to operate on the database being published to.

Delete operations are provide to allow for correction or change of time series. No Delete operations are provided on CV and other subtables (as they are very likely to cause data consistency problems with several series if deleted). After pushing of a time series, the UpdateSeriesCatalog should be called in order to make the newly published data series eligible for listing in the NSDSS Metadata Catalog.

Note that most of these methods are not required in the current NSDSS prototype. Most of the Add/Delete routines are meant to be used to manage existing and new series in the database and while functional, are not used in the prototype. A new UI would need to be developed in order to use these functions. The Get routines are convenience functions to establish that allow the UI programmer to: 1. Determine that there is no existing conflict with a term being added and 2. to reconfirm after an Add<method> call that the term has in fact been added.

The most important thing to note is that if changes are made in the Publish database an immediate call must be made to the UpdateSeriesCatalog method to publish them to the NSDSS Metadata catalog, otherwise a delay will exist in update until the daily SQL task invocation runs the UpdateSeriesCatalog method at its regularly scheduled time.

Note that these routine will only work with a 1.1 version database. As CUAHSI does not open publish either its internal database design or server code, this publishing service would have to be rewritten to support a 2.0 or later server, which is not within the scope of the prototype.

### See Also

- [Methods](#)

## 5.4.2. Methods: ODM Publishing Service

### Methods

Name	Description
<a href="#">AddCensorCodeCV</a>	Add a record to the CensorCodeCV table.
<a href="#">AddDataTypeCV</a>	Add a record to the DataTypeCV table.
<a href="#">AddDerivedFrom</a>	Add a record to the DerivedFrom table.
<a href="#">AddMethods</a>	Add a record to the Methods table.
<a href="#">AddOffsetTypes</a>	Add a record to the OffsetTypes table.
<a href="#">AddQualifiers</a>	Add a record to the Qualifiers table.
<a href="#">AddSite</a>	Add a record to the Sites table.
<a href="#">AddSources</a>	Add a record to the Sources table.
<a href="#">AddUnits</a>	Add a record to the Units table.
<a href="#">AddValues</a>	Add a time series to the Values table.
<a href="#">AddVariable</a>	Add a record to the Variable table.
<a href="#">AddVariableName</a>	Add a record to the VariableNameCV table.
<a href="#">DeleteDataValues</a>	Deletes one value from the DataValues table.
<a href="#">DeleteDataValuesVS</a>	Deletes all values from the DataValues table based on SiteID and VariableID
<a href="#">DeleteSite</a>	Delete a Site from the Sites table. Works only if there are no DataValues records referring to the SiteID.
<a href="#">DeleteVariable</a>	Delete a Variable from the Variables table. Works only if there are no DataValues records referring to the VariableID.
<a href="#">GetCensorCodeCV</a>	Return the entire CensorCodeCV table.
<a href="#">GetDataTypeCV</a>	Return the entire DataTypeCV table.
<a href="#">GetDerivedFrom</a>	Return the entire DerivedFrom table.
<a href="#">GetGeneralCategoryCV</a>	Return the entire GeneralCategoryCV table.
<a href="#">GetMethods</a>	Return the entire Methods table.
<a href="#">GetOffsetTypes</a>	Return the entire OffsetTypes table.
<a href="#">GetQualifiers</a>	Return the entire Qualifiers table.
<a href="#">GetSampleMediumCV</a>	Return the entire SampleMediumCV table.
<a href="#">GetSiteID</a>	Return a SiteID for a SiteCode
<a href="#">GetSites</a>	Return the entire Sites table.
<a href="#">GetSources</a>	Return the entire Sources table.
<a href="#">GetSpeciationCV</a>	Return the entire SpeciationCV table.
<a href="#">GetUnits</a>	Return the entire Units table.
<a href="#">GetValueTypeCV</a>	Return the entire ValueTypeCV table.



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Name	Description
<a href="#">GetVariableNames</a>	Return the entire VariableNamesCV table.
<a href="#">GetVariables</a>	Return the entire Variables table.
<a href="#">GetVarID</a>	Return a VariableID based on a VariableCode
<a href="#">UpdateSeriesCatalog</a>	Forces an update of the SeriesCatalog table.

---

#### 5.4.2.1. Method: AddCensorCodeCV

**Description**

Add a record to the CensorCodeCV

table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddCensorCodeCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddCensorCodeCV having the structure defined by the following table.

Name	Type	Occurs	Description
definition	string	0..1	Definition of New Censor Code
term	string	0..1	New Censor Code

**Output (Literal)**

The output of this method is the argument AddCensorCodeCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddCensorCodeCVResult	string	0..1	ID of new CensorCodeCV record.

---

### 5.4.2.2. Method: AddDataTypeCV

**Description**

Add a record to the DataTypeCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddDataTypeCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddDataTypeCV having the structure defined by the following table.

Name	Type	Occurs	Description
term	string	0..1	New DataType
definition	string	0..1	Definition of New DataType

**Output (Literal)**

The output of this method is the argument AddDataTypeCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddDataTypeCVResult	string	0..1	Term of new DataType Row

---

### 5.4.2.3. Method: AddDerivedFrom

**Description**

Add a record to the DerivedFrom table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddDerivedFrom>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddDerivedFrom having the structure defined by the following table.

Name	Type	Occurs	Description
derivedFrom	int	1..1	SeriesID of Existing Derived series
valueID	int	1..1	SeriesID of Existing series from which value is derived.

**Output (Literal)**

The output of this method is the argument AddDerivedFromResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddDerivedFromResult	int	1..1	derivedFrom of new DerivedFrom record.

---

#### 5.4.2.4. Method: AddMethods

**Description**

Add a record to the Methods table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddMethods>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddMethods having the structure defined by the following table.

Name	Type	Occurs	Description
description	string	0..1	Description of new Method
link	string	0..1	Link to new Method

**Output (Literal)**

The output of this method is the argument AddMethodsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddMethodsResult	int	1..1	ID of new Methods record.

---

#### 5.4.2.5. *Method: AddOffsetTypes*

**Description**

Add a record to the OffsetTypes table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddOffsetTypes>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddOffsetTypes having the structure defined by the following table.

Name	Type	Occurs	Description
unitsid	int	1..1	Existing unitsid for new offset description
description	string	0..1	New offset description

**Output (Literal)**

The output of this method is the argument AddOffsetTypesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddOffsetTypesResult	int	1..1	ID of new OffsetTypes record.

---

### 5.4.2.6. Method: AddQualifiers

**Description**

Add a record to the Qualifiers table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddQualifiers>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddQualifiers having the structure defined by the following table.

Name	Type	Occurs	Description
code	string	0..1	New Qualifier code
description	string	0..1	Description for new qualifier code

**Output (Literal)**

The output of this method is the argument AddQualifiersResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddQualifiersResult	int	1..1	ID of new Qualifiers record.

### 5.4.2.7. Method: AddSite

#### Description

Add a record to the Sites table.

#### Action

<http://uaf.edu/namespaces/nsdss/AddSite>

#### Style

Document

#### Input (Literal)

The input of this method is the argument AddSite having the structure defined by the following table.

Name	Type	Occurs	Description
sitecode	string	0..1	New site code
sitename	string	0..1	New site name
lat	float	1..1	Latitude of site
lon	float	1..1	Longitude of site
elev_m	float	1..1	Elevation of site (in meters)
loc_x	float	1..1	Arbitrary x location
loc_y	float	1..1	Arbitrary y location
state	string	0..1	State of Site
county	string	0..1	County of Site
comments	string	0..1	Additional Comments
authtoken	string	0..1	Authorization Token

#### Output (Literal)

The output of this method is the argument AddSiteResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddSiteResult	string	0..1	XML representation of new Site record.



### 5.4.2.8. Method: AddSources

#### Description

Add a record to the Sources table.

#### Action

<http://uaf.edu/namespaces/nsdss/AddSources>

#### Style

Document

#### Input (Literal)

The input of this method is the argument AddSources having the structure defined by the following table.

Name	Type	Occurs	Description
organization	string	0..1	Source Organization
description	string	0..1	Source description
link	string	0..1	Source link (arbitrary)
contactName	string	0..1	Source contact name
phone	string	0..1	Source contact phone number
email	string	0..1	Source contact email
address	string	0..1	Source contact address
city	string	0..1	Source contact city
state	string	0..1	Source contact state
citation	string	0..1	Source contact citation
zipcode	string	0..1	Source contact zipcode

#### Output (Literal)

The output of this method is the argument AddSourcesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddSourcesResult	int	1..1	ID of new Sources record.

---

**5.4.2.9. Method: AddUnits****Description**

Add a record to the Units table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddUnits>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddUnits having the structure defined by the following table.

Name	Type	Occurs	Description
name	string	0..1	Name of new unit
type	string	0..1	Type of new unit
abbrev	string	0..1	Abbreviation for new unit

**Output (Literal)**

The output of this method is the argument AddUnitsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddUnitsResult	int	1..1	ID of new Units record.

---

#### 5.4.2.10. Method: AddValues

**Description**

Add a time series to the Values table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddValues>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddValues having the structure defined by the following table.

Name	Type	Occurs	Description
siteid	int	1..1	Existing siteid for which to add values
variableid	int	1..1	Existing variable ID for which to add values
valuedataxml	string	0..1	XML for values to be added to database
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddValuesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddValuesResult	string	0..1	No return.

**5.4.2.11. Method: AddVariable****Description**

Add a record to the Variable table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddVariable>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddVariable having the structure defined by the following table.

Name	Type	Occurs	Description
varcode	string	0..1	New variable code
varname	string	0..1	New variable name
speciation	string	0..1	Existing speciation
varunitsid	int	1..1	Existing Variable Units ID
samplemedium	string	0..1	Existing sample medium
valuetype	string	0..1	Existing Valuetype
isregular	int	1..1	If series is not regular = 0
datatype	string	0..1	Existing datatype
generalcategory	string	0..1	Existing general category
nodatavalue	double	1..1	Value of the "No data value" value
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddVariableResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddVariableResult	string	0..1	String message reporting addition of new variable with ID of new Variable record.

---

#### 5.4.2.12. Method: AddVariableName

**Description**

Add a record to the VariableNameCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/AddVariableName>

**Style**

Document

**Input (Literal)**

The input of this method is the argument AddVariableName having the structure defined by the following table.

Name	Type	Occurs	Description
term	string	0..1	New term
definition	string	0..1	New definition
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument AddVariableNameResponse having the structure defined by the following table.

Name	Type	Occurs	Description
AddVariableNameResult	string	0..1	String with new term and definition.

---

**5.4.2.13. Method: DeleteDataValues****Description**

Deletes one value from the DataValues table.

**Action**

<http://uaf.edu/namespaces/nsdss/DeleteDataValues>

**Style**

Document

**Input (Literal)**

The input of this method is the argument DeleteDataValues having the structure defined by the following table.

Element	Type	Occurs	Description
SEQUENCE		1..1	
tns:valueid	s:int	1..1	

**Output (Literal)**

The output of this method is the argument DeleteDataValuesResponse having the structure defined by the following table.

Element	Type	Occurs	Description
SEQUENCE		1..1	
tns>DeleteDataValuesResult	s:boolean	1..1	

---

#### 5.4.2.14. Method: DeleteDataValuesVS

**Description**

Deletes all values from the DataValues table based on SiteID and VariableID

**Action**

<http://uaf.edu/namespaces/nsdss/DeleteDataValuesVS>

**Style**

Document

**Input (Literal)**

The input of this method is the argument DeleteDataValuesVS having the structure defined by the following table.

Name	Type	Occurs	Description
varid	int	1..1	variable ID in database
siteid	int	1..1	site ID in database

**Output (Literal)**

The output of this method is the argument DeleteDataValuesVSResponse having the structure defined by the following table.

Name	Type	Occurs	Description
DeleteDataValuesVSResult	boolean	1..1	True

#### 5.4.2.15. Method: DeleteSite

**Description**

Delete a Site from the Sites table. Works only if there are no DataValues records referring to the SiteID.

**Action**

<http://uaf.edu/namespaces/nsdss/DeleteSite>

**Style**

Document

**Input (Literal)**

The input of this method is the argument DeleteSite having the structure defined by the following table.

Name	Type	Occurs	Description
siteid	int	1..1	Site ID in database

**Output (Literal)**

The output of this method is the argument DeleteSiteResponse having the structure defined by the following table.

Name	Type	Occurs	Description
DeleteSiteResult	boolean	1..1	True



---

#### 5.4.2.16. Method: DeleteVariable

**Description**

Delete a Variable from the Variables table. Works only if there are no DataValues records referring to the VariableID.

**Action**

<http://uaf.edu/namespaces/nsdss/DeleteVariable>

**Style**

Document

**Input (Literal)**

The input of this method is the argument DeleteVariable having the structure defined by the following table.

Name	Type	Occurs	Description
varid	int	1..1	Variable ID to delete in database

**Output (Literal)**

The output of this method is the argument DeleteVariableResponse having the structure defined by the following table.

Name	Type	Occurs	Description
DeleteVariableResult	boolean	1..1	True

---

**5.4.2.17.** *Method: GetCensorCodeCV***Description**

Return the entire CensorCodeCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetCensorCodeCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetCensorCodeCV that is always empty.

**Output (Literal)**

The output of this method is the argument GetCensorCodeCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetCensorCodeCVResult	string	0..1	XML representation of CensorCodeCV table

---

#### 5.4.2.18. Method: *GetDataTypeCV*

**Description**

Return the entire DataTypeCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetDataTypeCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument `GetDataTypeCV` that is always empty.

**Output (Literal)**

The output of this method is the argument `GetDataTypeCVResponse` having the structure defined by the following table.

Name	Type	Occurs	Description
GetDataTypeCVResult	string	0..1	XML representation of DataTypeCV table

**5.4.2.19. Method: GetDerivedFrom****Description**

Return the entire DerivedFrom table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetDerivedFrom>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetDerivedFrom that is always empty.

**Output (Literal)**

The output of this method is the argument GetDerivedFromResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetDerivedFromResult	string	0..1	XML representation of DerivedFrom table

---

#### 5.4.2.20. Method: *GetGeneralCategoryCV*

**Description**

Return the entire GeneralCategoryCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetGeneralCategoryCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetGeneralCategoryCV that is always empty.

**Output (Literal)**

The output of this method is the argument GetGeneralCategoryCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetGeneralCategoryCVResult	string	0..1	XML represnetation of GeneralCategoryCV table.

**5.4.2.21. Method: GetMethods****Description**

Return the entire Methods table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetMethods>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetMethods that is always empty.

**Output (Literal)**

The output of this method is the argument GetMethodsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetMethodsResult	string	0..1	XML Representation of Methods table

---

#### 5.4.2.22. Method: *GetOffsetTypes*

**Description**

Return the entire OffsetTypes table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetOffsetTypes>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetOffsetTypes that is always empty.

**Output (Literal)**

The output of this method is the argument GetOffsetTypesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetOffsetTypesResult	string	0..1	XML representation of OffsetTypes table

**5.4.2.23. Method: GetQualifiers****Description**

Return the entire Qualifiers table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetQualifiers>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetQualifiers that is always empty.

**Output (Literal)**

The output of this method is the argument GetQualifiersResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetQualifiersResult	string	0..1	XML representation of Qualifiers table



---

**5.4.2.24. Method: GetSampleMediumCV****Description**

Return the entire SampleMediumCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSampleMediumCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSampleMediumCV that is always empty.

**Output (Literal)**

The output of this method is the argument GetSampleMediumCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSampleMediumCVResult	string	0..1	XML Representation for SampleMediumCV table

---

**5.4.2.25. Method: GetSiteID****Description**

Return a SiteID for a SiteCode

**Action**

<http://uaf.edu/namespaces/nsdss/GetSiteID>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSiteID having the structure defined by the following table.

Name	Type	Occurs	Description
sitecode	string	0..1	SiteCode in Database

**Output (Literal)**

The output of this method is the argument GetSiteIDResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSiteIDResult	int	1..1	Returns SiteID for specified SiteCode

---

#### 5.4.2.26. Method: GetSites

**Description**

Return the entire Sites table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSites>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSites that is always empty.

**Output (Literal)**

The output of this method is the argument GetSitesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSitesResult	string	0..1	XML Representation of entire Sites table

**5.4.2.27. Method: GetSources****Description**

Return the entire Sources table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSources>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSources that is always empty.

**Output (Literal)**

The output of this method is the argument GetSourcesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSourcesResult	string	0..1	XML representation of entire Sources table.

---

**5.4.2.28. Method: GetSpeciationCV****Description**

Return the entire SpeciationCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetSpeciationCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetSpeciationCV that is always empty.

**Output (Literal)**

The output of this method is the argument GetSpeciationCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetSpeciationCVResult	string	0..1	XML representation of entire SpeciationCV table

**5.4.2.29.** *Method: GetUnits***Description**

Return the entire Units table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetUnits>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetUnits that is always empty.

**Output (Literal)**

The output of this method is the argument GetUnitsResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetUnitsResult	string	0..1	XML representation of entire Units table

---

**5.4.2.30. Method: GetValueTypeCV****Description**

Return the entire ValueTypeCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetValueTypeCV>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetValueTypeCV that is always empty.

**Output (Literal)**

The output of this method is the argument GetValueTypeCVResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetValueTypeCVResult	string	0..1	XML representation of entire ValueTypeCV table

---

**5.4.2.31. Method: GetVariableNames****Description**

Return the entire VariableNamesCV table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetVariableNames>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetVariableNames having the structure defined by the following table.

Name	Type	Occurs	Description
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument GetVariableNamesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetVariableNamesResult	string	0..1	XML representation of entire VariableNamesCV table



---

### 5.4.2.32. Method: *GetVariables*

**Description**

Return the entire Variables table.

**Action**

<http://uaf.edu/namespaces/nsdss/GetVariables>

**Style**

Document

**Input (Literal)**

The input of this method is the argument *GetVariables* that is always empty.

**Output (Literal)**

The output of this method is the argument *GetVariablesResponse* having the structure defined by the following table.

Name	Type	Occurs	Description
GetVariablesResult	string	0..1	XML representation of entire Variables table.

**5.4.2.33. Method: GetVarID****Description**

Return a VariableID based on a VariableCode

**Action**

<http://uaf.edu/namespaces/nsdss/GetVarID>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetVarID having the structure defined by the following table.

Name	Type	Occurs	Description
varcode	string	0..1	Varcode in database

**Output (Literal)**

The output of this method is the argument GetVarIDResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetVarIDResult	int	1..1	VariableID of specified Varcode

---

#### 5.4.2.34. Method: UpdateSeriesCatalog

**Description**

Forces an update of the SeriesCatalog table.

**Action**

<http://uaf.edu/namespaces/nsdss/UpdateSeriesCatalog>

**Style**

Document

**Input (Literal)**

The input of this method is the argument UpdateSeriesCatalog that is always empty.

**Output (Literal)**

The output of this method is the argument UpdateSeriesCatalogResponse having the structure defined by the following table.

Name	Type	Occurs	Description
UpdateSeriesCatalogResult	int	1..1	result of spUpdateSeriesCatalog stored procedure call.

## 5.5. Unit Conversion Service Web Service

### Description

Web service for storing and retrieving data about units for use in unit conversions.

### Type

SOAP

### Style

Document

### Remarks

Provides a service for storing and retrieving unit data. The service calculates conversion factors and offsets between valid units. Units that do not match in dimension will generate an exception.

Unit metadata is stored in an XML file into which additional unit information can be added using the Put- prefixed calls. This is an example of the contents of the unit metadata file:

### See Also

- [Methods](#)

### 5.5.1. Methods: Unit Conversion Service

#### Description

Provides a service for storing and retrieving unit data. The service calculates conversion factors and offsets between valid units. Units that do not match in dimension will generate an exception.

Unit metadata is stored in an XML file into which additional unit information can be added using the Put- prefixed calls. This is an example of the contents of the unit metadata file:

Note that Put operations must be performed by a user with the "UCAdmin" role in the ADAM LDAP database specified in the service configuration or the root authToken must be supplied.

#### Methods

Name	Description
<a href="#">GetAuthCode</a>	Returns a session authorization token for access to restricted resources.
<a href="#">GetDimInfo</a>	Get a description of the dimension's declaration by dimension
<a href="#">GetFactor</a>	Get ratio portion of a conversion from 1.0 of source unit to destination unit.
<a href="#">GetOffset</a>	Get offset portion of a conversion from 1.0 of source unit to destination unit.
<a href="#">GetUnitInfoAll</a>	Return a table of all units
<a href="#">GetUnitInfoDescriptor</a>	Get XML descriptor of a unit in the conversion database.
<a href="#">GetUnitInfoUnit</a>	Get a description of the unit's declaration by unit name, if it is a not a base unit, returns the base unit structure
<a href="#">PutUnitAlias</a>	Add an alias of a unit into the conversion database.
<a href="#">PutUnitInfo</a>	Add an XML descriptor of a unit into the conversion database.

**5.5.1.1. Method: GetAuthCode****Description**

Returns a session authorization token for access to restricted resources.

**Action**

<http://uaf.edu/namespaces/nsdss/GetAuthCode>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetAuthCode having the structure defined by the following table.

Name	Type	Occurs	Description
username	string	0..1	NSDSS system username
password	string	0..1	NSDSS system password

**Output (Literal)**

The output of this method is the argument GetAuthCodeResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetAuthCodeResult	string	0..1	Returns valid authtoken.

---

### 5.5.1.2. Method: GetDimInfo

**Description**

Get a description of the dimension's declaration by dimension

**Action**

<http://uaf.edu/namespaces/nsdss/GetDimInfo>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetDimInfo having the structure defined by the following table.

Name	Type	Occurs	Description
dimen	string	0..1	Name of Dimension

**Output (Literal)**

The output of this method is the argument GetDimInfoResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetDimInfoResult	anyType (restriction)	0..1	Returns Dimension Info for specified dimen

**5.5.1.3. Method: GetFactor****Description**

Get ratio portion of a conversion from 1.0 of source unit to destination unit.

**Action**

<http://uaf.edu/namespaces/nsdss/GetFactor>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetFactor having the structure defined by the following table.

Name	Type	Occurs	Description
unit_src	string	0..1	Source Unit for conversion
unit_dest	string	0..1	Destination Unit for conversion

**Output (Literal)**

The output of this method is the argument GetFactorResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetFactorResult	double	1..1	Returns the amount of offset from the Base Unit for that Dimension



---

#### 5.5.1.4. Method: GetOffset

**Description**

Get offset portion of a conversion from 1.0 of source unit to destination unit.

**Action**

<http://uaf.edu/namespaces/nsdss/GetOffset>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetOffset having the structure defined by the following table.

Name	Type	Occurs	Description
unit_src	string	0..1	Source Unit for conversion
unit_dest	string	0..1	Destination Unit for conversion

**Output (Literal)**

The output of this method is the argument GetOffsetResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetOffsetResult	double	1..1	Returns the amount of offset from the Base Unit for that Dimension

**5.5.1.5. Method: GetUnitInfoAll****Description**

Return a table of all units

**Action**

<http://uaf.edu/namespaces/nsdss/GetUnitInfoAll>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetUnitInfoAll that is always empty.

**Output (Literal)**

The output of this method is the argument GetUnitInfoAllResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetUnitInfoAllResult	anyType (restriction)	0..1	Returns the entire Unit XML descriptor.

### 5.5.1.6. Method: *GetUnitInfoDescriptor*

#### Description

Get XML descriptor of a unit in the conversion database.

#### Action

<http://uaf.edu/namespaces/nsdss/GetUnitInfoDescriptor>

#### Style

Document

#### Input (Literal)

The input of this method is the argument `GetUnitInfoDescriptor` having the structure defined by the following table.

Name	Type	Occurs	Description
unit	string	0..1	Name of the Unit
dim_hint	string	0..1	(NOT IMPLEMENTED) Dimensional unit for error checking that correct unit has been selected

#### Output (Literal)

The output of this method is the argument `GetUnitInfoDescriptorResponse` having the structure defined by the following table.

Name	Type	Occurs	Description
GetUnitInfoDescriptorResult	anyType (restriction)	0..1	Returns the XML structure describing the unit specified.

#### Remarks

`dim_hint` was deemed not necessary for the prototype implementation. The parameter is left to maintain WSDL compatibility and to suggest a further refinement of the unit conversion service to support unit name which may be used in different dimensions (i.e. inches for precipitation rate and length). The system currently performs no such check, although both units can exist in the unit conversion service.

---

**5.5.1.7. Method: GetUnitInfoUnit****Description**

Get a description of the unit's declaration by unit name, if it is not a base unit, returns the base unit structure

**Action**

<http://uaf.edu/namespaces/nsdss/GetUnitInfoUnit>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetUnitInfoUnit having the structure defined by the following table.

Name	Type	Occurs	Description
unit	string	0..1	Name of the Unit

**Output (Literal)**

The output of this method is the argument GetUnitInfoUnitResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetUnitInfoUnitResult	anyType (restriction)	0..1	Unit Info XML structure for specified unit.

---

### 5.5.1.8. Method: PutUnitAlias

**Description**

Add an alias of a unit into the conversion database.

**Action**

<http://uaf.edu/namespaces/nsdss/PutUnitAlias>

**Style**

Document

**Input (Literal)**

The input of this method is the argument PutUnitAlias having the structure defined by the following table.

Name	Type	Occurs	Description
unitname	string	0..1	Name of the existing Unit
unitalias	string	0..1	Alias to be used for the existing unit.
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument PutUnitAliasResponse having the structure defined by the following table.

Name	Type	Occurs	Description
PutUnitAliasResult	anyType (restriction)	0..1	Returns Unit Info for Unit name specified.

---

**5.5.1.9. Method: PutUnitInfo****Description**

Add an XML descriptor of a unit into the conversion database.

**Action**

<http://uaf.edu/namespaces/nsdss/PutUnitInfo>

**Style**

Document

**Input (Literal)**

The input of this method is the argument PutUnitInfo having the structure defined by the following table.

Name	Type	Occurs	Description
unitname	string	0..1	Name of the new Unit
dimen	string	0..1	Dimension of the new Unit
factor	double	1..1	Factor of the new Unit to the base unit (of that Dimension)
offset	double	1..1	Offset in base Units of the new Unit
isBase	boolean	1..1	Is the Base Unit for this dimension (Factor = 1.0, Offset = 0.0)
authtoken	string	0..1	Authorization Token

**Output (Literal)**

The output of this method is the argument PutUnitInfoResponse having the structure defined by the following table.

Name	Type	Occurs	Description
PutUnitInfoResult	anyType (restriction)	0..1	Unit Info XML structure for specified unit.

## 5.6. NCDC Proxy Web Service

### Description

Proxy Web Service which formats NDCD REST time series data queries into GetValues style time series data results.

### See Also

- [Methods](#)

### 5.6.1. Methods: NCDProxy

#### Methods

Name	Description
<a href="#">GetValues</a>	Proxy GetValues method for NCD REST time series series services.



---

### 5.6.1.1. Method: *GetValues*

**Description**

Proxy GetValues method for NDCD REST time series series services.

**Action**

<http://nsdss.ine.uaf.edu/nsdss/GetValues>

**Style**

Document

**Input (Literal)**

The input of this method is the argument GetValues having the structure defined by the following table.

Name	Type	Occurs	Description
RestURI	string	0..1	URI for NDCD Rest service time series fetch all
token	string	0..1	Security token for NDCD REST Service

**Output (Literal)**

The output of this method is the argument GetValuesResponse having the structure defined by the following table.

Name	Type	Occurs	Description
GetValuesResult	string	0..1	GetValues XML formatted result for NDCD REST call invocation.

## 5.7. WaterOneFlow (UAF Observations) Web Service

### **Description**

ODM Web Service containing UAF Observation time series data.

### **Remarks**

See ODM CUAHSI 1.1 Documentation for interface specifications.

### **See Also**

---

## 5.8. WaterOneFlowWrapper (UAF Observations) Web Service

**Description**

ODM Web Service Wrapper for corresponding WaterOneFlow Service

**Remarks**

See ODM Service Section for interface specifications.

**See Also**

## 5.9. WaterOneFlow (UAF WERC) Web Service

### **Description**

ODM Web Service containing UAF WERC time series data.

### **Remarks**

See ODM CUAHSI 1.1 Documentation for interface specifications.

### **See Also**

---

## 5.10. WaterOneFlowWrapper (UAF WERC) Web Service

**Description**

ODM Web Service Wrapper for corresponding WaterOneFlow Service

**Remarks**

See ODM Service Section for interface specifications.

**See Also**

### 5.11. WaterOneFlowWrapper (Publish) Web Service

**Description**

ODM Web Service Wrapper for corresponding WaterOneFlow Service

**Remarks**

See ODM Service Section for interface specifications.

**See Also**

## 6. WSDL

### 6.1. Catalog Service

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://uaf.edu/namespaces/nsdss" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://uaf.edu/namespaces/nsdss"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://uaf.edu/namespaces/nsdss">
      <s:element name="GetAuthCode">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="username" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="password" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetAuthCodeResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetAuthCodeResult"
type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetCatData">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
            <s:element minOccurs="1" maxOccurs="1" name="xmin" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="ymin" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="xmax" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="ymax" type="s:float" />
            <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetCatDataResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetCatDataResult">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:any />
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>

```

```
</s:complexType>
</s:element>
<s:element name="GetCatDataDetail">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="xmin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="ymin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="xmax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="ymax" type="s:float" />
      <s:element minOccurs="0" maxOccurs="1" name="tmin" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="tmax" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="interval" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="statistic" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetCatDataDetailResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetCatDataDetailResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetCatDataDetailByID">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="seriesid" type="s:int" />
      <s:element minOccurs="1" maxOccurs="1" name="xmin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="ymin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="xmax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="ymax" type="s:float" />
      <s:element minOccurs="0" maxOccurs="1" name="tmin" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="tmax" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="interval" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="statistic" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetCatDataDetailByIDResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetCatDataDetailByIDResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```



---

```

    </s:complexType>
  </s:element>
  <s:element name="UpdateCatalog">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="dataSourceType"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="address" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="network" type="s:string" />
        <s:element minOccurs="1" maxOccurs="1" name="ssid" type="s:int" />
        <s:element minOccurs="0" maxOccurs="1" name="dataset" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="UpdateCatalogResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="UpdateCatalogResult "
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetSynonyms">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetSynonymsResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="GetSynonymsResult "
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetStandard">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetStandardResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="GetStandardResult "
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetStandardNamesToVariableCodes">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>

```

---

---

```

    <s:element name="GetStandardNamesToVariableCodesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1"
name="GetStandardNamesToVariableCodesResult" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSeriesServices">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSeriesServicesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetSeriesServicesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableNames">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableNamesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetVariableNamesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddNameToCode">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="code" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddNameToCodeResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="AddNameToCodeResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddSynonym">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="synonym" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>

```

---

---

```

        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="AddSynonymResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="AddSynonymResult"
type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddStandard">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="units" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddStandardResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="AddStandardResult"
type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddVariableName">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="term" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="definition" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddVariableNameResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="AddVariableNameResult"
type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="ModifyDataSetByID">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="sid" type="s:int" />
            <s:element minOccurs="0" maxOccurs="1" name="dataset" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="type" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element minOccurs="0" maxOccurs="1" name="contact" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="datasourceurl"
type="s:string" />

```

---

---

```

        <s:element minOccurs="0" maxOccurs="1" name="moreinfourl" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="modelparameters"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="ModifyDataSetByIDResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="ModifyDataSetByIDResult"
type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="string" nillable="true" type="s:string" />
</s:schema>
</wsdl:types>
<wsdl:message name="GetAuthCodeSoapIn">
    <wsdl:part name="parameters" element="tns:GetAuthCode" />
</wsdl:message>
<wsdl:message name="GetAuthCodeSoapOut">
    <wsdl:part name="parameters" element="tns:GetAuthCodeResponse" />
</wsdl:message>
<wsdl:message name="GetCatDataSoapIn">
    <wsdl:part name="parameters" element="tns:GetCatData" />
</wsdl:message>
<wsdl:message name="GetCatDataSoapOut">
    <wsdl:part name="parameters" element="tns:GetCatDataResponse" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailSoapIn">
    <wsdl:part name="parameters" element="tns:GetCatDataDetail" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailSoapOut">
    <wsdl:part name="parameters" element="tns:GetCatDataDetailResponse" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDSoapIn">
    <wsdl:part name="parameters" element="tns:GetCatDataDetailByID" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDSoapOut">
    <wsdl:part name="parameters" element="tns:GetCatDataDetailByIDResponse" />
</wsdl:message>
<wsdl:message name="UpdateCatalogSoapIn">
    <wsdl:part name="parameters" element="tns:UpdateCatalog" />
</wsdl:message>
<wsdl:message name="UpdateCatalogSoapOut">
    <wsdl:part name="parameters" element="tns:UpdateCatalogResponse" />
</wsdl:message>
<wsdl:message name="GetSynonymsSoapIn">
    <wsdl:part name="parameters" element="tns:GetSynonyms" />
</wsdl:message>
<wsdl:message name="GetSynonymsSoapOut">
    <wsdl:part name="parameters" element="tns:GetSynonymsResponse" />
</wsdl:message>
<wsdl:message name="GetStandardSoapIn">
    <wsdl:part name="parameters" element="tns:GetStandard" />
</wsdl:message>
<wsdl:message name="GetStandardSoapOut">
    <wsdl:part name="parameters" element="tns:GetStandardResponse" />

```

---

---

```

</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesSoapIn">
  <wsdl:part name="parameters" element="tns:GetStandardNamesToVariableCodes" />
</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesSoapOut">
  <wsdl:part name="parameters" element="tns:GetStandardNamesToVariableCodesResponse"
/>
</wsdl:message>
<wsdl:message name="GetSeriesServicesSoapIn">
  <wsdl:part name="parameters" element="tns:GetSeriesServices" />
</wsdl:message>
<wsdl:message name="GetSeriesServicesSoapOut">
  <wsdl:part name="parameters" element="tns:GetSeriesServicesResponse" />
</wsdl:message>
<wsdl:message name="GetVariableNamesSoapIn">
  <wsdl:part name="parameters" element="tns:GetVariableNames" />
</wsdl:message>
<wsdl:message name="GetVariableNamesSoapOut">
  <wsdl:part name="parameters" element="tns:GetVariableNamesResponse" />
</wsdl:message>
<wsdl:message name="AddNameToCodeSoapIn">
  <wsdl:part name="parameters" element="tns:AddNameToCode" />
</wsdl:message>
<wsdl:message name="AddNameToCodeSoapOut">
  <wsdl:part name="parameters" element="tns:AddNameToCodeResponse" />
</wsdl:message>
<wsdl:message name="AddSynonymSoapIn">
  <wsdl:part name="parameters" element="tns:AddSynonym" />
</wsdl:message>
<wsdl:message name="AddSynonymSoapOut">
  <wsdl:part name="parameters" element="tns:AddSynonymResponse" />
</wsdl:message>
<wsdl:message name="AddStandardSoapIn">
  <wsdl:part name="parameters" element="tns:AddStandard" />
</wsdl:message>
<wsdl:message name="AddStandardSoapOut">
  <wsdl:part name="parameters" element="tns:AddStandardResponse" />
</wsdl:message>
<wsdl:message name="AddVariableNameSoapIn">
  <wsdl:part name="parameters" element="tns:AddVariableName" />
</wsdl:message>
<wsdl:message name="AddVariableNameSoapOut">
  <wsdl:part name="parameters" element="tns:AddVariableNameResponse" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDSoapIn">
  <wsdl:part name="parameters" element="tns:ModifyDataSetByID" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDSoapOut">
  <wsdl:part name="parameters" element="tns:ModifyDataSetByIDResponse" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetCatDataHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />

```

---

---

```
<wsdl:part name="ymin" type="s:string" />
<wsdl:part name="xmax" type="s:string" />
<wsdl:part name="ymax" type="s:string" />
<wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />
  <wsdl:part name="ymin" type="s:string" />
  <wsdl:part name="xmax" type="s:string" />
  <wsdl:part name="ymax" type="s:string" />
  <wsdl:part name="tmin" type="s:string" />
  <wsdl:part name="tmax" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="interval" type="s:string" />
  <wsdl:part name="statistic" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDHttpGetIn">
  <wsdl:part name="seriesid" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />
  <wsdl:part name="ymin" type="s:string" />
  <wsdl:part name="xmax" type="s:string" />
  <wsdl:part name="ymax" type="s:string" />
  <wsdl:part name="tmin" type="s:string" />
  <wsdl:part name="tmax" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="interval" type="s:string" />
  <wsdl:part name="statistic" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="UpdateCatalogHttpGetIn">
  <wsdl:part name="dataSourceType" type="s:string" />
  <wsdl:part name="address" type="s:string" />
  <wsdl:part name="network" type="s:string" />
  <wsdl:part name="ssid" type="s:string" />
  <wsdl:part name="dataset" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="UpdateCatalogHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSynonymsHttpGetIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSynonymsHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetStandardHttpGetIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
```

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```
<wsdl:message name="GetStandardHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesHttpGetIn">
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSeriesServicesHttpGetIn">
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSeriesServicesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpGetIn">
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddNameToCodeHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="code" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddNameToCodeHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddSynonymHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="synonym" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddSynonymHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddStandardHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddStandardHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpGetIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDHttpGetIn">
  <wsdl:part name="sid" type="s:string" />
  <wsdl:part name="dataset" type="s:string" />
  <wsdl:part name="type" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="contact" type="s:string" />
</wsdl:message>
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<wsdl:part name="datasourceurl" type="s:string" />
<wsdl:part name="moreinfourl" type="s:string" />
<wsdl:part name="modelparameters" type="s:string" />
<wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetCatDataHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />
  <wsdl:part name="ymin" type="s:string" />
  <wsdl:part name="xmax" type="s:string" />
  <wsdl:part name="ymax" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />
  <wsdl:part name="ymin" type="s:string" />
  <wsdl:part name="xmax" type="s:string" />
  <wsdl:part name="ymax" type="s:string" />
  <wsdl:part name="tmin" type="s:string" />
  <wsdl:part name="tmax" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="interval" type="s:string" />
  <wsdl:part name="statistic" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDHttpPostIn">
  <wsdl:part name="seriesid" type="s:string" />
  <wsdl:part name="xmin" type="s:string" />
  <wsdl:part name="ymin" type="s:string" />
  <wsdl:part name="xmax" type="s:string" />
  <wsdl:part name="ymax" type="s:string" />
  <wsdl:part name="tmin" type="s:string" />
  <wsdl:part name="tmax" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="interval" type="s:string" />
  <wsdl:part name="statistic" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCatDataDetailByIDHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="UpdateCatalogHttpPostIn">
  <wsdl:part name="dataSourceType" type="s:string" />
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<wsdl:part name="address" type="s:string" />
<wsdl:part name="network" type="s:string" />
<wsdl:part name="ssid" type="s:string" />
<wsdl:part name="dataset" type="s:string" />
<wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="UpdateCatalogHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSynonymsHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSynonymsHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetStandardHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetStandardHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetStandardNamesToVariableCodesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSeriesServicesHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSeriesServicesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddNameToCodeHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="code" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddNameToCodeHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddSynonymHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="synonym" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddSynonymHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddStandardHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
```

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</wsdl:message>
<wsdl:message name="AddStandardHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpPostIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDHttpPostIn">
  <wsdl:part name="sid" type="s:string" />
  <wsdl:part name="dataset" type="s:string" />
  <wsdl:part name="type" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="contact" type="s:string" />
  <wsdl:part name="datasourceurl" type="s:string" />
  <wsdl:part name="moreinfourl" type="s:string" />
  <wsdl:part name="modelparameters" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="ModifyDataSetByIDHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:portType name="NS_CatalogServiceSoap">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeSoapIn" />
    <wsdl:output message="tns:GetAuthCodeSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatData">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. The Dataset
returned can be used for dataset selection.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataSoapIn" />
    <wsdl:output message="tns:GetCatDataSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetail">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. It will return
detailed data for a limited number of data items. This call returns sufficient detail
to perform proxy web service calls to retrieve data.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailSoapIn" />
    <wsdl:output message="tns:GetCatDataDetailSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetailByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
retrieve metadata for a single dataset in the catalog for ODM Based Data based on the
series catalog ID.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailByIDSsoapIn" />
    <wsdl:output message="tns:GetCatDataDetailByIDSsoapOut" />
  </wsdl:operation>
  <wsdl:operation name="UpdateCatalog">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
updates an existing data source within the NSDSS Data Catalog.</wsdl:documentation>
    <wsdl:input message="tns:UpdateCatalogSoapIn" />
    <wsdl:output message="tns:UpdateCatalogSoapOut" />
  </wsdl:operation>
</wsdl:portType>
</wsdl:binding>
</wsdl:service>
</wsdl:definitions>
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</wsdl:operation>
<wsdl:operation name="GetSynonyms">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire synonym table for the catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetSynonymsSoapIn" />
  <wsdl:output message="tns:GetSynonymsSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetStandard">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard table for the catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetStandardSoapIn" />
  <wsdl:output message="tns:GetStandardSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard to variable code table for the
catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetStandardNamesToVariableCodesSoapIn" />
  <wsdl:output message="tns:GetStandardNamesToVariableCodesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire series service table for the catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetSeriesServicesSoapIn" />
  <wsdl:output message="tns:GetSeriesServicesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetVariableNamesSoapIn" />
  <wsdl:output message="tns:GetVariableNamesSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
associates variable codes to terms in the StandardNames.</wsdl:documentation>
  <wsdl:input message="tns:AddNameToCodeSoapIn" />
  <wsdl:output message="tns:AddNameToCodeSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddSynonym">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new synonyms for standard names.</wsdl:documentation>
  <wsdl:input message="tns:AddSynonymSoapIn" />
  <wsdl:output message="tns:AddSynonymSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddStandard">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new standard names.</wsdl:documentation>
  <wsdl:input message="tns:AddStandardSoapIn" />
  <wsdl:output message="tns:AddStandardSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>
  <wsdl:input message="tns:AddVariableNameSoapIn" />
  <wsdl:output message="tns:AddVariableNameSoapOut" />
</wsdl:operation>
<wsdl:operation name="ModifyDataSetByID">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
modifies the dataset fields in the catalog's Series Catalog. The series ID of the

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series to be changed must be supplied. Empty strings will leave the field unchanged.
Specify the string '#NULL#' to clear the field.</wsdl:documentation>
  <wsdl:input message="tns:ModifyDataSetByIDSsoapIn" />
  <wsdl:output message="tns:ModifyDataSetByIDSsoapOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="NS_CatalogServiceHttpGet">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeHttpGetIn" />
    <wsdl:output message="tns:GetAuthCodeHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatData">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. The Dataset
returned can be used for dataset selection.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataHttpGetIn" />
    <wsdl:output message="tns:GetCatDataHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetail">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. It will return
detailed data for a limited number of data items. This call returns sufficient detail
to perform proxy web service calls to retrieve data.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailHttpGetIn" />
    <wsdl:output message="tns:GetCatDataDetailHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetailByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
retrieve metadata for a single dataset in the catalog for ODM Based Data based on the
series catalog ID.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailByIDHttpGetIn" />
    <wsdl:output message="tns:GetCatDataDetailByIDHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="UpdateCatalog">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
updates an existing data source within the NSDSS Data Catalog.</wsdl:documentation>
    <wsdl:input message="tns:UpdateCatalogHttpGetIn" />
    <wsdl:output message="tns:UpdateCatalogHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSynonyms">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire synonym table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetSynonymsHttpGetIn" />
    <wsdl:output message="tns:GetSynonymsHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetStandard">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetStandardHttpGetIn" />
    <wsdl:output message="tns:GetStandardHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetStandardNamesToVariableCodes">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard to variable code table for the
catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetStandardNamesToVariableCodesHttpGetIn" />
    <wsdl:output message="tns:GetStandardNamesToVariableCodesHttpGetOut" />
  </wsdl:operation>

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    <wsdl:operation name="GetSeriesServices">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire series service table for the catalog.</wsdl:documentation>
      <wsdl:input message="tns:GetSeriesServicesHttpGetIn" />
      <wsdl:output message="tns:GetSeriesServicesHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="GetVariableNames">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
      <wsdl:input message="tns:GetVariableNamesHttpGetIn" />
      <wsdl:output message="tns:GetVariableNamesHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="AddNameToCode">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
associates variable codes to terms in the StandardNames.</wsdl:documentation>
      <wsdl:input message="tns:AddNameToCodeHttpGetIn" />
      <wsdl:output message="tns:AddNameToCodeHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="AddSynonym">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new synonyms for standard names.</wsdl:documentation>
      <wsdl:input message="tns:AddSynonymHttpGetIn" />
      <wsdl:output message="tns:AddSynonymHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="AddStandard">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new standard names.</wsdl:documentation>
      <wsdl:input message="tns:AddStandardHttpGetIn" />
      <wsdl:output message="tns:AddStandardHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="AddVariableName">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>
      <wsdl:input message="tns:AddVariableNameHttpGetIn" />
      <wsdl:output message="tns:AddVariableNameHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="ModifyDataSetByID">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
modifies the dataset fields in the catalog's Series Catalog. The series ID of the
series to be changed must be supplied. Empty strings will leave the field unchanged.
Specify the string '#NULL#' to clear the field.</wsdl:documentation>
      <wsdl:input message="tns:ModifyDataSetByIDHttpGetIn" />
      <wsdl:output message="tns:ModifyDataSetByIDHttpGetOut" />
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:portType name="NS_CatalogServiceHttpPost">
    <wsdl:operation name="GetAuthCode">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
      <wsdl:input message="tns:GetAuthCodeHttpPostIn" />
      <wsdl:output message="tns:GetAuthCodeHttpPostOut" />
    </wsdl:operation>
    <wsdl:operation name="GetCatData">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. The Dataset
returned can be used for dataset selection.</wsdl:documentation>
      <wsdl:input message="tns:GetCatDataHttpPostIn" />
      <wsdl:output message="tns:GetCatDataHttpPostOut" />
    </wsdl:operation>
    <wsdl:operation name="GetCatDataDetail">

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    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
searches in the catalog for datasets within a lat/long quadrangle. It will return
detailed data for a limited number of data items. This call returns sufficient detail
to perform proxy web service calls to retrieve data.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailHttpPostIn" />
    <wsdl:output message="tns:GetCatDataDetailHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetCatDataDetailByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
retrieve metadata for a single dataset in the catalog for ODM Based Data based on the
series catalog ID.</wsdl:documentation>
    <wsdl:input message="tns:GetCatDataDetailByIDHttpPostIn" />
    <wsdl:output message="tns:GetCatDataDetailByIDHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="UpdateCatalog">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
updates an existing data source within the NSDSS Data Catalog.</wsdl:documentation>
    <wsdl:input message="tns:UpdateCatalogHttpPostIn" />
    <wsdl:output message="tns:UpdateCatalogHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSynonyms">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire synonym table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetSynonymsHttpPostIn" />
    <wsdl:output message="tns:GetSynonymsHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetStandard">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetStandardHttpPostIn" />
    <wsdl:output message="tns:GetStandardHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire standard to variable code table for the
catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetStandardNamesToVariableCodesHttpPostIn" />
    <wsdl:output message="tns:GetStandardNamesToVariableCodesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire series service table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetSeriesServicesHttpPostIn" />
    <wsdl:output message="tns:GetSeriesServicesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetVariableNamesHttpPostIn" />
    <wsdl:output message="tns:GetVariableNamesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
associates variable codes to terms in the StandardNames.</wsdl:documentation>
    <wsdl:input message="tns:AddNameToCodeHttpPostIn" />
    <wsdl:output message="tns:AddNameToCodeHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="AddSynonym">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new synonyms for standard names.</wsdl:documentation>

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    <wsdl:input message="tns:AddSynonymHttpPostIn" />
    <wsdl:output message="tns:AddSynonymHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddStandard">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new standard names.</wsdl:documentation>
    <wsdl:input message="tns:AddStandardHttpPostIn" />
    <wsdl:output message="tns:AddStandardHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddVariableName">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>
    <wsdl:input message="tns:AddVariableNameHttpPostIn" />
    <wsdl:output message="tns:AddVariableNameHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="ModifyDataSetByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
modifies the dataset fields in the catalog's Series Catalog. The series ID of the
series to be changed must be supplied. Empty strings will leave the field unchanged.
Specify the string '#NULL#' to clear the field.</wsdl:documentation>
    <wsdl:input message="tns:ModifyDataSetByIDHttpPostIn" />
    <wsdl:output message="tns:ModifyDataSetByIDHttpPostOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="NS_CatalogServiceSoap" type="tns:NS_CatalogServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetAuthCode">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCatData">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCatData"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetail">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCatDataDetail"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetailByID">
    <soap:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetCatDataDetailByID" style="document" />
    <wsdl:input>

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    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateCatalog">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/UpdateCatalog"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSynonyms">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSynonyms"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandard">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetStandard"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
  <soap:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetStandardNamesToVariableCodes"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSeriesServices"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableNames"
style="document" />

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<wsdl:input>
  <soap:body use="literal" />
</wsdl:input>
<wsdl:output>
  <soap:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddNameToCode"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSynonym">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSynonym"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddStandard">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddStandard"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariableName"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ModifyDataSetByID">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/ModifyDataSetByID"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="NS_CatalogServiceSoap12" type="tns:NS_CatalogServiceSoap">
  <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
```

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```
<wsdl:operation name="GetAuthCode">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCatData">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCatData"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCatDataDetail">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCatDataDetail"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCatDataDetailByID">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetCatDataDetailByID" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateCatalog">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/UpdateCatalog"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSynonyms">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSynonyms"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
```

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---

```
<wsdl:operation name="GetStandard">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetStandard"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetStandardNamesToVariableCodes"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSeriesServices"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableNames"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddNameToCode"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSynonym">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSynonym"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
```

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```
</wsdl:operation>
<wsdl:operation name="AddStandard">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddStandard"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariableName"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ModifyDataSetByID">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/ModifyDataSetByID"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="NS_CatalogServiceHttpGet" type="tns:NS_CatalogServiceHttpGet">
  <http:binding verb="GET" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCatData">
    <http:operation location="/GetCatData" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCatDataDetail">
    <http:operation location="/GetCatDataDetail" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

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---

```
</wsdl:operation>
<wsdl:operation name="GetCatDataDetailByID">
  <http:operation location="/GetCatDataDetailByID" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateCatalog">
  <http:operation location="/UpdateCatalog" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSynonyms">
  <http:operation location="/GetSynonyms" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandard">
  <http:operation location="/GetStandard" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
  <http:operation location="/GetStandardNamesToVariableCodes" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
  <http:operation location="/GetSeriesServices" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <http:operation location="/GetVariableNames" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
```

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```
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
  <http:operation location="/AddNameToCode" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSynonym">
  <http:operation location="/AddSynonym" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddStandard">
  <http:operation location="/AddStandard" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <http:operation location="/AddVariableName" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ModifyDataSetByID">
  <http:operation location="/ModifyDataSetByID" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="NS_CatalogServiceHttpPost" type="tns:NS_CatalogServiceHttpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <mime:contentType="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

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---

```
</wsdl:operation>
<wsdl:operation name="GetCatData">
  <http:operation location="/GetCatData" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCatDataDetail">
  <http:operation location="/GetCatDataDetail" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCatDataDetailByID">
  <http:operation location="/GetCatDataDetailByID" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateCatalog">
  <http:operation location="/UpdateCatalog" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSynonyms">
  <http:operation location="/GetSynonyms" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandard">
  <http:operation location="/GetStandard" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetStandardNamesToVariableCodes">
  <http:operation location="/GetStandardNamesToVariableCodes" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
</wsdl:operation>
```

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---

```
<wsdl:output>
  <mime:mimeXml part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSeriesServices">
  <http:operation location="/GetSeriesServices" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <http:operation location="/GetVariableNames" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddNameToCode">
  <http:operation location="/AddNameToCode" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSynonym">
  <http:operation location="/AddSynonym" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddStandard">
  <http:operation location="/AddStandard" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <http:operation location="/AddVariableName" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ModifyDataSetByID">
  <http:operation location="/ModifyDataSetByID" />
```

---



---

```

    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="NS_CatalogService">
  <wsdl:port name="NS_CatalogServiceSoap" binding="tns:NS_CatalogServiceSoap">
    <soap:address
location="http://nsdss.ine.uaf.edu:8080/NS_CatalogService/NS_CatalogService.asmx" />
    </wsdl:port>
    <wsdl:port name="NS_CatalogServiceSoap12" binding="tns:NS_CatalogServiceSoap12">
      <soap12:address
location="http://nsdss.ine.uaf.edu:8080/NS_CatalogService/NS_CatalogService.asmx" />
      </wsdl:port>
    <wsdl:port name="NS_CatalogServiceHttpGet" binding="tns:NS_CatalogServiceHttpGet">
      <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_CatalogService/NS_CatalogService.asmx" />
      </wsdl:port>
    <wsdl:port name="NS_CatalogServiceHttpPost"
binding="tns:NS_CatalogServiceHttpPost">
      <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_CatalogService/NS_CatalogService.asmx" />
      </wsdl:port>
    </wsdl:service>
</wsdl:definitions>

```

## 6.2. Model Publishing Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://uaf.edu/namespaces/nsdss"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://uaf.edu/namespaces/nsdss"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Web service for
publishing and retrieving NSDSS model definitions from the NSDSS model
database.</wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://uaf.edu/namespaces/nsdss">
      <s:element name="AddModel">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="xdoc">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:any />
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>

```

```
        </s:sequence>
        </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1" name="token" type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="AddModelResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddModelResult" type="s:int"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="FindModels">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="searchterm" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="token" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="FindModelsResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="FindModelsResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetModelByID">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="modelid" type="s:int" />
            <s:element minOccurs="0" maxOccurs="1" name="token" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetModelByIDResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetModelByIDResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
</s:schema>
</wsdl:types>
<wsdl:message name="AddModelSoapIn">
```

---

```

    <wsdl:part name="parameters" element="tns:AddModel" />
  </wsdl:message>
  <wsdl:message name="AddModelSoapOut">
    <wsdl:part name="parameters" element="tns:AddModelResponse" />
  </wsdl:message>
  <wsdl:message name="FindModelsSoapIn">
    <wsdl:part name="parameters" element="tns:FindModels" />
  </wsdl:message>
  <wsdl:message name="FindModelsSoapOut">
    <wsdl:part name="parameters" element="tns:FindModelsResponse" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDSoapIn">
    <wsdl:part name="parameters" element="tns:GetModelByID" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDSoapOut">
    <wsdl:part name="parameters" element="tns:GetModelByIDResponse" />
  </wsdl:message>
  <wsdl:message name="FindModelsHttpGetIn">
    <wsdl:part name="searchterm" type="s:string" />
    <wsdl:part name="token" type="s:string" />
  </wsdl:message>
  <wsdl:message name="FindModelsHttpGetOut">
    <wsdl:part name="Body" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDHttpGetIn">
    <wsdl:part name="modelid" type="s:string" />
    <wsdl:part name="token" type="s:string" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDHttpGetOut">
    <wsdl:part name="Body" />
  </wsdl:message>
  <wsdl:message name="FindModelsHttpPostIn">
    <wsdl:part name="searchterm" type="s:string" />
    <wsdl:part name="token" type="s:string" />
  </wsdl:message>
  <wsdl:message name="FindModelsHttpPostOut">
    <wsdl:part name="Body" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDHttpPostIn">
    <wsdl:part name="modelid" type="s:string" />
    <wsdl:part name="token" type="s:string" />
  </wsdl:message>
  <wsdl:message name="GetModelByIDHttpPostOut">
    <wsdl:part name="Body" />
  </wsdl:message>
  <wsdl:portType
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSoap">
    <wsdl:operation name="AddModel">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an XML
document to the Model Database</wsdl:documentation>
      <wsdl:input message="tns:AddModelSoapIn" />
      <wsdl:output message="tns:AddModelSoapOut" />
    </wsdl:operation>
    <wsdl:operation name="FindModels">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Find an XML
document in the Model Database based on the content of nodes</wsdl:documentation>
      <wsdl:input message="tns:FindModelsSoapIn" />
      <wsdl:output message="tns:FindModelsSoapOut" />
    </wsdl:operation>
    <wsdl:operation name="GetModelByID">

```

---

---

```

    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Extract a
specific model from the Model Database based on the ID of the
model</wsdl:documentation>
    <wsdl:input message="tns:GetModelByIDSoapIn" />
    <wsdl:output message="tns:GetModelByIDSoapOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpGe
t">
  <wsdl:operation name="FindModels">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Find an XML
document in the Model Database based on the content of nodes</wsdl:documentation>
    <wsdl:input message="tns:FindModelsHttpGetIn" />
    <wsdl:output message="tns:FindModelsHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetModelByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Extract a
specific model from the Model Database based on the ID of the
model</wsdl:documentation>
    <wsdl:input message="tns:GetModelByIDHttpGetIn" />
    <wsdl:output message="tns:GetModelByIDHttpGetOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpPo
st">
  <wsdl:operation name="FindModels">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Find an XML
document in the Model Database based on the content of nodes</wsdl:documentation>
    <wsdl:input message="tns:FindModelsHttpPostIn" />
    <wsdl:output message="tns:FindModelsHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetModelByID">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Extract a
specific model from the Model Database based on the ID of the
model</wsdl:documentation>
    <wsdl:input message="tns:GetModelByIDHttpPostIn" />
    <wsdl:output message="tns:GetModelByIDHttpPostOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSoap"
type="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSo
ap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="AddModel">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddModel"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="FindModels">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/FindModels"
style="document" />
    <wsdl:input>

```

---

---

```

        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetModelByID">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetModelByID"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSoap12
"
type="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSo
ap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="AddModel">
        <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddModel"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="FindModels">
        <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/FindModels"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetModelByID">
        <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetModelByID"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:binding
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpGe
t"
type="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHt
tpGet">
    <http:binding verb="GET" />

```

---

---

```

<wsdl:operation name="FindModels">
  <http:operation location="/FindModels" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetModelByID">
  <http:operation location="/GetModelByID" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpPo
st"
type="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHt
tpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="FindModels">
    <http:operation location="/FindModels" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetModelByID">
    <http:operation location="/GetModelByID" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_Service">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Web service for
publishing and retrieving NSDSS model definitions from the NSDSS model
database.</wsdl:documentation>
  <wsdl:port
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSoap"
binding="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_Servic
eSoap">
    <soap:address location="http://nsdss.ine.uaf.edu:8080/NS_Model/NS_Model.asmx" />
  </wsdl:port>
  <wsdl:port
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceSoap12
"
binding="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_Servic
eSoap12">

```

---

---

```

        <soap12:address location="http://nsdss.ine.uaf.edu:8080/NS_Model/NS_Model.asmx"
/>
    </wsdl:port>
    <wsdl:port
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpGe
t"
binding="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_Servic
eHttpGet">
        <http:address location="http://nsdss.ine.uaf.edu:8080/NS_Model/NS_Model.asmx" />
    </wsdl:port>
    <wsdl:port
name="NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_ServiceHttpPo
st"
binding="tns:NSDSS_x0020_Model_x0020_Publishing_x0020_and_x0020_Retrieval_x0020_Servic
eHttpPost">
        <http:address location="http://nsdss.ine.uaf.edu:8080/NS_Model/NS_Model.asmx" />
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

### 6.3. NetCDF Service Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://uaf.edu/namespaces/nsdss" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://uaf.edu/namespaces/nsdss"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:types>
        <s:schema elementFormDefault="qualified"
targetNamespace="http://uaf.edu/namespaces/nsdss">
            <s:element name="GetAuthCode">
                <s:complexType>
                    <s:sequence>
                        <s:element minOccurs="0" maxOccurs="1" name="username" type="s:string" />
                        <s:element minOccurs="0" maxOccurs="1" name="password" type="s:string" />
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element name="GetAuthCodeResponse">
                <s:complexType>
                    <s:sequence>
                        <s:element minOccurs="0" maxOccurs="1" name="GetAuthCodeResult"
type="s:string" />
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element name="GetSiteInfo">
                <s:complexType>
                    <s:sequence>
                        <s:element minOccurs="0" maxOccurs="1" name="site" type="s:string" />
                        <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:schema>
    </wsdl:types>

```

---

```
</s:element>
<s:element name="GetSiteInfoResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetSiteInfoResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetFile">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetFileResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetFileResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetFiles">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="varname" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="Xmin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Ymin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Xmax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Ymax" type="s:float" />
      <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetFilesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetFilesResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetVariableInfo">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="VarName" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
```



---

```

        <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="GetVariableInfoResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetVariableInfoResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetValues">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="VarName" type="s:string" />
            <s:element minOccurs="1" maxOccurs="1" name="XMin" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="YMin" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="Xmax" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="YMax" type="s:float" />
            <s:element minOccurs="0" maxOccurs="1" name="TMin" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="TMax" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Units" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetValuesResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetValuesResult">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetValuesMultiple">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="Filename_1" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="VarName_1" type="s:string" />
            <s:element minOccurs="1" maxOccurs="1" name="XMin_1" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="YMin_1" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="Xmax_1" type="s:float" />
            <s:element minOccurs="1" maxOccurs="1" name="YMax_1" type="s:float" />
            <s:element minOccurs="0" maxOccurs="1" name="TMin_1" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="TMax_1" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Units_1" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Filename_2" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="VarName_2" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>

```

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```

    <s:element minOccurs="0" maxOccurs="1" name="Units_8" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Filename_9" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="VarName_9" type="s:string" />
    <s:element minOccurs="1" maxOccurs="1" name="XMin_9" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="YMin_9" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="Xmax_9" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="YMax_9" type="s:float" />
    <s:element minOccurs="0" maxOccurs="1" name="TMin_9" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="TMax_9" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Units_9" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Filename_a" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="VarName_a" type="s:string" />
    <s:element minOccurs="1" maxOccurs="1" name="XMin_a" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="YMin_a" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="Xmax_a" type="s:float" />
    <s:element minOccurs="1" maxOccurs="1" name="YMax_a" type="s:float" />
    <s:element minOccurs="0" maxOccurs="1" name="TMin_a" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="TMax_a" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Units_a" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
  </s:sequence>
</s:complexType>
</s:element>
<s:element name="GetValuesMultipleResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetValuesMultipleResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesUT">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="VarName" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="XMin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="YMin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Xmax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="YMax" type="s:float" />
      <s:element minOccurs="0" maxOccurs="1" name="Units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesUTResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetValuesUTResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

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---

```
</s:sequence>
</s:complexType>
</s:element>
<s:element name="GetValuesP">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="VarName" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="X" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Y" type="s:float" />
      <s:element minOccurs="0" maxOccurs="1" name="Units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesPResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetValuesPResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetCVList">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetCVListResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetCVListResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="AddToVarCV">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="term" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="definition" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="AddToVarCVResponse">
  <s:complexType />
</s:element>
```

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---

```

<s:element name="LoadNetCDFFile">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="metadata" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="LoadNetCDFFileResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="LoadNetCDFFileResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="NGetValues">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="Filename" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="VarName" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="XMin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="YMin" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="Xmax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="YMax" type="s:float" />
      <s:element minOccurs="1" maxOccurs="1" name="TMin" type="s:dateTime" />
      <s:element minOccurs="1" maxOccurs="1" name="TMax" type="s:dateTime" />
      <s:element minOccurs="0" maxOccurs="1" name="Units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="AuthToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="NGetValuesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="NGetValuesResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="string" nillable="true" type="s:string" />
</s:schema>
</wsdl:types>
<wsdl:message name="GetAuthCodeSoapIn">
  <wsdl:part name="parameters" element="tns:GetAuthCode" />
</wsdl:message>
<wsdl:message name="GetAuthCodeSoapOut">
  <wsdl:part name="parameters" element="tns:GetAuthCodeResponse" />
</wsdl:message>

```

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---

```
<wsdl:message name="GetSiteInfoSoapIn">
  <wsdl:part name="parameters" element="tns:GetSiteInfo" />
</wsdl:message>
<wsdl:message name="GetSiteInfoSoapOut">
  <wsdl:part name="parameters" element="tns:GetSiteInfoResponse" />
</wsdl:message>
<wsdl:message name="GetFileSoapIn">
  <wsdl:part name="parameters" element="tns:GetFile" />
</wsdl:message>
<wsdl:message name="GetFileSoapOut">
  <wsdl:part name="parameters" element="tns:GetFileResponse" />
</wsdl:message>
<wsdl:message name="GetFilesSoapIn">
  <wsdl:part name="parameters" element="tns:GetFiles" />
</wsdl:message>
<wsdl:message name="GetFilesSoapOut">
  <wsdl:part name="parameters" element="tns:GetFilesResponse" />
</wsdl:message>
<wsdl:message name="GetVariableInfoSoapIn">
  <wsdl:part name="parameters" element="tns:GetVariableInfo" />
</wsdl:message>
<wsdl:message name="GetVariableInfoSoapOut">
  <wsdl:part name="parameters" element="tns:GetVariableInfoResponse" />
</wsdl:message>
<wsdl:message name="GetValuesSoapIn">
  <wsdl:part name="parameters" element="tns:GetValues" />
</wsdl:message>
<wsdl:message name="GetValuesSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleSoapIn">
  <wsdl:part name="parameters" element="tns:GetValuesMultiple" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesMultipleResponse" />
</wsdl:message>
<wsdl:message name="GetValuesUTSoapIn">
  <wsdl:part name="parameters" element="tns:GetValuesUT" />
</wsdl:message>
<wsdl:message name="GetValuesUTSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesUTResponse" />
</wsdl:message>
<wsdl:message name="GetValuesPSoapIn">
  <wsdl:part name="parameters" element="tns:GetValuesP" />
</wsdl:message>
<wsdl:message name="GetValuesPSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesPResponse" />
</wsdl:message>
<wsdl:message name="GetCVListSoapIn">
  <wsdl:part name="parameters" element="tns:GetCVList" />
</wsdl:message>
<wsdl:message name="GetCVListSoapOut">
  <wsdl:part name="parameters" element="tns:GetCVListResponse" />
</wsdl:message>
<wsdl:message name="AddToVarCVSoapIn">
  <wsdl:part name="parameters" element="tns:AddToVarCV" />
</wsdl:message>
<wsdl:message name="AddToVarCVSoapOut">
  <wsdl:part name="parameters" element="tns:AddToVarCVResponse" />
</wsdl:message>
```

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---

```
<wsdl:message name="LoadNetCDFFileSoapIn">
  <wsdl:part name="parameters" element="tns:LoadNetCDFFile" />
</wsdl:message>
<wsdl:message name="LoadNetCDFFileSoapOut">
  <wsdl:part name="parameters" element="tns:LoadNetCDFFileResponse" />
</wsdl:message>
<wsdl:message name="NGetValuesSoapIn">
  <wsdl:part name="parameters" element="tns:NGetValues" />
</wsdl:message>
<wsdl:message name="NGetValuesSoapOut">
  <wsdl:part name="parameters" element="tns:NGetValuesResponse" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpGetIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetFileHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetFileHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetFilesHttpGetIn">
  <wsdl:part name="varname" type="s:string" />
  <wsdl:part name="Xmin" type="s:string" />
  <wsdl:part name="Ymin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="Ymax" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetFilesHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="XMin" type="s:string" />
  <wsdl:part name="YMin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="YMax" type="s:string" />
  <wsdl:part name="TMin" type="s:string" />
</wsdl:message>
```

---

---

```
<wsdl:part name="TMax" type="s:string" />
<wsdl:part name="Units" type="s:string" />
<wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleHttpGetIn">
  <wsdl:part name="Filename_1" type="s:string" />
  <wsdl:part name="VarName_1" type="s:string" />
  <wsdl:part name="XMin_1" type="s:string" />
  <wsdl:part name="YMin_1" type="s:string" />
  <wsdl:part name="Xmax_1" type="s:string" />
  <wsdl:part name="YMax_1" type="s:string" />
  <wsdl:part name="TMin_1" type="s:string" />
  <wsdl:part name="TMax_1" type="s:string" />
  <wsdl:part name="Units_1" type="s:string" />
  <wsdl:part name="Filename_2" type="s:string" />
  <wsdl:part name="VarName_2" type="s:string" />
  <wsdl:part name="XMin_2" type="s:string" />
  <wsdl:part name="YMin_2" type="s:string" />
  <wsdl:part name="Xmax_2" type="s:string" />
  <wsdl:part name="YMax_2" type="s:string" />
  <wsdl:part name="TMin_2" type="s:string" />
  <wsdl:part name="TMax_2" type="s:string" />
  <wsdl:part name="Units_2" type="s:string" />
  <wsdl:part name="Filename_3" type="s:string" />
  <wsdl:part name="VarName_3" type="s:string" />
  <wsdl:part name="XMin_3" type="s:string" />
  <wsdl:part name="YMin_3" type="s:string" />
  <wsdl:part name="Xmax_3" type="s:string" />
  <wsdl:part name="YMax_3" type="s:string" />
  <wsdl:part name="TMin_3" type="s:string" />
  <wsdl:part name="TMax_3" type="s:string" />
  <wsdl:part name="Units_3" type="s:string" />
  <wsdl:part name="Filename_4" type="s:string" />
  <wsdl:part name="VarName_4" type="s:string" />
  <wsdl:part name="XMin_4" type="s:string" />
  <wsdl:part name="YMin_4" type="s:string" />
  <wsdl:part name="Xmax_4" type="s:string" />
  <wsdl:part name="YMax_4" type="s:string" />
  <wsdl:part name="TMin_4" type="s:string" />
  <wsdl:part name="TMax_4" type="s:string" />
  <wsdl:part name="Units_4" type="s:string" />
  <wsdl:part name="Filename_5" type="s:string" />
  <wsdl:part name="VarName_5" type="s:string" />
  <wsdl:part name="XMin_5" type="s:string" />
  <wsdl:part name="YMin_5" type="s:string" />
  <wsdl:part name="Xmax_5" type="s:string" />
  <wsdl:part name="YMax_5" type="s:string" />
  <wsdl:part name="TMin_5" type="s:string" />
  <wsdl:part name="TMax_5" type="s:string" />
  <wsdl:part name="Units_5" type="s:string" />
  <wsdl:part name="Filename_6" type="s:string" />
  <wsdl:part name="VarName_6" type="s:string" />
  <wsdl:part name="XMin_6" type="s:string" />
  <wsdl:part name="YMin_6" type="s:string" />
  <wsdl:part name="Xmax_6" type="s:string" />
  <wsdl:part name="YMax_6" type="s:string" />
  <wsdl:part name="TMin_6" type="s:string" />
```

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---

```
<wsdl:part name="TMax_6" type="s:string" />
<wsdl:part name="Units_6" type="s:string" />
<wsdl:part name="Filename_7" type="s:string" />
<wsdl:part name="VarName_7" type="s:string" />
<wsdl:part name="XMin_7" type="s:string" />
<wsdl:part name="YMin_7" type="s:string" />
<wsdl:part name="Xmax_7" type="s:string" />
<wsdl:part name="YMax_7" type="s:string" />
<wsdl:part name="TMin_7" type="s:string" />
<wsdl:part name="TMax_7" type="s:string" />
<wsdl:part name="Units_7" type="s:string" />
<wsdl:part name="Filename_8" type="s:string" />
<wsdl:part name="VarName_8" type="s:string" />
<wsdl:part name="XMin_8" type="s:string" />
<wsdl:part name="YMin_8" type="s:string" />
<wsdl:part name="Xmax_8" type="s:string" />
<wsdl:part name="YMax_8" type="s:string" />
<wsdl:part name="TMin_8" type="s:string" />
<wsdl:part name="TMax_8" type="s:string" />
<wsdl:part name="Units_8" type="s:string" />
<wsdl:part name="Filename_9" type="s:string" />
<wsdl:part name="VarName_9" type="s:string" />
<wsdl:part name="XMin_9" type="s:string" />
<wsdl:part name="YMin_9" type="s:string" />
<wsdl:part name="Xmax_9" type="s:string" />
<wsdl:part name="YMax_9" type="s:string" />
<wsdl:part name="TMin_9" type="s:string" />
<wsdl:part name="TMax_9" type="s:string" />
<wsdl:part name="Units_9" type="s:string" />
<wsdl:part name="Filename_a" type="s:string" />
<wsdl:part name="VarName_a" type="s:string" />
<wsdl:part name="XMin_a" type="s:string" />
<wsdl:part name="YMin_a" type="s:string" />
<wsdl:part name="Xmax_a" type="s:string" />
<wsdl:part name="YMax_a" type="s:string" />
<wsdl:part name="TMin_a" type="s:string" />
<wsdl:part name="TMax_a" type="s:string" />
<wsdl:part name="Units_a" type="s:string" />
<wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesUTHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="XMin" type="s:string" />
  <wsdl:part name="YMin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="YMax" type="s:string" />
  <wsdl:part name="Units" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesUTHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesPHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="X" type="s:string" />
</wsdl:message>
```

---

---

```
<wsdl:part name="Y" type="s:string" />
<wsdl:part name="Units" type="s:string" />
<wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesPHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCVListHttpGetIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCVListHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="AddToVarCVHttpGetIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddToVarCVHttpGetOut" />
<wsdl:message name="LoadNetCDFFileHttpGetIn">
  <wsdl:part name="filename" type="s:string" />
  <wsdl:part name="metadata" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="LoadNetCDFFileHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="NGetValuesHttpGetIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="XMin" type="s:string" />
  <wsdl:part name="YMin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="YMax" type="s:string" />
  <wsdl:part name="TMin" type="s:string" />
  <wsdl:part name="TMax" type="s:string" />
  <wsdl:part name="Units" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="NGetValuesHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpPostIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetFileHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
```

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```
<wsdl:message name="GetFileHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetFilesHttpPostIn">
  <wsdl:part name="varname" type="s:string" />
  <wsdl:part name="Xmin" type="s:string" />
  <wsdl:part name="Ymin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="Ymax" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetFilesHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="XMin" type="s:string" />
  <wsdl:part name="YMin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="YMax" type="s:string" />
  <wsdl:part name="TMin" type="s:string" />
  <wsdl:part name="TMax" type="s:string" />
  <wsdl:part name="Units" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleHttpPostIn">
  <wsdl:part name="Filename_1" type="s:string" />
  <wsdl:part name="VarName_1" type="s:string" />
  <wsdl:part name="XMin_1" type="s:string" />
  <wsdl:part name="YMin_1" type="s:string" />
  <wsdl:part name="Xmax_1" type="s:string" />
  <wsdl:part name="YMax_1" type="s:string" />
  <wsdl:part name="TMin_1" type="s:string" />
  <wsdl:part name="TMax_1" type="s:string" />
  <wsdl:part name="Units_1" type="s:string" />
  <wsdl:part name="Filename_2" type="s:string" />
  <wsdl:part name="VarName_2" type="s:string" />
  <wsdl:part name="XMin_2" type="s:string" />
  <wsdl:part name="YMin_2" type="s:string" />
  <wsdl:part name="Xmax_2" type="s:string" />
  <wsdl:part name="YMax_2" type="s:string" />
  <wsdl:part name="TMin_2" type="s:string" />
  <wsdl:part name="TMax_2" type="s:string" />
  <wsdl:part name="Units_2" type="s:string" />
  <wsdl:part name="Filename_3" type="s:string" />
  <wsdl:part name="VarName_3" type="s:string" />
  <wsdl:part name="XMin_3" type="s:string" />
  <wsdl:part name="YMin_3" type="s:string" />
```

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```
<wsdl:part name="Xmax_3" type="s:string" />
<wsdl:part name="YMax_3" type="s:string" />
<wsdl:part name="TMin_3" type="s:string" />
<wsdl:part name="TMax_3" type="s:string" />
<wsdl:part name="Units_3" type="s:string" />
<wsdl:part name="Filename_4" type="s:string" />
<wsdl:part name="VarName_4" type="s:string" />
<wsdl:part name="XMin_4" type="s:string" />
<wsdl:part name="YMin_4" type="s:string" />
<wsdl:part name="Xmax_4" type="s:string" />
<wsdl:part name="YMax_4" type="s:string" />
<wsdl:part name="TMin_4" type="s:string" />
<wsdl:part name="TMax_4" type="s:string" />
<wsdl:part name="Units_4" type="s:string" />
<wsdl:part name="Filename_5" type="s:string" />
<wsdl:part name="VarName_5" type="s:string" />
<wsdl:part name="XMin_5" type="s:string" />
<wsdl:part name="YMin_5" type="s:string" />
<wsdl:part name="Xmax_5" type="s:string" />
<wsdl:part name="YMax_5" type="s:string" />
<wsdl:part name="TMin_5" type="s:string" />
<wsdl:part name="TMax_5" type="s:string" />
<wsdl:part name="Units_5" type="s:string" />
<wsdl:part name="Filename_6" type="s:string" />
<wsdl:part name="VarName_6" type="s:string" />
<wsdl:part name="XMin_6" type="s:string" />
<wsdl:part name="YMin_6" type="s:string" />
<wsdl:part name="Xmax_6" type="s:string" />
<wsdl:part name="YMax_6" type="s:string" />
<wsdl:part name="TMin_6" type="s:string" />
<wsdl:part name="TMax_6" type="s:string" />
<wsdl:part name="Units_6" type="s:string" />
<wsdl:part name="Filename_7" type="s:string" />
<wsdl:part name="VarName_7" type="s:string" />
<wsdl:part name="XMin_7" type="s:string" />
<wsdl:part name="YMin_7" type="s:string" />
<wsdl:part name="Xmax_7" type="s:string" />
<wsdl:part name="YMax_7" type="s:string" />
<wsdl:part name="TMin_7" type="s:string" />
<wsdl:part name="TMax_7" type="s:string" />
<wsdl:part name="Units_7" type="s:string" />
<wsdl:part name="Filename_8" type="s:string" />
<wsdl:part name="VarName_8" type="s:string" />
<wsdl:part name="XMin_8" type="s:string" />
<wsdl:part name="YMin_8" type="s:string" />
<wsdl:part name="Xmax_8" type="s:string" />
<wsdl:part name="YMax_8" type="s:string" />
<wsdl:part name="TMin_8" type="s:string" />
<wsdl:part name="TMax_8" type="s:string" />
<wsdl:part name="Units_8" type="s:string" />
<wsdl:part name="Filename_9" type="s:string" />
<wsdl:part name="VarName_9" type="s:string" />
<wsdl:part name="XMin_9" type="s:string" />
<wsdl:part name="YMin_9" type="s:string" />
<wsdl:part name="Xmax_9" type="s:string" />
<wsdl:part name="YMax_9" type="s:string" />
<wsdl:part name="TMin_9" type="s:string" />
<wsdl:part name="TMax_9" type="s:string" />
<wsdl:part name="Units_9" type="s:string" />
<wsdl:part name="Filename_a" type="s:string" />
```

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```
<wsdl:part name="VarName_a" type="s:string" />
<wsdl:part name="XMin_a" type="s:string" />
<wsdl:part name="YMin_a" type="s:string" />
<wsdl:part name="Xmax_a" type="s:string" />
<wsdl:part name="YMax_a" type="s:string" />
<wsdl:part name="TMin_a" type="s:string" />
<wsdl:part name="TMax_a" type="s:string" />
<wsdl:part name="Units_a" type="s:string" />
<wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesMultipleHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesUTHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="XMin" type="s:string" />
  <wsdl:part name="YMin" type="s:string" />
  <wsdl:part name="Xmax" type="s:string" />
  <wsdl:part name="YMax" type="s:string" />
  <wsdl:part name="Units" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesUTHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetValuesPHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
  <wsdl:part name="X" type="s:string" />
  <wsdl:part name="Y" type="s:string" />
  <wsdl:part name="Units" type="s:string" />
  <wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesPHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetCVListHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetCVListHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="AddToVarCVHttpPostIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddToVarCVHttpPostOut" />
<wsdl:message name="LoadNetCDFFileHttpPostIn">
  <wsdl:part name="filename" type="s:string" />
  <wsdl:part name="metadata" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="LoadNetCDFFileHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="NGetValuesHttpPostIn">
  <wsdl:part name="Filename" type="s:string" />
  <wsdl:part name="VarName" type="s:string" />
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<wsdl:part name="XMin" type="s:string" />
<wsdl:part name="YMin" type="s:string" />
<wsdl:part name="Xmax" type="s:string" />
<wsdl:part name="YMax" type="s:string" />
<wsdl:part name="TMin" type="s:string" />
<wsdl:part name="TMax" type="s:string" />
<wsdl:part name="Units" type="s:string" />
<wsdl:part name="AuthToken" type="s:string" />
</wsdl:message>
<wsdl:message name="NGetValuesHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:portType name="GetWSServiceSoap">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeSoapIn" />
    <wsdl:output message="tns:GetAuthCodeSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Not
Implemented. Declared for WaterML Compatibility</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoSoapIn" />
    <wsdl:output message="tns:GetSiteInfoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFile">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for NetCDF File</wsdl:documentation>
    <wsdl:input message="tns:GetFileSoapIn" />
    <wsdl:output message="tns:GetFileSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFiles">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Multiple NetCDF Files based on filename search spec and x,y extents.
Partially implemented, returns all filenames in store for all
criteria</wsdl:documentation>
    <wsdl:input message="tns:GetFilesSoapIn" />
    <wsdl:output message="tns:GetFilesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Variable inside a NetCDF File</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoSoapIn" />
    <wsdl:output message="tns:GetVariableInfoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesSoapIn" />
    <wsdl:output message="tns:GetValuesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValuesMultiple">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Multiple Values for a specific Variable inside multiple NetCDF File as a NetCDFbatch
containing a subgrid of limited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesMultipleSoapIn" />
    <wsdl:output message="tns:GetValuesMultipleSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValuesUT">

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    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing a subgrid of
unlimited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesUTSoapIn" />
    <wsdl:output message="tns:GetValuesUTSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesP">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing an unlimited time
series vector.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesPSoapIn" />
    <wsdl:output message="tns:GetValuesPSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetCVList">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a list
of the valid descriptors in the CVs.</wsdl:documentation>
    <wsdl:input message="tns:GetCVListSoapIn" />
    <wsdl:output message="tns:GetCVListSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Adds a
variable descriptor to the Variable CV.</wsdl:documentation>
    <wsdl:input message="tns:AddToVarCVSoapIn" />
    <wsdl:output message="tns:AddToVarCVSoapOut" />
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Loads a file
previously downloaded into the services loading directory into the service NetCDF data
cache and inserts specified metadata into the NetCDF service
metadatabase.</wsdl:documentation>
    <wsdl:input message="tns:LoadNetCDFFileSoapIn" />
    <wsdl:output message="tns:LoadNetCDFFileSoapOut" />
</wsdl:operation>
<wsdl:operation name="NGetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors. Returns a file.</wsdl:documentation>
    <wsdl:input message="tns:NGetValuesSoapIn" />
    <wsdl:output message="tns:NGetValuesSoapOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="GetWSServiceHttpGet">
    <wsdl:operation name="GetAuthCode">
        <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
        <wsdl:input message="tns:GetAuthCodeHttpGetIn" />
        <wsdl:output message="tns:GetAuthCodeHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="GetSiteInfo">
        <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Not
Implemented. Declared for WaterML Compatibility</wsdl:documentation>
        <wsdl:input message="tns:GetSiteInfoHttpGetIn" />
        <wsdl:output message="tns:GetSiteInfoHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="GetFile">
        <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for NetCDF File</wsdl:documentation>
        <wsdl:input message="tns:GetFileHttpGetIn" />
        <wsdl:output message="tns:GetFileHttpGetOut" />
    </wsdl:operation>

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```
<wsdl:operation name="GetFiles">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Multiple NetCDF Files based on filename search spec and x,y extents.
Partially implemented, returns all filenames in store for all
criteria</wsdl:documentation>
  <wsdl:input message="tns:GetFilesHttpGetIn" />
  <wsdl:output message="tns:GetFilesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetVariableInfo">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Variable inside a NetCDF File</wsdl:documentation>
  <wsdl:input message="tns:GetVariableInfoHttpGetIn" />
  <wsdl:output message="tns:GetVariableInfoHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValues">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors.</wsdl:documentation>
  <wsdl:input message="tns:GetValuesHttpGetIn" />
  <wsdl:output message="tns:GetValuesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesMultiple">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Multiple Values for a specific Variable inside multiple NetCDF File as a NetCDFbatch
containing a subgrid of limited time series vectors.</wsdl:documentation>
  <wsdl:input message="tns:GetValuesMultipleHttpGetIn" />
  <wsdl:output message="tns:GetValuesMultipleHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesUT">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing a subgrid of
unlimited time series vectors.</wsdl:documentation>
  <wsdl:input message="tns:GetValuesUTHttpGetIn" />
  <wsdl:output message="tns:GetValuesUTHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesP">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing an unlimited time
series vector.</wsdl:documentation>
  <wsdl:input message="tns:GetValuesPHttpGetIn" />
  <wsdl:output message="tns:GetValuesPHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetCVList">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a list
of the valid descriptors in the CVs.</wsdl:documentation>
  <wsdl:input message="tns:GetCVListHttpGetIn" />
  <wsdl:output message="tns:GetCVListHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Adds a
variable descriptor to the Variable CV.</wsdl:documentation>
  <wsdl:input message="tns:AddToVarCVHttpGetIn" />
  <wsdl:output message="tns:AddToVarCVHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Loads a file
previously downloaded into the services loading directory into the service NetCDF data
cache and inserts specified metadata into the NetCDF service
metadatabase.</wsdl:documentation>
  <wsdl:input message="tns:LoadNetCDFFileHttpGetIn" />
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    <wsdl:output message="tns:LoadNetCDFFileHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="NGetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors. Returns a file.</wsdl:documentation>
    <wsdl:input message="tns:NGetValuesHttpGetIn" />
    <wsdl:output message="tns:NGetValuesHttpGetOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType name="GetWSServiceHttpPost">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeHttpPostIn" />
    <wsdl:output message="tns:GetAuthCodeHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Not
Implemented. Declared for WaterML Compatibility</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoHttpPostIn" />
    <wsdl:output message="tns:GetSiteInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFile">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for NetCDF File</wsdl:documentation>
    <wsdl:input message="tns:GetFileHttpPostIn" />
    <wsdl:output message="tns:GetFileHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFiles">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Multiple NetCDF Files based on filename search spec and x,y extents.
Partially implemented, returns all filenames in store for all
criteria</wsdl:documentation>
    <wsdl:input message="tns:GetFilesHttpPostIn" />
    <wsdl:output message="tns:GetFilesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Metadata for Variable inside a NetCDF File</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoHttpPostIn" />
    <wsdl:output message="tns:GetVariableInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesHttpPostIn" />
    <wsdl:output message="tns:GetValuesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValuesMultiple">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns
Multiple Values for a specific Variable inside multiple NetCDF File as a NetCDFbatch
containing a subgrid of limited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesMultipleHttpPostIn" />
    <wsdl:output message="tns:GetValuesMultipleHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValuesUT">

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    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing a subgrid of
unlimited time series vectors.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesUHttpPostIn" />
    <wsdl:output message="tns:GetValuesUHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValuesP">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a XML containing an unlimited time
series vector.</wsdl:documentation>
    <wsdl:input message="tns:GetValuesPHttpPostIn" />
    <wsdl:output message="tns:GetValuesPHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCVList">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a list
of the valid descriptors in the CVs.</wsdl:documentation>
    <wsdl:input message="tns:GetCVListHttpPostIn" />
    <wsdl:output message="tns:GetCVListHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddToVarCV">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Adds a
variable descriptor to the Variable CV.</wsdl:documentation>
    <wsdl:input message="tns:AddToVarCVHttpPostIn" />
    <wsdl:output message="tns:AddToVarCVHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="LoadNetCDFFile">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Loads a file
previously downloaded into the services loading directory into the service NetCDF data
cache and inserts specified metadata into the NetCDF service
metadatabase.</wsdl:documentation>
    <wsdl:input message="tns:LoadNetCDFFileHttpPostIn" />
    <wsdl:output message="tns:LoadNetCDFFileHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="NGetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns Values
for a specific Variable inside a NetCDF File as a NetCDF containing a subgrid of
limited time series vectors. Returns a file.</wsdl:documentation>
    <wsdl:input message="tns:NGetValuesHttpPostIn" />
    <wsdl:output message="tns:NGetValuesHttpPostOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="GetWSServiceSoap" type="tns:GetWSServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetAuthCode">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSiteInfo"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>

```

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```

        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetFile">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFile"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetFiles">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFiles"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableInfo">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableInfo"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValues">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValues"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesMultiple">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesMultiple"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesUT">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesUT"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>

```

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---

```
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesP">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesP"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCVList">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCVList"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddToVarCV"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/LoadNetCDFFile"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="NGetValues">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/NGetValues"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="GetWSServiceSoap12" type="tns:GetWSServiceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="GetAuthCode">
        <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
        <wsdl:input>
```

---

---

```
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteInfo">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSiteInfo"
style="document" />
    <wsdl:input>
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetFile">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFile"
style="document" />
    <wsdl:input>
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetFiles">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFiles"
style="document" />
    <wsdl:input>
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableInfo">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableInfo"
style="document" />
    <wsdl:input>
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValues">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValues"
style="document" />
    <wsdl:input>
        <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap12:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesMultiple">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesMultiple"
style="document" />
    <wsdl:input>
```

---

---

```
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesUT">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesUT"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesP">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValuesP"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCVList">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCVList"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddToVarCV"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/LoadNetCDFFile"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="NGetValues">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/NGetValues"
style="document" />
  <wsdl:input>
```

---

---

```
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="GetWSServiceHttpGet" type="tns:GetWSServiceHttpGet">
  <http:binding verb="GET" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <http:operation location="/GetSiteInfo" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFile">
    <http:operation location="/GetFile" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFiles">
    <http:operation location="/GetFiles" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <http:operation location="/GetVariableInfo" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
```

---

---

```
<mime:content part="Body" type="text/xml" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesMultiple">
  <http:operation location="/GetValuesMultiple" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesUT">
  <http:operation location="/GetValuesUT" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesP">
  <http:operation location="/GetValuesP" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCVList">
  <http:operation location="/GetCVList" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
  <http:operation location="/AddToVarCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output />
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
  <http:operation location="/LoadNetCDFFile" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="NGetValues">
  <http:operation location="/NGetValues" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
```

---



---

```
<wsdl:output>
  <mime:content part="Body" type="text/xml" />
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="GetWSServiceHttpPost" type="tns:GetWSServiceHttpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <http:operation location="/GetSiteInfo" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFile">
    <http:operation location="/GetFile" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFiles">
    <http:operation location="/GetFiles" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <http:operation location="/GetVariableInfo" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

---

---

```
</wsdl:operation>
<wsdl:operation name="GetValuesMultiple">
  <http:operation location="/GetValuesMultiple" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesUT">
  <http:operation location="/GetValuesUT" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesP">
  <http:operation location="/GetValuesP" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCVList">
  <http:operation location="/GetCVList" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddToVarCV">
  <http:operation location="/AddToVarCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output />
</wsdl:operation>
<wsdl:operation name="LoadNetCDFFile">
  <http:operation location="/LoadNetCDFFile" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="NGetValues">
  <http:operation location="/NGetValues" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
```

---

```

    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="GetWSService">
  <wsdl:port name="GetWSServiceSoap" binding="tns:GetWSServiceSoap">
    <soap:address
location="http://nsdss.ine.uaf.edu:8080/NS_NetCDFService/NS_NetCDFService.asmx" />
    </wsdl:port>
  <wsdl:port name="GetWSServiceSoap12" binding="tns:GetWSServiceSoap12">
    <soap12:address
location="http://nsdss.ine.uaf.edu:8080/NS_NetCDFService/NS_NetCDFService.asmx" />
    </wsdl:port>
  <wsdl:port name="GetWSServiceHttpGet" binding="tns:GetWSServiceHttpGet">
    <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_NetCDFService/NS_NetCDFService.asmx" />
    </wsdl:port>
  <wsdl:port name="GetWSServiceHttpPost" binding="tns:GetWSServiceHttpPost">
    <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_NetCDFService/NS_NetCDFService.asmx" />
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

## 6.4. ODM Service Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://www.cuahsi.org/his/1.0/ws/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://www.cuahsi.org/his/1.0/ws/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://www.cuahsi.org/his/1.0/ws/">
      <s:element name="GetValues">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="location" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="startDate" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="endDate" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="units" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="interval" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="statistic" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetValuesResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetValuesResult"
type="s:string" />

```

---

```

    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesUnitOnly">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="location" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="startDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="endDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="units" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesUnitOnlyResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetValuesUnitOnlyResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="string" nillable="true" type="s:string" />
</s:schema>
</wsdl:types>
<wsdl:message name="GetValuesSoapIn">
  <wsdl:part name="parameters" element="tns:GetValues" />
</wsdl:message>
<wsdl:message name="GetValuesSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesUnitOnlySoapIn">
  <wsdl:part name="parameters" element="tns:GetValuesUnitOnly" />
</wsdl:message>
<wsdl:message name="GetValuesUnitOnlySoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesUnitOnlyResponse" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="interval" type="s:string" />
  <wsdl:part name="statistic" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetValuesUnitOnlyHttpGetIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="units" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesUnitOnlyHttpGetOut">

```

---

---

```

    <wsdl:part name="Body" element="tns:string" />
  </wsdl:message>
  <wsdl:message name="GetValuesHttpPostIn">
    <wsdl:part name="location" type="s:string" />
    <wsdl:part name="variable" type="s:string" />
    <wsdl:part name="startDate" type="s:string" />
    <wsdl:part name="endDate" type="s:string" />
    <wsdl:part name="units" type="s:string" />
    <wsdl:part name="interval" type="s:string" />
    <wsdl:part name="statistic" type="s:string" />
    <wsdl:part name="authToken" type="s:string" />
  </wsdl:message>
  <wsdl:message name="GetValuesHttpPostOut">
    <wsdl:part name="Body" element="tns:string" />
  </wsdl:message>
  <wsdl:message name="GetValuesUnitOnlyHttpPostIn">
    <wsdl:part name="location" type="s:string" />
    <wsdl:part name="variable" type="s:string" />
    <wsdl:part name="startDate" type="s:string" />
    <wsdl:part name="endDate" type="s:string" />
    <wsdl:part name="units" type="s:string" />
    <wsdl:part name="authToken" type="s:string" />
  </wsdl:message>
  <wsdl:message name="GetValuesUnitOnlyHttpPostOut">
    <wsdl:part name="Body" element="tns:string" />
  </wsdl:message>
  <wsdl:portType name="WaterOneFlowWrapperSoap">
    <wsdl:operation name="GetValues">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesSoapIn" />
      <wsdl:output message="tns:GetValuesSoapOut" />
    </wsdl:operation>
    <wsdl:operation name="GetValuesUnitOnly">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesUnitOnlySoapIn" />
      <wsdl:output message="tns:GetValuesUnitOnlySoapOut" />
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:portType name="WaterOneFlowWrapperHttpGet">
    <wsdl:operation name="GetValues">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesHttpGetIn" />
      <wsdl:output message="tns:GetValuesHttpGetOut" />
    </wsdl:operation>
    <wsdl:operation name="GetValuesUnitOnly">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesUnitOnlyHttpGetIn" />
      <wsdl:output message="tns:GetValuesUnitOnlyHttpGetOut" />
    </wsdl:operation>
  </wsdl:portType>

```

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```

    </wsdl:operation>
  </wsdl:portType>
  <wsdl:portType name="WaterOneFlowWrapperHttpPost">
    <wsdl:operation name="GetValues">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesHttpPostIn" />
      <wsdl:output message="tns:GetValuesHttpPostOut" />
    </wsdl:operation>
    <wsdl:operation name="GetValuesUnitOnly">
      <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
      <wsdl:input message="tns:GetValuesUnitOnlyHttpPostIn" />
      <wsdl:output message="tns:GetValuesUnitOnlyHttpPostOut" />
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="WaterOneFlowWrapperSoap" type="tns:WaterOneFlowWrapperSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="GetValues">
      <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValues"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetValuesUnitOnly">
      <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValuesUnitOnly"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:binding name="WaterOneFlowWrapperSoap12" type="tns:WaterOneFlowWrapperSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="GetValues">
      <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValues"
style="document" />
      <wsdl:input>
        <soap12:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetValuesUnitOnly">
      <soap12:operation
soapAction="http://www.cuahsi.org/his/1.0/ws/GetValuesUnitOnly" style="document" />
      <wsdl:input>
        <soap12:body use="literal" />

```

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---

```

    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="WaterOneFlowWrapperHttpGet"
type="tns:WaterOneFlowWrapperHttpGet">
  <http:binding verb="GET" />
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValuesUnitOnly">
    <http:operation location="/GetValuesUnitOnly" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="WaterOneFlowWrapperHttpPost"
type="tns:WaterOneFlowWrapperHttpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <mime:contentType="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValuesUnitOnly">
    <http:operation location="/GetValuesUnitOnly" />
    <wsdl:input>
      <mime:contentType="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="WaterOneFlowWrapper">
  <wsdl:port name="WaterOneFlowWrapperSoap" binding="tns:WaterOneFlowWrapperSoap">
    <soap:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFObservationsUnit/NS_ODMService.asmx" />
  </wsdl:port>
  <wsdl:port name="WaterOneFlowWrapperSoap12"
binding="tns:WaterOneFlowWrapperSoap12">
    <soap12:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFObservationsUnit/NS_ODMService.asmx" />
  </wsdl:port>

```

---

---

```

    <wsdl:port name="WaterOneFlowWrapperHttpGet"
binding="tns:WaterOneFlowWrapperHttpGet">
    <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFObservationsUnit/NS_ODMService.asmx" />
    </wsdl:port>
    <wsdl:port name="WaterOneFlowWrapperHttpPost"
binding="tns:WaterOneFlowWrapperHttpPost">
    <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFObservationsUnit/NS_ODMService.asmx" />
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

## 6.5. Publishing Service Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://uaf.edu/namespaces/nsdss"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://uaf.edu/namespaces/nsdss"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Web service for
publishing series to an ODM database</wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://uaf.edu/namespaces/nsdss">
      <s:element name="AddDerivedFrom">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="derivedFrom" type="s:int" />
            <s:element minOccurs="1" maxOccurs="1" name="valueID" type="s:int" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="AddDerivedFromResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddDerivedFromResult"
type="s:int" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="AddCensorCodeCV">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="definition" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="term" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="AddCensorCodeCVResponse">
        <s:complexType>
          <s:sequence>

```

---



---

```

        <s:element minOccurs="0" maxOccurs="1" name="AddCensorCodeCVResult"
type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="AddDataTypeCV">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="term" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="definition" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddDataTypeCVResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="AddDataTypeCVResult"
type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddQualifiers">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="code" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddQualifiersResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddQualifiersResult"
type="s:int" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddMethods">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
            <s:element minOccurs="0" maxOccurs="1" name="link" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddMethodsResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddMethodsResult"
type="s:int" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddUnits">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="name" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="type" type="s:string" />

```

---

---

```

        <s:element minOccurs="0" maxOccurs="1" name="abbrev" type="s:string" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="AddUnitsResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddUnitsResult" type="s:int"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddOffsetTypes">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="unitsid" type="s:int" />
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddOffsetTypesResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddOffsetTypesResult"
type="s:int" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddSources">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="organization" type="s:string"
/>
            <s:element minOccurs="0" maxOccurs="1" name="description" type="s:string"
/>
            <s:element minOccurs="0" maxOccurs="1" name="link" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="contactName" type="s:string"
/>
            <s:element minOccurs="0" maxOccurs="1" name="phone" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="email" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="address" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="city" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="state" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="citation" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="zipcode" type="s:string" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="AddSourcesResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="AddSourcesResult"
type="s:int" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:element name="GetSiteID">
    <s:complexType>
        <s:sequence>

```

---

---

```

        <s:element minOccurs="0" maxOccurs="1" name="sitecode" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetSiteIDResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="1" maxOccurs="1" name="GetSiteIDResult" type="s:int"
/>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetVarID">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="varcode" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetVarIDResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="1" maxOccurs="1" name="GetVarIDResult" type="s:int"
/>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetDerivedFrom">
    <s:complexType />
  </s:element>
  <s:element name="GetDerivedFromResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="GetDerivedFromResult"
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetCensorCodeCV">
    <s:complexType />
  </s:element>
  <s:element name="GetCensorCodeCVResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="GetCensorCodeCVResult"
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetDataTypeCV">
    <s:complexType />
  </s:element>
  <s:element name="GetDataTypeCVResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="GetDataTypeCVResult"
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>

```

---

---

```
<s:element name="GetQualifiers">
  <s:complexType />
</s:element>
<s:element name="GetQualifiersResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetQualifiersResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetMethods">
  <s:complexType />
</s:element>
<s:element name="GetMethodsResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetMethodsResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetOffsetTypes">
  <s:complexType />
</s:element>
<s:element name="GetOffsetTypesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetOffsetTypesResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetSources">
  <s:complexType />
</s:element>
<s:element name="GetSourcesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetSourcesResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetSites">
  <s:complexType />
</s:element>
<s:element name="GetSitesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetSitesResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetUnits">
  <s:complexType />
</s:element>
<s:element name="GetUnitsResponse">
  <s:complexType>
```

---

---

```

        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetUnitsResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariables">
      <s:complexType />
    </s:element>
    <s:element name="GetVariablesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetVariablesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSpeciationCV">
      <s:complexType />
    </s:element>
    <s:element name="GetSpeciationCVResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetSpeciationCVResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSampleMediumCV">
      <s:complexType />
    </s:element>
    <s:element name="GetSampleMediumCVResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetSampleMediumCVResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetValueTypeCV">
      <s:complexType />
    </s:element>
    <s:element name="GetValueTypeCVResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetValueTypeCVResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetGeneralCategoryCV">
      <s:complexType />
    </s:element>
    <s:element name="GetGeneralCategoryCVResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetGeneralCategoryCVResult"
type="s:string" />
        </s:sequence>
      </s:complexType>

```

---

---

```

</s:element>
<s:element name="DeleteSite">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="siteid" type="s:int" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteSiteResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="DeleteSiteResult"
type="s:boolean" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteVariable">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="varid" type="s:int" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteVariableResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="DeleteVariableResult"
type="s:boolean" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteDataValues">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="valueid" type="s:int" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteDataValuesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="DeleteDataValuesResult"
type="s:boolean" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteDataValuesVS">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="varid" type="s:int" />
      <s:element minOccurs="1" maxOccurs="1" name="siteid" type="s:int" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="DeleteDataValuesVSResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="DeleteDataValuesVSResult"
type="s:boolean" />
    </s:sequence>
  </s:complexType>
</s:element>

```

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```

    </s:complexType>
  </s:element>
  <s:element name="UpdateSeriesCatalog">
    <s:complexType />
  </s:element>
  <s:element name="UpdateSeriesCatalogResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="1" maxOccurs="1" name="UpdateSeriesCatalogResult"
type="s:int" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="AddSite">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="sitecode" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="sitename" type="s:string" />
        <s:element minOccurs="1" maxOccurs="1" name="lat" type="s:float" />
        <s:element minOccurs="1" maxOccurs="1" name="lon" type="s:float" />
        <s:element minOccurs="1" maxOccurs="1" name="elev_m" type="s:float" />
        <s:element minOccurs="1" maxOccurs="1" name="loc_x" type="s:float" />
        <s:element minOccurs="1" maxOccurs="1" name="loc_y" type="s:float" />
        <s:element minOccurs="0" maxOccurs="1" name="state" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="county" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="comments" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="AddSiteResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="AddSiteResult"
type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="AddVariable">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="varcode" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="varname" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="speciation" type="s:string" />
        <s:element minOccurs="1" maxOccurs="1" name="varunitsid" type="s:int" />
        <s:element minOccurs="0" maxOccurs="1" name="samplemedium" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="valuetype" type="s:string" />
        <s:element minOccurs="1" maxOccurs="1" name="isregular" type="s:int" />
        <s:element minOccurs="0" maxOccurs="1" name="datatype" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="generalcategory"
type="s:string" />
        <s:element minOccurs="1" maxOccurs="1" name="nodatavalue" type="s:double"
/>
        <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="AddVariableResponse">
    <s:complexType>

```

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```

        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="AddVariableResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddValues">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="1" maxOccurs="1" name="siteid" type="s:int" />
          <s:element minOccurs="1" maxOccurs="1" name="variableid" type="s:int" />
          <s:element minOccurs="0" maxOccurs="1" name="valuedataxml" type="s:string"
/>
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddValuesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="AddValuesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableNames">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableNamesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetVariableNamesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddVariableName">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="term" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="definition" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="AddVariableNameResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="AddVariableNameResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="int" type="s:int" />
    <s:element name="string" nillable="true" type="s:string" />
    <s:element name="boolean" type="s:boolean" />

```

---



---

```
</s:schema>
</wsdl:types>
<wsdl:message name="AddDerivedFromSoapIn">
  <wsdl:part name="parameters" element="tns:AddDerivedFrom" />
</wsdl:message>
<wsdl:message name="AddDerivedFromSoapOut">
  <wsdl:part name="parameters" element="tns:AddDerivedFromResponse" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVSoapIn">
  <wsdl:part name="parameters" element="tns:AddCensorCodeCV" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVSoapOut">
  <wsdl:part name="parameters" element="tns:AddCensorCodeCVResponse" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVSoapIn">
  <wsdl:part name="parameters" element="tns:AddDataTypeCV" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVSoapOut">
  <wsdl:part name="parameters" element="tns:AddDataTypeCVResponse" />
</wsdl:message>
<wsdl:message name="AddQualifiersSoapIn">
  <wsdl:part name="parameters" element="tns:AddQualifiers" />
</wsdl:message>
<wsdl:message name="AddQualifiersSoapOut">
  <wsdl:part name="parameters" element="tns:AddQualifiersResponse" />
</wsdl:message>
<wsdl:message name="AddMethodsSoapIn">
  <wsdl:part name="parameters" element="tns:AddMethods" />
</wsdl:message>
<wsdl:message name="AddMethodsSoapOut">
  <wsdl:part name="parameters" element="tns:AddMethodsResponse" />
</wsdl:message>
<wsdl:message name="AddUnitsSoapIn">
  <wsdl:part name="parameters" element="tns:AddUnits" />
</wsdl:message>
<wsdl:message name="AddUnitsSoapOut">
  <wsdl:part name="parameters" element="tns:AddUnitsResponse" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesSoapIn">
  <wsdl:part name="parameters" element="tns:AddOffsetTypes" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesSoapOut">
  <wsdl:part name="parameters" element="tns:AddOffsetTypesResponse" />
</wsdl:message>
<wsdl:message name="AddSourcesSoapIn">
  <wsdl:part name="parameters" element="tns:AddSources" />
</wsdl:message>
<wsdl:message name="AddSourcesSoapOut">
  <wsdl:part name="parameters" element="tns:AddSourcesResponse" />
</wsdl:message>
<wsdl:message name="GetSiteIDSoapIn">
  <wsdl:part name="parameters" element="tns:GetSiteID" />
</wsdl:message>
<wsdl:message name="GetSiteIDSoapOut">
  <wsdl:part name="parameters" element="tns:GetSiteIDResponse" />
</wsdl:message>
<wsdl:message name="GetVarIDSoapIn">
  <wsdl:part name="parameters" element="tns:GetVarID" />
</wsdl:message>
<wsdl:message name="GetVarIDSoapOut">
```

---

---

```
<wsdl:part name="parameters" element="tns:GetVarIDResponse" />
</wsdl:message>
<wsdl:message name="GetDerivedFromSoapIn">
  <wsdl:part name="parameters" element="tns:GetDerivedFrom" />
</wsdl:message>
<wsdl:message name="GetDerivedFromSoapOut">
  <wsdl:part name="parameters" element="tns:GetDerivedFromResponse" />
</wsdl:message>
<wsdl:message name="GetCensorCodeCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetCensorCodeCV" />
</wsdl:message>
<wsdl:message name="GetCensorCodeCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetCensorCodeCVResponse" />
</wsdl:message>
<wsdl:message name="GetDataTypeCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetDataTypeCV" />
</wsdl:message>
<wsdl:message name="GetDataTypeCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetDataTypeCVResponse" />
</wsdl:message>
<wsdl:message name="GetQualifiersSoapIn">
  <wsdl:part name="parameters" element="tns:GetQualifiers" />
</wsdl:message>
<wsdl:message name="GetQualifiersSoapOut">
  <wsdl:part name="parameters" element="tns:GetQualifiersResponse" />
</wsdl:message>
<wsdl:message name="GetMethodsSoapIn">
  <wsdl:part name="parameters" element="tns:GetMethods" />
</wsdl:message>
<wsdl:message name="GetMethodsSoapOut">
  <wsdl:part name="parameters" element="tns:GetMethodsResponse" />
</wsdl:message>
<wsdl:message name="GetOffsetTypesSoapIn">
  <wsdl:part name="parameters" element="tns:GetOffsetTypes" />
</wsdl:message>
<wsdl:message name="GetOffsetTypesSoapOut">
  <wsdl:part name="parameters" element="tns:GetOffsetTypesResponse" />
</wsdl:message>
<wsdl:message name="GetSourcesSoapIn">
  <wsdl:part name="parameters" element="tns:GetSources" />
</wsdl:message>
<wsdl:message name="GetSourcesSoapOut">
  <wsdl:part name="parameters" element="tns:GetSourcesResponse" />
</wsdl:message>
<wsdl:message name="GetSitesSoapIn">
  <wsdl:part name="parameters" element="tns:GetSites" />
</wsdl:message>
<wsdl:message name="GetSitesSoapOut">
  <wsdl:part name="parameters" element="tns:GetSitesResponse" />
</wsdl:message>
<wsdl:message name="GetUnitsSoapIn">
  <wsdl:part name="parameters" element="tns:GetUnits" />
</wsdl:message>
<wsdl:message name="GetUnitsSoapOut">
  <wsdl:part name="parameters" element="tns:GetUnitsResponse" />
</wsdl:message>
<wsdl:message name="GetVariablesSoapIn">
  <wsdl:part name="parameters" element="tns:GetVariables" />
</wsdl:message>
<wsdl:message name="GetVariablesSoapOut">
```

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---

```

    <wsdl:part name="parameters" element="tns:GetVariablesResponse" />
</wsdl:message>
<wsdl:message name="GetSpeciationCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetSpeciationCV" />
</wsdl:message>
<wsdl:message name="GetSpeciationCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetSpeciationCVResponse" />
</wsdl:message>
<wsdl:message name="GetSampleMediumCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetSampleMediumCV" />
</wsdl:message>
<wsdl:message name="GetSampleMediumCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetSampleMediumCVResponse" />
</wsdl:message>
<wsdl:message name="GetValueTypeCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetValueTypeCV" />
</wsdl:message>
<wsdl:message name="GetValueTypeCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetValueTypeCVResponse" />
</wsdl:message>
<wsdl:message name="GetGeneralCategoryCVSoapIn">
  <wsdl:part name="parameters" element="tns:GetGeneralCategoryCV" />
</wsdl:message>
<wsdl:message name="GetGeneralCategoryCVSoapOut">
  <wsdl:part name="parameters" element="tns:GetGeneralCategoryCVResponse" />
</wsdl:message>
<wsdl:message name="DeleteSiteSoapIn">
  <wsdl:part name="parameters" element="tns>DeleteSite" />
</wsdl:message>
<wsdl:message name="DeleteSiteSoapOut">
  <wsdl:part name="parameters" element="tns>DeleteSiteResponse" />
</wsdl:message>
<wsdl:message name="DeleteVariableSoapIn">
  <wsdl:part name="parameters" element="tns>DeleteVariable" />
</wsdl:message>
<wsdl:message name="DeleteVariableSoapOut">
  <wsdl:part name="parameters" element="tns>DeleteVariableResponse" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesSoapIn">
  <wsdl:part name="parameters" element="tns>DeleteDataValues" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesSoapOut">
  <wsdl:part name="parameters" element="tns>DeleteDataValuesResponse" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSSoapIn">
  <wsdl:part name="parameters" element="tns>DeleteDataValuesVS" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSSoapOut">
  <wsdl:part name="parameters" element="tns>DeleteDataValuesVSResponse" />
</wsdl:message>
<wsdl:message name="UpdateSeriesCatalogSoapIn">
  <wsdl:part name="parameters" element="tns:UpdateSeriesCatalog" />
</wsdl:message>
<wsdl:message name="UpdateSeriesCatalogSoapOut">
  <wsdl:part name="parameters" element="tns:UpdateSeriesCatalogResponse" />
</wsdl:message>
<wsdl:message name="AddSiteSoapIn">
  <wsdl:part name="parameters" element="tns:AddSite" />
</wsdl:message>
<wsdl:message name="AddSiteSoapOut">

```

---

---

```
<wsdl:part name="parameters" element="tns:AddSiteResponse" />
</wsdl:message>
<wsdl:message name="AddVariableSoapIn">
  <wsdl:part name="parameters" element="tns:AddVariable" />
</wsdl:message>
<wsdl:message name="AddVariableSoapOut">
  <wsdl:part name="parameters" element="tns:AddVariableResponse" />
</wsdl:message>
<wsdl:message name="AddValuesSoapIn">
  <wsdl:part name="parameters" element="tns:AddValues" />
</wsdl:message>
<wsdl:message name="AddValuesSoapOut">
  <wsdl:part name="parameters" element="tns:AddValuesResponse" />
</wsdl:message>
<wsdl:message name="GetVariableNamesSoapIn">
  <wsdl:part name="parameters" element="tns:GetVariableNames" />
</wsdl:message>
<wsdl:message name="GetVariableNamesSoapOut">
  <wsdl:part name="parameters" element="tns:GetVariableNamesResponse" />
</wsdl:message>
<wsdl:message name="AddVariableNameSoapIn">
  <wsdl:part name="parameters" element="tns:AddVariableName" />
</wsdl:message>
<wsdl:message name="AddVariableNameSoapOut">
  <wsdl:part name="parameters" element="tns:AddVariableNameResponse" />
</wsdl:message>
<wsdl:message name="AddDerivedFromHttpGetIn">
  <wsdl:part name="derivedFrom" type="s:string" />
  <wsdl:part name="valueID" type="s:string" />
</wsdl:message>
<wsdl:message name="AddDerivedFromHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVHttpGetIn">
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="term" type="s:string" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVHttpGetIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddQualifiersHttpGetIn">
  <wsdl:part name="code" type="s:string" />
  <wsdl:part name="description" type="s:string" />
</wsdl:message>
<wsdl:message name="AddQualifiersHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddMethodsHttpGetIn">
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="link" type="s:string" />
</wsdl:message>
<wsdl:message name="AddMethodsHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
```

---

```
</wsdl:message>
<wsdl:message name="AddUnitsHttpGetIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="type" type="s:string" />
  <wsdl:part name="abbrev" type="s:string" />
</wsdl:message>
<wsdl:message name="AddUnitsHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesHttpGetIn">
  <wsdl:part name="unitsid" type="s:string" />
  <wsdl:part name="description" type="s:string" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddSourcesHttpGetIn">
  <wsdl:part name="organization" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="link" type="s:string" />
  <wsdl:part name="contactName" type="s:string" />
  <wsdl:part name="phone" type="s:string" />
  <wsdl:part name="email" type="s:string" />
  <wsdl:part name="address" type="s:string" />
  <wsdl:part name="city" type="s:string" />
  <wsdl:part name="state" type="s:string" />
  <wsdl:part name="citation" type="s:string" />
  <wsdl:part name="zipcode" type="s:string" />
</wsdl:message>
<wsdl:message name="AddSourcesHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetSiteIDHttpGetIn">
  <wsdl:part name="sitecode" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteIDHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetVarIDHttpGetIn">
  <wsdl:part name="varcode" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVarIDHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetDerivedFromHttpGetIn" />
<wsdl:message name="GetDerivedFromHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetCensorCodeCVHttpGetIn" />
<wsdl:message name="GetCensorCodeCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetDataTypeCVHttpGetIn" />
<wsdl:message name="GetDataTypeCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetQualifiersHttpGetIn" />
<wsdl:message name="GetQualifiersHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
```

---

```
<wsdl:message name="GetMethodsHttpGetIn" />
<wsdl:message name="GetMethodsHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetOffsetTypesHttpGetIn" />
<wsdl:message name="GetOffsetTypesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSourcesHttpGetIn" />
<wsdl:message name="GetSourcesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSitesHttpGetIn" />
<wsdl:message name="GetSitesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetUnitsHttpGetIn" />
<wsdl:message name="GetUnitsHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariablesHttpGetIn" />
<wsdl:message name="GetVariablesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSpeciationCVHttpGetIn" />
<wsdl:message name="GetSpeciationCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSampleMediumCVHttpGetIn" />
<wsdl:message name="GetSampleMediumCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetValueTypeCVHttpGetIn" />
<wsdl:message name="GetValueTypeCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetGeneralCategoryCVHttpGetIn" />
<wsdl:message name="GetGeneralCategoryCVHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="DeleteSiteHttpGetIn">
  <wsdl:part name="siteid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteSiteHttpGetOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteVariableHttpGetIn">
  <wsdl:part name="varid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteVariableHttpGetOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesHttpGetIn">
  <wsdl:part name="valueid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesHttpGetOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSHttpGetIn">
  <wsdl:part name="varid" type="s:string" />
```

---

```
<wsdl:part name="siteid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSHttpGetOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="UpdateSeriesCatalogHttpGetIn" />
<wsdl:message name="UpdateSeriesCatalogHttpGetOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddSiteHttpGetIn">
  <wsdl:part name="sitecode" type="s:string" />
  <wsdl:part name="sitename" type="s:string" />
  <wsdl:part name="lat" type="s:string" />
  <wsdl:part name="lon" type="s:string" />
  <wsdl:part name="elev_m" type="s:string" />
  <wsdl:part name="loc_x" type="s:string" />
  <wsdl:part name="loc_y" type="s:string" />
  <wsdl:part name="state" type="s:string" />
  <wsdl:part name="county" type="s:string" />
  <wsdl:part name="comments" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddSiteHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableHttpGetIn">
  <wsdl:part name="varcode" type="s:string" />
  <wsdl:part name="varname" type="s:string" />
  <wsdl:part name="speciation" type="s:string" />
  <wsdl:part name="varunitsid" type="s:string" />
  <wsdl:part name="samplemedium" type="s:string" />
  <wsdl:part name="valuetype" type="s:string" />
  <wsdl:part name="isregular" type="s:string" />
  <wsdl:part name="datatype" type="s:string" />
  <wsdl:part name="generalcategory" type="s:string" />
  <wsdl:part name="nodatavalue" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddVariableHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddValuesHttpGetIn">
  <wsdl:part name="siteid" type="s:string" />
  <wsdl:part name="variableid" type="s:string" />
  <wsdl:part name="valuedataxml" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddValuesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpGetIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpGetIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
```

---

```
</wsdl:message>
<wsdl:message name="AddVariableNameHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddDerivedFromHttpPostIn">
  <wsdl:part name="derivedFrom" type="s:string" />
  <wsdl:part name="valueID" type="s:string" />
</wsdl:message>
<wsdl:message name="AddDerivedFromHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVHttpPostIn">
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="term" type="s:string" />
</wsdl:message>
<wsdl:message name="AddCensorCodeCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVHttpPostIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
</wsdl:message>
<wsdl:message name="AddDataTypeCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddQualifiersHttpPostIn">
  <wsdl:part name="code" type="s:string" />
  <wsdl:part name="description" type="s:string" />
</wsdl:message>
<wsdl:message name="AddQualifiersHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddMethodsHttpPostIn">
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="link" type="s:string" />
</wsdl:message>
<wsdl:message name="AddMethodsHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddUnitsHttpPostIn">
  <wsdl:part name="name" type="s:string" />
  <wsdl:part name="type" type="s:string" />
  <wsdl:part name="abbrev" type="s:string" />
</wsdl:message>
<wsdl:message name="AddUnitsHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesHttpPostIn">
  <wsdl:part name="unitsid" type="s:string" />
  <wsdl:part name="description" type="s:string" />
</wsdl:message>
<wsdl:message name="AddOffsetTypesHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddSourcesHttpPostIn">
  <wsdl:part name="organization" type="s:string" />
  <wsdl:part name="description" type="s:string" />
  <wsdl:part name="link" type="s:string" />
  <wsdl:part name="contactName" type="s:string" />
  <wsdl:part name="phone" type="s:string" />
</wsdl:message>
```

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```
<wsdl:part name="email" type="s:string" />
<wsdl:part name="address" type="s:string" />
<wsdl:part name="city" type="s:string" />
<wsdl:part name="state" type="s:string" />
<wsdl:part name="citation" type="s:string" />
<wsdl:part name="zipcode" type="s:string" />
</wsdl:message>
<wsdl:message name="AddSourcesHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetSiteIDHttpPostIn">
  <wsdl:part name="sitecode" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteIDHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetVarIDHttpPostIn">
  <wsdl:part name="varcode" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVarIDHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="GetDerivedFromHttpPostIn" />
<wsdl:message name="GetDerivedFromHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetCensorCodeCVHttpPostIn" />
<wsdl:message name="GetCensorCodeCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetDataTypeCVHttpPostIn" />
<wsdl:message name="GetDataTypeCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetQualifiersHttpPostIn" />
<wsdl:message name="GetQualifiersHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetMethodsHttpPostIn" />
<wsdl:message name="GetMethodsHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetOffsetTypesHttpPostIn" />
<wsdl:message name="GetOffsetTypesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSourcesHttpPostIn" />
<wsdl:message name="GetSourcesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSitesHttpPostIn" />
<wsdl:message name="GetSitesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetUnitsHttpPostIn" />
<wsdl:message name="GetUnitsHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariablesHttpPostIn" />
<wsdl:message name="GetVariablesHttpPostOut">
```

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```
<wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSpeciationCVHttpPostIn" />
<wsdl:message name="GetSpeciationCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSampleMediumCVHttpPostIn" />
<wsdl:message name="GetSampleMediumCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetValueTypeCVHttpPostIn" />
<wsdl:message name="GetValueTypeCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetGeneralCategoryCVHttpPostIn" />
<wsdl:message name="GetGeneralCategoryCVHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="DeleteSiteHttpPostIn">
  <wsdl:part name="siteid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteSiteHttpPostOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteVariableHttpPostIn">
  <wsdl:part name="varid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteVariableHttpPostOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesHttpPostIn">
  <wsdl:part name="valueid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesHttpPostOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSHttpPostIn">
  <wsdl:part name="varid" type="s:string" />
  <wsdl:part name="siteid" type="s:string" />
</wsdl:message>
<wsdl:message name="DeleteDataValuesVSHttpPostOut">
  <wsdl:part name="Body" element="tns:boolean" />
</wsdl:message>
<wsdl:message name="UpdateSeriesCatalogHttpPostIn" />
<wsdl:message name="UpdateSeriesCatalogHttpPostOut">
  <wsdl:part name="Body" element="tns:int" />
</wsdl:message>
<wsdl:message name="AddSiteHttpPostIn">
  <wsdl:part name="sitecode" type="s:string" />
  <wsdl:part name="sitename" type="s:string" />
  <wsdl:part name="lat" type="s:string" />
  <wsdl:part name="lon" type="s:string" />
  <wsdl:part name="elev_m" type="s:string" />
  <wsdl:part name="loc_x" type="s:string" />
  <wsdl:part name="loc_y" type="s:string" />
  <wsdl:part name="state" type="s:string" />
  <wsdl:part name="county" type="s:string" />
  <wsdl:part name="comments" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
```

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```
<wsdl:message name="AddSiteHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableHttpPostIn">
  <wsdl:part name="varcode" type="s:string" />
  <wsdl:part name="varname" type="s:string" />
  <wsdl:part name="speciation" type="s:string" />
  <wsdl:part name="varunitsid" type="s:string" />
  <wsdl:part name="samplemedium" type="s:string" />
  <wsdl:part name="valuetype" type="s:string" />
  <wsdl:part name="isregular" type="s:string" />
  <wsdl:part name="datatype" type="s:string" />
  <wsdl:part name="generalcategory" type="s:string" />
  <wsdl:part name="nodatavalue" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddVariableHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddValuesHttpPostIn">
  <wsdl:part name="siteid" type="s:string" />
  <wsdl:part name="variableid" type="s:string" />
  <wsdl:part name="valuedataxml" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddValuesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpPostIn">
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableNamesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpPostIn">
  <wsdl:part name="term" type="s:string" />
  <wsdl:part name="definition" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="AddVariableNameHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:portType name="ODM_x0020_Publishing_x0020_ServiceSoap">
  <wsdl:operation name="AddDerivedFrom">
    <wsdl:input message="tns:AddDerivedFromSoapIn" />
    <wsdl:output message="tns:AddDerivedFromSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddCensorCodeCV">
    <wsdl:input message="tns:AddCensorCodeCVSoapIn" />
    <wsdl:output message="tns:AddCensorCodeCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddDataTypeCV">
    <wsdl:input message="tns:AddDataTypeCVSoapIn" />
    <wsdl:output message="tns:AddDataTypeCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddQualifiers">
    <wsdl:input message="tns:AddQualifiersSoapIn" />
    <wsdl:output message="tns:AddQualifiersSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddMethods">
```

---

```
<wsdl:input message="tns:AddMethodsSoapIn" />
<wsdl:output message="tns:AddMethodsSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddUnits">
  <wsdl:input message="tns:AddUnitsSoapIn" />
  <wsdl:output message="tns:AddUnitsSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddOffsetTypes">
  <wsdl:input message="tns:AddOffsetTypesSoapIn" />
  <wsdl:output message="tns:AddOffsetTypesSoapOut" />
</wsdl:operation>
<wsdl:operation name="AddSources">
  <wsdl:input message="tns:AddSourcesSoapIn" />
  <wsdl:output message="tns:AddSourcesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetSiteID">
  <wsdl:input message="tns:GetSiteIDSoapIn" />
  <wsdl:output message="tns:GetSiteIDSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetVarID">
  <wsdl:input message="tns:GetVarIDSoapIn" />
  <wsdl:output message="tns:GetVarIDSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetDerivedFrom">
  <wsdl:input message="tns:GetDerivedFromSoapIn" />
  <wsdl:output message="tns:GetDerivedFromSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetCensorCodeCV">
  <wsdl:input message="tns:GetCensorCodeCVSoapIn" />
  <wsdl:output message="tns:GetCensorCodeCVSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetDataTypeCV">
  <wsdl:input message="tns:GetDataTypeCVSoapIn" />
  <wsdl:output message="tns:GetDataTypeCVSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetQualifiers">
  <wsdl:input message="tns:GetQualifiersSoapIn" />
  <wsdl:output message="tns:GetQualifiersSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <wsdl:input message="tns:GetMethodsSoapIn" />
  <wsdl:output message="tns:GetMethodsSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <wsdl:input message="tns:GetOffsetTypesSoapIn" />
  <wsdl:output message="tns:GetOffsetTypesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetSources">
  <wsdl:input message="tns:GetSourcesSoapIn" />
  <wsdl:output message="tns:GetSourcesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetSites">
  <wsdl:input message="tns:GetSitesSoapIn" />
  <wsdl:output message="tns:GetSitesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <wsdl:input message="tns:GetUnitsSoapIn" />
  <wsdl:output message="tns:GetUnitsSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetVariables">
```

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---

```

    <wsdl:input message="tns:GetVariablesSoapIn" />
    <wsdl:output message="tns:GetVariablesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSpeciationCV">
    <wsdl:input message="tns:GetSpeciationCVSoapIn" />
    <wsdl:output message="tns:GetSpeciationCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSampleMediumCV">
    <wsdl:input message="tns:GetSampleMediumCVSoapIn" />
    <wsdl:output message="tns:GetSampleMediumCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValueTypeCV">
    <wsdl:input message="tns:GetValueTypeCVSoapIn" />
    <wsdl:output message="tns:GetValueTypeCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetGeneralCategoryCV">
    <wsdl:input message="tns:GetGeneralCategoryCVSoapIn" />
    <wsdl:output message="tns:GetGeneralCategoryCVSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteSite">
    <wsdl:input message="tns>DeleteSiteSoapIn" />
    <wsdl:output message="tns>DeleteSiteSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteVariable">
    <wsdl:input message="tns>DeleteVariableSoapIn" />
    <wsdl:output message="tns>DeleteVariableSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteDataValues">
    <wsdl:input message="tns>DeleteDataValuesSoapIn" />
    <wsdl:output message="tns>DeleteDataValuesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteDataValuesVS">
    <wsdl:input message="tns>DeleteDataValuesVSSoapIn" />
    <wsdl:output message="tns>DeleteDataValuesVSSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="UpdateSeriesCatalog">
    <wsdl:input message="tns:UpdateSeriesCatalogSoapIn" />
    <wsdl:output message="tns:UpdateSeriesCatalogSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddSite">
    <wsdl:input message="tns:AddSiteSoapIn" />
    <wsdl:output message="tns:AddSiteSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddVariable">
    <wsdl:input message="tns:AddVariableSoapIn" />
    <wsdl:output message="tns:AddVariableSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddValues">
    <wsdl:input message="tns:AddValuesSoapIn" />
    <wsdl:output message="tns:AddValuesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableNames">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetVariableNamesSoapIn" />
    <wsdl:output message="tns:GetVariableNamesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AddVariableName">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>

```

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```
<wsdl:input message="tns:AddVariableNameSoapIn" />
<wsdl:output message="tns:AddVariableNameSoapOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="ODM_x0020_Publishing_x0020_ServiceHttpGet">
  <wsdl:operation name="AddDerivedFrom">
    <wsdl:input message="tns:AddDerivedFromHttpGetIn" />
    <wsdl:output message="tns:AddDerivedFromHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddCensorCodeCV">
    <wsdl:input message="tns:AddCensorCodeCVHttpGetIn" />
    <wsdl:output message="tns:AddCensorCodeCVHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddDataTypeCV">
    <wsdl:input message="tns:AddDataTypeCVHttpGetIn" />
    <wsdl:output message="tns:AddDataTypeCVHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddQualifiers">
    <wsdl:input message="tns:AddQualifiersHttpGetIn" />
    <wsdl:output message="tns:AddQualifiersHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddMethods">
    <wsdl:input message="tns:AddMethodsHttpGetIn" />
    <wsdl:output message="tns:AddMethodsHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddUnits">
    <wsdl:input message="tns:AddUnitsHttpGetIn" />
    <wsdl:output message="tns:AddUnitsHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddOffsetTypes">
    <wsdl:input message="tns:AddOffsetTypesHttpGetIn" />
    <wsdl:output message="tns:AddOffsetTypesHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="AddSources">
    <wsdl:input message="tns:AddSourcesHttpGetIn" />
    <wsdl:output message="tns:AddSourcesHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteID">
    <wsdl:input message="tns:GetSiteIDHttpGetIn" />
    <wsdl:output message="tns:GetSiteIDHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVarID">
    <wsdl:input message="tns:GetVarIDHttpGetIn" />
    <wsdl:output message="tns:GetVarIDHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetDerivedFrom">
    <wsdl:input message="tns:GetDerivedFromHttpGetIn" />
    <wsdl:output message="tns:GetDerivedFromHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetCensorCodeCV">
    <wsdl:input message="tns:GetCensorCodeCVHttpGetIn" />
    <wsdl:output message="tns:GetCensorCodeCVHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetDataTypeCV">
    <wsdl:input message="tns:GetDataTypeCVHttpGetIn" />
    <wsdl:output message="tns:GetDataTypeCVHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetQualifiers">
    <wsdl:input message="tns:GetQualifiersHttpGetIn" />
    <wsdl:output message="tns:GetQualifiersHttpGetOut" />
  </wsdl:operation>
</wsdl:portType>
```

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```
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <wsdl:input message="tns:GetMethodsHttpGetIn" />
  <wsdl:output message="tns:GetMethodsHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <wsdl:input message="tns:GetOffsetTypesHttpGetIn" />
  <wsdl:output message="tns:GetOffsetTypesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetSources">
  <wsdl:input message="tns:GetSourcesHttpGetIn" />
  <wsdl:output message="tns:GetSourcesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetSites">
  <wsdl:input message="tns:GetSitesHttpGetIn" />
  <wsdl:output message="tns:GetSitesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <wsdl:input message="tns:GetUnitsHttpGetIn" />
  <wsdl:output message="tns:GetUnitsHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <wsdl:input message="tns:GetVariablesHttpGetIn" />
  <wsdl:output message="tns:GetVariablesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <wsdl:input message="tns:GetSpeciationCVHttpGetIn" />
  <wsdl:output message="tns:GetSpeciationCVHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <wsdl:input message="tns:GetSampleMediumCVHttpGetIn" />
  <wsdl:output message="tns:GetSampleMediumCVHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <wsdl:input message="tns:GetValueTypeCVHttpGetIn" />
  <wsdl:output message="tns:GetValueTypeCVHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
  <wsdl:input message="tns:GetGeneralCategoryCVHttpGetIn" />
  <wsdl:output message="tns:GetGeneralCategoryCVHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="DeleteSite">
  <wsdl:input message="tns>DeleteSiteHttpGetIn" />
  <wsdl:output message="tns>DeleteSiteHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="DeleteVariable">
  <wsdl:input message="tns>DeleteVariableHttpGetIn" />
  <wsdl:output message="tns>DeleteVariableHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="DeleteDataValues">
  <wsdl:input message="tns>DeleteDataValuesHttpGetIn" />
  <wsdl:output message="tns>DeleteDataValuesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="DeleteDataValuesVS">
  <wsdl:input message="tns>DeleteDataValuesVSHttpGetIn" />
  <wsdl:output message="tns>DeleteDataValuesVSHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="UpdateSeriesCatalog">
  <wsdl:input message="tns:UpdateSeriesCatalogHttpGetIn" />
  <wsdl:output message="tns:UpdateSeriesCatalogHttpGetOut" />
```

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```
</wsdl:operation>
<wsdl:operation name="AddSite">
  <wsdl:input message="tns:AddSiteHttpGetIn" />
  <wsdl:output message="tns:AddSiteHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="AddVariable">
  <wsdl:input message="tns:AddVariableHttpGetIn" />
  <wsdl:output message="tns:AddVariableHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="AddValues">
  <wsdl:input message="tns:AddValuesHttpGetIn" />
  <wsdl:output message="tns:AddValuesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
  <wsdl:input message="tns:GetVariableNamesHttpGetIn" />
  <wsdl:output message="tns:GetVariableNamesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>
  <wsdl:input message="tns:AddVariableNameHttpGetIn" />
  <wsdl:output message="tns:AddVariableNameHttpGetOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="ODM_x0020_Publishing_x0020_ServiceHttpPost">
  <wsdl:operation name="AddDerivedFrom">
    <wsdl:input message="tns:AddDerivedFromHttpPostIn" />
    <wsdl:output message="tns:AddDerivedFromHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddCensorCodeCV">
    <wsdl:input message="tns:AddCensorCodeCVHttpPostIn" />
    <wsdl:output message="tns:AddCensorCodeCVHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddDataTypeCV">
    <wsdl:input message="tns:AddDataTypeCVHttpPostIn" />
    <wsdl:output message="tns:AddDataTypeCVHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddQualifiers">
    <wsdl:input message="tns:AddQualifiersHttpPostIn" />
    <wsdl:output message="tns:AddQualifiersHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddMethods">
    <wsdl:input message="tns:AddMethodsHttpPostIn" />
    <wsdl:output message="tns:AddMethodsHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddUnits">
    <wsdl:input message="tns:AddUnitsHttpPostIn" />
    <wsdl:output message="tns:AddUnitsHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddOffsetTypes">
    <wsdl:input message="tns:AddOffsetTypesHttpPostIn" />
    <wsdl:output message="tns:AddOffsetTypesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddSources">
    <wsdl:input message="tns:AddSourcesHttpPostIn" />
    <wsdl:output message="tns:AddSourcesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteID">
```

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```
<wsdl:input message="tns:GetSiteIDHttpPostIn" />
<wsdl:output message="tns:GetSiteIDHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetVarID">
  <wsdl:input message="tns:GetVarIDHttpPostIn" />
  <wsdl:output message="tns:GetVarIDHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetDerivedFrom">
  <wsdl:input message="tns:GetDerivedFromHttpPostIn" />
  <wsdl:output message="tns:GetDerivedFromHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetCensorCodeCV">
  <wsdl:input message="tns:GetCensorCodeCVHttpPostIn" />
  <wsdl:output message="tns:GetCensorCodeCVHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetDataTypeCV">
  <wsdl:input message="tns:GetDataTypeCVHttpPostIn" />
  <wsdl:output message="tns:GetDataTypeCVHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetQualifiers">
  <wsdl:input message="tns:GetQualifiersHttpPostIn" />
  <wsdl:output message="tns:GetQualifiersHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <wsdl:input message="tns:GetMethodsHttpPostIn" />
  <wsdl:output message="tns:GetMethodsHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <wsdl:input message="tns:GetOffsetTypesHttpPostIn" />
  <wsdl:output message="tns:GetOffsetTypesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSources">
  <wsdl:input message="tns:GetSourcesHttpPostIn" />
  <wsdl:output message="tns:GetSourcesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSites">
  <wsdl:input message="tns:GetSitesHttpPostIn" />
  <wsdl:output message="tns:GetSitesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <wsdl:input message="tns:GetUnitsHttpPostIn" />
  <wsdl:output message="tns:GetUnitsHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <wsdl:input message="tns:GetVariablesHttpPostIn" />
  <wsdl:output message="tns:GetVariablesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <wsdl:input message="tns:GetSpeciationCVHttpPostIn" />
  <wsdl:output message="tns:GetSpeciationCVHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <wsdl:input message="tns:GetSampleMediumCVHttpPostIn" />
  <wsdl:output message="tns:GetSampleMediumCVHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <wsdl:input message="tns:GetValueTypeCVHttpPostIn" />
  <wsdl:output message="tns:GetValueTypeCVHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
```

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    <wsdl:input message="tns:GetGeneralCategoryCVHttpPostIn" />
    <wsdl:output message="tns:GetGeneralCategoryCVHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteSite">
    <wsdl:input message="tns:DeleteSiteHttpPostIn" />
    <wsdl:output message="tns:DeleteSiteHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteVariable">
    <wsdl:input message="tns:DeleteVariableHttpPostIn" />
    <wsdl:output message="tns:DeleteVariableHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteDataValues">
    <wsdl:input message="tns:DeleteDataValuesHttpPostIn" />
    <wsdl:output message="tns:DeleteDataValuesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="DeleteDataValuesVS">
    <wsdl:input message="tns:DeleteDataValuesVSHttpPostIn" />
    <wsdl:output message="tns:DeleteDataValuesVSHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="UpdateSeriesCatalog">
    <wsdl:input message="tns:UpdateSeriesCatalogHttpPostIn" />
    <wsdl:output message="tns:UpdateSeriesCatalogHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddSite">
    <wsdl:input message="tns:AddSiteHttpPostIn" />
    <wsdl:output message="tns:AddSiteHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddVariable">
    <wsdl:input message="tns:AddVariableHttpPostIn" />
    <wsdl:output message="tns:AddVariableHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddValues">
    <wsdl:input message="tns:AddValuesHttpPostIn" />
    <wsdl:output message="tns:AddValuesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableNames">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
returns the entire variable name table for the catalog.</wsdl:documentation>
    <wsdl:input message="tns:GetVariableNamesHttpPostIn" />
    <wsdl:output message="tns:GetVariableNamesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="AddVariableName">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This method
creates new terms in the VariableNameCV.</wsdl:documentation>
    <wsdl:input message="tns:AddVariableNameHttpPostIn" />
    <wsdl:output message="tns:AddVariableNameHttpPostOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ODM_x0020_Publishing_x0020_ServiceSoap"
type="tns:ODM_x0020_Publishing_x0020_ServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="AddDerivedFrom">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddDerivedFrom"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>

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```
</wsdl:operation>
<wsdl:operation name="AddCensorCodeCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddCensorCodeCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddDataTypeCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddDataTypeCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddQualifiers">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddQualifiers"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddMethods">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddMethods"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddUnits">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddUnits"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddOffsetTypes">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddOffsetTypes"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
```

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```
</wsdl:operation>
<wsdl:operation name="AddSources">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSources"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteID">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSiteID"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVarID">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVarID"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDerivedFrom">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDerivedFrom"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCensorCodeCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCensorCodeCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDataTypeCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDataTypeCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
```

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---

```
</wsdl:operation>
<wsdl:operation name="GetQualifiers">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetQualifiers"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetMethods"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetOffsetTypes"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSources">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSources"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSites">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSites"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnits"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
```

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```
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariables"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSpeciationCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSampleMediumCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValueTypeCV"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
  <soap:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetGeneralCategoryCV" style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteSite">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteSite"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
```

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```
</wsdl:operation>
<wsdl:operation name="DeleteVariable">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteVariable"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValues">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteDataValues"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValuesVS">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteDataValuesVS"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateSeriesCatalog">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/UpdateSeriesCatalog"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSite">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSite"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariable">
  <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariable"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
```

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---

```

    </wsdl:operation>
    <wsdl:operation name="AddValues">
      <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddValues"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetVariableNames">
      <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableNames"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddVariableName">
      <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariableName"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:binding name="ODM_x0020_Publishing_x0020_ServiceSoap12"
type="tns:ODM_x0020_Publishing_x0020_ServiceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="AddDerivedFrom">
      <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddDerivedFrom"
style="document" />
      <wsdl:input>
        <soap12:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddCensorCodeCV">
      <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddCensorCodeCV"
style="document" />
      <wsdl:input>
        <soap12:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddDataTypeCV">
      <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddDataTypeCV"
style="document" />
      <wsdl:input>
        <soap12:body use="literal" />

```

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```
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddQualifiers">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddQualifiers"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddMethods">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddMethods"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddUnits">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddUnits"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddOffsetTypes">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddOffsetTypes"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSources">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSources"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteID">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSiteID"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
```

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    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVarID">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVarID"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetDerivedFrom">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDerivedFrom"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetCensorCodeCV">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetCensorCodeCV"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetDataTypeCV">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDataTypeCV"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetQualifiers">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetQualifiers"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetMethods">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetMethods"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />

```

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```
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetOffsetTypes"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSources">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSources"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSites">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSites"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnits"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariables"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSpeciationCV"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
```

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```
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetSampleMediumCV"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetValueTypeCV"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetGeneralCategoryCV" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteSite">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteSite"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteVariable">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteVariable"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValues">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/DeleteDataValues"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
```

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```
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValuesVS">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/DeleteDataValuesVS" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateSeriesCatalog">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/UpdateSeriesCatalog" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSite">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddSite"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariable">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariable"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddValues">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddValues"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetVariableNames"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
```

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---

```
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/AddVariableName"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="ODM_x0020_Publishing_x0020_ServiceHttpGet"
type="tns:ODM_x0020_Publishing_x0020_ServiceHttpGet">
  <http:binding verb="GET" />
  <wsdl:operation name="AddDerivedFrom">
    <http:operation location="/AddDerivedFrom" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddCensorCodeCV">
    <http:operation location="/AddCensorCodeCV" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddDataTypeCV">
    <http:operation location="/AddDataTypeCV" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddQualifiers">
    <http:operation location="/AddQualifiers" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddMethods">
    <http:operation location="/AddMethods" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
```

---

---

```
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddUnits">
  <http:operation location="/AddUnits" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddOffsetTypes">
  <http:operation location="/AddOffsetTypes" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSources">
  <http:operation location="/AddSources" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteID">
  <http:operation location="/GetSiteID" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVarID">
  <http:operation location="/GetVarID" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDerivedFrom">
  <http:operation location="/GetDerivedFrom" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCensorCodeCV">
  <http:operation location="/GetCensorCodeCV" />
```

---

```
<wsdl:input>
  <http:urlEncoded />
</wsdl:input>
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDataTypeCV">
  <http:operation location="/GetDataTypeCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetQualifiers">
  <http:operation location="/GetQualifiers" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <http:operation location="/GetMethods" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <http:operation location="/GetOffsetTypes" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSources">
  <http:operation location="/GetSources" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSites">
  <http:operation location="/GetSites" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
```



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```
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <http:operation location="/GetUnits" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <http:operation location="/GetVariables" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <http:operation location="/GetSpeciationCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <http:operation location="/GetSampleMediumCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <http:operation location="/GetValueTypeCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
  <http:operation location="/GetGeneralCategoryCV" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteSite">
  <http:operation location="/DeleteSite" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
```

---

---

```
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteVariable">
  <http:operation location="/DeleteVariable" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValues">
  <http:operation location="/DeleteDataValues" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValuesVS">
  <http:operation location="/DeleteDataValuesVS" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateSeriesCatalog">
  <http:operation location="/UpdateSeriesCatalog" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSite">
  <http:operation location="/AddSite" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariable">
  <http:operation location="/AddVariable" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddValues">
  <http:operation location="/AddValues" />
```

---

---

```

    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableNames">
    <http:operation location="/GetVariableNames" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddVariableName">
    <http:operation location="/AddVariableName" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="ODM_x0020_Publishing_x0020_ServiceHttpPost"
type="tns:ODM_x0020_Publishing_x0020_ServiceHttpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="AddDerivedFrom">
    <http:operation location="/AddDerivedFrom" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddCensorCodeCV">
    <http:operation location="/AddCensorCodeCV" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddDataTypeCV">
    <http:operation location="/AddDataTypeCV" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeType part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddQualifiers">
    <http:operation location="/AddQualifiers" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />

```

---

---

```
</wsdl:input>
<wsdl:output>
  <mime:mimeXml part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddMethods">
  <http:operation location="/AddMethods" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddUnits">
  <http:operation location="/AddUnits" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddOffsetTypes">
  <http:operation location="/AddOffsetTypes" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSources">
  <http:operation location="/AddSources" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteID">
  <http:operation location="/GetSiteID" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVarID">
  <http:operation location="/GetVarID" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDerivedFrom">
```

---

---

```
<http:operation location="/GetDerivedFrom" />
<wsdl:input>
  <mime:content type="application/x-www-form-urlencoded" />
</wsdl:input>
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCensorCodeCV">
  <http:operation location="/GetCensorCodeCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDataTypeCV">
  <http:operation location="/GetDataTypeCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetQualifiers">
  <http:operation location="/GetQualifiers" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetMethods">
  <http:operation location="/GetMethods" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffsetTypes">
  <http:operation location="/GetOffsetTypes" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSources">
  <http:operation location="/GetSources" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
```

---

---

```
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSites">
  <http:operation location="/GetSites" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnits">
  <http:operation location="/GetUnits" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariables">
  <http:operation location="/GetVariables" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSpeciationCV">
  <http:operation location="/GetSpeciationCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSampleMediumCV">
  <http:operation location="/GetSampleMediumCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValueTypeCV">
  <http:operation location="/GetValueTypeCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetGeneralCategoryCV">
  <http:operation location="/GetGeneralCategoryCV" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
```

---

---

```
</wsdl:input>
<wsdl:output>
  <mime:mimeXml part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteSite">
  <http:operation location="/DeleteSite" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteVariable">
  <http:operation location="/DeleteVariable" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValues">
  <http:operation location="/DeleteDataValues" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="DeleteDataValuesVS">
  <http:operation location="/DeleteDataValuesVS" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateSeriesCatalog">
  <http:operation location="/UpdateSeriesCatalog" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddSite">
  <http:operation location="/AddSite" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariable">
```

---

---

```
<http:operation location="/AddVariable" />
<wsdl:input>
  <mime:content type="application/x-www-form-urlencoded" />
</wsdl:input>
<wsdl:output>
  <mime:mimeType part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddValues">
  <http:operation location="/AddValues" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableNames">
  <http:operation location="/GetVariableNames" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="AddVariableName">
  <http:operation location="/AddVariableName" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeType part="Body" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="ODM_x0020_Publishing_x0020_Service">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Web service for
publishing series to an ODM database</wsdl:documentation>
  <wsdl:port name="ODM_x0020_Publishing_x0020_ServiceSoap"
binding="tns:ODM_x0020_Publishing_x0020_ServiceSoap">
    <soap:address location="http://nsdss.ine.uaf.edu:8080/OPPub/Publish.asmx" />
  </wsdl:port>
  <wsdl:port name="ODM_x0020_Publishing_x0020_ServiceSoap12"
binding="tns:ODM_x0020_Publishing_x0020_ServiceSoap12">
    <soap12:address location="http://nsdss.ine.uaf.edu:8080/OPPub/Publish.asmx" />
  </wsdl:port>
  <wsdl:port name="ODM_x0020_Publishing_x0020_ServiceHttpGet"
binding="tns:ODM_x0020_Publishing_x0020_ServiceHttpGet">
    <http:address location="http://nsdss.ine.uaf.edu:8080/OPPub/Publish.asmx" />
  </wsdl:port>
  <wsdl:port name="ODM_x0020_Publishing_x0020_ServiceHttpPost"
binding="tns:ODM_x0020_Publishing_x0020_ServiceHttpPost">
    <http:address location="http://nsdss.ine.uaf.edu:8080/OPPub/Publish.asmx" />
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>
```

---



---

## 6.6. Unit Conversion Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://uaf.edu/namespaces/nsdss"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://uaf.edu/namespaces/nsdss"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://uaf.edu/namespaces/nsdss">
      <s:element name="GetAuthCode">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="username" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="password" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetAuthCodeResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetAuthCodeResult"
type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetFactor">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="unit_src" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="unit_dest" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetFactorResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="GetFactorResult"
type="s:double" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetOffset">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="unit_src" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="unit_dest" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetOffsetResponse">
        <s:complexType>

```

---

---

```
<s:sequence>
  <s:element minOccurs="1" maxOccurs="1" name="GetOffsetResult"
type="s:double" />
</s:sequence>
</s:complexType>
</s:element>
<s:element name="GetUnitInfoDescriptor">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="unit" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="dim_hint" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetUnitInfoDescriptorResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetUnitInfoDescriptorResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="PutUnitAlias">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="unitname" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="unitalias" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="PutUnitAliasResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="PutUnitAliasResult">
        <s:complexType>
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="PutUnitInfo">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="unitname" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="dimen" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="factor" type="s:double" />
      <s:element minOccurs="1" maxOccurs="1" name="offset" type="s:double" />
      <s:element minOccurs="1" maxOccurs="1" name="isBase" type="s:boolean" />
      <s:element minOccurs="0" maxOccurs="1" name="authtoken" type="s:string" />
    </s:sequence>
  </s:complexType>
```

---

---

```

</s:element>
<s:element name="PutUnitInfoResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="PutUnitInfoResult">
        <s:complexType>
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetUnitInfoUnit">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="unit" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetUnitInfoUnitResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetUnitInfoUnitResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetDimInfo">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="dimen" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetDimInfoResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetDimInfoResult">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetUnitInfoAll">
  <s:complexType />
</s:element>
<s:element name="GetUnitInfoAllResponse">
  <s:complexType>
    <s:sequence>

```

---

---

```
<s:element minOccurs="0" maxOccurs="1" name="GetUnitInfoAllResult">
  <s:complexType mixed="true">
    <s:sequence>
      <s:any />
    </s:sequence>
  </s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
<s:element name="string" nillable="true" type="s:string" />
<s:element name="double" type="s:double" />
</s:schema>
</wsdl:types>
<wsdl:message name="GetAuthCodeSoapIn">
  <wsdl:part name="parameters" element="tns:GetAuthCode" />
</wsdl:message>
<wsdl:message name="GetAuthCodeSoapOut">
  <wsdl:part name="parameters" element="tns:GetAuthCodeResponse" />
</wsdl:message>
<wsdl:message name="GetFactorSoapIn">
  <wsdl:part name="parameters" element="tns:GetFactor" />
</wsdl:message>
<wsdl:message name="GetFactorSoapOut">
  <wsdl:part name="parameters" element="tns:GetFactorResponse" />
</wsdl:message>
<wsdl:message name="GetOffsetSoapIn">
  <wsdl:part name="parameters" element="tns:GetOffset" />
</wsdl:message>
<wsdl:message name="GetOffsetSoapOut">
  <wsdl:part name="parameters" element="tns:GetOffsetResponse" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorSoapIn">
  <wsdl:part name="parameters" element="tns:GetUnitInfoDescriptor" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorSoapOut">
  <wsdl:part name="parameters" element="tns:GetUnitInfoDescriptorResponse" />
</wsdl:message>
<wsdl:message name="PutUnitAliasSoapIn">
  <wsdl:part name="parameters" element="tns:PutUnitAlias" />
</wsdl:message>
<wsdl:message name="PutUnitAliasSoapOut">
  <wsdl:part name="parameters" element="tns:PutUnitAliasResponse" />
</wsdl:message>
<wsdl:message name="PutUnitInfoSoapIn">
  <wsdl:part name="parameters" element="tns:PutUnitInfo" />
</wsdl:message>
<wsdl:message name="PutUnitInfoSoapOut">
  <wsdl:part name="parameters" element="tns:PutUnitInfoResponse" />
</wsdl:message>
<wsdl:message name="GetUnitInfoUnitSoapIn">
  <wsdl:part name="parameters" element="tns:GetUnitInfoUnit" />
</wsdl:message>
<wsdl:message name="GetUnitInfoUnitSoapOut">
  <wsdl:part name="parameters" element="tns:GetUnitInfoUnitResponse" />
</wsdl:message>
<wsdl:message name="GetDimInfoSoapIn">
  <wsdl:part name="parameters" element="tns:GetDimInfo" />
</wsdl:message>
<wsdl:message name="GetDimInfoSoapOut">
```

---

---

```
<wsdl:part name="parameters" element="tns:GetDimInfoResponse" />
</wsdl:message>
<wsdl:message name="GetUnitInfoAllSoapIn">
  <wsdl:part name="parameters" element="tns:GetUnitInfoAll" />
</wsdl:message>
<wsdl:message name="GetUnitInfoAllSoapOut">
  <wsdl:part name="parameters" element="tns:GetUnitInfoAllResponse" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetFactorHttpGetIn">
  <wsdl:part name="unit_src" type="s:string" />
  <wsdl:part name="unit_dest" type="s:string" />
</wsdl:message>
<wsdl:message name="GetFactorHttpGetOut">
  <wsdl:part name="Body" element="tns:double" />
</wsdl:message>
<wsdl:message name="GetOffsetHttpGetIn">
  <wsdl:part name="unit_src" type="s:string" />
  <wsdl:part name="unit_dest" type="s:string" />
</wsdl:message>
<wsdl:message name="GetOffsetHttpGetOut">
  <wsdl:part name="Body" element="tns:double" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorHttpGetIn">
  <wsdl:part name="unit" type="s:string" />
  <wsdl:part name="dim_hint" type="s:string" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="PutUnitAliasHttpGetIn">
  <wsdl:part name="unitname" type="s:string" />
  <wsdl:part name="unitalias" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="PutUnitAliasHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="PutUnitInfoHttpGetIn">
  <wsdl:part name="unitname" type="s:string" />
  <wsdl:part name="dimen" type="s:string" />
  <wsdl:part name="factor" type="s:string" />
  <wsdl:part name="offset" type="s:string" />
  <wsdl:part name="isBase" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="PutUnitInfoHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetUnitInfoUnitHttpGetIn">
  <wsdl:part name="unit" type="s:string" />
</wsdl:message>
<wsdl:message name="GetUnitInfoUnitHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
```

---

---

```
</wsdl:message>
<wsdl:message name="GetDimInfoHttpGetIn">
  <wsdl:part name="dimen" type="s:string" />
</wsdl:message>
<wsdl:message name="GetDimInfoHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetUnitInfoAllHttpGetIn" />
<wsdl:message name="GetUnitInfoAllHttpGetOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostIn">
  <wsdl:part name="username" type="s:string" />
  <wsdl:part name="password" type="s:string" />
</wsdl:message>
<wsdl:message name="GetAuthCodeHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetFactorHttpPostIn">
  <wsdl:part name="unit_src" type="s:string" />
  <wsdl:part name="unit_dest" type="s:string" />
</wsdl:message>
<wsdl:message name="GetFactorHttpPostOut">
  <wsdl:part name="Body" element="tns:double" />
</wsdl:message>
<wsdl:message name="GetOffsetHttpPostIn">
  <wsdl:part name="unit_src" type="s:string" />
  <wsdl:part name="unit_dest" type="s:string" />
</wsdl:message>
<wsdl:message name="GetOffsetHttpPostOut">
  <wsdl:part name="Body" element="tns:double" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorHttpPostIn">
  <wsdl:part name="unit" type="s:string" />
  <wsdl:part name="dim_hint" type="s:string" />
</wsdl:message>
<wsdl:message name="GetUnitInfoDescriptorHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="PutUnitAliasHttpPostIn">
  <wsdl:part name="unitname" type="s:string" />
  <wsdl:part name="unitalias" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="PutUnitAliasHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="PutUnitInfoHttpPostIn">
  <wsdl:part name="unitname" type="s:string" />
  <wsdl:part name="dimen" type="s:string" />
  <wsdl:part name="factor" type="s:string" />
  <wsdl:part name="offset" type="s:string" />
  <wsdl:part name="isBase" type="s:string" />
  <wsdl:part name="authtoken" type="s:string" />
</wsdl:message>
<wsdl:message name="PutUnitInfoHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetUnitInfoUnitHttpPostIn">
  <wsdl:part name="unit" type="s:string" />
```

---

---

```

</wsdl:message>
<wsdl:message name="GetUnitInfoUnitHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetDimInfoHttpPostIn">
  <wsdl:part name="dimen" type="s:string" />
</wsdl:message>
<wsdl:message name="GetDimInfoHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:message name="GetUnitInfoAllHttpPostIn" />
<wsdl:message name="GetUnitInfoAllHttpPostOut">
  <wsdl:part name="Body" />
</wsdl:message>
<wsdl:portType name="UCServiceSoap">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
    session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeSoapIn" />
    <wsdl:output message="tns:GetAuthCodeSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get ratio
    portion of a conversion from 1.0 of source unit to destination
    unit.</wsdl:documentation>
    <wsdl:input message="tns:GetFactorSoapIn" />
    <wsdl:output message="tns:GetFactorSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetOffset">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get offset
    portion of a conversion from 1.0 of source unit to destination
    unit.</wsdl:documentation>
    <wsdl:input message="tns:GetOffsetSoapIn" />
    <wsdl:output message="tns:GetOffsetSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoDescriptor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get XML
    descriptor of a unit in the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoDescriptorSoapIn" />
    <wsdl:output message="tns:GetUnitInfoDescriptorSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitAlias">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an alias
    of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitAliasSoapIn" />
    <wsdl:output message="tns:PutUnitAliasSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an XML
    descriptor of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitInfoSoapIn" />
    <wsdl:output message="tns:PutUnitInfoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoUnit">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
    description of the unit's declaration by unit name, if it is a not a base unit,
    returns the base unit structure</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoUnitSoapIn" />
    <wsdl:output message="tns:GetUnitInfoUnitSoapOut" />
  </wsdl:operation>

```

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```
<wsdl:operation name="GetDimInfo">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
description of the dimension's declaration by dimension</wsdl:documentation>
  <wsdl:input message="tns:GetDimInfoSoapIn" />
  <wsdl:output message="tns:GetDimInfoSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetUnitInfoAll">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Return a table
of all units</wsdl:documentation>
  <wsdl:input message="tns:GetUnitInfoAllSoapIn" />
  <wsdl:output message="tns:GetUnitInfoAllSoapOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="UCServiceHttpGet">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeHttpGetIn" />
    <wsdl:output message="tns:GetAuthCodeHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get ratio
portion of a conversion from 1.0 of source unit to destination
unit.</wsdl:documentation>
    <wsdl:input message="tns:GetFactorHttpGetIn" />
    <wsdl:output message="tns:GetFactorHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetOffset">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get offset
portion of a conversion from 1.0 of source unit to destination
unit.</wsdl:documentation>
    <wsdl:input message="tns:GetOffsetHttpGetIn" />
    <wsdl:output message="tns:GetOffsetHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoDescriptor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get XML
descriptor of a unit in the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoDescriptorHttpGetIn" />
    <wsdl:output message="tns:GetUnitInfoDescriptorHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitAlias">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an alias
of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitAliasHttpGetIn" />
    <wsdl:output message="tns:PutUnitAliasHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an XML
descriptor of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitInfoHttpGetIn" />
    <wsdl:output message="tns:PutUnitInfoHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoUnit">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
description of the unit's declaration by unit name, if it is a not a base unit,
returns the base unit structure</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoUnitHttpGetIn" />
    <wsdl:output message="tns:GetUnitInfoUnitHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetDimInfo">
```

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    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
description of the dimension's declaration by dimension</wsdl:documentation>
    <wsdl:input message="tns:GetDimInfoHttpGetIn" />
    <wsdl:output message="tns:GetDimInfoHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoAll">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Return a table
of all units</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoAllHttpGetIn" />
    <wsdl:output message="tns:GetUnitInfoAllHttpGetOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType name="UCServiceHttpPost">
  <wsdl:operation name="GetAuthCode">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Returns a
session authorization token for access to restricted resources.</wsdl:documentation>
    <wsdl:input message="tns:GetAuthCodeHttpPostIn" />
    <wsdl:output message="tns:GetAuthCodeHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get ratio
portion of a conversion from 1.0 of source unit to destination
unit.</wsdl:documentation>
    <wsdl:input message="tns:GetFactorHttpPostIn" />
    <wsdl:output message="tns:GetFactorHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetOffset">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get offset
portion of a conversion from 1.0 of source unit to destination
unit.</wsdl:documentation>
    <wsdl:input message="tns:GetOffsetHttpPostIn" />
    <wsdl:output message="tns:GetOffsetHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoDescriptor">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get XML
descriptor of a unit in the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoDescriptorHttpPostIn" />
    <wsdl:output message="tns:GetUnitInfoDescriptorHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitAlias">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an alias
of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitAliasHttpPostIn" />
    <wsdl:output message="tns:PutUnitAliasHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="PutUnitInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Add an XML
descriptor of a unit into the conversion database.</wsdl:documentation>
    <wsdl:input message="tns:PutUnitInfoHttpPostIn" />
    <wsdl:output message="tns:PutUnitInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoUnit">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
description of the unit's declaration by unit name, if it is a not a base unit,
returns the base unit structure</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoUnitHttpPostIn" />
    <wsdl:output message="tns:GetUnitInfoUnitHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetDimInfo">

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    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Get a
description of the dimension's declaration by dimension</wsdl:documentation>
    <wsdl:input message="tns:GetDimInfoHttpPostIn" />
    <wsdl:output message="tns:GetDimInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoAll">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Return a table
of all units</wsdl:documentation>
    <wsdl:input message="tns:GetUnitInfoAllHttpPostIn" />
    <wsdl:output message="tns:GetUnitInfoAllHttpPostOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="UCServiceSoap" type="tns:UCServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetAuthCode">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFactor"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetOffset">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetOffset"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoDescriptor">
    <soap:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoDescriptor" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="PutUnitAlias">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/PutUnitAlias"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>

```

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```

    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="PutUnitInfo">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/PutUnitInfo"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoUnit">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoUnit"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetDimInfo">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDimInfo"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoAll">
    <soap:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoAll"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="UCServiceSoap12" type="tns:UCServiceSoap">
  <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetAuthCode">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetAuthCode"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetFactor"
style="document" />

```

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---

```
<wsdl:input>
  <soap12:body use="literal" />
</wsdl:input>
<wsdl:output>
  <soap12:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffset">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetOffset"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoDescriptor">
  <soap12:operation
soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoDescriptor" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="PutUnitAlias">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/PutUnitAlias"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="PutUnitInfo">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/PutUnitInfo"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoUnit">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoUnit"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDimInfo">
  <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetDimInfo"
style="document" />
```

---

---

```

    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoAll">
    <soap12:operation soapAction="http://uaf.edu/namespaces/nsdss/GetUnitInfoAll"
style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="UCServiceHttpGet" type="tns:UCServiceHttpGet">
  <http:binding verb="GET" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <http:operation location="/GetFactor" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetOffset">
    <http:operation location="/GetOffset" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetUnitInfoDescriptor">
    <http:operation location="/GetUnitInfoDescriptor" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="PutUnitAlias">
    <http:operation location="/PutUnitAlias" />
    <wsdl:input>
      <http:urlEncoded />

```

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---

```
</wsdl:input>
<wsdl:output>
  <mime:content part="Body" type="text/xml" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="PutUnitInfo">
  <http:operation location="/PutUnitInfo" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoUnit">
  <http:operation location="/GetUnitInfoUnit" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDimInfo">
  <http:operation location="/GetDimInfo" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoAll">
  <http:operation location="/GetUnitInfoAll" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="UCServiceHttpPost" type="tns:UCServiceHttpPost">
  <http:binding verb="POST" />
  <wsdl:operation name="GetAuthCode">
    <http:operation location="/GetAuthCode" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFactor">
    <http:operation location="/GetFactor" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

---

---

```
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetOffset">
  <http:operation location="/GetOffset" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoDescriptor">
  <http:operation location="/GetUnitInfoDescriptor" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="PutUnitAlias">
  <http:operation location="/PutUnitAlias" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="PutUnitInfo">
  <http:operation location="/PutUnitInfo" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoUnit">
  <http:operation location="/GetUnitInfoUnit" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetDimInfo">
  <http:operation location="/GetDimInfo" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
  </wsdl:input>
  <wsdl:output>
    <mime:content part="Body" type="text/xml" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetUnitInfoAll">
  <http:operation location="/GetUnitInfoAll" />
  <wsdl:input>
    <mime:content type="application/x-www-form-urlencoded" />
```

---

---

```

    </wsdl:input>
    <wsdl:output>
      <mime:content part="Body" type="text/xml" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="UCService">
  <wsdl:port name="UCServiceSoap" binding="tns:UCServiceSoap">
    <soap:address location="http://nsdss.ine.uaf.edu:8080/NS_UCServer/UCServer.asmx"
  />
  </wsdl:port>
  <wsdl:port name="UCServiceSoap12" binding="tns:UCServiceSoap12">
    <soap12:address
location="http://nsdss.ine.uaf.edu:8080/NS_UCServer/UCServer.asmx" />
  </wsdl:port>
  <wsdl:port name="UCServiceHttpGet" binding="tns:UCServiceHttpGet">
    <http:address location="http://nsdss.ine.uaf.edu:8080/NS_UCServer/UCServer.asmx"
  />
  </wsdl:port>
  <wsdl:port name="UCServiceHttpPost" binding="tns:UCServiceHttpPost">
    <http:address location="http://nsdss.ine.uaf.edu:8080/NS_UCServer/UCServer.asmx"
  />
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

## 6.7. CUAHSI 1.1 Service Interface

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://www.cuahsi.org/his/1.0/ws/"
xmlns:s1="http://www.cuahsi.org/waterML/1.0/"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:s2="http://www.cuahsi.org/his/1.0/ws/AbstractTypes"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://www.cuahsi.org/his/1.0/ws/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">&lt;div&gt;&lt;strong&gt;Developmental
service. This service is internal CUAHSI use, and
evaluation.&lt;/strong&gt;&lt;/div&gt;</wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://www.cuahsi.org/his/1.0/ws/">
      <s:import namespace="http://www.cuahsi.org/waterML/1.0/" />
      <s:element name="GetSites">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="site"
type="tns:ArrayOfString" />
            <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
          </s:sequence>
        </s:complexType>

```



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```

    </s:element>
    <s:complexType name="ArrayOfString">
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="s:string" />
      </s:sequence>
    </s:complexType>
    <s:element name="GetSitesResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetSitesResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSiteInfo">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="site" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSiteInfoResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetSiteInfoResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableInfo">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetVariableInfoResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="GetVariableInfoResult"
type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSitesObject">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="site"
type="tns:ArrayOfString" />
          <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:element>
    <s:element name="GetSitesObjectResponse">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" ref="s1:sitesResponse" />

```

---

---

```

    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetSiteInfoObject">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="site" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetSiteInfoObjectResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" ref="s1:sitesResponse" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetVariableInfoObject">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValues">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="location" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="startDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="endDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="GetValuesResult"
type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="GetValuesObject">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="location" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="variable" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="startDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="endDate" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="authToken" type="s:string" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="string" nillable="true" type="s:string" />
</s:schema>
<s:schema elementFormDefault="qualified"
targetNamespace="http://www.cuahsi.org/waterML/1.0/">

```

---

---

```

    <s:element name="sitesResponse" type="s1:SiteInfoResponseType" />
    <s:complexType name="SiteInfoResponseType">
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="queryInfo"
type="s1:QueryInfoType" />
        <s:element minOccurs="0" maxOccurs="unbounded" name="site">
          <s:complexType>
            <s:sequence>
              <s:element minOccurs="0" maxOccurs="1" name="siteInfo"
type="s1:SiteInfoType" />
              <s:element minOccurs="0" maxOccurs="unbounded" name="seriesCatalog"
type="s1:seriesCatalogType" />
              <s:element minOccurs="0" maxOccurs="1" name="extension" />
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
    <s:complexType name="QueryInfoType">
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="creationTime" type="s:dateTime"
/>
        <s:element minOccurs="0" maxOccurs="1" name="queryURL" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="querySQL" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="criteria">
          <s:complexType>
            <s:sequence>
              <s:element minOccurs="0" maxOccurs="1" name="locationParam"
type="s:string" />
              <s:element minOccurs="0" maxOccurs="1" name="variableParam"
type="s:string" />
              <s:element minOccurs="0" maxOccurs="1" name="timeParam">
                <s:complexType>
                  <s:sequence>
                    <s:element minOccurs="0" maxOccurs="1" name="beginDateTime"
type="s:string" />
                    <s:element minOccurs="0" maxOccurs="1" name="endDateTime"
type="s:string" />
                  </s:sequence>
                </s:complexType>
              </s:element>
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
    <s:element minOccurs="0" maxOccurs="unbounded" name="note">
      <s:complexType>
        <s:simpleContent>
          <s:extension base="s:string">
            <s:attribute name="type" type="s:string" />
            <s:attribute name="href" type="s:string" />
            <s:attribute name="title" type="s:string" />
            <s:attribute name="show" type="s:string" />
          </s:extension>
        </s:simpleContent>
      </s:complexType>
    </s:element>
    <s:element minOccurs="0" maxOccurs="1" name="extension" />
  </s:sequence>
</s:complexType>
<s:complexType name="SiteInfoType">

```

---

---

```

<s:complexContent mixed="false">
  <s:extension base="s1:SourceInfoType">
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="siteName" type="s:string" />
      <s:element minOccurs="0" maxOccurs="unbounded" name="siteCode">
        <s:complexType>
          <s:simpleContent>
            <s:extension base="s:string">
              <s:attribute name="defaultId" type="s:boolean" />
              <s:attribute name="network" type="s:normalizedString" />
              <s:attribute name="siteID" type="s:normalizedString" />
              <s:attribute name="agencyCode" type="s:normalizedString" />
              <s:attribute name="agencyName" type="s:normalizedString" />
            </s:extension>
          </s:simpleContent>
        </s:complexType>
      </s:element>
      <s:element minOccurs="0" maxOccurs="1" name="timeZoneInfo">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="defaultTimeZone">
              <s:complexType>
                <s:attribute name="ZoneAbbreviation" type="s:normalizedString" />
                <s:attribute name="ZoneOffset" type="s:string" />
              </s:complexType>
            </s:element>
            <s:element minOccurs="0" maxOccurs="1" name="daylightSavingsTimeZone">
              <s:complexType>
                <s:attribute name="ZoneAbbreviation" type="s:normalizedString" />
                <s:attribute name="ZoneOffset" type="s:string" />
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element minOccurs="0" maxOccurs="1" name="geoLocation">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="geogLocation" type="s1:GeogLocationType" />
            <s:element minOccurs="0" maxOccurs="unbounded" name="localSiteXY">
              <s:complexType>
                <s:sequence>
                  <s:element minOccurs="1" maxOccurs="1" name="X" type="s:double" />
                  <s:element minOccurs="1" maxOccurs="1" name="Y" type="s:double" />
                  <s:element minOccurs="0" maxOccurs="1" name="Z" type="s:double" />
                </s:sequence>
              </s:complexType>
            </s:element>
            <s:element minOccurs="0" maxOccurs="unbounded" name="note">
              <s:complexType>
                <s:simpleContent>
                  <s:extension base="s:string">
                    <s:attribute name="type" type="s:string" />
                    <s:attribute name="href" type="s:string" />
                    <s:attribute name="title" type="s:string" />
                    <s:attribute name="show" type="s:string" />
                  </s:extension>
                </s:simpleContent>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:extension>
</s:complexContent>

```

---

---

```

        </s:extension>
        </s:simpleContent>
        </s:complexType>
        </s:element>
        </s:sequence>
        <s:attribute name="projectionInformation" type="s:string" />
        </s:complexType>
        </s:element>
        </s:sequence>
        </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1" name="elevation_m"
type="s:double" />
        <s:element minOccurs="0" maxOccurs="1" name="verticalDatum"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="unbounded" name="note">
        <s:complexType>
        <s:simpleContent>
        <s:extension base="s:string">
        <s:attribute name="type" type="s:string" />
        <s:attribute name="href" type="s:string" />
        <s:attribute name="title" type="s:string" />
        <s:attribute name="show" type="s:string" />
        </s:extension>
        </s:simpleContent>
        </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1" name="extension" />
        <s:element minOccurs="0" maxOccurs="1" name="altname" />
        </s:sequence>
        <s:attribute name="oid" type="s:normalizedString" />
        <s:attribute name="metadataDateTime" type="s:dateTime" />
        </s:extension>
        </s:complexContent>
        </s:complexType>
        <s:complexType name="SourceInfoType" />
        <s:complexType name="DataSetInfoType">
        <s:complexContent mixed="false">
        <s:extension base="s1:SourceInfoType">
        <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="dataSetIdentifier"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="timeZoneInfo">
        <s:complexType>
        <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="defaultTimeZone">
        <s:complexType>
        <s:attribute name="ZoneAbbreviation" type="s:normalizedString"
/>
        <s:attribute name="ZoneOffset" type="s:string" />
        </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1"
name="daylightSavingsTimeZone">
        <s:complexType>
        <s:attribute name="ZoneAbbreviation" type="s:normalizedString"
/>
        <s:attribute name="ZoneOffset" type="s:string" />
        </s:complexType>
        </s:element>

```

---



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```

        </s:extension>
        </s:simpleContent>
        </s:complexType>
    </s:element>
    <s:element minOccurs="0" maxOccurs="unbounded" name="series">
        <s:complexType>
            <s:sequence>
                <s:element minOccurs="0" maxOccurs="1" name="dataType"
type="s1:dataTypeEnum" />
                <s:element minOccurs="0" maxOccurs="1" name="variable"
type="s1:VariableInfoType" />
                <s:element minOccurs="0" maxOccurs="1" name="valueCount">
                    <s:complexType>
                        <s:simpleContent>
                            <s:extension base="s:int">
                                <s:attribute name="countIsEstimated" type="s:boolean" />
                            </s:extension>
                        </s:simpleContent>
                    </s:complexType>
                </s:element>
                <s:element minOccurs="0" maxOccurs="1" name="variableTimeInterval"
type="s1:TimePeriodType" />
                <s:element minOccurs="0" maxOccurs="1" name="valueType"
type="s1:valueTypeEnum" />
                <s:element minOccurs="0" maxOccurs="1" name="generalCategory"
type="s1:generalCategoryEnum" />
                <s:element minOccurs="0" maxOccurs="1" name="sampleMedium"
type="s1:SampleMediumEnum" />
                <s:element minOccurs="0" maxOccurs="1" name="Method"
type="s1:MethodType" />
                <s:element minOccurs="0" maxOccurs="1" name="Source"
type="s1:SourceType" />
                <s:element minOccurs="0" maxOccurs="1" name="QualityControlLevel"
type="s1:QualityControlLevelType" />
            </s:sequence>
        </s:complexType>
    </s:element>
</s:sequence>
<s:attribute name="menuGroupName" type="s:string" />
<s:attribute name="serviceWsd1" type="s:anyURI" />
</s:complexType>
<s:simpleType name="dataTypeEnum">
    <s:restriction base="s:string">
        <s:enumeration value="Continuous" />
        <s:enumeration value="Instantaneous" />
        <s:enumeration value="Cumulative" />
        <s:enumeration value="Incremental" />
        <s:enumeration value="Average" />
        <s:enumeration value="Maximum" />
        <s:enumeration value="Minimum" />
        <s:enumeration value="Constant Over Interval" />
        <s:enumeration value="Categorical" />
        <s:enumeration value="Best Easy Systematic Estimator " />
        <s:enumeration value="Unknown" />
        <s:enumeration value="Variance" />
    </s:restriction>
</s:simpleType>
<s:complexType name="VariableInfoType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="unbounded" name="variableCode">

```

---

---

```

    <s:complexType>
      <s:simpleContent>
        <s:extension base="s:token">
          <s:attribute name="network" type="s:string" />
          <s:attribute name="vocabulary" type="s:string" />
          <s:attribute name="default" type="s:boolean" />
          <s:attribute name="variableID" type="s:integer" />
        </s:extension>
      </s:simpleContent>
    </s:complexType>
  </s:element>
  <s:element minOccurs="0" maxOccurs="1" name="variableName" type="s:string" />
  <s:element minOccurs="0" maxOccurs="1" name="variableDescription"
type="s:string" />
  <s:element minOccurs="0" maxOccurs="1" name="valueType"
type="s1:valueTypeEnum" />
  <s:element minOccurs="0" maxOccurs="1" name="dataType"
type="s1:dataTypeEnum" />
  <s:element minOccurs="0" maxOccurs="1" name="generalCategory"
type="s1:generalCategoryEnum" />
  <s:element minOccurs="0" maxOccurs="1" name="sampleMedium"
type="s1:SampleMediumEnum" />
  <s:element minOccurs="0" maxOccurs="1" name="units">
    <s:complexType>
      <s:simpleContent>
        <s:extension base="s:string">
          <s:attribute name="unitsAbbreviation" type="s:normalizedString" />
          <s:attribute name="unitsCode" type="s:token" />
          <s:attribute name="unitsType" type="s1:UnitsTypeEnum" />
        </s:extension>
      </s:simpleContent>
    </s:complexType>
  </s:element>
  <s:element minOccurs="0" maxOccurs="1" name="options"
type="s1:ArrayOfOption" />
  <s:element minOccurs="0" maxOccurs="unbounded" name="note">
    <s:complexType>
      <s:simpleContent>
        <s:extension base="s:string">
          <s:attribute name="type" type="s:string" />
          <s:attribute name="href" type="s:string" />
          <s:attribute name="title" type="s:string" />
          <s:attribute name="show" type="s:string" />
        </s:extension>
      </s:simpleContent>
    </s:complexType>
  </s:element>
  <s:element minOccurs="0" maxOccurs="1" name="related">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="unbounded" name="parentID">
          <s:complexType>
            <s:simpleContent>
              <s:extension base="s:string">
                <s:attribute name="network" type="s:string" />
                <s:attribute name="vocabulary" type="s:string" />
                <s:attribute name="default" type="s:boolean" />
              </s:extension>
            </s:simpleContent>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>

```

---



```

        </s:element>
        <s:element minOccurs="0" maxOccurs="unbounded" name="relatedID">
          <s:complexType>
            <s:simpleContent>
              <s:extension base="s:string">
                <s:attribute name="network" type="s:string" />
                <s:attribute name="vocabulary" type="s:string" />
                <s:attribute name="default" type="s:boolean" />
              </s:extension>
            </s:simpleContent>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element minOccurs="0" maxOccurs="1" name="extension" />
  <s:element minOccurs="0" maxOccurs="1" name="NoDataValue" type="s:string" />
  <s:element minOccurs="0" maxOccurs="1" name="timeSupport">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="unit" type="sl:UnitsType"
/>
        <s:element minOccurs="0" maxOccurs="1" name="timeInterval"
type="s:int" />
      </s:sequence>
      <s:attribute name="isRegular" type="s:boolean" />
    </s:complexType>
  </s:element>
</s:sequence>
<s:attribute name="oid" type="s:normalizedString" />
<s:attribute name="metadataDateTime" type="s:dateTime" />
</s:complexType>
<s:simpleType name="valueTypeEnum">
  <s:restriction base="s:string">
    <s:enumeration value="Field Observation" />
    <s:enumeration value="Sample" />
    <s:enumeration value="Model Simulation Result" />
    <s:enumeration value="Derived Value" />
    <s:enumeration value="Unknown" />
  </s:restriction>
</s:simpleType>
<s:simpleType name="generalCategoryEnum">
  <s:restriction base="s:string">
    <s:enumeration value="Water Quality" />
    <s:enumeration value="Climate" />
    <s:enumeration value="Hydrology" />
    <s:enumeration value="Geology" />
    <s:enumeration value="Biota" />
    <s:enumeration value="Unknown" />
  </s:restriction>
</s:simpleType>
<s:simpleType name="SampleMediumEnum">
  <s:restriction base="s:string">
    <s:enumeration value="Surface Water" />
    <s:enumeration value="Ground Water" />
    <s:enumeration value="Sediment" />
    <s:enumeration value="Soil" />
    <s:enumeration value="Air" />
    <s:enumeration value="Tissue" />
    <s:enumeration value="Precipitation" />
  </s:restriction>

```

---

```

    <s:enumeration value="Unknown" />
  </s:restriction>
</s:simpleType>
<s:simpleType name="UnitsTypeEnum">
  <s:restriction base="s:string">
    <s:enumeration value="Angle" />
    <s:enumeration value="Area" />
    <s:enumeration value="Dimensionless" />
    <s:enumeration value="Energy" />
    <s:enumeration value="Energy Flux" />
    <s:enumeration value="Flow" />
    <s:enumeration value="Force" />
    <s:enumeration value="Frequency" />
    <s:enumeration value="Length" />
    <s:enumeration value="Light" />
    <s:enumeration value="Mass" />
    <s:enumeration value="Permeability" />
    <s:enumeration value="Power" />
    <s:enumeration value="Pressure/Stress" />
    <s:enumeration value="Resolution" />
    <s:enumeration value="Scale" />
    <s:enumeration value="Temperature" />
    <s:enumeration value="Time" />
    <s:enumeration value="Velocity" />
    <s:enumeration value="Volume" />
  </s:restriction>
</s:simpleType>
<s:complexType name="ArrayOfOption">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="unbounded" name="option">
      <s:complexType>
        <s:simpleContent>
          <s:extension base="s:string">
            <s:attribute name="name" type="s:normalizedString" />
            <s:attribute name="optionID" type="s:integer" />
            <s:attribute name="optionCode" type="s:token" />
          </s:extension>
        </s:simpleContent>
      </s:complexType>
    </s:element>
  </s:sequence>
</s:complexType>
<s:complexType name="UnitsType">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="1" name="UnitName" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="UnitDescription"
type="s:string" />
    <s:element minOccurs="1" maxOccurs="1" name="UnitType"
type="s1:UnitsTypeEnum" />
    <s:element minOccurs="0" maxOccurs="1" name="UnitAbbreviation"
type="s:string" />
  </s:sequence>
  <s:attribute name="UnitID" type="s:int" />
</s:complexType>
<s:complexType name="TimePeriodType" />
<s:complexType name="TimeIntervalType">
  <s:complexContent mixed="false">
    <s:extension base="s1:TimePeriodType">
      <s:sequence>

```

---

---

```

        <s:element minOccurs="1" maxOccurs="1" name="beginDateTime"
type="s:dateTime" />
        <s:element minOccurs="1" maxOccurs="1" name="endDateTime"
type="s:dateTime" />
    </s:sequence>
</s:extension>
</s:complexContent>
</s:complexType>
<s:complexType name="TimeSingleType">
    <s:complexContent mixed="false">
        <s:extension base="s1:TimePeriodType">
            <s:sequence>
                <s:element minOccurs="1" maxOccurs="1" name="timeSingle"
type="s:dateTime" />
                <s:element minOccurs="1" maxOccurs="1" name="beginDateTime"
type="s:dateTime" />
                <s:element minOccurs="1" maxOccurs="1" name="endDateTime"
type="s:dateTime" />
            </s:sequence>
        </s:extension>
    </s:complexContent>
</s:complexType>
<s:complexType name="TimePeriodRealTimeType">
    <s:complexContent mixed="false">
        <s:extension base="s1:TimePeriodType">
            <s:sequence>
                <s:element minOccurs="0" maxOccurs="1" name="realTimeDataPeriod"
type="s:duration" />
                <s:element minOccurs="1" maxOccurs="1" name="beginDateTime"
type="s:dateTime" />
                <s:element minOccurs="1" maxOccurs="1" name="endDateTime"
type="s:dateTime" />
            </s:sequence>
        </s:extension>
    </s:complexContent>
</s:complexType>
<s:complexType name="MethodType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="MethodDescription"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="MethodLink" type="s:string" />
    </s:sequence>
    <s:attribute name="methodID" type="s:int" />
</s:complexType>
<s:complexType name="SourceType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="Organization" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="SourceDescription"
type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Metadata"
type="s1:MetadataType" />
        <s:element minOccurs="0" maxOccurs="1" name="ContactInformation"
type="s1:ContactInformationType" />
        <s:element minOccurs="0" maxOccurs="1" name="SourceLink" type="s:anyURI" />
    </s:sequence>
    <s:attribute name="sourceID" type="s:int" />
</s:complexType>
<s:complexType name="MetaDataType">
    <s:sequence>

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        <s:element minOccurs="0" maxOccurs="1" name="TopicCategory" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="Title" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Abstract" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="ProfileVersion" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="MetadataLink" type="s:anyURI" />
    </s:sequence>
</s:complexType>
<s:complexType name="ContactInformationType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="ContactName" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="TypeOfContact" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="Phone" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Email" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Address" />
    </s:sequence>
</s:complexType>
<s:complexType name="QualityControlLevelType">
    <s:simpleContent>
        <s:extension base="s:string">
            <s:attribute name="QualityControlLevelID" type="s:int" />
        </s:extension>
    </s:simpleContent>
</s:complexType>
<s:complexType name="VariablesResponseType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="variables"
type="s1:ArrayOfVariableInfoType" />
    </s:sequence>
</s:complexType>
<s:complexType name="ArrayOfVariableInfoType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="unbounded" name="variable"
type="s1:VariableInfoType" />
    </s:sequence>
</s:complexType>
<s:element name="VariablesResponse">
    <s:complexType>
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="variablesResponse"
type="s1:VariablesResponseType" />
        </s:sequence>
    </s:complexType>
</s:element>
<s:complexType name="TimeSeriesResponseType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="queryInfo"
type="s1:QueryInfoType" />
        <s:element minOccurs="0" maxOccurs="1" name="timeSeries"
type="s1:TimeSeriesType" />
    </s:sequence>
</s:complexType>
<s:complexType name="TimeSeriesType">
    <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="sourceInfo"
type="s1:SourceInfoType" />
        <s:element minOccurs="0" maxOccurs="1" name="variable"
type="s1:VariableInfoType" />
    </s:sequence>
</s:complexType>

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    <s:element minOccurs="0" maxOccurs="1" name="values"
type="s1:TsValuesSingleVariableType" />
  </s:sequence>
  <s:attribute name="name" type="s:string" />
</s:complexType>
<s:complexType name="TsValuesSingleVariableType">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="unbounded" name="value"
type="s1:ValueSingleVariable" />
    <s:element minOccurs="0" maxOccurs="unbounded" name="qualifier">
      <s:complexType>
        <s:simpleContent>
          <s:extension base="s:string">
            <s:attribute name="qualifierCode" type="s:token" />
            <s:attribute name="qualifierID" type="s:integer" />
            <s:attribute name="oid" type="s:normalizedString" />
            <s:attribute name="metadataDateTime" type="s:dateTime" />
            <s:attribute name="network" type="s:string" />
            <s:attribute name="vocabulary" type="s:string" />
            <s:attribute name="default" type="s:boolean" />
          </s:extension>
        </s:simpleContent>
      </s:complexType>
    </s:element>
    <s:element minOccurs="0" maxOccurs="1" name="qualityControlLevel">
      <s:complexType>
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="qualityControlLevelID"
type="s:normalizedString" />
        </s:sequence>
        <s:attribute name="qualityControlLevelCode" type="s:string" />
        <s:attribute name="oid" type="s:normalizedString" />
        <s:attribute name="metadataDateTime" type="s:dateTime" />
        <s:attribute name="network" type="s:string" />
        <s:attribute name="vocabulary" type="s:string" />
        <s:attribute name="default" type="s:boolean" />
      </s:complexType>
    </s:element>
    <s:element minOccurs="0" maxOccurs="unbounded" name="method"
type="s1:MethodType" />
    <s:element minOccurs="0" maxOccurs="unbounded" name="source"
type="s1:SourceType" />
    <s:element minOccurs="0" maxOccurs="unbounded" name="offset"
type="s1:OffsetType" />
  </s:sequence>
  <s:attribute name="timeZoneShiftApplied" type="s:boolean" />
  <s:attribute name="unitsAbbreviation" type="s:normalizedString" />
  <s:attribute name="unitsCode" type="s:token" />
  <s:attribute name="unitsType" type="s1:UnitsTypeEnum" />
  <s:attribute name="count" type="s:nonNegativeInteger" />
  <s:attribute default="false" name="unitsAreConverted" type="s:boolean" />
</s:complexType>
<s:complexType name="ValueSingleVariable">
  <s:simpleContent>
    <s:extension base="s:decimal">
      <s:attribute name="qualifiers" type="s:string" />
      <s:attribute name="censorCode" type="s1:CensorCodeEnum" />
      <s:attribute name="dateTime" type="s:dateTime" />
      <s:attribute name="qualityControlLevel" type="s1:QualityControlLevelEnum"
/>
    </s:extension>
  </s:simpleContent>
</s:complexType>

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    <s:attribute name="methodID" type="s:string" />
    <s:attribute name="sourceID" type="s:string" />
    <s:attribute name="accuracyStdDev" type="s:double" />
    <s:attribute name="codedVocabulary" type="s:boolean" />
    <s:attribute name="codedVocabularyTerm" type="s:string" />
    <s:attribute name="sampleID" type="s:string" />
    <s:attribute name="offsetValue" type="s:double" />
    <s:attribute name="offsetTypeID" type="s:int" />
    <s:attribute name="offsetDescription" type="s:string" />
    <s:attribute name="offsetUnitsAbbreviation" type="s:string" />
    <s:attribute name="offsetUnitsCode" type="s:string" />
    <s:attribute name="oid" type="s:normalizedString" />
    <s:attribute name="metadataDateTime" type="s:dateTime" />
  </s:extension>
</s:simpleContent>
</s:complexType>
<s:simpleType name="CensorCodeEnum">
  <s:restriction base="s:string">
    <s:enumeration value="lt" />
    <s:enumeration value="gt" />
    <s:enumeration value="nc" />
  </s:restriction>
</s:simpleType>
<s:simpleType name="QualityControlLevelEnum">
  <s:restriction base="s:string">
    <s:enumeration value="Raw data" />
    <s:enumeration value="Quality controlled data" />
    <s:enumeration value="Derived products" />
    <s:enumeration value="Interpreted products" />
    <s:enumeration value="Knowledge products" />
    <s:enumeration value="Unknown" />
  </s:restriction>
</s:simpleType>
<s:complexType name="OffsetType">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="1" name="offsetValue" type="s:float" />
    <s:element minOccurs="0" maxOccurs="1" name="offsetDescription"
type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="units">
      <s:complexType>
        <s:simpleContent>
          <s:extension base="s:string">
            <s:attribute name="unitsAbbreviation" type="s:normalizedString" />
            <s:attribute name="unitsCode" type="s:token" />
            <s:attribute name="unitsType" type="s1:UnitsTypeEnum" />
          </s:extension>
        </s:simpleContent>
      </s:complexType>
    </s:element>
    <s:element minOccurs="0" maxOccurs="1" default="true"
name="offsetIsVertical" type="s:boolean" />
    <s:element minOccurs="0" maxOccurs="1" name="offsetHorizDirectionDegrees"
type="s:int" />
  </s:sequence>
  <s:attribute name="offsetTypeID" type="s:int" />
</s:complexType>
<s:element name="GetValuesObjectResponse">
  <s:complexType>
    <s:sequence>

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        <s:element minOccurs="0" maxOccurs="1" name="timeSeriesResponse"
type="s1:TimeSeriesResponseType" />
    </s:sequence>
</s:complexType>
</s:element>
<s:element name="variablesResponse" type="s1:VariablesResponseType" />
<s:element name="timeSeriesResponse" type="s1:TimeSeriesResponseType" />
</s:schema>
<s:schema targetNamespace="http://www.cuahsi.org/his/1.0/ws/AbstractTypes">
<s:import namespace="http://schemas.xmlsoap.org/soap/encoding/" />
<s:complexType name="StringArray">
<s:complexContent mixed="false">
<s:restriction base="soapenc:Array">
<s:sequence>
<s:element minOccurs="0" maxOccurs="unbounded" name="String"
type="s:string" />
</s:sequence>
</s:restriction>
</s:complexContent>
</s:complexType>
</s:schema>
</wsdl:types>
<wsdl:message name="GetSitesSoapIn">
<wsdl:part name="parameters" element="tns:GetSites" />
</wsdl:message>
<wsdl:message name="GetSitesSoapOut">
<wsdl:part name="parameters" element="tns:GetSitesResponse" />
</wsdl:message>
<wsdl:message name="GetSiteInfoSoapIn">
<wsdl:part name="parameters" element="tns:GetSiteInfo" />
</wsdl:message>
<wsdl:message name="GetSiteInfoSoapOut">
<wsdl:part name="parameters" element="tns:GetSiteInfoResponse" />
</wsdl:message>
<wsdl:message name="GetVariableInfoSoapIn">
<wsdl:part name="parameters" element="tns:GetVariableInfo" />
</wsdl:message>
<wsdl:message name="GetVariableInfoSoapOut">
<wsdl:part name="parameters" element="tns:GetVariableInfoResponse" />
</wsdl:message>
<wsdl:message name="GetSitesObjectSoapIn">
<wsdl:part name="parameters" element="tns:GetSitesObject" />
</wsdl:message>
<wsdl:message name="GetSitesObjectSoapOut">
<wsdl:part name="parameters" element="tns:GetSitesObjectResponse" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectSoapIn">
<wsdl:part name="parameters" element="tns:GetSiteInfoObject" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectSoapOut">
<wsdl:part name="parameters" element="tns:GetSiteInfoObjectResponse" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectSoapIn">
<wsdl:part name="parameters" element="tns:GetVariableInfoObject" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectSoapOut">
<wsdl:part name="parameters" element="s1:VariablesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesSoapIn">
<wsdl:part name="parameters" element="tns:GetValues" />

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```
</wsdl:message>
<wsdl:message name="GetValuesSoapOut">
  <wsdl:part name="parameters" element="tns:GetValuesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesObjectSoapIn">
  <wsdl:part name="parameters" element="tns:GetValuesObject" />
</wsdl:message>
<wsdl:message name="GetValuesObjectSoapOut">
  <wsdl:part name="parameters" element="sl:GetValuesObjectResponse" />
</wsdl:message>
<wsdl:message name="GetSitesHttpGetIn">
  <wsdl:part name="site" type="s2:StringArray" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSitesHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpGetIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpGetIn">
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpGetOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSitesObjectHttpGetIn">
  <wsdl:part name="site" type="s2:StringArray" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSitesObjectHttpGetOut">
  <wsdl:part name="Body" element="sl:sitesResponse" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectHttpGetIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectHttpGetOut">
  <wsdl:part name="Body" element="sl:sitesResponse" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectHttpGetIn">
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectHttpGetOut">
  <wsdl:part name="Body" element="sl:variablesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesHttpGetOut">
```

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```
<wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetValuesObjectHttpGetIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesObjectHttpGetOut">
  <wsdl:part name="Body" element="s1:timeSeriesResponse" />
</wsdl:message>
<wsdl:message name="GetSitesHttpPostIn">
  <wsdl:part name="site" type="s2:StringArray" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSitesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpPostIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpPostIn">
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetSitesObjectHttpPostIn">
  <wsdl:part name="site" type="s2:StringArray" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSitesObjectHttpPostOut">
  <wsdl:part name="Body" element="s1:sitesResponse" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectHttpPostIn">
  <wsdl:part name="site" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetSiteInfoObjectHttpPostOut">
  <wsdl:part name="Body" element="s1:sitesResponse" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectHttpPostIn">
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetVariableInfoObjectHttpPostOut">
  <wsdl:part name="Body" element="s1:variablesResponse" />
</wsdl:message>
<wsdl:message name="GetValuesHttpPostIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
```

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</wsdl:message>
<wsdl:message name="GetValuesHttpPostOut">
  <wsdl:part name="Body" element="tns:string" />
</wsdl:message>
<wsdl:message name="GetValuesObjectHttpPostIn">
  <wsdl:part name="location" type="s:string" />
  <wsdl:part name="variable" type="s:string" />
  <wsdl:part name="startDate" type="s:string" />
  <wsdl:part name="endDate" type="s:string" />
  <wsdl:part name="authToken" type="s:string" />
</wsdl:message>
<wsdl:message name="GetValuesObjectHttpPostOut">
  <wsdl:part name="Body" element="s1:timeSeriesResponse" />
</wsdl:message>
<wsdl:portType name="WaterOneFlow">
  <wsdl:operation name="GetSites">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesSoapIn" />
    <wsdl:output message="tns:GetSitesSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoSoapIn" />
    <wsdl:output message="tns:GetSiteInfoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's name. Pass in the variable in this
format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoSoapIn" />
    <wsdl:output message="tns:GetVariableInfoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesObjectSoapIn" />
    <wsdl:output message="tns:GetSitesObjectSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoObjectSoapIn" />
    <wsdl:output message="tns:GetSiteInfoObjectSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfoObject">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's siteName. Pass in the variable in
this format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoObjectSoapIn" />
    <wsdl:output message="tns:GetVariableInfoObjectSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.

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Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesSoapIn" />
  <wsdl:output message="tns:GetValuesSoapOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
  <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesObjectSoapIn" />
  <wsdl:output message="tns:GetValuesObjectSoapOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="WaterOneFlow2">
  <wsdl:operation name="GetSites">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesHttpGetIn" />
    <wsdl:output message="tns:GetSitesHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoHttpGetIn" />
    <wsdl:output message="tns:GetSiteInfoHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's name. Pass in the variable in this
format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoHttpGetIn" />
    <wsdl:output message="tns:GetVariableInfoHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesObjectHttpGetIn" />
    <wsdl:output message="tns:GetSitesObjectHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoObjectHttpGetIn" />
    <wsdl:output message="tns:GetSiteInfoObjectHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfoObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's siteName. Pass in the variable in
this format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoObjectHttpGetIn" />
    <wsdl:output message="tns:GetVariableInfoObjectHttpGetOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.

```

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```

Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesHttpGetIn" />
  <wsdl:output message="tns:GetValuesHttpGetOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
  <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesObjectHttpGetIn" />
  <wsdl:output message="tns:GetValuesObjectHttpGetOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:portType name="WaterOneFlow3">
  <wsdl:operation name="GetSites">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesHttpPostIn" />
    <wsdl:output message="tns:GetSitesHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoHttpPostIn" />
    <wsdl:output message="tns:GetSiteInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's name. Pass in the variable in this
format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoHttpPostIn" />
    <wsdl:output message="tns:GetVariableInfoHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given an array
of site numbers, this method returns the site metadata for each one. Send the array of
site codes in this format: 'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSitesObjectHttpPostIn" />
    <wsdl:output message="tns:GetSitesObjectHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, this method returns the site's metadata. Send the site code in this format:
'NetworkName:SiteCode'</wsdl:documentation>
    <wsdl:input message="tns:GetSiteInfoObjectHttpPostIn" />
    <wsdl:output message="tns:GetSiteInfoObjectHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfoObject">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a
variable code, this method returns the variable's siteName. Pass in the variable in
this format: 'NetworkName:Variable'</wsdl:documentation>
    <wsdl:input message="tns:GetVariableInfoObjectHttpPostIn" />
    <wsdl:output message="tns:GetVariableInfoObjectHttpPostOut" />
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <wsdl:documentation xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.

```

---

---

```

Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesHttpPostIn" />
  <wsdl:output message="tns:GetValuesHttpPostOut" />
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Given a site
number, a variable, a start date, and an end date, this method returns a time series.
Pass in the sitecode and variable in this format: 'NetworkName:SiteCode' and
'NetworkName:Variable'</wsdl:documentation>
  <wsdl:input message="tns:GetValuesObjectHttpPostIn" />
  <wsdl:output message="tns:GetValuesObjectHttpPostOut" />
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="WaterOneFlow" type="tns:WaterOneFlow">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetSites">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSites"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSiteInfo"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetVariableInfo"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSitesObject"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSiteInfoObject"
style="document" />
    <wsdl:input>

```

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---

```
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableInfoObject">
    <soap:operation
soapAction="http://www.cuahsi.org/his/1.0/ws/GetVariableInfoObject" style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValues">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValues"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
    <soap:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValuesObject"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="WaterOneFlow1" type="tns:WaterOneFlow">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="GetSites">
        <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSites"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetSiteInfo">
        <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSiteInfo"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:operation name="GetVariableInfo">
```

---

---

```
<soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetVariableInfo"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSitesObject">
  <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetSitesObject"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetSiteInfoObject">
  <soap12:operation
soapAction="http://www.cuahsi.org/his/1.0/ws/GetSiteInfoObject" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVariableInfoObject">
  <soap12:operation
soapAction="http://www.cuahsi.org/his/1.0/ws/GetVariableInfoObject" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValues">
  <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValues"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
  <soap12:operation soapAction="http://www.cuahsi.org/his/1.0/ws/GetValuesObject"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
```

---

---

```
<wsdl:binding name="WaterOneFlow2" type="tns:WaterOneFlow2">
  <http:binding verb="GET" />
  <wsdl:operation name="GetSites">
    <http:operation location="/GetSites" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <http:operation location="/GetSiteInfo" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <http:operation location="/GetVariableInfo" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <http:operation location="/GetSitesObject" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <http:operation location="/GetSiteInfoObject" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfoObject">
    <http:operation location="/GetVariableInfoObject" />
    <wsdl:input>
      <http:urlEncoded />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <http:urlEncoded />
```

---



---

```
</wsdl:input>
<wsdl:output>
  <mime:mimeXml part="Body" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetValuesObject">
  <http:operation location="/GetValuesObject" />
  <wsdl:input>
    <http:urlEncoded />
  </wsdl:input>
  <wsdl:output>
    <mime:mimeXml part="Body" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="WaterOneFlow3" type="tns:WaterOneFlow3">
  <http:binding verb="POST" />
  <wsdl:operation name="GetSites">
    <http:operation location="/GetSites" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfo">
    <http:operation location="/GetSiteInfo" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfo">
    <http:operation location="/GetVariableInfo" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSitesObject">
    <http:operation location="/GetSitesObject" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetSiteInfoObject">
    <http:operation location="/GetSiteInfoObject" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

---

---

```

    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetVariableInfoObject">
    <http:operation location="/GetVariableInfoObject" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValues">
    <http:operation location="/GetValues" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetValuesObject">
    <http:operation location="/GetValuesObject" />
    <wsdl:input>
      <mime:content type="application/x-www-form-urlencoded" />
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part="Body" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="WaterOneFlow">
  <wsdl:documentation
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">&lt;div&gt;&lt;strong&gt;Developmental
service. This service is internal CUAHSI use, and
evaluation.&lt;/strong&gt;&lt;/div&gt;</wsdl:documentation>
    <wsdl:port name="WaterOneFlow" binding="tns:WaterOneFlow">
      <soap:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFWERCDDataService/cuahsi_1_1.asmx" />
      </wsdl:port>
      <wsdl:port name="WaterOneFlow1" binding="tns:WaterOneFlow1">
        <soap12:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFWERCDDataService/cuahsi_1_1.asmx" />
        </wsdl:port>
        <wsdl:port name="WaterOneFlow2" binding="tns:WaterOneFlow2">
          <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFWERCDDataService/cuahsi_1_1.asmx" />
          </wsdl:port>
          <wsdl:port name="WaterOneFlow3" binding="tns:WaterOneFlow3">
            <http:address
location="http://nsdss.ine.uaf.edu:8080/NS_UAFWERCDDataService/cuahsi_1_1.asmx" />
            </wsdl:port>
          </wsdl:service>
</wsdl:definitions>

```

## 7. Error Messages

---

<code>Err_Undefined</code>	The error cannot be parsed from the resource file.
<code>Err_Unknown</code>	The error cannot be found in the resource file
<code>Err_CantFindSeries</code>	Cannot find a series with the requested SeriesID.
<code>Err_InvSearchCriteria</code>	The search criteria specified resulted in no results being returned.
<code>Err_NoIssueSecurityToken</code>	The system was unable to issue a valid security/authorization token.
<code>Err_SecurityTokenInvalid</code>	The security token supplied is invalid.
<code>Err_EntryAlreadyExists</code>	The new entry already exists in the destination table.
<code>Err_MDBadParameter</code>	The parameter supplied is in some way invalid (either blank, fails its logical/value bounds, or has been rejected by the downstream call).
<code>Err_MDNoParameter</code>	The parameter supplied is invalid (blank).
<code>Err_DataDecl</code>	Reading or building an XML document from the supplied parameters resulted in an invalid XML construct (check formatting for XML special characters, unbalanced delimiters, etc.)
<code>No ID</code>	No rows were returned from the database query criteria and therefore no ID (record key) could be obtained.
<code>Err_CannotParseValueStream</code>	While reading a stream of value from an ODM database, the system was unable to read all the values from the stream. The series in the ODM database is either empty or in some way invalid.
<code>Err_OpenCDFFailed</code>	Either the file doesn't exist, is non-readable, or in some other way is not a valid NetCDF file for opening.

Err_NoVersion	The system was unable to determine the version of the NetCDF library (dll) being used. Either the library is invalid or does not exist.
Err_CantDetDimension	The system is unable from the NetCDF data to determine longitude and latitude axes (must have a X Y [or lat long or h height] and T/time variable).
Err_CantFindDimension	Can't find a dimension id for a necessary axis in the NetCDF file (invalid NetCDF)
Err_CantFindDimSize	Can't find the length of a necessary dimension in the NetCDF file (invalid NetCDF)
Err_CantFindDimVar	Can't find the variable that corresponds to a necessary axis in the NetCDF file (invalid NetCDF)
Err_CantFindDimType	Can't find the type necessary for a necessary axis in the NetCDF file (invalid NetCDF)
Err_NetCDF	The NetCDF file is invalid in some way not determinable by the system (usually because the underlying NetCDF dll has determined this and cannot report why it's invalid)
Err_BadDateTime	The system was unable to parse the date/time format of a value or values in the NetCDF file.
Err_ACLFileOpen	The system couldn't find the access control file for the given NetCDF file.
Err_ACLFileRead	The system couldn't read the access control file for the given NetCDF file.
Err_BadGroups	The system couldn't find the active user in any of the groups permitted to access the given NetCDF file.
Err_AccessInvalid	The system couldn't find any groups in the access control file.
Err_FileNotFound	The file specified was not found.

For some SOAP related Exceptions, it may be useful to note that the FaultCode correspondence is:

```
Public Enum FaultCode
    Client = 0
    Server = 1
End Enum
```