Summary

These data are intended for use in publications, at a scale of 1:2,500,000 or smaller. Due to the small scale, the primary intended use is for regional and national data display and analysis, rather than specific local data analysis. This dataset represents the shallowest principal aquifers of the conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands.

Description

This map layer contains the shallowest principal aquifers of the conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands, portrayed as polygons. The map layer was developed as part of the effort to produce the maps published at 1:2,500,000 in the printed series "Ground Water Atlas of the United States". The published maps contain base and cultural features not included in these data. This is a replacement for the July 1998 map layer called Principal Aquifers of the 48 Conterminous United States.

Credits

This map layer was created and modified over a period of at least five years by several staff members of the U.S. Geological Survey Water Resources Discipline, Cartographic and Publications Program in Madison, Wisconsin. Completion of this map layer and associated metadata was funded, in part, under a cooperative joint funding agreement between the U.S. Geological Survey and the U.S. Environmental Protection Agency.

Use limitations

None (Public Use)

Extent

- West: -160.236053  East: -64.566162
- North: 49.385619  South: 17.674693

Scale Range

Maximum (zoomed in): 1:5,000
Minimum (zoomed out) 1:150,000,000

ArcGIS Metadata

Topics and Keywords

Themes or categories of the resource  geoscientificInformation

Content type  Downloadable Data

Place keywords  CONUS, Puerto Rico, United States, US Virgin Islands, Hawaii

Place keywords  Puerto Rico, United States, Hawaii, US Virgin Islands, CONUS

Place keywords  US Virgin Islands, CONUS, Hawaii, Puerto Rico, United States

Place keywords  Puerto Rico, Hawaii, United States, CONUS, US Virgin Islands

Place keywords  US Virgin Islands, Puerto Rico, CONUS, United States, Hawaii

Theme keywords  Aquifer, Inland Waters, Hydrogeology, Geohydrology, USGS, Ground Water

Theme keywords  Inland Waters, USGS, Geohydrology, Hydrogeology, Ground Water, Aquifer

Theme keywords  Geohydrology, USGS, Aquifer, Inland Waters, Ground Water, Hydrogeology

Theme keywords  Inland Waters, Ground Water, Geohydrology, USGS, Hydrogeology, Aquifer

Theme keywords  Geohydrology, Ground Water, Hydrogeology, Inland Waters, USGS, Aquifer

Theme keywords  Ground Water, Geohydrology, Inland Waters, Aquifer, USGS, Hydrogeology

Citation

Title  Aquifer Area

Presentation formats  * digital map

Series

  Name  Hydrologic Atlas
  Issue  USGS HA-730

Collection title  Principal Aquifers of the 48 Conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands

Other citation details

  Principal Aquifers of the 48 Conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands

Citation Contacts

Responsible party

  Organization’s name  U.S. Geological Survey
  Contact’s role  publisher

  Contact information

    Address
    Delivery point  Reston, VA
The Ground Water Atlas of the United States (GWA) chapters include additional information that may be relevant to the use of this map layer, such as maps of alluvial and glacial aquifers that overlie the aquifers in this map layer, as well as other information described below. The areal extent of the aquifers, as shown in this map layer, represents the area in which a named aquifer is the shallowest of the principal aquifers. These aquifer areas are not necessarily the only areas in which ground water can be withdrawn, for two reasons: 1) The aquifers shown may have a larger areal extent than is represented here. The boundaries in this map layer generally represent an interpretation of the surface location (outcrop), or near-surface location (shallow subcrop) of the uppermost principal aquifer for the area. An aquifer may extend beyond the area shown, but be overlain by one or more other aquifers, and (or) low-permeability material. 2) There may be areas of water-bearing surficial material not shown in this map layer. Major alluvial aquifers that occur along main watercourses are not shown. Significant unconsolidated sand and gravel aquifers, that are not indicated in this map layer but are important sources of water, may occur locally in glaciated regions. The user of this map layer is advised that to get complete information regarding areas that serve as sources of water, more information about surficial aquifers needs to be obtained, particularly in glaciated areas. This map layer was constructed by combining data created for or from the regional GWA chapters. Minor aquifers that are important local sources of water were mapped in some regions, so the regional maps in the GWA may show more detail than this map layer. The data were reviewed, adjusted, and published based on new information provided by national, State, and local scientists. The juxtaposition of regionally mapped aquifers has led to some instances where an aquifer outcrop or shallow subcrop is bounded by a State line. This is a result of the regional mapping and national categorization methods used and is not meant to imply a hydrogeologic change coincident with a State boundary. The aquifer outcrop and shallow subcrop boundaries represent broad, regional categories and should not be interpreted as site-specific. Comments regarding the names of aquifers or the hydrogeologic interpretation of the aquifers can be directed to the U.S. Geological Survey, Water Resources Division, Office of Ground Water. This map layer was used as part of the effort to publish a 1:5,000,000-scale Principal Aquifers map in the National Atlas of the United States of America series of printed maps. The printed map can be considered a representation of this map layer with the exceptions of: the smaller scale, slight differences in the coastline due to generalization, base and cultural information, and delineation of the glacial-deposit area. These data were developed in conjunction with the publication of the GWA. For documentation purposes, areas are referred to by their corresponding GWA chapter letter, or by State. This list shows the relationship between State names and GWA chapters:

- HA 730-B Segment 1-California, Nevada
- HA 730-C Segment 2-Colorado, Utah, New Mexico
- HA 730-D Segment 3-Kansas, Missouri, Nebraska
- HA 730-E Segment 4-Texas, Oklahoma
- HA 730-F Segment 5-Arkansas, Louisiana, Mississippi
- HA 730-G Segment 6-Alabama, Florida, Georgia
- HA 730-H Segment 7-Idaho, Oregon, Washington
- HA 730-I Segment 8-Montana, North Dakota, South Dakota, Wyoming
- HA 730-J Segment 9-Iowa, Michigan, Minnesota, Wisconsin
- HA 730-K Segment 10-Illinois, Indiana, Kentucky, Ohio
- HA 730-L Segment 11-Delaware, Maryland, New Jersey, North Carolina, Pennsylvania, Virginia, West Virginia
- HA 730-N Segment 13-Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands

It may be helpful to refer to the printed GWA chapters when using the Data, however, there are significant differences between this national map layer and the printed chapters. Because the GWA regional chapters were written by different authors, there were areas of different interpretations and category delineations, aquifer names, etc., that became apparent when combining the regions. The following listings show the differences between aquifer names in the
GWA chapters and the aq_name and aq_code used in this map layer. See the Entity and Attribute Information section for definitions of the data attributes. GWA chapter HA 730-B Name from fig 11, page B4 aq_code-aq_name

Basin and Range volcanic- 601-Southern Nevada rock aquifers volcanic-rock aquifers Coastal Basins aquifers 103-California Coastal Basin aquifers Northern California Basin 104-Pacific Northwest fill aquifers basin-fill aquifers GWA chapter HA 730-C Name from fig 11, page C4

Names and categories the same GWA chapter HA 730-D Name from fig 5, page D4 aq_code-aq_name

Mississippi embayment 109-Mississippi River Valley aquifer system alluvial aquifer Great Plains aquifer 304-Lower Cretaceous aquifers Confining unit 999-Other rocks Dune sand 107-High Plains aquifer GWA chapter HA 730-E Name from fig 4, page E3 aq_code-aq_name

EDWARDS-TRINITY AQUIFER SYSTEM Edwards-Trinity aquifer 501-Edwards-Trinity aquifer system Edwards aquifer 501-Edwards-Trinity aquifer system Trinity aquifer 501-Edwards-Trinity aquifer system Confining unit 999-Other rocks GWA chapter HA 730-F Name from fig 7, page 4 aq_code-aq_name

MAJOR AQUIFER SYSTEMS Surficial aquifer system 109-Mississippi River Valley alluvial aquifer 203-Mississippi embayment aquifer system 501-Edwards-Trinity aquifer system 999-Other rocks Mississippi embayment 109-Mississippi River Valley aquifer system alluvial aquifer 203-Mississippi embayment aquifer system 204-Southeastern Coastal Plain aquifer system 999-Other rocks Tokio-Woodbine aquifer 999-Other rocks Ouachita Mountains aquifer 999-Other rocks CONFINING SYSTEMS AND CONFINING UNITS Western Interior Plains 999-Other rocks confining systems Confining unit 109-Mississippi River Valley alluvial aquifer 203-Mississippi embayment aquifer system 999-Other rocks GWA chapter HA 730-G Name from fig 3, page 3 aq_code-aq_name

Sand and gravel aquifer 201-Coastal lowlands aquifer system Piedmont and Blue Ridge 611-Piedmont and Blue Ridge aquifers crystalline-rock aquifers Appalachian Plateaus 310-Pennsylvanian aquifers aquifers Interior Low Plateaus 503-Mississippian aquifers aquifers Confining unit 999-Other rocks GWA chapter HA 730-H Name from fig 5, page 4 aq_code-aq_name

Unconsolidated-deposit 101-Basin and Range basin-fill aquifers aquifers 104-Pacific Northwest basin-fill aquifers 105-Northern Rocky Mountains Intermontane Basins aquifer system 112-Puget Sound aquifer system Pliocene and younger 606-Snake River Plain basaltic-rock aquifers basaltic-rock aquifers 610-Pacific Northwest basaltic-rock aquifers 607-Columbia Plateau basaltic-rock aquifers 610-Pacific Northwest basaltic-rock aquifers Aquifers in pre-Miocene 401-Basin and Range rocks carbonate-rock aquifers 999-Other rocks GWA chapter HA 730-I Name from fig 7, page 4 aq_code-aq_name


Cretaceous 304-Lower Cretaceous aquifers MISSISSIPPIAN AQUIFER Carbonate rocks 503-Mississippian aquifers Sandstone 311-Marshall aquifer Crystalline-rock aquifer 999-Other rocks Confining unit 312-Cambrian-Ordovician aquifer system 999-Other rocks GWA chapter HA 730-K Name from fig 5, page K4 aq_code-aq_name

Blue Ridge aquifers 611-Piedmont and Blue Ridge crystalline-rock aquifers MISSISSIPPI EMBAYMENT AQUIFER SYSTEM Upper Claiborne, middle 109-Mississippi River Valley Claiborne, middle Wilcox, alluvial aquifer and lower Wilcox 203-Mississippi embayment aquifer system McNairy-Nacatoch 204-Southeastern Coastal Plain aquifer system Pennsylvanian aquifers 999-Other rocks Confining unit 999-Other rocks GWA chapter HA 730-L Name from fig 7, page L4 aq_code-aq_name

NORTHERN ATLANTIC COASTAL PLAIN AQUIFER SYSTEM Surficial aquifer 111-Surficial aquifer system 205-Northern Atlantic Coastal Plain aquifer system Chesapeake aquifer 205-Northern Atlantic Coastal Plain aquifer system Castle Hayne-Aquia aquifer 418-Castle Hayne aquifer Severn-Magothy aquifer 205-Northern Atlantic Coastal Plain aquifer system Peedee-upper Cape Fear 205-Northern Atlantic aquifer Coastal Plain aquifer system Potomac aquifer 205-Northern Atlantic Coastal Plain

SANDSTONE AQUIFERS Mesozoic sandstone and 308-Early Mesozoic basin basalt of the Newark aquifers Super group Lower Paleozoic 309-New York sandstone aquifers Crystalline-rock aquifers Adirondack 999-Other rocks GWA chapter HA 730-N Hawaii name from fig 35, page N14 Puerto Rico name from fig 71, page N24 aq_code-aq_name

Volcanic rock aquifers 608-Hawaiian Volcanic-rock aquifers 609-Hawaiian Sedimentary deposit aquifers MINOR AQUIFERS Coastal embayment aquifers 999-Other rocks Volcaniclastic-, igneous-, and sedimentary-rock aquifers Confining unit 999-Other rocks NORTHCOST LIMESTONE AQUIFER SYSTEM Upper aquifer 419-Puerto Rico North Coast Limestone aquifer system Lower aquifer 419-Puerto Rico North Coast Limestone aquifer system Related Spatial and Tabular Data Sets A map layer showing the areal extent of sand and gravel aquifers of alluvial and glacial origin north of the line of Quaternary continental glaciation is included in the online, interactive National Atlas of the United States. This map layer ends at the southern limit of glaciation in the United States; areas north of the limit line contain significant sand and gravel glacial deposits that are important sources of water for local areas. For additional information on principal aquifers, please see the Aquifer Basics page at http://capp.water.usgs.gov/aquiferBasics/index.html. The final data are being served to the public in the following formats: Spatial Data Transfer Standard (SDTS), Arc/INFO Export, or ArcView Shapefile. If you are using this dataset as a shapefile, please be aware that it was converted from a Geodatabase. As a result, this shapefile may have attribution and metadata errors resulting from the conversion process. The following are known issues: null values may have been changed to 0s (zeros) or to blank values, numbers (including latitude and longitude) may have been rounded up or down, there may be issues with Unicode character strings, and time cannot be stored in a date field. Field names may have been truncated to no longer than 10 characters or completely changed, lengthy string attributes may have been truncated to 254 characters, and attribute columns may have been deleted. Shapefiles do not support coded domains and subtypes therefore the original file geodatabase attribution and metadata information for coded domains and subtypes could be incorrect or missing in the shapefile version. Please visit the following ESRI website for more information: caution-http://pro.arcgis.com/en/pro-app/tool-reference/appends/Geoprocessing-considerations-for-Shapefile-output.htm.

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

CREDITS

This map layer was created and modified over a period of at least five years by several staff members of the U.S. Geological Survey Water Resources Discipline, Cartographic and Publications Program in Madison, Wisconsin. Completion of this map layer and associated metadata was funded, in part, under a cooperative joint funding agreement between the U.S. Geological Survey and the U.S. Environmental Protection Agency.

ArcGIS Item Properties

* NAME
* SIZE 9.700
* LOCATION
  * ACCESS PROTOCOL Local Area Network

Extents

EXTENT

DESCRIPTION
publication date

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE
WEST LONGITUDE -160.236053
EAST LONGITUDE -64.566162
EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

* WEST LONGITUDE    -160.236053
* EAST LONGITUDE    -64.566162
* NORTH LATITUDE    49.385619
* SOUTH LATITUDE    17.674693
* EXTENT CONTAINS THE RESOURCE    Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE    -17837395.863281
* EAST LONGITUDE    -7187472.296875
* SOUTH LATITUDE    1999506.763370
* NORTH LATITUDE    6340548.000000
* EXTENT CONTAINS THE RESOURCE    Yes

Resource Points of Contact

POINT OF CONTACT

ORGANIZATION'S NAME    U.S. Geological Survey
CONTACT'S POSITION     Ask USGS -- Water Webserver Team
CONTACT'S ROLE         point of contact

CONTACT INFORMATION

PHONE

VOICE    1-888-275-8747 (1-888-ASK-USGS)

ADDRESS

DELIVERY POINT     445 National Center
City    Reston
ADMINISTRATIVE AREA  VA
POSTAL CODE    20192
E-MAIL ADDRESS    http://answers.usgs.gov/cgi-bin/gsanswers?pemail=h2oteam&subject=GIS+Dataset+aquifers_us

Resource Maintenance

RESOURCE MAINTENANCE

UPDATE FREQUENCY    as needed

Resource Constraints

LEGAL CONSTRAINTS

LIMITATIONS OF USE

Although this data set has been used by the U.S. Geological Survey, U.S. Department of the Interior, no warranty expressed or implied is made by the U.S. Geological Survey as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the U.S. Geological Survey in the use of this data, software, or related materials. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

LIMITATIONS OF USE

Distributor assumes no liability for misuse of data.

OTHER CONSTRAINTS

None (Public Domain Information). Acknowledgment of the Ground Water Atlas of the United States and (or) the National Atlas of the United States of America would be appreciated in products derived from these data.
Spatial Reference

ArcGIS Coordinate System

- **Type**: Projected
- **Geographic Coordinate Reference**: GCS_WGS_1984
- **Projection**: WGS_1984_Web_Mercator_Auxiliary_Sphere

Projected Coordinate System

- **Well-known Identifier**: 102100
- **X Origin**: -22041257.77387803
- **Y Origin**: -30241100
- **XY Scale**: 144148035.89861274
- **Z Origin**: -100000
- **Z Scale**: 10000
- **M Origin**: -100000
- **M Scale**: 10000
- **XY Tolerance**: 0.001
- **Z Tolerance**: 0.001
- **M Tolerance**: 0.001
- **High Precision**: true

Latest Well-known Identifier: 3857

Reference System Identifier

- **Value**: 3857
- **Codespace**: EPSG
- **Version**: 8.8(9.3.1.2)

Spatial Data Properties

Vector

- **Level of Topology for This Dataset**: geometry only

Geometric Objects

- **Feature Class Name**: aquifer_area_v2
- **Object Type**: composite
- **Object Count**: 4637

ArcGIS Feature Class Properties

- **Feature Class Name**: aquifer_area_v2
- **Feature Type**: Simple
- **Geometry Type**: Polygon
- **Has Topology**: FALSE
- **Feature Count**: 4637
- **Spatial Index**: TRUE
- **Linear Referencing**: FALSE

Data Quality

Scope of Quality Information

- **Resource Level**: dataset

Data Quality Report - Completeness Omission

Measure Description
This map layer includes aquifer information for the 48 conterminous United States, the District of Columbia, Hawaii, Puerto Rico, and the U.S. Virgin Islands.

**Data Quality Report - Topological Consistency**

**Evaluation Method**

Polygon and chain-node topology are present. Each polygon is closed and has one label point.

**Data Quality Report - Conceptual Consistency**

**Measure Description**

Polygon and chain-node topology are present. Each polygon is closed and has one label point.

### Distribution

**Distributor**

**Contact Information**

- **Organization's Name**: HIFLD Subcommittee
- **Contact's Role**: distributor

**Contact Information**

- **Address**
- **E-mail Address**: hifld@hq.dhs.gov

**Ordering Process**

- **Terms and Fees**: None. No fees are applicable for obtaining the data set.

**Distributor**

**Contact Information**

- **Organization's Name**: U.S. Geological Survey
- **Contact's Position**: Ask USGS - Water Webserver Team
- **Contact's Role**: distributor

**Contact Information**

- **Phone**
  - **Voice**: 1-888-275-8747 (1-888-ASK-USGS)

- **Address**
  - **Delivery Point**: 445 National Center
  - **City**: Reston
  - **Administrative Area**: VA
  - **Postal Code**: 20192
  - **E-mail Address**: http://water.usgs.gov/user_feedback_form.html

**Ordering Process**

- **Terms and Fees**: None. This dataset is provided by USGS as a public service.

**Distribution Format**

- **Name**: File Geodatabase Feature Class
  - **File Decompression Technique**: zipped

**Distribution Format**

- **Name**: File Geodatabase Feature Class
  - **File Decompression Technique**: winzip

**Distribution Format**

- **Name**: File Geodatabase Feature Class
  - **File Decompression Technique**: zipped

**Distribution Format**

- **Name**: File Geodatabase Feature Class
DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

FILE DECOMPRESSION TECHNIQUE zipped

TRANSFER OPTIONS

TRANSFER SIZE 79900

ONLINE SOURCE
LOCATION http://water.usgs.gov/GIS/dsdl/g_aquifr.tar.gz

TRANSFER OPTIONS

TRANSFER SIZE 76180

ONLINE SOURCE
LOCATION http://water.usgs.gov/GIS/dsdl/aquifers_us.zip

TRANSFER OPTIONS

TRANSFER SIZE 7420

ONLINE SOURCE
LOCATION http://water.usgs.gov/GIS/dsdl/aquifrp025.tar.gz

TRANSFER OPTIONS

TRANSFER SIZE 2830

ONLINE SOURCE
LOCATION http://water.usgs.gov/GIS/dsdl/usaq.tar.gz

Fields

DETAILS FOR OBJECT aquifer_area_v2

* TYPE Feature Class

* ROW COUNT 4637

FIELD OBJECTID_12

* ALIAS OBJECTID_12
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.

* DESCRIPTION SOURCE
  Esri

* DESCRIPTION OF VALUES
  Sequential unique whole numbers that are automatically generated.

FIELD Shape

* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.

* DESCRIPTION SOURCE
  Esri

* DESCRIPTION OF VALUES
  Coordinates defining the features.
FIELD OBJECTID_1
  * ALIAS OBJECTID_1
  * DATA TYPE Integer
  * WIDTH 4
  * PRECISION 0
  * SCALE 0

FIELD OBJECTID
  * ALIAS OBJECTID
  * DATA TYPE Integer
  * WIDTH 4
  * PRECISION 0
  * SCALE 0

FIELD ROCK_NAME
  * ALIAS Rock Name
  * DATA TYPE String
  * WIDTH 80
  * PRECISION 0
  * SCALE 0

FIELD ROCK_TYPE
  * ALIAS Rock Type
  * DATA TYPE Integer
  * WIDTH 4
  * PRECISION 0
  * SCALE 0

FIELD AQ_NAME
  * ALIAS Aquifer Name
  * DATA TYPE String
  * WIDTH 80
  * PRECISION 0
  * SCALE 0

FIELD AQ_CODE
  * ALIAS Aquifer Code
  * DATA TYPE Integer
  * WIDTH 4
  * PRECISION 0
  * SCALE 0

FIELD Shape_Leng
  * ALIAS Shape_Leng
  * DATA TYPE Double
  * WIDTH 8
  * PRECISION 0
  * SCALE 0

FIELD Shape__Are
  * ALIAS Shape__Are
  * DATA TYPE Double
  * WIDTH 8
  * PRECISION 0
  * SCALE 0

FIELD Shape__Len
* ALIAS Shape__Len
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD Shape_Length
  * ALIAS Shape_Length
  * DATA TYPE Double
  * WIDTH 8
  * PRECISION 0
  * SCALE 0
  * FIELD DESCRIPTION
    Length of feature in internal units.
  * DESCRIPTION SOURCE
    Esri
  * DESCRIPTION OF VALUES
    Positive real numbers that are automatically generated.

FIELD Shape_Area
  * ALIAS Shape_Area
  * DATA TYPE Double
  * WIDTH 8
  * PRECISION 0
  * SCALE 0
  * FIELD DESCRIPTION
    Area of feature in internal units squared.
  * DESCRIPTION SOURCE
    Esri
  * DESCRIPTION OF VALUES
    Positive real numbers that are automatically generated.

References

AGGREGATE INFORMATION
  ASSOCIATION TYPE larger work citation

AGGREGATE RESOURCE NAME
  TITLE Principal Aquifers of the 48 Conterminous United States, Hawaii, Puerto Rico, and the U.S. Virgin Islands

Metadata Details

METADATA LANGUAGE English (UNITED STATES)
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 1501021296814r9189015787761137

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset
SCOPE NAME * dataset

* LAST UPDATE 2021-08-24

ARCGIS METADATA PROPERTIES
  METADATA FORMAT ArcGIS 1.0
  METADATA STYLE FGDC CSDGM Metadata
  STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ArcGIS FOR THE ITEM 2021-08-24 07:58:01
LAST MODIFIED IN ArcGIS FOR THE ITEM 2021-08-24 12:19:38
AUTOMATIC UPDATES
HAVE BEEN PERFORMED  Yes
LAST UPDATE  2021-08-24  12:19:21

Metadata Contacts

METADATA CONTACT
ORGANIZATION'S NAME  U.S. Geological Survey
CONTACT'S POSITION  Ask USGS -- Water Webserver Team
CONTACT'S ROLE  point of contact

CONTACT INFORMATION
PHONE
VOICE  1-888-275-8747 (1-888-ASK-USGS)

ADDRESS
DELIVERY POINT  445 National Center
CITY  Reston
ADMINISTRATIVE AREA VA
POSTAL CODE  20192
E-MAIL ADDRESS  http://answers.usgs.gov/cgi-bin/gsanswers?pemail=h2oteam&subject=GIS+Dataset+aquifers_us

Metadata Maintenance

MAINTENANCE
UPDATE FREQUENCY  unknown

OTHER MAINTENANCE REQUIREMENTS
Last metadata review date: 2015-01-15