

Water Quality Standards (WQS)

Identification Information:

Citation:

Citation Information:

Originator: US Environmental Protection Agency

Publication Date: 20011231

Title: Water Quality Standards (WQS)

Series Information:

Series Name: Water Quality Standards

Issue Identification: 1

Publication Information:

Publication Place: Washington, DC

Publisher: US EPA

Online Linkage: http://geodata.epa.gov/wmsconnector/com.esri.wms.Esrimap/RAD_evt_wqs_Image?request=getcapabilities&service=WMS&version=1.1.1

Online Linkage: <http://epamap32.epa.gov/radims/>

Description:

Abstract: The Water Quality Standards (WQS) dataset contains three types of spatial layers: points, lines, polygons and information on events that have been referenced to the National Hydrography Dataset (NHD) Reach Addressing Database (RAD). State (also includes DC, tribes, and territories; i.e., "jurisdictions") Water Quality Standards' Designated Uses for river segments, lakes, and estuaries. The Water Quality Standards' Designated Uses are able to be linked to tables of water quality criteria which are located in EPA's Water Quality Standards Database. Water Quality Standards coded onto route.rch (Transport and Coastline Reach) feature of the National Hydrography Dataset (NHD) to create NHD Linear and Point Events. Point events are attached to a reach in NHD for many reasons: to represent an estuary; represent a drinking water intake point; or to represent a designated use when there is no reach in NHD to represent that reach. Water Quality Standards coded onto the National Hydrography Dataset (NHD) Waterbody Reaches (region.rch) to create Waterbody Shapefiles. In addition to NHD reach indexed data there may also be custom shapefiles (point, line, or polygon) that are not associated with NHD and are in an EPA standard format that is compatible with EPA's Reach Address Database. These custom shapefiles are used to represent Water Quality Standards that are not represented well in NHD. NHD Indexed locations for Water Quality Standards (WQS)

Purpose: To be used to identify the spatial extent of waters listed under State Water Quality Standards. These waters can be linked to EPA's Water Quality Standards Database for query and display.

Supplemental Information: Procedures Used: From time to time beginning with initial publication, selected State Water Quality Agencies supply EPA's Office of Water with lists of waters with Designated Uses under State Water Quality Standards. These lists contain text which identify the locations of individual waters on their list. Many states also submit GIS coverages and or maps that outlined the spatial extent of their listed waters. These base materials are used by EPA to code the spatial extent onto route.rch (Transport and Coastline Reach) feature of NHD to create NHD Linear and Point Events. These base materials are used by EPA to code the spatial extent onto NHD Waterbody Reaches (region.rch) to create Waterbody Shapefiles. Using the EPA's NHD-Reach Indexing Tool (NHD-RIT), event tables/shapefiles are created and the reaches are identified with the Designated Uses supplied by the states. These event tables/shapefiles are then sent to each state for review and comment. The format of the reviewed data are state dependent. Formats consist of hardcopy maps, shapefiles or coverages with events. Revisions: Initial indexing is done and maps sent back to the state for review. In many cases, modifications are noted by the State and then corrections are made by RTI. These corrected event tables/shapefiles are then sent to each state for re-review and comment, or if correct, approval for display on the internet. NHD Vintage: NHD (Flow-validated, Re-leveled) -- Current as of June, 2002 (compatible with EPA Reach Address Database Version 2.0)

Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date: 2001

Currentness Reference: see Maintenance_and_Update_Frequency

Status:

Progress: In work

Maintenance and Update Frequency: Publication to internet version of WQSDB every 6 months (April and October). Continuous processing of updates of selected jurisdictions and partial jurisdiction (staged update) information.

Spatial Domain:

Bounding Coordinates:

West Bounding Coordinate: -138.21454852

East Bounding Coordinate: -12.68151645

North Bounding Coordinate: 61.7110157

South Bounding Coordinate: 6.65223303

Keywords:

Theme:

Theme Keyword Thesaurus: None

Theme Keyword: designated uses

Theme Keyword: reach indexing

Theme:

Theme Keyword Thesaurus: ISO 19115 Topic Category

Theme Keyword: environment

Theme Keyword: inlandWaters

Place:

Place Keyword Thesaurus: None

Place Keyword: US

Place Keyword: National

Access Constraints: None.

Use Constraints: None. Please check sources, scale, accuracy, currentness and other available information. Please confirm that you are using the most recent copy of both data and metadata. Acknowledgement of the EPA would be appreciated.

Point of Contact:

Contact Information:

Contact Person Primary:

Contact Person: Bill Kramer

Contact Organization: US EPA Headquarters

Contact Address:

Address Type: mailing address

Address: 1201 Pennsylvania Avenue, NW EPA East

City: Washington

State or Province: DC

Postal Code: 20460

Contact Voice Telephone: 202-564-0385

Contact Electronic Mail Address: kramer.bill@epa.gov

Security Information:

Security Classification System: FIPS Pub 199

Security Classification: Medium Confidentiality

Security Handling Description: Standard Technical Controls

Data Quality Information:

Logical Consistency Report: Chain-node topology present

Completeness Report: State review underway.

Positional Accuracy:

Horizontal Positional Accuracy:

Horizontal Positional Accuracy Report: Statements of horizontal positional accuracy are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For horizontal accuracy, this standard is met if at least 90 percent of points tested are within 0.02 inch (at map scale) of their true positions. Additional offsets to positions may have been introduced where there are many features to improve the legibility of map symbols. In addition, the

digitizing of maps is estimated to contain a horizontal positional error of less than or equal to 0.003-inch standard error (at map scale) in the two component directions relative to the source maps. Visual comparison between the map graphic (including digital scans of the graphic) and plots or digital displays of points, lines, and areas is used to assess the positional accuracy of digital data. Linear features of the same type along the adjoining edges of data sets are aligned if they are within a 0.02-inch tolerance (at map scale). To align the features, the midpoint between the end of the corresponding features is computed, and the ends of features are moved to this point. Features outside the tolerance are not moved; instead, a feature of the type connector was added to join the features. For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <<http://nhd.usgs.gov/chapter1/index.html>>.

Vertical Positional Accuracy:

Vertical Positional Accuracy Report: Statements of vertical positional accuracy for elevation of water surfaces are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For vertical accuracy, this standard is met if at least 90 percent of well-defined points tested are within one-half contour interval of the correct value. Elevations of water surface printed on the published map meet this standard; the contour intervals of the maps vary. These elevations were transcribed into the digital data; the accuracy of this transcription was checked by visual comparison between the data and the map. For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <<http://nhd.usgs.gov/chapter1/index.html>>.

Lineage:

Process Step:

Process Description: Selected states send RTI a marked up map or existing GIS coverage denoting the location and extent of each waterbody. Using the EPA's NHD Reach Indexing Tool, shapefiles/event tables are created by conflating the each State's data to NHD. Event identifiers are populated with State-provided designated use waterbody codes.

Process Date: 20011231

Process Step:

Process Description: Dataset moved.

Source Used Citation Abbreviation: G:\IO\IRM\TechCenter\Projects2009\GDG2009\WOW\MAY_09_updates\Water Quality Standards

Process Date: 20090605

Process Time: 14361800

Spatial Reference Information:

Horizontal Coordinate System Definition:

Geographic:

Latitude Resolution: 0.000001

Longitude Resolution: 0.000001

Geographic Coordinate Units: Decimal degrees

Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

Ellipsoid Name: Geodetic Reference System 1980

Semi-major Axis: 6378137.000000

Denominator of Flattening Ratio: 298.257222

Entity and Attribute Information:

Detailed Description:

Entity Type:

Entity Type Label: TABLE wqs_p

Entity Type Definition: WQS point event table

Entity Type Definition Source: RAD

Attribute:

Attribute Label: COM_ID

Attribute Definition: Unique event identifier

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Unique identifier

Attribute:

Attribute Label: EVENTDATE

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute Definition: Currently not in use

Attribute:

Attribute Label: EVENTTYPE

Attribute Definition: Attribute type/program being indexed

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Fictitious date value - NULL

Attribute:

Attribute Label: REACHCODE

Attribute Definition: NHD linear reach code: a numeric code that uniquely identifies a reach. This 14 digit code has two parts: the first eight digits are the HUC for the sub-basin in which the reach is located; the last six digits are a sequentially-ordered randomly assigned number

Attribute Definition Source: NHD

Attribute Domain Values:

Unrepresentable Domain: NHD reach code

Attribute:

Attribute Label: REACHSMDATE

Attribute Definition: Date that the RCH_CODE was assigned

Attribute Definition Source: NHD

Attribute Domain Values:

Unrepresentable Domain: Fictitious date value - NULL

Attribute:

Attribute Label: REACHRESOLUTION

Attribute Definition: Currently not in use

Attribute Definition Source: EPA

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: SOURCE_ORIGINATOR

Attribute Definition: Organization abbreviation

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Organization abbreviation

Attribute:

Attribute Label: SOURCE_DATADESC

Attribute Definition: Attribute value being indexed

Attribute Definition Source: EPA

Attribute Domain Values:

Unrepresentable Domain: Program event name

Attribute:

Attribute Label: SOURCE_FEATUREID

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: SOURCE_FEATUREID

Attribute Definition: SOURCE_FEATUREID

Attribute:

Attribute Label: FEATUREDETAILURL

Attribute Definition: Currently not in use

Attribute Definition Source: EPA

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: OFFSET

Attribute Definition: Event display offset

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Offset value

Attribute:

Attribute Label: MEASURE

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: SOURCE_FEATUREID

Attribute Definition: MEASURE

Attribute:

Attribute Label: GEOGSTATE

Attribute Definition: State abbreviation

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: State abbreviation

Attribute:

Attribute Label: CYCLE_Year

Attribute Definition: Cycle year of data

Attribute Definition Source: RAD

Attribute Domain Values:**Range Domain:**

Range Domain Minimum: 2002

Range Domain Maximum: 2004

Attribute:

Attribute Label: START_DATE

Attribute Definition: Start date of data

Attribute Definition Source: RAD

Attribute Domain Values:**Range Domain:**

Range Domain Minimum: 4/1/2002

Range Domain Maximum: 4/1/2004

Attribute:

Attribute Label: END_DATE

Attribute Definition: End date of data

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Added to event tables for consistency. Column already existed in archive tables. Column contains the date the event is considered to be inactive and archived. This field is automatically filled out during event maintenance.

Attribute:

Attribute Label: WBD_HUC12

Attribute Definition: WBD HUC12 unit that most encompasses the NHD feature

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: This field is automatically filled out during event maintenance.

Attribute:

Attribute Label: WBD_HUC12_Percent

Attribute Definition: Percentage of the feature contained within the WBD12 unit

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: This field is automatically filled out during event maintenance.

Attribute:

Attribute Label: vertices

Attribute Definition: Numeric count of individual vertices in the NHD feature

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: This field is automatically filled out during event maintenance.

Attribute:

Attribute Label: shape

Attribute Definition: ArcSDE managed geometry type

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable Domain: Internal feature number

Attribute:

Attribute Label: objectid

Attribute Definition: ArcSDE managed numeric key

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable Domain: Internal feature number

Detailed Description:

Entity Type:

Entity Type Label: TABLE wqs_l

Entity Type Definition: WQS line event table

Entity Type Definition Source: RAD

Attribute:

Attribute Label: COM_ID

Attribute Definition: Unique event identifier

Attribute Domain Values:

Unrepresentable Domain: Unique identifier

Attribute Definition Source: RAD

Attribute:

Attribute Label: EVENTDATE

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute Definition: Currently not in use

Attribute Definition Source: RAD

Attribute:

Attribute Label: EVENTTYPE

Attribute Definition: Attribute type/program being indexed

Attribute Domain Values:

Unrepresentable Domain: Event type

Attribute Definition Source: RAD

Attribute:

Attribute Label: REACHCODE

Attribute Definition: NHD linear reach code: a numeric code that uniquely identifies a reach. This 14 digit code has two parts: the first eight digits are the HUC for the sub-basin in which the reach is located; the last six digits are a sequentially-ordered randomly assigned number

Attribute Domain Values:

Unrepresentable Domain: This 14 digit code has two parts: the first eight digits are the HUC for the sub-basin in which the reach is located; the last six digits are a sequentially-ordered randomly assigned number

Attribute Definition Source: RAD

Attribute:

Attribute Label: REACHSMDATE

Attribute Definition: Date that the RCH_CODE was assigned

Attribute Domain Values:

Unrepresentable Domain: Fictitious date value - NULL

Attribute Definition Source: RAD

Attribute:

Attribute Label: REACHRESOLUTION

Attribute Definition: Currently not in use

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute Definition Source: RAD

Attribute:

Attribute Label: SOURCE_ORIGINATOR

Attribute Definition: Organization abbreviation

Attribute Domain Values:

Unrepresentable Domain: Organization abbreviation

Attribute Definition Source: RAD

Attribute:

Attribute Label: SOURCE_DATADESC

Attribute Definition: Attribute value being indexed

Attribute Domain Values:

Unrepresentable Domain: Attribute value being indexed

Attribute Definition Source: RAD

Attribute:

Attribute Label: SOURCE_FEATUREID

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: SOURCE_FEATUREID

Attribute Definition: SOURCE_FEATUREID

Attribute:

Attribute Label: FEATUREDETAILURL

Attribute Definition: Currently not in use

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: OFFSET

Attribute Definition: Event display offset

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Event display offset

Attribute:

Attribute Label: FMEASURE

Attribute Definition: Linear from measure

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Linear from measure

Attribute:

Attribute Label: TMEASURE

Attribute Definition: Linear to measure

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Linear to measure

Attribute:

Attribute Label: SHAPE_LENGTH

Attribute Definition: Length of linear event in meters

Attribute Definition Source: RAD

Attribute Domain Values:**Unrepresentable Domain:** Length in meters**Attribute:****Attribute Label:** GEOGSTATE**Attribute Definition:** State abbreviation**Attribute Definition Source:** RAD**Attribute Domain Values:****Unrepresentable Domain:** State abbreviation**Attribute:****Attribute Label:** CYCLE_Year**Attribute Definition:** Cycle year of data**Attribute Definition Source:** RAD**Attribute Domain Values:****Range Domain:****Range Domain Minimum:** 2002**Range Domain Maximum:** 2004**Attribute:****Attribute Label:** START_DATE**Attribute Definition:** Start date of data**Attribute Definition Source:** RAD**Attribute Domain Values:****Range Domain:****Range Domain Minimum:** 4/1/2002**Range Domain Maximum:** 4/2/2004**Attribute:****Attribute Label:** END_DATE**Attribute Definition:** End date of data**Attribute Definition Source:** RAD**Attribute Domain Values:****Unrepresentable Domain:** End date of data**Attribute:****Attribute Label:** WBD_HUC12**Attribute Definition:** WBD HUC12 unit that most encompasses the NHD feature**Attribute Definition Source:** RAD**Attribute Domain Values:****Unrepresentable Domain:** Watershed Boundary Dataset**Attribute:****Attribute Label:** WBD_HUC12_Percent**Attribute Definition:** Percentage of the feature contained within the WBD12 unit**Attribute Definition Source:** RAD**Attribute Domain Values:****Unrepresentable Domain:** Watershed Boundary Dataset**Attribute:****Attribute Label:** vertices**Attribute Definition:** Numeric count of individual vertices in the NHD feature**Attribute Definition Source:** RAD**Attribute Domain Values:****Unrepresentable Domain:** Numeric count of vertices**Attribute:****Attribute Label:** shape**Attribute Definition:** ArcSDE managed geometry type**Attribute Definition Source:** ESRI**Attribute Domain Values:****Unrepresentable Domain:** Internal feature number**Attribute:**

Attribute Label: objectid
Attribute Definition: ArcSDE managed numeric key
Attribute Definition Source: ESRI
Attribute Domain Values:
Unrepresentable Domain: Internal feature number

Detailed Description:

Entity Type:

Entity Type Label: TABLE wqs_a
Entity Type Definition: WQS area event table
Entity Type Definition Source: RAD

Attribute:

Attribute Label: COM_ID
Attribute Definition: Unique event identifier
Attribute Definition Source: RAD
Attribute Domain Values:
Unrepresentable Domain: Unique identifier

Attribute:

Attribute Label: EVENTDATE
Attribute Domain Values:
Unrepresentable Domain: Currently not in use
Attribute Definition: Currently not in use
Attribute Definition Source: RAD

Attribute:

Attribute Label: EVENTTYPE
Attribute Definition: Attribute type/program being indexed
Attribute Definition Source: RAD
Attribute Domain Values:
Unrepresentable Domain: Attribute type/program being indexed

Attribute:

Attribute Label: REACHCODE
Attribute Definition: NHD linear reach code: a numeric code that uniquely identifies a reach. This 14 digit code has two parts: the first eight digits are the HUC for the sub-basin in which the reach is located; the last six digits are a sequentially-ordered randomly assigned number
Attribute Definition Source: RAD
Attribute Domain Values:
Unrepresentable Domain: This 14 digit code has two parts: the first eight digits are the HUC for the sub-basin in which the reach is located; the last six digits are a sequentially-ordered randomly assigned number

Attribute:

Attribute Label: REACHSMDATE
Attribute Definition: Date that the RCH_CODE was assigned
Attribute Definition Source: RAD
Attribute Domain Values:
Unrepresentable Domain: Fictitious date value- NULL

Attribute:

Attribute Label: REACHRESOLUTION
Attribute Definition: Currently not in use
Attribute Definition Source: RAD
Attribute Domain Values:
Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: SOURCE_ORIGINATOR
Attribute Definition: Organization abbreviation
Attribute Definition Source: RAD
Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: SOURCE_DATADESC

Attribute Definition: Attribute value being indexed

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Attribute value being indexed

Attribute:

Attribute Label: SOURCE_FEATUREID

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: SOURCE_FEATUREID

Attribute Definition: SOURCE_FEATUREID

Attribute:

Attribute Label: FEATUREDETAILURL

Attribute Definition: Currently not in use

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Currently not in use

Attribute:

Attribute Label: GEOGSTATE

Attribute Definition: State abbreviation

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: State abbreviation

Attribute:

Attribute Label: CYCLE_Year

Attribute Definition: Cycle year of data

Attribute Definition Source: RAD

Attribute Domain Values:

Range Domain:

Range Domain Minimum: 2002

Range Domain Maximum: 2004

Attribute:

Attribute Label: START_DATE

Attribute Definition: Start date of data

Attribute Definition Source: RAD

Attribute Domain Values:

Range Domain:

Range Domain Minimum: 4/1/2002

Range Domain Maximum: 4/1/2004

Attribute:

Attribute Label: END_DATE

Attribute Definition: End date of data

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: End date of data

Attribute:

Attribute Label: WBD_HUC12

Attribute Definition: WBD HUC12 unit that most encompasses the NHD feature

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Watershed Boundary Dataset

Attribute:

Attribute Label: WBD_HUC12_Percent

Attribute Definition: Percentage of the feature contained within the WBD12 unit

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Watershed Boundary Dataset

Attribute:

Attribute Label: vertices

Attribute Definition: Numeric count of individual vertices in the NHD feature

Attribute Definition Source: RAD

Attribute Domain Values:

Unrepresentable Domain: Numeric count of vertices

Attribute:

Attribute Label: shape

Attribute Definition: ArcSDE managed geometry type

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable Domain: Internal feature number

Attribute:

Attribute Label: objectid

Attribute Definition: ArcSDE managed numeric key

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable Domain: Internal feature number

Overview Description:

Entity and Attribute Overview: Point and linear event themes, NHD waterbody shapefiles, and Custom Shapes (point, line, and polygon shapefiles that are not associated with NHD). Each point event theme applies to a point along a section of the National Hydrography Dataset (NHD), which is a comprehensive set of digital spatial data that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells. Line event themes apply to linear positions along sections of the NHD. Each waterbody theme applies to whole or portions of NHD waterbody reaches. All other point, line, and polygon shapefiles represent geometries that do not fall on the NHD network of streams/coastline and lakes/ponds.

Entity and Attribute Detail Citation: EPA's Web-Based Reach Indexing Tool (WebRIT) and EPA's National Hydrography Dataset Reach Indexing Tool (NHD-RIT).

Distribution Information:

Resource Description: Live Data and Maps

Distribution Liability: Although these data have been processed successfully on a computer system at the Environmental Protection Agency, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. It is strongly recommended that careful attention be paid to the contents of the metadata file associated with these data to evaluate data set limitations, restrictions or intended use. The U.S. Environmental Protection Agency shall not be held liable for improper or incorrect use of the data described and/or contained herein.

Standard Order Process:

Digital Form:

Digital Transfer Information:

Format Name: Shapefile

Format Information Content: National Shapefiles - These static files reflect the information in the NHD Reach Address Database (RAD) on the date of extract.

File Decompression Technique: Zipped (compressed) file

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name: <http://www.epa.gov/waters/data/downloads.html>

Fees: None

Digital Form:

Digital Transfer Information:

Format Name: Shapefile

Format Information Content: These spatial files represent the most up-to-date publicly available Water program data by State or Watershed from the Reach Address Database (RAD).

File Decompression Technique: Zip (compressed) file

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name: <http://www.epa.gov/waters/data/downloads.html>

Access Instructions: The RAD data downloaded from this page are delivered in zipped (compressed) shapefile format. Links to metadata are also provided.

Digital Form:**Digital Transfer Information:**

Format Name: ArcIMS Image Service

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name: <http://map24.epa.gov/emr/>

Access Instructions: Viewable data - not downloadable

Digital Form:**Digital Transfer Information:**

Format Name: WMS Image Service

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name:

[http://geodata.epa.gov/wmsconnector/com.esri.wms.Esrimap/RAD_evt_wqs_Image?
request=getcapabilities&service=WMS&version=1.1.1](http://geodata.epa.gov/wmsconnector/com.esri.wms.Esrimap/RAD_evt_wqs_Image?request=getcapabilities&service=WMS&version=1.1.1)

Digital Form:**Digital Transfer Information:**

Format Name: WFS Vector Data Service

Digital Transfer Option:

Online Option:

Computer Contact Information:

Network Address:

Network Resource Name:

[http://geodata.epa.gov/wfsconnector/com.esri.wfs.Esrimap/RAD_evt_wqs_Feature?
request=getcapabilities&service=WFS&version=1.1.1](http://geodata.epa.gov/wfsconnector/com.esri.wfs.Esrimap/RAD_evt_wqs_Feature?request=getcapabilities&service=WFS&version=1.1.1)

Distributor:**Contact Information:****Contact Organization Primary:**

Contact Organization: US EPA Headquarters

Contact Person: Office of Water

Contact Address:

Address Type: mailing address

Address: 1200 Pennsylvania Avenue, NW MC 4503T

City: Washington

State or Province: DC

Postal Code: 20460

Contact Electronic Mail Address: kramer.bill@epa.gov

Contact Voice Telephone: 202-566-0385

Metadata Reference Information:

Metadata Date: 20071101

Metadata Future Review Date: 20111101

Metadata Standard Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

Metadata Contact:

Contact Information:**Contact Person Primary:**

Contact Organization: US EPA Headquarters

Contact Person: Office of Water

Contact Address:

Address Type: mailing address

Address: 1200 Pennsylvania Avenue, NW MC 4503T

City: Washington

State or Province: DC

Postal Code: 20460

Contact Voice Telephone: 202-566-0385

Contact Electronic Mail Address: kramer.bill@epa.gov