MS Watersheds 12 Digit

Shapefile

Tags

16-digit, Hydrologic Unit Code, Region, US, 4-digit, HUC, United States, Watershed Boundary Dataset, 2-digit, Basin, 10-digit, Hydrologic Units, Sub-basin, Watershed, WBD, 6-digit, inlandWaters, Sub-region, Subwatershed, 12-digit, 14-digit, 8-digit

Summary

The intent of defining Hydrologic Units (HU) within the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. Hydrologic units are intended to be used as a tool for water-resource management and planning activities particularly for site-specific and localized studies requiring a level of detail provided by large-scale map information. The WBD complements the National Hydrography Dataset (NHD) and supports numerous programmatic missions and activities including: watershed management, rehabilitation and enhancement, aquatic species conservation strategies, flood plain management and flood prevention, water-quality initiatives and programs, dam safety programs, fire assessment and management, resource inventory and assessment, water data analysis and water census. **** NOTE - MARIS Staff created a Mississippi collection from various regions in January 2019 ****

Description

The Watershed Boundary Dataset (WBD) is a comprehensive aggregated collection of hydrologic unit data consistent with the national criteria for delineation and resolution. It defines the areal extent of surface water drainage to a point except in coastal or lake front areas where there could be multiple outlets as stated by the "Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)" "Standard" (http://pubs.usgs.gov/tm/11/a3/). Watershed boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency. This dataset represents the hydrologic unit boundaries to the 12-digit (6th level) for the entire United States. Some areas may also include additional subdivisions representing the 14- and 16-digit hydrologic unit (HU). At a minimum, the HUs are delineated at 1:24,000-scale in the conterminous United States, 1:25,000-scale in Hawaii, Pacific basin and the Caribbean, and 1:63,360-scale in Alaska, meeting the National Map Accuracy Standards (NMAS). Higher resolution boundaries are being developed where partners and data exist and will be incorporated back into the WBD. WBD data are delivered as a dataset of polygons and corresponding lines that define the boundary of the polygon. WBD polygon attributes include hydrologic unit codes (HUC), size (in the form of acres and square kilometers), name, downstream hydrologic unit code, type of watershed, non-contributing areas, and flow modifications. The HUC describes where the unit is in the country and the level of the unit. WBD line attributes contain the highest level of hydrologic unit for each boundary, line source information and flow modifications.

**** NOTE - MARIS Staff created a Mississippi collection from various regions in January 2019 ****

Credits

Funding for the Watershed Boundary Dataset (WBD) was provided by the USDA-NRCS, USGS and EPA along with other federal, state and local agenciesies. Representatives from many agencies contributed a substantial amount of time and salary towards quality review and updating of the dataset in order to meet the WBD Standards. Acknowledgment of the originating agencies would be appreciated in products derived from these data. See dataset specific metadata for further information

MARIS

Use limitations

The distributor shall not be held liable for improper or incorrect use of this data, based on the description of appropriate/inappropriate uses described in this metadata document. It is strongly recommended that this data is directly acquired from the distributor and not indirectly through other sources which may have changed the data in some way. These data should not be used at scales greater than 1:24,000 for the purpose of identifying hydrographic watershed boundary feature locations in the United States. The Watershed Boundary Dataset is public information and may be interpreted by all organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application of the data. Photographic or digital enlargement of these maps to scales greater than that at which they were originally delineated can result in misrepresentation of the data. If enlarged, the maps will not include the fine detail that would be appropriate for mapping at the small scale. Digital data files are periodically updated and users are responsible for obtaining the latest version of the data from the source distributor. Acknowledgment of the origination agencies would be appreciated in products derived from these data.

Extent

West -91.748920 **East** -87.959600
North 35.173717 **South** 30.020599

Scale Range

Maximum (zoomed in) 1:24,000
Minimum (zoomed out) 1:250,000

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE inlandWaters

* CONTENT TYPE Downloadable Data

PLACE KEYWORDS US, United States

THESAURUS ►

TITLE U.S. Department of Commerce, 1977, Countries, dependencies, areas of special sovereignty, and their principal administrative divisions (Federal Information Processing Standards 10-3): Washington, D.C., National Institute of Standards and Technology.

Hide Thesaurus ▲

THEME KEYWORDS 16-digit, Hydrologic Unit Code, Region, 4-digit, HUC, Watershed Boundary Dataset, 2-digit, Basin, 10-digit, Hydrologic Units, Sub-basin, Watershed, WBD, 6-digit, inlandWaters, Sub-region, Subwatershed, 12-digit, 14-digit, 8-digit

THESAURUS ►
TITLE ISO 19115 Topic Category

Hide Thesaurus ▲

Hide Topics and Keywords ▲

Citation ►

TITLE MS Watersheds 12 Digit
PUBLICATION DATE 2015-12-16

PRESENTATION FORMATS * digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data Set

Hide Citation ▲

Citation Contacts ►

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Department of Agriculture - Natural Resource Conservation Service (NRCS)
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey (USGS)
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME Other Federal, State, and local partners (see dataset specific metadata for details http://nhd.usgs.gov/wbd_metadata.html)
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Environmental Protection Agency (EPA)
CONTACT'S ROLE originator

Hide Citation Contacts ▲

Resource Details ►

DATASET LANGUAGES English (UNITED STATES)

STATUS completed
SPATIAL REPRESENTATION TYPE vector

GRAPHIC OVERVIEW

FILE NAME
ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.jpg
FILE DESCRIPTION Thumbnail JPG image
FILE TYPE JPEG

SUPPLEMENTAL INFORMATION
The WBD was produced and is maintained through a cooperative process involving state, federal and local partners. Process information for a specific state or region can be found within the state specific metadata located at http://nhd.usgs.gov/wbd_metdata.html. This metadata file has information for WBD features contained in the WBD feature dataset. This includes information about the 2-, 4-, 6-, 8-, 10-, 12-, 14-, 16-digit polygons and WBD_Line dataset. Users accessing the WBD via shapefile will need to search for the attribution related to that specific dataset.

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.6.1.9270

CREDITS
Funding for the Watershed Boundary Dataset (WBD) was provided by the USDA-NRCS, USGS and EPA along with other federal, state and local agenciesies. Representatives from many agencies contributed a substantial amount of time and salary towards quality review and updating of the dataset in order to meet the WBD Standards. Acknowledgment of the originating agencies would be appreciated in products derived from these data. See dataset specific metadata for further information

MARIS

ARCGIS ITEM PROPERTIES
* NAME MS_Watersheds_12
* SIZE 34.002
* LOCATION file://\\DESKTOP-TP9LNVL\F$\DATA\00_HYDROLOGY\MS_Watersheds_12.shp
* ACCESS PROTOCOL Local Area Network

Hide Resource Details ▲

Extents ►

EXTENT
DESCRIPTION
publication date

TEMPORAL EXTENT
BEGINNING DATE 1980-01-01
ENDING DATE 2016-01-01

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
WEST LONGITUDE -179.229655487
EAST LONGITUDE 179.856674735
SOUTH LATITUDE -14.4246950943
NORTH LATITUDE 71.4395725902

EXTENT
GEOGRAPHIC EXTENT

BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -91.748920
* EAST LONGITUDE -87.959600
* NORTH LATITUDE 35.173717
* SOUTH LATITUDE 30.020599
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM
* WEST LONGITUDE 317889.777895
* EAST LONGITUDE 663104.439182
* SOUTH LATITUDE 1026645.995996
* NORTH LATITUDE 1596518.000881
* EXTENT CONTAINS THE RESOURCE Yes

Hide Extents ▲

Resource Points of Contact ►

POINT OF CONTACT
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►
PHONE
VOICE 1-877-275-8747

ADDRESS
TYPE postal
DELIVERY POINT U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046
CITY Denver
ADMINISTRATIVE AREA CO
POSTAL CODE 80225
E-MAIL ADDRESS bpgeo@usgs.gov

Hide Contact information ▲

Hide Resource Points of Contact ▲

Resource Maintenance ►

RESOURCE MAINTENANCE
UPDATE FREQUENCY as needed

Hide Resource Maintenance ▲

Resource Constraints ►

LEGAL CONSTRAINTS
LIMITATIONS OF USE
The distributor shall not be held liable for improper or incorrect use of this data, based on the description of appropriate/inappropriate uses described in this metadata

document. It is strongly recommended that this data is directly acquired from the distributor and not indirectly through other sources which may have changed the data in some way. The Watershed Boundary Dataset is public information and may be interpreted by all organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application of the data. Federal, State, or local regulatory bodies are not to reassign to the U.S. Department of Agriculture-Natural Resources Conservation Service or the U.S. Geological Survey any authority for the decisions they make. Photographic or digital enlargement of these maps to scales greater than that at which they were originally delineated can result in misrepresentation of the data. If enlarged, the maps will not include the fine detail that would be appropriate for mapping at the small scale. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data from the source distributor.

CONSTRAINTS
LIMITATIONS OF USE

The distributor shall not be held liable for improper or incorrect use of this data, based on the description of appropriate/inappropriate uses described in this metadata document. It is strongly recommended that this data is directly acquired from the distributor and not indirectly through other sources which may have changed the data in some way. These data should not be used at scales greater than 1:24,000 for the purpose of identifying hydrographic watershed boundary feature locations in the United States. The Watershed Boundary Dataset is public information and may be interpreted by all organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application of the data. Photographic or digital enlargement of these maps to scales greater than that at which they were originally delineated can result in misrepresentation of the data. If enlarged, the maps will not include the fine detail that would be appropriate for mapping at the small scale. Digital data files are periodically updated and users are responsible for obtaining the latest version of the data from the source distributor. Acknowledgment of the origination agencies would be appreciated in products derived from these data.

Hide Resource Constraints ▲

Spatial Reference ►

ARCGIS COORDINATE SYSTEM
* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
* PROJECTION NAD_1983_Mississippi_TM
* COORDINATE REFERENCE DETAILS
PROJECTED COORDINATE SYSTEM
WELL-KNOWN IDENTIFIER 102609
X ORIGIN -5122200
Y ORIGIN -12297100
XY SCALE 450339697.45066422
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 3814
WELL-KNOWN TEXT
PROJCS["NAD_1983_Mississippi_TM",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.017453292519943 3]],PROJECTION["Transverse_Mercator"],PARAMETER["False_Easting",500000.0],PARAMETER["False_Northing",1300000.0],PARAMETER["Central_Meridian",-89.75],PARAMETER["Scale_Factor",0.9998335],PARAMETER["Latitude_Of_Origin",32.5],UNIT["Meter",1.0],AUTHORITY["EPSG",3814]]

REFERENCE SYSTEM IDENTIFIER
* VALUE 3814
* CODESPACE EPSG
* VERSION 6.17.1(10.0.0)

Hide Spatial Reference ▲

Spatial Data Properties ►

VECTOR ►
* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS
FEATURE CLASS NAME MS_Watersheds_12
* OBJECT TYPE composite
* OBJECT COUNT 1476

Hide Vector ▲

ARCGIS FEATURE CLASS PROPERTIES ►
FEATURE CLASS NAME MS_Watersheds_12
* FEATURE TYPE Simple
* GEOMETRY TYPE Polygon
* HAS TOPOLOGY FALSE
* FEATURE COUNT 1476
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

Hide ArcGIS Feature Class Properties ▲

Hide Spatial Data Properties ▲

Data Quality ►

SCOPE OF QUALITY INFORMATION ►
RESOURCE LEVEL dataset

Hide Scope of quality information ▲

DATA QUALITY REPORT - TOPOLOGICAL CONSISTENCY ►

EVALUATION METHOD

Lines, polygons and nodes conform to topological rules. Lines intersect only at nodes, and all nodes anchor the ends of lines. Lines do not overshoot or undershoot other lines where they are supposed to meet. There are no duplicate lines. Lines bound polygons. Gaps and overlaps among polygons do not exist. All polygons close.

Hide Data quality report - Topological consistency ▲

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ►

MEASURE DESCRIPTION

Lines, polygons and nodes conform to topological rules. Lines intersect only at nodes, and all nodes anchor the ends of lines. Lines do not overshoot or undershoot other lines where they are supposed to meet. There are no duplicate lines. Lines bound polygons. Gaps and overlaps among polygons do not exist. All polygons close.

Hide Data quality report - Conceptual consistency ▲

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE DESCRIPTION

The WBD contains completed polygons at every level for the United States. All required fields within the polygon and line datasets are populated. Some of these fields may be populated with a zeor "0". The lines coincident with the international boundary are assigned a HULevel value of 0. These cannot be attributed until the adjacent international units are added at which point the highest level of hydrologic unit can be determined. A detailed description of delineation methods and full attribute definitions can be found in the WBD Standards. Users are advised to carefully read the metadata record for additional details.

Hide Data quality report - Completeness omission ▲

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ►

MEASURE DESCRIPTION

All attempts were made to verify 100% of the initially required attributes using 24K digital raster graphics (DRGs) as the base. Additional datasets, like the Geographic Names Information System (GNIS) and NHD, may also have been used to verify attribution. The accuracy of this data is dependent on the level of detail of the source material and the interpretation procedures for capturing that source. Other sources and methods may have been used to create or update WBD data. In some cases, additional information may be found in the WBD Metadata table.

Hide Data quality report - Quantitative attribute accuracy ▲

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►
DIMENSION horizontal

MEASURE DESCRIPTION
The WBD was produced using a variety of digital spatial data including but not limited to Digital Raster Graphics (DRGs), aerial imagery and digital elevation models (DEM). It is assumed these data are mapped at approximately 1:24,000-scale and contain a minimum inherent error of +/- 40 feet. It should be noted that the WBD is undergoing continuous update as source data improves and as hydrologic interpretations are refined. While general rules of hydrology were used in delineation, locations of boundaries may be subjective in some cases. Additional information may be found in the WBD Metadata table.

Hide Data quality report - Absolute external positional accuracy ▲

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►
DIMENSION vertical

MEASURE DESCRIPTION
A formal accuracy assessment of the vertical positional information in the data set has either not been conducted, or is not applicable.

Hide Data quality report - Absolute external positional accuracy ▲

Hide Data Quality ▲

Lineage ►

PROCESS STEP ►
WHEN THE PROCESS OCCURRED 2000-01-01
DESCRIPTION
The original hydrologic unit boundaries were hand-digitized on a digitizing table from the USGS 7.5 minute quadrangles. This process occurred over a span of approximately 20 years from 1980 to 2000.

Hide Process step ▲

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2003-01-01
DESCRIPTION

The original dataset was reviewed by USGS personnel using on-screen techniques with DRGs as the base map. All hydrologic units within the dataset that were less than 3,000 acres were dissolved out.

Hide Process step ▲

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2007-01-24
DESCRIPTION

First draft of metadata created by NRCS using METADATA Editor in ArcCatalog ver. 9.1 sp.1 hu12_geo83

Hide Process step ▲

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2011-01-01
DESCRIPTION

The new WBD (2005-2011) was reviewed on-screen by USGS, EPA, or NRCS personnel using DRGs and DOQss as base maps. Hydrologic Units that were less than 10,000 acres (for the 12-digit units) and 40,000 acres (for the 10-digit units) were reviewed and if possible were dissolved out. Along the coastal areas, standard watersheds that fell within the federal guideline's size criteria (12-digit: 10,000-40,000 acres, 10-digit: 40,000-250,000 acres) were delineated. If possible the remaining frontals were left as their own units. Frontals that did not meet the size criteria were grouped together with other frontals within the overall 8-digit or 10-digit unit. Hydrologic units that were greater than 40,000 acres (12-digit units) and 250,000 acres (10-digit units) were reviewed. If possible these units where then subdivided into smaller units that met the size criteria. In some cases, additional breaks within the unit would not have made sense or have been very useful. For example: When the majority of the unit was made up by a major waterbody feature such as a lake or reservoir and the surrounding tributaries were too small to delineate as their own unit. In these instances the unit was left big.

Hide Process step ▲

PROCESS STEP ▶
WHEN THE PROCESS OCCURRED 2011-01-01
DESCRIPTION

From 2005 to 2011, original dataset attribution was reviewed and revised to reflect the updates and changes made to the dataset. These revisions to the attribution were also made to ensure that the dataset met the Federal Standards for Delineation of

Hydrologic Unit Boundaries. The NHD was used during this process to help with the naming and downstream coding of each unit. In some instances there were name discrepancies between the NHD and what was printed on the DRGs. In these instances the DRGs were used instead of the NHD.

Hide Process step ▲

PROCESS STEP ►
WHEN THE PROCESS OCCURRED 2011-01-01
DESCRIPTION
From 2005 to 2011, hydrologic units from surrounding states were used to edgematch watershed boundaries as they were developed.

Hide Process step ▲

PROCESS STEP ►
WHEN THE PROCESS OCCURRED 2012-01-01
DESCRIPTION
Additional information about the processes used to create and maintain the WBD after June of 2012 can be found in the table called METAPROCESSDETAIL. The process descriptions are linked using the TNMID to the FEATURETOMETADATA table. In addition the METASOURCEDETAIL table can also be linked to determine the sources used to create or update the WBD data.

Hide Process step ▲

PROCESS STEP ►
WHEN THE PROCESS OCCURRED 2014-01-01
DESCRIPTION
Mexico Harmonization (2010-2014) 2010 - Harmonization with Texas and Mexico; HUC12 polygons and line rework by USGS Water Science Center, Salt Lake City, UT. 2014 - Harmonized 8-, 10 and 12-digit units for all border 8-digit units with Mexico were incorporated into the WBD. These datasets were developed through a coordinated effort between the USGS and INEGI along with input from State and local partners. Due to the harmonization effort some 8-digit boundaries may have been adjusted. In addition to this the 10- and 12-digit boundaries along the border might have also been adjusted based on the availability of better base information within Mexico provided by INEGI.

Hide Process step ▲

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2016-01-01

DESCRIPTION

The following are 8-digit updates (from 2009-2016) that were approved by the WBD National Technical Coordinators as required by the WBD Standards. These may include name/code updates or boundary updates that were implemented in the WBD at some point during the creation or maintenance of the data. Alaska: Legacy 19020401 Anchorage boundary has changed by about 20% of its area. 19020203 (Prince William Sound) Added a new subbasin unit for Prince William Sound. Adjusted huc8 boundaries between 19020104, 19020201 and 19020202 to better reflect surface water flow and to assist with delineating the Prince William Sound as a new unit. Legacy 19020302 Upper Kenai Peninsula has changed by about 20% of its area. Legacy 19030304 Wood River was subdivided which has created a reduced area for the 19030304 Wood River and put Igushik River into its own hydrologic unit with a new code of 19030306. Legacy 19030402 Farewell Lake was divided into 19030406 Middle Flork Kuskokwim River and 19030407 South Fork Kuskokwim River. Legacy 19040204 Black River was subdivided. 19040204 will remain the Black River, and a new unit 19040206 Grass River is broken out. 19040502: The outlet for subbasin 19040502 was moved downstream from the current break across Tanana River at a confluence with a minor tributary to the more prominent confluence with Robertson River. This edit resulted in the addition of 2 subwatersheds to 19040502 and the removal of 2 watersheds from 19040503. Legacy 19040504 Delta River linework changed significantly. The legacy 19040504 had 3 separate outlets; Delta River, Delta Creek and Little Delta River. The boundary was adjusted so that 19040504 contained just the Delta River as a standard unit. The Delta Creek and Little Delta River where moved into 19040507. Legacy 19040507 Tanana Flats Linework changed significantly. 19040606 - Legacy boundary for 19040606 had the outlet at a location across the Huslia River downstream from the outlet of the South Fork Huslia River. The boundary was adjusted downstream to the major confluence where the Huslia River drains into the Koyukuk River, thus creating a standard HUC8 for the Huslia River. 1905: 19050202, 19050203, 19050301, 19050304, 19050403 19050202’s boundary was adjusted so that this unit contained all frontal drainage areas flowing into the southern portion of Kotzebue Sound. 19050203’s boundary was adjusted to that the unit included Eschscholtz Bay and all of the drainage areas flowing into it. 19050301’s boundary was adjusted so that this unit has one outlet and includes Selawik Lake. The frontal drainages flowing into Hotham Inlet were moved into unit 19050304. 19050304’s boundary was adjusted so that the unit included Hotham Inlet and the frontal drainages flowing into it. 19050403’s boundary was adjusted to a buffer distance of 1000 meters off shore. 19050500 - Kotzebue Sound: Added a new HUC8 unit to AK WBD for Kotzebue Sound. Inner coastal units that ended at the shore line were extended offshore to a 1000 meter buffer distance. Legacy 19060204 Ikpikpuk River absorbed Inaru River from Legacy 19060202 Legacy unit 19060202 contained 2 different stream systems flowing into 2 different bodies of water. The Inaru River flows into Admiralty Bay while the Kugrua River and the other small frontal drainages flows into the Chukchi Sea. The boundary was adjusted so that flow into Admiralty Bay/Dease Inlet was separate from flow into Chukchi Sea. The Inaru River, Admiralty Bay/Dease Inlet and all associated frontal drainages were added to subbasin 19060204. New Subbasin 19060206 is being named Admiralty Bay-Dease Inlet. This area use to be part of Subbasin 19060204 19020800 Cook Inlet is a new hydrologic unit as recommended by the Alaska in state stakeholders. 2011 - These updates where proposed by Forest Service partners within the Tongass National Forest. When major changes are made to the HUC8 container (i.e. the container is subdivided into multiple units) the national protocol has been to retire the old HUC8 code and name and assign new codes and names to the updates

units 19010202 (Kuiu-Kupreanof-Mitkof-Etolin-Zarembo-Wrangell) is being retired and 2 new HUC8 units were formed. Kuiu Island, Mitkof Island and Kupreanof Island were split out into their own 8-digit unit HUC8 - 19010210 HU8_Name – Kuiu-Kupreanof-Mitkof Islands Zarembo Island, Wrangell Island and Etolin Island were subdivided into their own 8 digit unit HUC8 – 19010209 HU8_Name – Etolin-Zarembo-Wrangell Islands 19010203 (Baranof-Chichagof Islands)19010203 was retired. 19010203 was subdivided 3 new units; 2 island units and 1 channel unit. Chichagof Island was split out into its own 8-digit unit HUC8 – 19010211 HU8_Name – Chichagof Island Baranof and Kruzof Islands were subdivided into their own 8-digit unit HUC8 – 19010212 HU8_Name – Baranof Island Created a new water hydrologic unit for the channel between Chichagof Island and Baranof/Kruzof Islands. This new water unit would become a HUC10 unit within the "Water" subbasin 19010500. HUC10 – 1901050011 HUC10_Name - Peril Strait Because of the varying width of the channel the boundary was graduated from a 1,000 meter buffer to 100 meter buffer from the Low Tide Shoreline. The Low Tide Shoreline was provided by the Forest Service. A 1,000 meter buffer was used in the open channel to match the buffer distance used within the rest of SE AK WBD. There is a narrow portion of the channel where the boundary was gradually reduced from the 1,000 meter buffer to a 100 meter buffer. 2014 - Updated Alaska's region 1904 based on a request from NHD program and approved by state partners. 1904 was subdivided 3 new 4-digit hydrologic units. The new units are 1907 – Upper Yukon River 190701 – Headwaters Yukon River 1908 – Middle Yukon River 1909 – Lower Yukon River 2016 - Updates to AK 8-digit units based on harmonization effort with Canada 19070504 (Eagle Creek-Yukon River) is being subdivided 2 new 8-digit hydrologic units. Original code and name are being retired. HUC8 - 19070505 (Tatonduk River-Yukon River) HUC8 - 19070506 (Charley River-Yukon River) 19060503 (Beaufort Lagoon) is being subdivided 3 new 8-digit hydrologic units. Original code and name are being retired. HUC8 - 19060504 (Kongakuat River-Beaufort Lagoon) HUC8 - 19060505 (Firth River) HUC8 - 19060506 (Babbage River) is completely within Canada Yukon Territory Arizona: Legacy 15010009 Fort Pierce Wash name changed to Fort Pearce Wash to account for misspell. Legacy 15010007 Hualapai Wash name should change as the wash is now in the adjacent Subbasin. Changed to Red Lake California: Legacy 18010109 Gualala-Salmon had an area the size of several 12-digit HUs that has been aggregated into the adjacent legacy 18050005 Tomales-Drake Bays as a result of coastal implementation. This is approved by the in-state WBD Steward and T3.Legacy 18030012 and new 18030012 Tulare-Buena Vista Lakes changed to Tulare Lake Bed as the boundary has changed so significantly that Buena Vista Lakes are no longer in the adjusted hydrologic unit. Legacy 18040001 and new 18040007 name changed from Upper Chowchilla-Upper Fresno to Fresno River as the Chowchilla is no longer in the adjusted hydrologic unit. Legacy 18040002 and new 18040002 name changed from Middle San Joaquin-Lower Merced-Lower Stanislaus to Lower San Joaquin River as Merced and Stanislaus Rivers are no longer in the adjusted hydrologic unit. Legacy 18050006 San Francisco-Coastal South will absorb 4 coastal 12-digit HUs from legacy 18060001 San Lorenzo-Soquel as a result of coastal implementation. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC) Legacy 18060006 Central Coastal will absorb an area the size of 6 12-digit HU's from legacy 18060012 Carmel which all drains directly to the Pacific Ocean. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC) Portions of legacy 18060011, 18060012, and part of 19060001 will become a new subbasin accounting for all of these frontal pieces. It will be coded 18060015 and named Monterey Bay. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC) Legacy 18060013 Santa Barbara Coastal had an area the size of one 12-digit HU which will be aggregated with legacy 18070101 Ventura as a result of coastal implementation. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC) Legacy 18070104 Santa Monica Bay had an area the size of several 12-digit HUs which will be aggregated with legacy 18070106 San Gabriel as a result of coastal implementation.

This is approved by the in-state WBD Steward and WBD National Technical Coordinators (NTC) Legacy 18100200 has now been subdivide into 18100201, 18100202, 18100203, and 18100204. The legacy name for 180100200 has been retained as the Salton Sea for new code 18100204. New names for the other subdivisions have been reviewed and accepted as follows: 18100201 Whitewater River 18100202 Carrizo Creek 18100203 San Felipe Creek Legacy 18040002 and new 18040051 name Middle San Joaquin-Lower Merced-Lower Stanislaus was change to Rock Creek-French Camp Slough. Legacy 18020124 Honcut Headwaters name and code have been retired. It was absorbed in to legacy 18020106 Lower Feather to form the new 18020159. WBD National Technical Coordinators (NTC) recommends the name retain the combined legacy names of Honcut Headwaters-Lower Feather. Legacy 18020120 Upper Butte and legacy 18020105 Lower Butte have been retired. The two hydrologic units were combined in to the new accepted code and name of 18020158 Butte Creek. Legacy 18020119 Mill-Big Chico, 18020103 Sacramento-Lower Thomes, and 18020114 Upper Elder Thomes have been retired. The accepted names and codes for the newly delineated hydrologic units to replace those areas are 18020157 Big Chico Creek-Sacramento River, 18020156 Thomes Creek-Sacramento River, and 18020155 Paynes Creek-Sacramento River. The following legacy names and codes have been retired: 18020113 Cottonwood Headwaters, 18020102 Lower Cottonwood, 18020101 Sacramento-Lower Cow-Lower Clear, 18020118 Upper Cow-Battle, and 18020112 Sacramento-Upper Clear. The accepted codes for the newly delineated hydrologic units that replace those areas will be 18020151-18020154. The approved names are: 18020151 Cow Creek 18020152 Cottonwood Creek 18020153 Battle Creek 18020154 Clear Creek-Sacramento River 18010111 code and name have been retired and the area has been subdivided. A portion is in 18010109 Gualala-Salmon, and the other portion in 18050005 Tomales-Drake Bays 18020107 code and name have been retired and the area is now included with 18020125 Upper Yuba 18020108 code and name have been retired and the area is now included with 18020126 Upper Bear 18020110 code and name have been retired and the area is now included with 18020116 Upper Cache 18030008 code and name have been retired and the area is now included with 18030012 Tulare Lake Bed 18030011 code and name have been retired and the area has been subdivided. A portion is in 18030012 Tulare Lake Bed, and the other portion in 18030009 Upper Dry 18040004 code and name have been retired and the area is now part of 18040011 Upper Calaveras California 18040005 code and name have been retired and the area is now part of 18040003 San Joaquin Delta, 18040012, 18040012 Upper Mokelumne, and 18040003 Upper Cosumnes 18020109 code and name have been retired and the area is now part of 18020163 Lower Sacramento 18020117 code and name have been retired and the area is now part of 18020162 Upper Putah 18060001 code and name have been retired, and the areas are now subdivided between 18050006 San Francisco Coastal South and 18060015 Monterey Bay 18060011 code and name have been retired and now is subdivided between 18060015 Monterey Bay and 18060005 Salinas 18060012 code and name have been retired and the area is now part of 18060006 Central Coast and 18060015 Monterey Bay Colorado: Legacy 14010006 Parachute-Roan name and code have been retired. This area has been combined with 14010005 Colorado Headwaters-Plateau. Connecticut: 01100007 code and name have been retired and the area is now part of 0110004 Quinnipiac Delaware: 02060007 code and name have been retired and this area now included with 02080110 Tangier 02060008 code and name have been retired and this area now included with 02080109 Nanticoke 02060009 code and name have been retired and this area is now part of 02080111 Pokomoke-Western Lower Delmarva and 02080110 Tangier 02060010 code and name have been retired and this area is now part of 02040303 Chincoteague Florida: Legacy 03090202 Everglades has been modified as follows: The largest part of 03090202 Everglades carries the legacy code and name. Subdivided out new Subbasin 03090206 Florida Southeast Coast Combined additional smaller portions of 03090202 with adjacent Subbasins. Louisiana: 2009 - USGS Water Science Center, Salt Lake City, UT. Recoded

all HUC12 codes and DS codes for 08080100 Atchafalaya to 08080101 Atchafalaya. 08080101 is the correct code. During the development of the WBD the 12-digit hydrologic units were miscoded as 08080100. Maine Updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details. Massachusetts: 01070002 is retained for the headwaters of this original code, but ¾ of the original area is now coded 01070006. The area now coded 01070006 retained the original name for the area of legacy 01070002 and is called Merrimack, whereas 01070002 is not called Winnipesaukee River (other state documentation supporting this decision) New Hampshire: Legacy 01070002 Merrimack was subdivided in to 01070002 Merrimack to the North and 01070006 Merrimack River to the South. The technical team requests that the portion to the South retain the legacy code and name of 01070002, Merrimack, and that the northern hydrologic unit receive the code and name 01070006 Winnipesaukee River. There is no Merrimack River in the northern portion and the southern portion most closely resembles the legacy delineation. Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details New York: Legacy 04150307 English-Salmon was subdivided into 04150307 Salmon and 04150308 Chateaugay-English. The Technical Team accepts this change. 2010- Edits were made to Lake Champlain Basin moving it from Region 02 to Region 04. Update to delineation data in Lake Champlain area on the US side and Canadian side. All lines within Canada are draft delineations only. These boundaries were based on Canada's 1:50,000 National Hydrography Network Work Units or were delineated using either 1:50,000 scale topos or CDED elevation data. These boundaries have not been fully reviewed or approved by either the Canadian federal or provincial agencies and are subject to change. Border polygons are based off of these internal boundaries within Canada and so are also subject to change within Canada. Edits made by USGS Salt Lake City, Water Science Center: to the Lake Champlain and surrounding subbasins to remove all shoreline representations from the WBD. The codes, DS codes and names where updated where necessary. 02010004 name and code have been retired, and this area was subdivided, part is in 04150404 Ausable River and part in 04150408 Lake Champlain. 02010006 name and code have been retired and this area was subdivided. Part is in 04150406 Saranac River and part is in 04150408 Lake Champlain. 02010001 name and code have been retired and this area was subdivided into 04150401 Mettawee River and 04150408 Lake Champlain The new Lake Champlain unit 04150408 is made up of parts of original HUC250K units 02010001, 02010002, 02010003, 02010004, 02010005, 02010006 and 02010007 Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details North Carolina: Legacy subbasin 03030001 and legacy subbasin 03020106 have been combined and recommended for acceptance as a new 6-digit Basin 030203 Onslow Bay. Legacy Subbasin 03030001 New has been recoded and renamed to 03020302 New River. The technical team accepts the new code and name. Legacy Subbasin 03020106 Bogue-Core Sounds has been recoded and renamed to 03020301 White Oak River. The technical team accepts the new code and name. 03040207 code and name are still in use, but the portion that stretches along the coast has been broken out to a new 03040208 Coastal Carolina North Dakota: Legacy 10160007 East Missouri Coteau, changed to North Fork Snake as that is a better hydrologic representation of the hydrologic unit. Legacy 10170103 South Big Sioux Coteau name changed to Lake Thompson Legacy 10170201 Middle Big Sioux Coteau name changed to Upper Big Sioux Legacy 10170202 Upper Big Sioux name changed to Middle Big Sioux Because legacy 10170203 Lower Big Sioux should stay the same, it doesn’t make sense not to have a middle and an upper. Although the boundaries have significantly relocated, it seem like most viable option is to retain the Upper, Middle, Lower naming convention. Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details Oregon: Legacy 17100304 Coos was subdivided into 17100304 Coos to the north and

17100306 Sixes to the south. The Technical team accepts this change. South Carolina: Legacy 03040207 Carolina Coastal-Sampit was subdivided into a southern portion called 03040207 Carolina Coastal-Sampit and a northern portion newly coded and named 03040208 Coastal Carolina. The technical team recognizes this as an acceptable solution, however, future coastal delineations may require additional modification. Legacy 03050202 South Carolina Coastal has now been subdivided into subbasins 03050202 South Carolina Coastal and 03050209 Bulls Bay with an additional portion of 03050202 being aggregated in with legacy 03050201 Legacy 03050208 Broad-St. Helena has had the following modifications which the NTC concurs with: 03050208 Broad-St. Helena code and name retained into a much smaller unit capturing only the Broad-St. Helena Rivers Subdivided into new 03060110 Calibogue Sound-Wright River, and now part of the adjacent Subregion to the south. Subdivided into new 03050210 St. Helena Island portion combined with 03050207 Salkehatchie. Legacy 03050205 name is changed to Four Hole Swamp (from Edisto...this name was flipped with the hydrologic unit the water feature resides in). The WBD National Technical Team recommended that this name not be reused as it has been historically assigned to 03050206, but all in state interagency folks felt strongly that it should be reused as that is by far the predominant feature for the HU. Reports since 2005 reflect this. Legacy 03050206 name is changed to Edisto River to reflect the major hydrologic feature. South Dakota: 2009 - Edits made by in-state data steward; all of sub-basin 10160010 (now retired) was recoded to 10160011 (Lower James); In addition to the recoding of this 8-digit level unit in the James Basin, this group of edits primarily consisted of minor corrections to linework and 12-digit downstream codes, populating ncontrb_A fields of selected 12-digit units, and tweaking selected 5th- and 6th-level unit names to facilitate merging with GNIS. Texas: Legacy13070008 Lower Pecos was subdivided into a northern and southern portion. The northern portion retains the 13070008 code but name should be Pecos. The new subdivided 13070012 hydrologic unit should carry the legacy name Lower Pecos. Legacy 13090002 Lower Rio Grande is missing from the current WBD. Vermont: Updated 01110000 from Region 01 to Region 04 and is now 04150500 (St. Francois River). Craig Johnston (USGS) pointed out that this unit contains the St. Francois River which flows up into Canada and then dumps into the St Lawrence River. Region 01 is Maine Coastal drainage's while region 04 is St. Lawrence drainage's, so this unit really belongs in region 04. 2010- Edits were made to Lake Champlain Basin moving it from Region 02 to Region 04. Update to delineation data in Lake Champlain area on the US side and Canadian side. All lines within Canada are draft delineations only. These boundaries were based on Canada's 1:50,000 National Hydrography Network Work Units or were delineated using either 1:50,000 scale topos or CDED elevation data. These boundaries have not been fully reviewed or approved by either the Canadian federal or provincial agencies and are subject to change. Border polygons are based off of these internal boundaries within Canada and so are also subject to change within Canada. Edits made by USGS Salt Lake City, Water Science Center: to the Lake Champlain and surrounding subbasins to remove all shoreline representations from the WBD. The codes, DS codes and names where updated where necessary. 02010001 name and code have been retired and this area was subdivided into 04150401 Mettawee River and 04150408 Lake Champlain. 02010002 name and code have been retired and this area was subdivided into 04150402 Otter Creek and 04150408 Lake Champlain. 02010003 name and code have been retired and this area was subdivided into 04150403 Winooski River and 04150408 Lake Champlain. 02010005 name and code have been retired and this area was subdivided into 04150405 Lamoille River and 04150408 Lake Champlain. 02010007 name and code have been retired and this area was subdivided into 04150407 Missiquoi River and 04150408 Lake Champlain. The new Lake Champlain unit 04150408 is made up of parts of original HUC250K units 02010001, 02010002, 02010003, 02010004, 02010005, 02010006 and 02010007. Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details Wisconsin: Legacy 07090001Upper Rock

keeps the same code and name but the original hydrologic unit delineation changed significantly. Legacy 07090002 Crawfish keeps the same code and is renamed to Middle Rock. The original hydrologic unit delineation changed significantly.

Hide Process step ▲

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2016-01-01

DESCRIPTION

Below is a list of updates (from 2011 to 2016) resulting from harmonization work with Canada. Alaska: Legacy 19010101 Southeast Mainland name and code were retired and the area subdivided into four units. New codes and names are as follows and accepted by the National Technical Team and approved with Canadian and Alaska partners (USFS): 19010104 Bradfield Canal 19010105 Burroughs Bay 19010106 Headwaters Portland Canal 19010107 Outlet Portland Canal Legacy 19010201 Mainland had a portion broken out. 19010201 will be preserved and the small piece broekn out in order to harmonize with Canada. The smaller piece will have the new code 19010205 and the name will be Lower Iskut. Revised again 5/31/11: 19010201 Mainland was broken into three new units 19010206 Holkham Bay 19010207 Stikine River 19010208 Thomas Bay Legacy 19010301 Lynn Canal now has the Taku River broken out to accommodate Canada. Taku River will be code 19010304. The National Technical Coordinators (NTC) accepts this. Revised again 5/31/11:(AK group consulted along with Pete Steeves, Kim Jones, Stephen Daw, Karen Hanson): 19070101 Atlin Lake was broken out of the legacy Lynn Canal 19010301 and is part of the newly accepted Subregion 1907 Legacy 19010302 Glacier Bay was subdivided along the ridge separating out the ocean flow. The unit broken out is: 19010406 Palma Bay (this unit also includes a portion of the original 19010401) Note: Legacy 19010302 Glacier Bay will be retained although the area is now smaller. Other options didn't make as much sense. Legacy 19010303 Chilkat-Skagway Rivers was subdivided into: 19070102 Bennett Lake 19070103 Tagish Lake 19070104 Takhini River Note: 19010303 Chilkat-Sakgway Rivers is retained Legacy 19010401 Yakutat Bay name and code retired and the area subdivided into 4 new units. New codes and names are as follows 19010403 Tatshenshini River 19010404 Alsek River 19010405 Yakutat Bay-Gulf of Alaska 19010406 Palma Bay (This new unit also includes a portion of the original 19010302) Idaho and Washington - 2013 - The Columbia River Basin and Puget Sound Coastal area was updated to include the harmonized 8-, 10, and 12-digit hydrologic units within Canada. This harmonized data was created with contributions from US and Canadian Federal, State, Provincial and local partners. The British Columbia 20K Fresh Water Atlas watershed data and DEM data were used to create the units within Canada. Border units were updated through a review/agreement process with local and state/provincial partners using the best available data (DEM, DRG, Imagery, Field Verification). During the harmonization effort there were some 8-digit updates that were agreed to. Legacy 17010101 Upper Kootenai name will change to Middle Kootenai to coordinate with Canada since there is an Upper Kootenay solely in Canada. Legacy 17010101 Upper Kootenai boundary changed slightly. The WBD Technical Team recommends retaining the legacy name and code. A new subbasin was created as a result of the international border harmonization which slightly goes into the U.S. (the portion of 17010101 referenced above). The WBD Technical Team recommends coding this unit with the next down sequential code which would be 17010106 and using the name that Canada refers to this hydrologic unit as "Elk". 17110001 legacy name "Fraser" is being changed to "Sumas River" to match with Canada, and because the Fraser River doesn't flow through this unit. Montana: 1001 flows into Canada and the

Saskatchewan River and not into the Missouri River as originally thought. As such this 4-digit hydrologic units was moved from region 10 to 09. 0904 - Saskatchewan River 090400- Upper South Saskatchewan River (This matches the Canadian FDA at the WSCSDA level (sub drainage area)). 10010001 name and code have been retired, and this area is now 09040002 Belly 10010002 name and code have been retired, and this area is now 09040001 St. Marys Minnesota: 2014 - Rainy River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over a 6 month time period with cooperation from Federal, State, Provincial and Local Partners. Some of the boundaries within MN were updated using the MN LiDAR data. The MN LiDAR was also used in the creation of boundaries within Canada when the LiDAR data overlapped into Canada. The other boundaries within Canada were generated using the province of Ontario's 20K DEM and Hydrography data. There were some 8-digit updates as a result of the harmonization effort. 09030004 Upper Rainy has been retired 09030004 is now a part of 09030008 the Lower Rainy 2 new 8-digit units were broken out in Canada 09030010 – Big Turtle River-Rainy Lake 09030011 – Shoal Lake North Dakota: Legacy 09020313 Pembina was subdivided into two new units. The legacy name and code were retired. The new codes and names are: 09020315 Upper Pembina River 09020316 Lower Pembina River 2014- Souris River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over a 6 month time period with cooperation from Federal, State, Provincial and Local Partners. There were some 8-digit updates as a result of the harmonization effort. Legacy 09010001 Upper Souris has now been subdivided. That code and name have been retired and the new units are: 09010006 Long Creek 09010007 Headwaters Souris River 09010008 Moose Mountain Creek-Souris River North Dakota and Minnesotta: Red River Basin Legacy 09020311 Lower Red name is being changed to Middle Red in order to harmonize with Canada. Lower Red is the Basin name for this entire area but the impact to change at that level isn't known so won't change. 2016 - Red River Basin was updated to include the harmonized 8-, 10-, and 12-digit hydrologic units within Canada. Some of the boundaries within MN and ND were updated using Lidar data. Lidar data was also used in the development of hydrological units within Canada. Where Lidar data did not exist the province of Manitoba provided either 1:20,000 scale or 1:50,000 scale digital elevation data for boundary delineations. Maine All HUC8 boundaries were updated with the Harmonized US/CAN border into Canada. Coding was updated as needed. 01010001 was subdivided into 6 new units. 01010001 code retired 01010001 HUC8 name retired (Upper St. John) New codes and HUC8 names 01010006 – Headwaters Saint John River 01010007 – Big Black River-Saint John River 01010008 – St. Francis River-Saint John River 01010009 – Little River-Saint John River 01010010 – Becaguimec Stream-Saint John River (This unit now contains a portion of the original 01010005) 01010011 – Keswick River-Saint John River 01010004 - Boundary within Canada was updated with harmonized boundary. 01010005 - Boundary was updated with US/CAN harmonized boundary. A small portion of 01010005 was moved into the new 01010010 so that 01010005 is a standard HUC 8 unit for the Meduxnekeag River. 01020001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated. 01030001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated. 01030002 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated. 01040001 - Original WBD boundary between the US and Canada used the international

boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated. 01050001 - Boundary was updated with US/CAN harmonized boundary. This boundary was developed during the initial St. Croix pilot and includes updates within the US as well as Canada. Coding left as is 01050002 - The harmonized boundary for 01050004 required updates to 01050002. A portion of 01050002 was moved to 01050004 to accommodate the new harmonized boundary. This required re-coding of the entire 01050002. 01050004 - Boundary was updated with US/CAN harmonized boundary. A portion of 01050002 was moved into this unit. Codes were updated to reflect this boundary change. 04150600 – Chaudiere River This is a new unit that was created when the WBD boundary was moved from the international boundary on to the ridgelines Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. 04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is New Hampshire 01040001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated. 04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is New York 04150301 - Subdivided into 2 new units 04150301 code retired 04150301 HUC8 name retired (Upper St. Lawrence) New Codes and HUC8 names 04150309 – Headwaters St. Lawrence River 04150310 – Raisin River-St. Lawrence River 04150306 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150307 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150308 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150408 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150409 - Boundary was updated with US/CAN harmonized boundary. Coding left as is Vermont 04150407 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150408 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150409 - Boundary was updated with US/CAN harmonized boundary. Coding left as is 04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is Great Lakes The boundaries for Lake Ontario (0415200), Lake Erie (04120200), Lake Huron (04080300) and Lake Superior (04020300) were updated using the new inland lakes coastal method. All updates were coordinated with the WBD state steward for each adjacent state. The area within Wisconsin was excluded per the state partner's request. All surrounding 8-digits (units touching the lakes) were reviewed and updated as well.

Hide Process step ▲

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2016-01-01

DESCRIPTION

The following edits (2012 - present) were completed during national quality control review performed by the WBD national technical edit team in the USGS Utah Water Science Center. Updates may not affect all hydrologic units. Edits by USGS Water Science Center in Salt Lake City, Utah. 1. Reviewed all the ToHUC codes within the 12-digit polygons and made updates as necessary. All updates were coordinated and approved by WBD state stewards. 2. Updated Linesource code (misspellings, removed

extra spaces etc.) where needed to match Federal Standards 3. Updated and corrected errors in the HU_Mod fields where needed to match Federal Standards. 4. Updated State field for Canada (CN) and Mexico (MX) based on the new version of the Standards 5. Reviewed all the Names related to each 10-digit and 12-digit polygon and made updates as necessary. All updates were coordinated and approved by the WBD State stewards 6. Checked and updated HU_Level field where HU_Level = 99 or = null 7. Updated the 8-digit outer boundary for units flowing into ocean units by extending the boundary offshore to the 3 nautical mile limit provided by NOAA. All updates were coordinated and approved by the WBD state stewards

Hide Process step ▲

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2016-01-01

DESCRIPTION

The following section describes updates to the WBD data model (2012-2016). July 2012 National responsibility for stewardship and maintenance of the WBD transferred from NRCS to the USGS. As a result the WBD data model was updated and the data was incorporated into the NHD database. WBD model updated based on input from NRCS, USGS, NHD program and user community. WBD polygon dataset subdivided into individual polygon datasets for each level of hydrologic units. Two additional datasets added for the next 2 levels of subdivisions (14- and 16-digit) but are not required for each state to populate these. Attribute tables for polygons and lines were updated with some fields being added, renamed or removed. See below for a list of changes. WBD Line attribute table changes: Old Model: HU_LEVEL LINESOURCE META_ID – removed – Feature level metadata functionality is added to track updates in the new model LEFT_HUC_8 – removed RIGHT_HUC_8 – removed New Model: Permanent_Identifier – New field for feature level metadata Source_FeatureID – New field for feature level metadata Meta_SourceID – New field for feature level metadata Source_DataDesc – New field for feature level metadata Source_Originator – New field for feature level metadata HU_Level HU_Class – New field populated with the number of digits of the hydrologic unit LoadDate – New field for feature level metadata LineSource WBD Polygon attribute table changes: Codes and names moved from single polygon dataset to the appropriate hydrologic unit dataset for each level Old Model: HUC_8 – moved to 8-digit polygon dataset HUC_10 – moved to 10-digit polygon dataset HUC_12 – moved to 12-digit polygon dataset ACRES – re-named to AREA_ACRES NCONTRB_A HU_10_GNIS – Replaced with Gaz_ID HU_12_GNIS – Replaced with Gaz_ID HU_10_DS – Removed from new model HU_10_NAME – moved to 10-digit polygon dataset HU_10_MOD – moved to 10-digit polygon dataset HU_10_TYPE – moved to 10-digit polygon dataset HU_12_DS – moved to 12-digit polygon dataset HU_12_NAME – moved to 12-digit polygon dataset HU_12_MOD – moved to 12-digit polygon dataset HU_12_TYPE – moved to 12-digit polygon dataset META_ID - removed – Feature level metadata functionality is added to track updates in the new model STATES New Model: Fields included in all levels of hydrologic unit polygon datasets. Gaz_ID – Old model was the GNIS field Area_Acres - Renamed Area_SqKm – New field States LoadDate- New field HUC_"#digit" - For Example: HUC12 HU_"#digit"_Name - For Example: HU_12_Name Fields included with the 10-, 12-, 14- and 16- digit polygon datasets. HU_"#digit"_Type - For Example HU_12_Type HU_"#digit"_Mod - For Example HU_12_Mod Fields included with the 12-, 14- and 16-digit polygon datasets. NContrb_Acres NContrb_SqKm – New field Tables New Model: ExternalIDCrosswalk FeaturetoHUMod FeatureToMetadata Meta_ProcessDetail Meta_SourceDetail ProcessingParameters UpdateStatus WBD_Attributes WBD_Nav

October 2012 Changes to the WBD data model include the elimination of the underscore "_" in field and table names, switching to camelCase. Other changes to the WBD data model include the elimination of the WBDPoint table, the WBDPointEvent table, and the WBDAtributes table. Fields have been added to the WBDHU12 polygon feature dataset that allow metadata record linking and also include the downstream attribute. NWIS drainage area line and polygon feature classes have been added also. New Model: WBD line dataset TNMID – Use to be PermanentID HULevel HUClass – New field populated with the number of digits of the hydrologic unit HUMod LineSource LoadDate – New field for feature level metadata (Source_FeatureID, Meta_SourceID, Source_DataDesc, Source_Originator fields removed from WBDLine dataset) WBD polygon dataset Fields included in all levels of hydrologic unit polygon datasets. TNMID – New field for feature level metadata MetaSourceID – New field for feature level metadata SourceDataDesc – New field for feature level metadata SourceOriginator – New field for feature level metadata SourceFeatureID – New field for feature level metadata LoadDate – New field for feature level metadata GNIS_ID = replaces Gaz_ID AreaAcres AreaSqKm States LoadDate HUC"digit" - for example: HUC12 Name Fields included with the 10-, 12-, 14- and 16- digit polygon datasets. HUType HUMod Fields included with the 12-, 14- and 16- digit polygon datasets. NContrbAcres NContrbSqKm Field included with the 12-digit polygon dataset. ToHUC – This attribute was included in the original WBD data model as HU_12_DS and represents the code of the next unit downstream. The values for this field were populated for the last version of the dataset in the old model by linking the 2 tables by the 12-digit code and calculating the value over. NWISDrainageArea polygon dataset added as a place holder for when these datasets are generated. Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate ReferenceTNMID SiteID AgencyCode SiteNumber StationName TotalDrainageArea ContributingDrainageArea NWISBoundary line dataset added as a place holder for when these datasets are generated. Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate ReferenceTNMID NonContributingDrainageArea polygon dataset added as a place holder for when these datasets are generated. Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate 2013 Changes to the WBD data model include updates to the field for the NonContributingDrainageArea polygon dataset, NWISBoundary line dataset and the NWISDrainageArea polygon dataset. This includes the addition of new fields and the re-naming of some of the existing fields. NWISDrainageArea polygon dataset: Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate ReferenceTNMIDNHDPointEvent – Renamed from ReferenceTNMID AgencyCode SiteNumber StationName ContributingDrainageAreaAcres – Originally called ContributingDrainageArea TotalDrainageAreaAcres – Originally called TotalDrainageArea ContributingDrainageAreaSqKm – New field TotalDrainageAreaSqKm – New field SiteID - Removed NWISBoundary line dataset: Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate ReferenceTNMIDPointEvent – Originally called ReferenceTNMID SiteNumber – New field NonContributingDrainageArea polygon dataset Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate NonContributingSqKm – New field NonContributingAcres – New field ReferenceTNMID12digitHU – New field Tables ExternalCrosswalk - Originally called ExternalIDCrosswalk FeatureToHUMod - removed FeatureToMetadata HUMod - NewField MetaProcessDetail - Previous version called Meta_ProcessDetail MetaSourceDetail - Previous version called Meta_SourceDetail ProcessingParameters UpdateStatus WBD_Attributes - removed WBDNavigation - Originally WBD_Nav 2014 2015 Changes to the WBD data model include updates or additions to the fields for the NonContributingDrainageArea polygon dataset, NWISBoundary line dataset and the NWISDrainageArea polygon dataset. The majority of these are due to the length of the original name for the field. A new line dataset was created for Non Contributing Area called NonContributingDrainageLine NWISBoundary was re-named NWISDrainageLine

NWISDrainageArea polygon dataset: Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate AreaSqKm – New Field AgencyCode SiteNumber StationName TotalAreaSqMi – New Field NWISTotalAreaSqMi – New Field ContributingAreaSqMi – New Field NWISContributingAreaSqMi – New Field ReferenceTNMIDNHDPointEvent Remarks – New Field ContributingDrainageAreaAcres – Removed TotalDrainageAreaAcres – Removed ContributingDrainageAreaSqKm – Removed TotalDrainageAreaSqKm – Removed NWISDrainageLine line dataset Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate LengthKm – New Field LineSource – New Field Agency Code – New Field SiteNumber ReferenceTNMIDPointEvent – Removed NonContributingDrainageArea polygon dataset Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate AreaSqKm – New Field NonContributingAreaSqKm – Re-named from NonContributingSqKm Remarks – New Field NonContributingAcres - Removed ReferenceTNMID12digitHU - Removed NonContributingDrainageLine line dataset – New dataset Attribute Fields: TNMID MetaSourceID SourceDataDesc SourceOriginator SourceFeatureID LoadDate LengthKm LineSource 2016 WBDLine dataset TNMID HULevel - removed HUDigit - Originally called HUClass HUMod LineSource MetaSourceID LoadDate WBD polygon datasets Fields included with the 12-, 14- and 16- digit polygon datasets. NonContributingAreaAcres - previous version was NonContributingAcres NonContributingAreaSqKm - previous version was NonContributingSqKm

Hide Process step ▲

SOURCE DATA ►

DESCRIPTION

Hydrography data used for reference in watershed boundary delineation process

SOURCE MEDIUM NAME hardcopy

RESOLUTION OF THE SOURCE DATA

SCALE DENOMINATOR 24000

SOURCE CITATION ►

TITLE National Hydrography Dataset

ALTERNATE TITLES NHD

PUBLICATION DATE 2016-01-01

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data

RESPONSIBLE PARTY

ORGANIZATION'S NAME U.S. Geological Survey

CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME U.S. Geological Survey

CONTACT'S ROLE publisher

CONTACT INFORMATION ▶
ADDRESS
DELIVERY POINT Denver, CO

Hide Contact information ▲

RESOURCE LOCATION ONLINE
LOCATION http://nhd.usgs.gov/data.html

Hide Source citation ▲

EXTENT OF THE SOURCE DATA
DESCRIPTION
Publication date

TEMPORAL EXTENT
DATE AND TIME
INDETERMINATE DATE unknown

Hide Source data ▲

SOURCE DATA ▶
DESCRIPTION
Aerial imagery used for reference in watershed boundary delineation

SOURCE MEDIUM NAME hardcopy
RESOLUTION OF THE SOURCE DATA
SCALE DENOMINATOR 24000

SOURCE CITATION ▶
TITLE Digital Orthophoto Quads
ALTERNATE TITLES USGSDOQ
PUBLICATION DATE
INDETERMINATE DATE unknown

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Raster Digital Data

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher

CONTACT INFORMATION ▶
ADDRESS

DELIVERY POINT Unknown

Hide Contact information ▲

RESOURCE LOCATION ONLINE
LOCATION http://datagateway.nrcs.usda.gov

Hide Source citation ▲

EXTENT OF THE SOURCE DATA
DESCRIPTION
20100325

TEMPORAL EXTENT
DATE AND TIME
INDETERMINATE DATE unknown

Hide Source data ▲

SOURCE DATA ►
DESCRIPTION
Reference dataset for the 2-, 4-, 6- and 8-digit hydrologic units

SOURCE MEDIUM NAME hardcopy
RESOLUTION OF THE SOURCE DATA
SCALE DENOMINATOR 250000

SOURCE CITATION ►
TITLE 250K Hydrologic Unit Boundaries
ALTERNATE TITLES HUC250K
PUBLICATION DATE 1994-01-01

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher

CONTACT INFORMATION ►
ADDRESS
DELIVERY POINT Reston, Virginia

Hide Contact information ▲

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator

RESOURCE LOCATION ONLINE
LOCATION http://water.usgs.gov/lookup/getspatial?huc250k

Hide Source citation ▲

EXTENT OF THE SOURCE DATA
DESCRIPTION
Publication date

TEMPORAL EXTENT
BEGINNING DATE
INDETERMINATE DATE unknown
ENDING DATE 1994-01-01

Hide Source data ▲

SOURCE DATA ▶
DESCRIPTION
Base information for hydrologic unit delineation.

SOURCE MEDIUM NAME hardcopy
RESOLUTION OF THE SOURCE DATA
SCALE DENOMINATOR 24000

SOURCE CITATION ▶
TITLE 7.5 Minute Topographic Quadrangle Sheets
ALTERNATE TITLES USGSTopo
PUBLICATION DATE
INDETERMINATE DATE unknown

FGDC GEOSPATIAL PRESENTATION FORMAT Paper Map

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher

CONTACT INFORMATION ▶
ADDRESS
DELIVERY POINT Reston, Virginia

Hide Contact information ▲

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator

Hide Source citation ▲

EXTENT OF THE SOURCE DATA
DESCRIPTION
Publication date

TEMPORAL EXTENT
BEGINNING DATE 1884-01-01
ENDING DATE 2006-01-01

Hide Source data ▲

SOURCE DATA ▶
DESCRIPTION
Base information for hydrologic unit delineation.

SOURCE MEDIUM NAME hardcopy
RESOLUTION OF THE SOURCE DATA
SCALE DENOMINATOR 24000

SOURCE CITATION ▶
TITLE U.S. Geological Survey Digital Raster Graphic (DRG)
ALTERNATE TITLES USGSDRG
PUBLICATION DATE 1999-01-01

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Raster Digital Data

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher

CONTACT INFORMATION ▶
ADDRESS
DELIVERY POINT Unknown

Hide Contact information ▲

RESOURCE LOCATION ONLINE
LOCATION http://datagateway.nrcs.usda.gov

Hide Source citation ▲

EXTENT OF THE SOURCE DATA
DESCRIPTION
Publication date

TEMPORAL EXTENT
BEGINNING DATE
INDETERMINATE DATE unknown
ENDING DATE 1999-01-01

Hide Source data ▲

Hide Lineage ▲

Geoprocessing history ►

PROCESS
PROCESS NAME
DATE 2019-01-15 12:54:55
TOOL LOCATION c:\program files (x86)\arcgis\desktop10.6\ArcToolbox\Toolboxes\Data Management Tools.tbx\Merge
COMMAND ISSUED

```
Merge
F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp;F:\DATA\00_HYDROLOGY\HUC_02\MS
_HUC12_NE.shp;F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp
F:\DATA\00_HYDROLOGY\MS_HUC12_LL.shp "OBJECTID "OBJECTID" true true false 10
Long 0 10 ,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,OBJECTID,-
1,-1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,OBJECTID,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,OBJECTID,-1,-1;TNMID "TNMID"
true true false 40 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,TNMID,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,TNMID,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,TNMID,-1,-1;MetaSource
"MetaSource" true true false 40 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,MetaSource,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,MetaSource,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,MetaSource,-1,-1;SourceData
"SourceData" true true false 100 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,SourceData,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,SourceData,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,SourceData,-1,-1;SourceOrig
"SourceOrig" true true false 130 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,SourceOrig,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,SourceOrig,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,SourceOrig,-1,-1;SourceFeat
"SourceFeat" true true false 40 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,SourceFeat,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,SourceFeat,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,SourceFeat,-1,-1;LoadDate
"LoadDate" true true false 8 Date 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,LoadDate,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,LoadDate,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,LoadDate,-1,-1;NonContrib
"NonContrib" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,NonContrib,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,NonContrib,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,NonContrib,-1,-1;NonContr_1
"NonContr_1" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,NonContr_1,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,NonContr_1,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,NonContr_1,-1,-1;AreaSqKm
"AreaSqKm" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,AreaSqKm,-1,-
```

```
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,AreaSqKm,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,AreaSqKm,-1,-1;AreaAcres
"AreaAcres" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,AreaAcres,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,AreaAcres,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,AreaAcres,-1,-1;GNIS_ID
"GNIS_ID" true true false 10 Long 0 10
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,GNIS_ID,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,GNIS_ID,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,GNIS_ID,-1,-1;Name "Name"
true true false 120 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,Name,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,Name,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,Name,-1,-1;States "States"
true true false 50 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,States,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,States,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,States,-1,-1;HUC12 "HUC12"
true true false 12 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,HUC12,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,HUC12,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,HUC12,-1,-1;HUType "HUType"
true true false 254 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,HUType,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,HUType,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,HUType,-1,-1;HUMod "HUMod"
true true false 30 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,HUMod,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,HUMod,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,HUMod,-1,-1;ToHUC "ToHUC"
true true false 16 Text 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,ToHUC,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,ToHUC,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,ToHUC,-1,-1;Shape_Leng
"Shape_Leng" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,Shape_Leng,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,Shape_Leng,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,Shape_Leng,-1,-1;Shape_Area
"Shape_Area" true true false 19 Double 0 0
,First,#,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_West.shp,Shape_Area,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_NE.shp,Shape_Area,-1,-
1,F:\DATA\00_HYDROLOGY\HUC_02\MS_HUC12_East.shp,Shape_Area,-1,-1"
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

Hide Geoprocessing history ▲

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

ORGANIZATION'S NAME U.S. Geological Survey

CONTACT'S ROLE distributor

CONTACT INFORMATION ►

PHONE

VOICE 1-877-275-8747

ADDRESS
TYPE postal
DELIVERY POINT U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046
CITY Denver
ADMINISTRATIVE AREA CO
POSTAL CODE 80225
E-MAIL ADDRESS bpgeo@usgs.gov

Hide Contact information ▲

AVAILABLE FORMAT
NAME Vector Digital Data Set (Polygon)

ORDERING PROCESS
TERMS AND FEES None. No fees are applicable for obtaining the data set.

TRANSFER OPTIONS
ONLINE SOURCE
LOCATION
ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.zip

Hide Distributor ▲

DISTRIBUTION FORMAT
* NAME Shapefile

TRANSFER OPTIONS
* TRANSFER SIZE 34.002

ONLINE SOURCE
LOCATION
ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.zip

Hide Distribution ▲

Fields ►

DETAILS FOR OBJECT MS_Watersheds_12 ►
* TYPE Feature Class
* ROW COUNT 1476
DEFINITION
Polygon feature class representing the 2-digit hydrologic unit boundaries (previously referred to as Regions) and are part of the WBD delivery.

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD FID ►
* ALIAS FID
* 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.

Hide Field FID ▲

FIELD OBJECTID ►
* ALIAS OBJECTID
* DATA TYPE Integer
* WIDTH 10
* PRECISION 10
* SCALE 0
* FIELD DESCRIPTION
Internal feature number.

* DESCRIPTION SOURCE
Esri

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

Hide Field OBJECTID ▲

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.

Hide Field Shape ▲

FIELD TNMID ►
* ALIAS TNMID
* DATA TYPE String
* WIDTH 40
* PRECISION 0
* SCALE 0

Hide Field TNMID ▲

FIELD MetaSource ►
* ALIAS MetaSource
* DATA TYPE String
* WIDTH 40
* PRECISION 0
* SCALE 0

Hide Field MetaSource ▲

FIELD SourceData ►
* ALIAS SourceData
* DATA TYPE String
* WIDTH 100
* PRECISION 0
* SCALE 0

Hide Field SourceData ▲

FIELD SourceOrig ►
* ALIAS SourceOrig
* DATA TYPE String
* WIDTH 130
* PRECISION 0
* SCALE 0

Hide Field SourceOrig ▲

FIELD SourceFeat ►

* ALIAS SourceFeat
* DATA TYPE String
* WIDTH 40
* PRECISION 0
* SCALE 0

Hide Field SourceFeat ▲

FIELD LoadDate ►
* ALIAS LoadDate
* DATA TYPE Date
* WIDTH 8
* PRECISION 0
* SCALE 0

Hide Field LoadDate ▲

FIELD NonContrib ►
* ALIAS NonContrib
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

Hide Field NonContrib ▲

FIELD NonContr_1 ►
* ALIAS NonContr_1
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

Hide Field NonContr_1 ▲

FIELD AreaSqKm ►
* ALIAS AreaSqKm
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

Hide Field AreaSqKm ▲

FIELD AreaAcres ►

* ALIAS AreaAcres
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

Hide Field AreaAcres ▲

FIELD GNIS_ID ►
* ALIAS GNIS_ID
* DATA TYPE Integer
* WIDTH 10
* PRECISION 10
* SCALE 0

Hide Field GNIS_ID ▲

FIELD Name ►
* ALIAS Name
* DATA TYPE String
* WIDTH 120
* PRECISION 0
* SCALE 0

Hide Field Name ▲

FIELD States ►
* ALIAS States
* DATA TYPE String
* WIDTH 50
* PRECISION 0
* SCALE 0

Hide Field States ▲

FIELD HUC12 ►
* ALIAS HUC12
* DATA TYPE String
* WIDTH 12
* PRECISION 0
* SCALE 0

Hide Field HUC12 ▲

FIELD HUType ►

* ALIAS HUType
* DATA TYPE String
* WIDTH 254
* PRECISION 0
* SCALE 0

Hide Field HUType ▲

FIELD HUMod ►
* ALIAS HUMod
* DATA TYPE String
* WIDTH 30
* PRECISION 0
* SCALE 0

Hide Field HUMod ▲

FIELD ToHUC ►
* ALIAS ToHUC
* DATA TYPE String
* WIDTH 16
* PRECISION 0
* SCALE 0

Hide Field ToHUC ▲

FIELD Shape_Leng ►
* ALIAS Shape_Leng
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

Hide Field Shape_Leng ▲

FIELD Shape_Area ►
* ALIAS Shape_Area
* DATA TYPE Double
* WIDTH 19
* 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.

Hide Field Shape_Area ▲

Hide Details for object MS_Watersheds_12 ▲

DETAILS FOR OBJECT WBDHU4 ►
DEFINITION
Polygon feature class representing the 4-digit hydrologic unit boundaries (previously referred to as Subregions) that are part of the WBD delivery.

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC4 ►
FIELD DESCRIPTION
The HUC4 field is a unique 4-digit hydrologic unit code.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES
NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC4 ▲

Hide Details for object WBDHU4 ▲

DETAILS FOR OBJECT WBDHU6 ►
DEFINITION
Polygon feature class representing the 6-digit hydrologic unit boundaries (previously referred to as Basins) and are part of the WBD delivery.

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC6 ►

FIELD DESCRIPTION

The HUC6 field is a unique 6-digit hydrologic unit code.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC6 ▲

Hide Details for object WBDHU6 ▲

DETAILS FOR OBJECT WBDHU8 ►

DEFINITION

Polygon feature class representing the 8-digit hydrologic unit boundaries (previously referred to as Subbasins) and are part of the WBD delivery.

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC8 ►

FIELD DESCRIPTION

The HUC8 field is a unique 8-digit hydrologic unit code.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC8 ▲

Hide Details for object WBDHU8 ▲

DETAILS FOR OBJECT WBDHU10 ►

DEFINITION

Polygon feature class representing the 10-digit hydrologic unit boundaries (previously referred to as Watersheds).

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC10 ►
FIELD DESCRIPTION
The HUC10 field is a unique 10-digit hydrologic unit code.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES
NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Provide Codeset Definition Reference (Citatation/URL)

Hide Field HUC10 ▲

Hide Details for object WBDHU10 ▲

DETAILS FOR OBJECT WBDHU12 ►
DEFINITION
Polygon feature class representing the 12-digit hydrologic unit boundaries (previously referred to as Subwatersheds).

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC12 ►
FIELD DESCRIPTION
The HUC12 field is a unique 12-digit hydrologic unit code.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES
NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC12 ▲

FIELD ToHUC ►

FIELD DESCRIPTION

The 12-digit hydrologic unit ToHUC code attribute is the code for the 12-digit hydrologic unit that is downstream from and naturally receives the majority of the flow from another 12-digit hydrologic unit.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field ToHUC ▲

Hide Details for object WBDHU12 ▲

DETAILS FOR OBJECT WBDHU14 ►

DEFINITION

Polygon feature class representing the 14-digit hydrologic unit boundaries.

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC14 ►

FIELD DESCRIPTION

The HUC14 field is a unique 14-digit hydrologic unit code.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC14 ▲

Hide Details for object WBDHU14 ▲

DETAILS FOR OBJECT WBDHU16 ►

DEFINITION

Polygon feature class representing the 16-digit hydrologic unit boundaries.

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUC16 ►
FIELD DESCRIPTION
The HUC16 field is a unique 16-digit hydrologic unit code.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES
NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUC16 ▲

Hide Details for object WBDHU16 ▲

DETAILS FOR OBJECT WBDLine ►
DEFINITION
Line feature class defining the hydrologic unit boundaries

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUDigit ►
FIELD DESCRIPTION
HUDigit is a domain-based field that indicates the minimum number of digits used to represent the hydrologic unit bounded by the line.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES
NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUDigit ▲

FIELD HUMod ►

FIELD DESCRIPTION

Two-character, uppercase abbreviation used to track either a modification to natural overland flow that alters the location of the hydrologic unit boundary or special conditions that are applied to a specific boundary line segment. The value identifies the type of modification, from the list provided, that has been applied to the boundary segment. If more than one abbreviation is used, the list is separated by commas without spaces and organized from most to least predominant.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUMod ▲

FIELD LineSource ►

FIELD DESCRIPTION

LineSource represents the code for the base data used for delineating hydrologic unit boundaries.

If more than one code is used,then the list is separated by a comma with no spaces with the most recent LineSource listed first in the sequence.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field LineSource ▲

Hide Details for object WBDLine ▲

DETAILS FOR OBJECT NWISDrainageArea ►

DEFINITION

Polygon features representing PROVISIONAL contributing drainage area for select gage locations in the U.S. Geological Survey National Water Information System

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD AreaSqKm ►

FIELD DESCRIPTION

Area of the gaged watershed

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

Calculated polygon area, square kilometers

Hide Field AreaSqKm ▲

FIELD AgencyCode ►

FIELD DESCRIPTION

Site Agency code

DESCRIPTION SOURCE

U.S. Geological Survey National Water Information System

CODED VALUES

NAME OF CODELIST U.S. Geological Survey National Water Information System

SOURCE http://help.waterdata.usgs.gov/

Hide Field AgencyCode ▲

FIELD SiteNumber ►

FIELD DESCRIPTION

U.S. Geological Survey unique site identifier

DESCRIPTION SOURCE

U.S. Geological Survey National Water Information System

DESCRIPTION OF VALUES

Unique code identifying a measurement site in the National Water Information System database

Hide Field SiteNumber ▲

FIELD StationName ►

FIELD DESCRIPTION

Site Name

DESCRIPTION SOURCE
U.S. Geological Survey National Water Information System

DESCRIPTION OF VALUES
Common name associated with site in the National Water Information System database

Hide Field StationName ▲

FIELD TotalAreaSqMi ►
FIELD DESCRIPTION
Total drainage area

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

DESCRIPTION OF VALUES
Total area of the polygon, square miles

Hide Field TotalAreaSqMi ▲

FIELD NWISTotalAreaSqMi ►
FIELD DESCRIPTION
Total drainage area reported in U.S. Geological Survey National Water Information System

DESCRIPTION SOURCE
U.S. Geological Survey National Water Information System

DESCRIPTION OF VALUES
Total area in square miles

Hide Field NWISTotalAreaSqMi ▲

FIELD ContributingAreaSqMi ►
FIELD DESCRIPTION
Total contributing drainage area, square miles

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

DESCRIPTION OF VALUES
Total contributing area, square miles

Hide Field ContributingAreaSqMi ▲

FIELD NWISContributingAreaSqMi ►

FIELD DESCRIPTION

Contributing drainage area reported in U.S. Geological Survey National Water Information System

DESCRIPTION SOURCE

U.S. Geological Survey National Water Information System

DESCRIPTION OF VALUES

Total contributing area, square miles

Hide Field NWISContributingAreaSqMi ▲

FIELD ReferenceTNMIDNHDPointEvent ►

FIELD DESCRIPTION

Unique identifier for NHD point event representing gage

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

DESCRIPTION OF VALUES

Unique identifier that is automatically generated

Hide Field ReferenceTNMIDNHDPointEvent ▲

FIELD Remarks ►

FIELD DESCRIPTION

Remarks

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

DESCRIPTION OF VALUES

Free text holding remarks from reviewers and/or dataset originator

Hide Field Remarks ▲

Hide Details for object NWISDrainageArea ▲

Details for object NWISDrainageLine ►

Definition

Line features representing the boundary of the contributing gaged drainage area

Definition source

Federal Standards and Procedures for the National Watershed Boundary Dataset

Field LengthKm ►

Field description

Length of the line

Description source

Federal Standards and Procedures for the National Watershed Boundary Dataset

Description of values

Calculated line length, kilometers

Hide Field LengthKm ▲

Field LineSource ►

Field description

Code identifying the base data used for delineating hydrologic unit boundaries

Description source

Federal Standards and Procedures for the National Watershed Boundary Dataset

Coded values

Name of codelist Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
Source Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field LineSource ▲

Field AgencyCode ►

Field description

Site Agency code

Description source

U.S. Geological Survey National Water Information System

Coded values

Name of codelist U.S. Geological Survey National Water Information System
Source http://help.waterdata.usgs.gov/

Hide Field AgencyCode ▲

FIELD SiteNumber ►

FIELD DESCRIPTION

U.S. Geological Survey unique site identifier

DESCRIPTION SOURCE

U.S. Geological Survey National Water Information System

DESCRIPTION OF VALUES

Unique code identifying a measurement site in the National Water Information System database

Hide Field SiteNumber ▲

Hide Details for object NWISDrainageLine ▲

DETAILS FOR OBJECT WBDLine, WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NWISDrainageLine, NonContributingDrainageArea, NonContributingDrainageLine ►

DEFINITION

The following attribute fields are common to all feature classes within the WBD

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD OBJECTID ►

FIELD DESCRIPTION

Internal feature number.

DESCRIPTION SOURCE

ESRI

DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

Hide Field OBJECTID ▲

FIELD Shape ►

FIELD DESCRIPTION

Feature geometry.

DESCRIPTION SOURCE

ESRI

DESCRIPTION OF VALUES

Coordinates defining the features.

Hide Field Shape ▲

FIELD TNMID ►

FIELD DESCRIPTION

TNMID (short for The National Map Identification) is a unique 40-character field that identifies each element in the database exclusively.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

TNMID is an automatically assigned code that stays with each element. When an element is updated or changed, TNMID links the element to the metadata record and documents the change. TNMID is also used to maintain relationship classes in the normalized data model. When an element is deleted or split, TNMID stays with the original element and is not used again. When an element is split, new permanent identifiers are assigned to the resultant parts.

Hide Field TNMID ▲

FIELD MetaSourceID ►

FIELD DESCRIPTION

MetaSourceID is a unique identifier that links the element to the metadata tables.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

MetaSourceID is a unique identifier that links the element to the metadata tables. This ID is generated and assigned automatically by the database and remains with the object permanently.

Hide Field MetaSourceID ▲

FIELD SourceDataDesc ►

FIELD DESCRIPTION

SourceDataDesc is a space provided for a brief description of the type of base data used to update or change the current WBD.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

The WBD In-State Steward completes this field as part of the metadata form.

Hide Field SourceDataDesc ▲

FIELD SourceOriginator ►

FIELD DESCRIPTION

SourceOriginator is the description of the agency that created the base data used to improve the WBD.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

The WBD In-State Steward completes this field as part of the metadata form

Hide Field SourceOriginator ▲

FIELD SourceFeatureID ►

FIELD DESCRIPTION

SourceFeatureID is a long, unique code.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

DESCRIPTION OF VALUES

This code identifies the parent of the feature if the feature is the result of a split or merge, and it is automatically generated and assigned.

Hide Field SourceFeatureID ▲

FIELD LoadDate ►

FIELD DESCRIPTION

LoadDate represents the date when the data were loaded into the official USGS WBD ArcSDE database. The field is the effective date for all feature edits, and it is automatically generated.

DESCRIPTION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

RANGE OF VALUES
MINIMUM VALUE 12:00:00 AM
MAXIMUM VALUE 5/22/2015 9:18:54 AM

Hide Field LoadDate ▲

FIELD SHAPE_Length ►
FIELD DESCRIPTION
Length of feature in internal units.

DESCRIPTION SOURCE
Esri

RANGE OF VALUES
MINIMUM VALUE 0.00969668135620442
MAXIMUM VALUE 156.106394893564

Hide Field SHAPE_Length ▲

Hide Details for object WBDLine, WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NWISDrainageLine, NonContributingDrainageArea, NonContributingDrainageLine ▲

DETAILS FOR OBJECT WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NonContributingDrainageArea ►
DEFINITION
The following attribute field is common to all polygon feature classes within the WBD

DEFINITION SOURCE
Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD Shape_Area ►
FIELD DESCRIPTION
Area of feature in internal units squared.

DESCRIPTION SOURCE
Esri

RANGE OF VALUES
MINIMUM VALUE 1.4877635179339E-06
MAXIMUM VALUE 9.79299310229808

Hide Field Shape_Area ▲

Hide Details for object WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NonContributingDrainageArea ▲

DETAILS FOR OBJECT WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16 ►

DEFINITION

The following attribute fields are common to the WBD hydrologic unit polygon datasets

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD GNIS_ID ►

FIELD DESCRIPTION

GNIS_ID is a preassigned numeric field that uses a unique number to relate the name of the hydrologic unit to the GNIS names database.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Geographic Names Information System (GNIS)

SOURCE GNIS (http://gnis.usgs.gov/)

Hide Field GNIS_ID ▲

FIELD AreaAcres ►

FIELD DESCRIPTION

The area of each hydrologic unit including non-contributing areas stored in acres AreaAcres is common to all polygon feature classes and is calculated at the 12-digit hydrologic unit from the intrinsic area value maintained by the GIS software; therefore, acreage values may vary from user calculations, depending on the projection of the data. North American Albers Equal Area Conic, North American Datum 1983 is the required projection to use for calculation. If the units of the area field are stored in square meters, then use the conversion factor 0.0002471. For example, 40,469,446 square meters multiplied by 0.0002471 =10,000 acres

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

RANGE OF VALUES

MINIMUM VALUE 0

MAXIMUM VALUE 50000000

UNITS OF MEASURE acres

Hide Field AreaAcres ▲

FIELD AreaSqKm ►

FIELD DESCRIPTION

The area of each hydrologic unit including non-contributing areas stored in square kilometers.
AreaSqKm is calculated at the 12-digit hydrologic unit from the intrinsic area value maintained by the GIS software; therefore, the square kilometer values may vary from user calculations, depending on the projection of the data. North American Albers Equal Area Conic, North American Datum 1983 is the default projection.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

RANGE OF VALUES

MINIMUM VALUE 0
MAXIMUM VALUE 100000
UNITS OF MEASURE square kilometers

Hide Field AreaSqKm ▲

FIELD States ►

FIELD DESCRIPTION

The States or outlying area attribute identifies the State(s) or outlying areas that the hydrologic unit falls within or touches. Will be populated with the 2 character state abbreviation or outlying area attribute for each area that the unit falls within in alphabetical order.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

Hide Field States ▲

FIELD Name ►

FIELD DESCRIPTION

Name refers to the GNIS name for the geographic area in which the hydrologic unit is located.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field Name ▲

Hide Details for object WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16 ▲

DETAILS FOR OBJECT WBDHU10, WBDHU12, WBDHU14, WBDHU16 ►

DEFINITION

The following attribute fields are common to the 10-digit, 12-digit, 14-digit and 16-digit WBD polygon datasets

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD HUType ►

FIELD DESCRIPTION

The 12-digit hydrologic unit type attribute is the single-letter abbreviation for Watershed type from the list of official names provided in the WBD Standards.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUType ▲

FIELD HUMod ►

FIELD DESCRIPTION

The hydrologic unit modification attribute is a two-character, uppercase abbreviation(s) for either (1) the type of modification to natural overland flow that alters the natural delineation of a hydrologic unit or (2) the special conditions GF-groundwater flow, GL-glacier, IF-ice field, KA-karst, and NC-noncontributing area. The value of the HUMod field helps to indicate where the modification to the hydrologic unit is located. If more than one abbreviation is used, the will be separated by commas without spaces and listed from most to least predominant.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODED VALUES

NAME OF CODELIST Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

Hide Field HUMod ▲

Hide Details for object WBDHU10, WBDHU12, WBDHU14, WBDHU16 ▲

DETAILS FOR OBJECT WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea and NonContributingDrainageArea ►

DEFINITION

The following attribute fields are common to the 12-digit, 14-digit and 16-digit WBD polygon datasets as well as the NWISDrainageArea, and NonContributingDrainageArea polygon datasets

DEFINITION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset

FIELD NonContributingAreaAcres ►

FIELD DESCRIPTION

The noncontributing area attribute represents the area, in acres, of hydrologic units that do not contribute to downstream accumulation of streamflow under normal flow conditions.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

RANGE OF VALUES

MINIMUM VALUE 0

MAXIMUM VALUE 50000000

Hide Field NonContributingAreaAcres ▲

FIELD NonContributingAreaSqKm ►

FIELD DESCRIPTION

The noncontributing area attribute represents the area, in square kilometers, of hydrologic units that do not contribute to downstream accumulation of streamflow under normal flow conditions.

DESCRIPTION SOURCE

Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

RANGE OF VALUES
MINIMUM VALUE 0
MAXIMUM VALUE 100000

Hide Field NonContributingAreaSqKm ▲

Hide Details for object WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea and NonContributingDrainageArea ▲

OVERVIEW DESCRIPTION ►
ENTITY AND ATTRIBUTE OVERVIEW

The Watershed Boundary Dataset is a comprehensive set of digital spatial data that represents the surface drainages areas of the United States. The information included with the features includes a feature date, a unique common identifier, name, the feature length or area, and other characteristics. Names and their identifiers are assigned from the Geographic Names Information System. The data also contains relations that encode metadata. The names and definitions of all these feature attributes are in the Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD). The document is available online at http://pubs.usgs.gov/tm/11/a3/.

ENTITY AND ATTRIBUTE DETAIL CITATION

The names and definitions of all fields within the WBD attribution are in the U.S. Geological Survey, Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD). The document is available online at http://pubs.usgs.gov/tm/11/a3/. Information about the attribute tables and fields are in Section 6: Geospatial Data Structure and Attributes

Hide Overview Description ▲

Hide Fields ▲

Metadata Details ►

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

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

* LAST UPDATE 2019-01-15

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 2019-01-15 12:57:09
LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-01-15 13:00:19

AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2019-01-15 12:58:52

Hide Metadata Details ▲

Metadata Contacts ►

METADATA CONTACT
INDIVIDUAL'S NAME WBD Point of Contact
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►
PHONE
VOICE 1-877-275-8747

ADDRESS
TYPE postal
DELIVERY POINT U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046
CITY Denver
ADMINISTRATIVE AREA CO
POSTAL CODE 80225
E-MAIL ADDRESS bpgeo@usgs.gov

Hide Contact information ▲

Hide Metadata Contacts ▲

Thumbnail and Enclosures ►

THUMBNAIL
THUMBNAIL TYPE JPG

ENCLOSURE
ENCLOSURE TYPE File
DESCRIPTION OF ENCLOSURE original metadata
ORIGINAL METADATA DOCUMENT, WHICH WAS TRANSLATED yes
SOURCE METADATA FORMAT fgdc

Hide Thumbnail and Enclosures ▲

FGDC Metadata (read-only) ▼

CITATION
CITATION INFORMATION
ORIGINATOR U.S. Geological Survey (USGS)

ORIGINATOR U.S. Department of Agriculture - Natural Resource Conservation Service (NRCS)
ORIGINATOR U.S. Environmental Protection Agency (EPA)
ORIGINATOR Other Federal, State, and local partners (see dataset specific metadata for details http://nhd.usgs.gov/wbd_metadata.html)
PUBLICATION DATE 2015-12-16
TITLE
National Watershed Boundary Dataset (WBD)
GEOSPATIAL DATA PRESENTATION FORM Vector Digital Data Set
ONLINE LINKAGE
ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.zip

DESCRIPTION
ABSTRACT
The Watershed Boundary Dataset (WBD) is a comprehensive aggregated collection of hydrologic unit data consistent with the national criteria for delineation and resolution. It defines the areal extent of surface water drainage to a point except in coastal or lake front areas where there could be multiple outlets as stated by the "Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)" "Standard" (http://pubs.usgs.gov/tm/11/a3/). Watershed boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency. This dataset represents the hydrologic unit boundaries to the 12-digit (6th level) for the entire United States. Some areas may also include additional subdivisions representing the 14- and 16-digit hydrologic unit (HU). At a minimum, the HUs are delineated at 1:24,000-scale in the conterminous United States, 1:25,000-scale in Hawaii, Pacific basin and the Caribbean, and 1:63,360-scale in Alaska, meeting the National Map Accuracy Standards (NMAS). Higher resolution boundaries are being developed where partners and data exist and will be incorporated back into the WBD. WBD data are delivered as a dataset of polygons and corresponding lines that define the boundary of the polygon. WBD polygon attributes include hydrologic unit codes (HUC), size (in the form of acres and square kilometers), name, downstream hydrologic unit code, type of watershed, non-contributing areas, and flow modifications. The HUC describes where the unit is in the country and the level of the unit. WBD line attributes contain the highest level of hydrologic unit for each boundary, line source information and flow modifications.
PURPOSE
The intent of defining Hydrologic Units (HU) within the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. Hydrologic units are intended to be used as a tool for water-resource management and planning activities particularly for site-specific and localized studies requiring a level of detail provided by large-scale map information. The WBD complements the National Hydrography Dataset (NHD) and supports numerous programmatic missions and activities including: watershed management, rehabilitation and enhancement, aquatic species conservation strategies, flood plain management and flood prevention, water-quality initiatives and programs, dam safety programs, fire assessment and management, resource inventory and assessment, water data analysis and water census.
SUPPLEMENTAL INFORMATION
The WBD was produced and is maintained through a cooperative process involving state, federal and local partners. Process information for a specific state or region can be found within the state specific metadata located at http://nhd.usgs.gov/wbd_metdata.html. This metadata file has information for WBD features contained in the WBD feature dataset. This includes information about the 2-, 4-, 6-, 8-, 10-, 12-, 14-, 16-digit polygons and WBD_Line dataset. Users accessing the

WBD via shapefile will need to search for the attribution related to that specific dataset.

Time Period of Content
Time Period Information
Range of Dates/Times
Beginning Date 1980
Ending Date 2016
Currentness Reference
publication date

Status
Progress Complete
Maintenance and Update Frequency As needed

Spatial Domain
Bounding Coordinates
West Bounding Coordinate -179.229655487
East Bounding Coordinate 179.856674735
North Bounding Coordinate 71.4395725902
South Bounding Coordinate -14.4246950943

Keywords
Theme
Theme Keyword Thesaurus ISO 19115 Topic Category
Theme Keyword inlandWaters
Theme Keyword Watershed Boundary Dataset
Theme Keyword WBD
Theme Keyword Hydrologic Units
Theme Keyword Hydrologic Unit Code
Theme Keyword HUC
Theme Keyword Region
Theme Keyword Sub-region
Theme Keyword Basin
Theme Keyword Sub-basin
Theme Keyword Watershed
Theme Keyword Subwatershed
Theme Keyword 2-digit
Theme Keyword 4-digit
Theme Keyword 6-digit
Theme Keyword 8-digit
Theme Keyword 10-digit
Theme Keyword 12-digit
Theme Keyword 14-digit
Theme Keyword 16-digit

Place
Place Keyword Thesaurus U.S. Department of Commerce, 1977, Countries, dependencies, areas of special sovereignty, and their principal administrative divisions (Federal Information Processing Standards 10-3): Washington, D.C., National Institute of Standards and Technology.
Place Keyword US
Place Keyword United States

Access Constraints
None

Use Constraints
The distributor shall not be held liable for improper or incorrect use of this data, based on the description of appropriate/inappropriate uses described in this metadata

document. It is strongly recommended that this data is directly acquired from the distributor and not indirectly through other sources which may have changed the data in some way. These data should not be used at scales greater than 1:24,000 for the purpose of identifying hydrographic watershed boundary feature locations in the United States. The Watershed Boundary Dataset is public information and may be interpreted by all organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application of the data. Photographic or digital enlargement of these maps to scales greater than that at which they were originally delineated can result in misrepresentation of the data. If enlarged, the maps will not include the fine detail that would be appropriate for mapping at the small scale. Digital data files are periodically updated and users are responsible for obtaining the latest version of the data from the source distributor. Acknowledgment of the origination agencies would be appreciated in products derived from these data.

POINT OF CONTACT

CONTACT INFORMATION

CONTACT ORGANIZATION PRIMARY

CONTACT ORGANIZATION U.S. Geological Survey

CONTACT ADDRESS

ADDRESS TYPE Mailing

ADDRESS U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046

CITY Denver

STATE OR PROVINCE CO

POSTAL CODE 80225

CONTACT VOICE TELEPHONE 1-877-275-8747

CONTACT ELECTRONIC MAIL ADDRESS bpgeo@usgs.gov

BROWSE GRAPHIC

BROWSE GRAPHIC FILE NAME

ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.jpg

BROWSE GRAPHIC FILE DESCRIPTION

Thumbnail JPG image

BROWSE GRAPHIC FILE TYPE JPEG

DATA SET CREDIT

Funding for the Watershed Boundary Dataset (WBD) was provided by the USDA-NRCS, USGS and EPA along with other federal, state and local agenciesies. Representatives from many agencies contributed a substantial amount of time and salary towards quality review and updating of the dataset in order to meet the WBD Standards. Acknowledgment of the originating agencies would be appreciated in products derived from these data. See dataset specific metadata for further information

NATIVE DATA SET ENVIRONMENT

Environment as of Metadata Creation: Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.2.2 (Build 3552) Service Pack N/A (Build N/A)

Hide Identification ▲

ATTRIBUTE ACCURACY

ATTRIBUTE ACCURACY REPORT

All attempts were made to verify 100% of the initially required attributes using 24K digital raster graphics (DRGs) as the base. Additional datasets, like the Geographic Names Information System (GNIS) and NHD, may also have been used to verify attribution. The accuracy of this data is dependent on the level of detail of the source material and the interpretation procedures for capturing that source. Other sources and methods may have been used to create or update WBD data. In some cases, additional information may be found in the WBD Metadata table.

LOGICAL CONSISTENCY REPORT

Lines, polygons and nodes conform to topological rules. Lines intersect only at nodes, and all nodes anchor the ends of lines. Lines do not overshoot or undershoot other lines where they are supposed to meet. There are no duplicate lines. Lines bound polygons. Gaps and overlaps among polygons do not exist. All polygons close.

COMPLETENESS REPORT

The WBD contains completed polygons at every level for the United States. All required fields within the polygon and line datasets are populated. Some of these fields may be populated with a zeor "0". The lines coincident with the international boundary are assigned a HULevel value of 0. These cannot be attributed until the adjacent international units are added at which point the highest level of hydrologic unit can be determined. A detailed description of delineation methods and full attribute definitions can be found in the WBD Standards. Users are advised to carefully read the metadata record for additional details.

POSITIONAL ACCURACY

HORIZONTAL POSITIONAL ACCURACY

HORIZONTAL POSITIONAL ACCURACY REPORT

The WBD was produced using a variety of digital spatial data including but not limited to Digital Raster Graphics (DRGs), aerial imagery and digital elevation models (DEM). It is assumed these data are mapped at approximately 1:24,000-scale and contain a minimum inherent error of +/- 40 feet. It should be noted that the WBD is undergoing continuous update as source data improves and as hydrologic interpretations are refined. While general rules of hydrology were used in delineation, locations of boundaries may be subjective in some cases. Additional information may be found in the WBD Metadata table.

VERTICAL POSITIONAL ACCURACY

VERTICAL POSITIONAL ACCURACY REPORT

A formal accuracy assessment of the vertical positional information in the data set has either not been conducted, or is not applicable.

LINEAGE

SOURCE INFORMATION

SOURCE CITATION

CITATION INFORMATION

ORIGINATOR U.S. Geological Survey

PUBLICATION DATE Unknown

TITLE

7.5 Minute Topographic Quadrangle Sheets

GEOSPATIAL DATA PRESENTATION FORM Paper Map

PUBLICATION INFORMATION

PUBLICATION PLACE Reston, Virginia

PUBLISHER U.S. Geological Survey

SOURCE SCALE DENOMINATOR 24000

TYPE OF SOURCE MEDIA Digital and/or Hardcopy Resources

SOURCE TIME PERIOD OF CONTENT

TIME PERIOD INFORMATION

RANGE OF DATES/TIMES

BEGINNING DATE 1884

ENDING DATE 2006

SOURCE CURRENTNESS REFERENCE

Publication date

SOURCE CITATION ABBREVIATION

USGSTopo

SOURCE CONTRIBUTION

Base information for hydrologic unit delineation.

SOURCE INFORMATION

SOURCE CITATION

CITATION INFORMATION

ORIGINATOR U.S. Geological Survey
PUBLICATION DATE 1999
TITLE
U.S. Geological Survey Digital Raster Graphic (DRG)
GEOSPATIAL DATA PRESENTATION FORM Raster Digital Data
PUBLICATION INFORMATION
PUBLICATION PLACE Unknown
PUBLISHER U.S. Geological Survey
ONLINE LINKAGE http://datagateway.nrcs.usda.gov

SOURCE SCALE DENOMINATOR 24000
TYPE OF SOURCE MEDIA Digital and/or Hardcopy Resources
SOURCE TIME PERIOD OF CONTENT
TIME PERIOD INFORMATION
RANGE OF DATES/TIMES
BEGINNING DATE Unknown
ENDING DATE 1999
SOURCE CURRENTNESS REFERENCE
Publication date
SOURCE CITATION ABBREVIATION
USGSDRG
SOURCE CONTRIBUTION
Base information for hydrologic unit delineation.
SOURCE INFORMATION
SOURCE CITATION
CITATION INFORMATION
ORIGINATOR U.S. Geological Survey
PUBLICATION DATE Unknown
TITLE
Digital Orthophoto Quads
GEOSPATIAL DATA PRESENTATION FORM Raster Digital Data
PUBLICATION INFORMATION
PUBLICATION PLACE Unknown
PUBLISHER U.S. Geological Survey
ONLINE LINKAGE http://datagateway.nrcs.usda.gov

SOURCE SCALE DENOMINATOR 24000
TYPE OF SOURCE MEDIA Digital and/or Hardcopy Resources
SOURCE TIME PERIOD OF CONTENT
TIME PERIOD INFORMATION
SINGLE DATE/TIME
CALENDAR DATE Unknown
SOURCE CURRENTNESS REFERENCE
20100325
SOURCE CITATION ABBREVIATION
USGSDOQ
SOURCE CONTRIBUTION
Aerial imagery used for reference in watershed boundary delineation
SOURCE INFORMATION
SOURCE CITATION
CITATION INFORMATION
ORIGINATOR U.S. Geological Survey
PUBLICATION DATE 1994
TITLE
250K Hydrologic Unit Boundaries
GEOSPATIAL DATA PRESENTATION FORM Vector Digital Data
PUBLICATION INFORMATION
PUBLICATION PLACE Reston, Virginia

PUBLISHER U.S. Geological Survey
ONLINE LINKAGE http://water.usgs.gov/lookup/getspatial?huc250k

SOURCE SCALE DENOMINATOR 250000
TYPE OF SOURCE MEDIA Digital and/or Hardcopy Resources
SOURCE TIME PERIOD OF CONTENT
TIME PERIOD INFORMATION
RANGE OF DATES/TIMES
BEGINNING DATE Unknown
ENDING DATE 1994
SOURCE CURRENTNESS REFERENCE
Publication date
SOURCE CITATION ABBREVIATION
HUC250K
SOURCE CONTRIBUTION
Reference dataset for the 2-, 4-, 6- and 8-digit hydrologic units
SOURCE INFORMATION
SOURCE CITATION
CITATION INFORMATION
ORIGINATOR U.S. Geological Survey
PUBLICATION DATE 2016
TITLE
National Hydrography Dataset
GEOSPATIAL DATA PRESENTATION FORM Vector Digital Data
PUBLICATION INFORMATION
PUBLICATION PLACE Denver, CO
PUBLISHER U.S. Geological Survey
ONLINE LINKAGE http://nhd.usgs.gov/data.html

SOURCE SCALE DENOMINATOR 24000
TYPE OF SOURCE MEDIA Digital and/or Hardcopy Resources
SOURCE TIME PERIOD OF CONTENT
TIME PERIOD INFORMATION
SINGLE DATE/TIME
CALENDAR DATE unknown
SOURCE CURRENTNESS REFERENCE
Publication date
SOURCE CITATION ABBREVIATION
NHD
SOURCE CONTRIBUTION
Hydrography data used for reference in watershed boundary delineation process
PROCESS STEP
PROCESS DESCRIPTION
The original hydrologic unit boundaries were hand-digitized on a digitizing table from the USGS 7.5 minute quadrangles. This process occurred over a span of approximately 20 years from 1980 to 2000.
PROCESS DATE 2000

PROCESS STEP
PROCESS DESCRIPTION
The original dataset was reviewed by USGS personnel using on-screen techniques with DRGs as the base map. All hydrologic units within the dataset that were less than 3,000 acres were dissolved out.
PROCESS DATE 2003

PROCESS STEP
PROCESS DESCRIPTION

The new WBD (2005-2011) was reviewed on-screen by USGS, EPA, or NRCS personnel using DRGs and DOQss as base maps. Hydrologic Units that were less than 10,000 acres (for the 12-digit units) and 40,000 acres (for the 10-digit units) were reviewed and if possible were dissolved out. Along the coastal areas, standard watersheds that fell within the federal guideline's size criteria (12-digit: 10,000-40,000 acres, 10-digit: 40,000-250,000 acres) were delineated. If possible the remaining frontals were left as their own units. Frontals that did not meet the size criteria were grouped together with other frontals within the overall 8-digit or 10-digit unit. Hydrologic units that were greater than 40,000 acres (12-digit units) and 250,000 acres (10-digit units) were reviewed. If possible these units where then subdivided into smaller units that met the size criteria. In some cases, additional breaks within the unit would not have made sense or have been very useful. For example: When the majority of the unit was made up by a major waterbody feature such as a lake or reservoir and the surrounding tributaries were too small to delineate as their own unit. In these instances the unit was left big.

PROCESS DATE 2011

PROCESS STEP

PROCESS DESCRIPTION

From 2005 to 2011, hydrologic units from surrounding states were used to edgematch watershed boundaries as they were developed.

PROCESS DATE 2011

PROCESS STEP

PROCESS DESCRIPTION

From 2005 to 2011, original dataset attribution was reviewed and revised to reflect the updates and changes made to the dataset. These revisions to the attribution were also made to ensure that the dataset met the Federal Standards for Delineation of Hydrologic Unit Boundaries. The NHD was used during this process to help with the naming and downstream coding of each unit. In some instances there were name discrepancies between the NHD and what was printed on the DRGs. In these instances the DRGs were used instead of the NHD.

PROCESS DATE 2011

PROCESS STEP

PROCESS DESCRIPTION

First draft of metadata created by NRCS using METADATA Editor in ArcCatalog ver. 9.1 sp.1 hu12_geo83

PROCESS DATE 2007-01-24

PROCESS STEP

PROCESS DESCRIPTION

The following edits (2012 - present) were completed during national quality control review performed by the WBD national technical edit team in the USGS Utah Water Science Center. Updates may not affect all hydrologic units.

Edits by USGS Water Science Center in Salt Lake City, Utah.

1. Reviewed all the ToHUC codes within the 12-digit polygons and made updates as necessary. All updates were coordinated and approved by WBD state stewards.

2. Updated Linesource code (misspellings, removed extra spaces etc.) where needed to match Federal Standards

3. Updated and corrected errors in the HU_Mod fields where needed to match Federal Standards.

4. Updated State field for Canada (CN) and Mexico (MX) based on the new version of the Standards

5. Reviewed all the Names related to each 10-digit and 12-digit polygon and made updates as necessary. All updates were coordinated and approved by the WBD State stewards

6. Checked and updated HU_Level field where HU_Level = 99 or = null

7. Updated the 8-digit outer boundary for units flowing into ocean units by extending the boundary offshore to the 3 nautical mile limit provided by NOAA. All updates were coordinated and approved by the WBD state stewards

PROCESS DATE 2016

PROCESS STEP

PROCESS DESCRIPTION

The following are 8-digit updates (from 2009-2016) that were approved by the WBD National Technical Coordinators as required by the WBD Standards. These may include name/code updates or boundary updates that were implemented in the WBD at some point during the creation or maintenance of the data.

Alaska:

Legacy 19020401 Anchorage boundary has changed by about 20% of its area.

19020203 (Prince William Sound)

Added a new subbasin unit for Prince William Sound.

Adjusted huc8 boundaries between 19020104, 19020201 and 19020202 to better reflect surface water flow and to assist with delineating the Prince William Sound as a new unit.

Legacy 19020302 Upper Kenai Peninsula has changed by about 20% of its area.

Legacy 19030304 Wood River was subdivided which has created a reduced area for the 19030304 Wood River and put Igushik River into its own hydrologic unit with a new code of 19030306.

Legacy 19030402 Farewell Lake was divided into 19030406 Middle Flork Kuskokwim River and 19030407 South Fork Kuskokwim River.

Legacy 19040204 Black River was subdivided. 19040204 will remain the Black River, and a new unit 19040206 Grass River is broken out.

19040502:

The outlet for subbasin 19040502 was moved downstream from the current break across Tanana River at a confluence with a minor tributary to the more prominent confluence with Robertson River. This edit resulted in the addition of 2 subwatersheds to 19040502 and the removal of 2 watersheds from 19040503.

Legacy 19040504 Delta River linework changed significantly.

The legacy 19040504 had 3 separate outlets; Delta River, Delta Creek and Little Delta River.

The boundary was adjusted so that 19040504 contained just the Delta River as a standard unit.

The Delta Creek and Little Delta River where moved into 19040507.

Legacy 19040507 Tanana Flats Linework changed significantly.

19040606 - Legacy boundary for 19040606 had the outlet at a location across the Huslia River downstream from the outlet of the South Fork Huslia River. The boundary was adjusted downstream to the major confluence where the Huslia River drains into the Koyukuk River, thus creating a standard HUC8 for the Huslia River.

1905:

19050202, 19050203, 19050301, 19050304, 19050403

19050202’s boundary was adjusted so that this unit contained all frontal drainage areas flowing into the southern portion of Kotzebue Sound.

19050203’s boundary was adjusted to that the unit included Eschscholtz Bay and all of the drainage areas flowing into it.

19050301's boundary was adjusted so that this unit has one outlet and includes Selawik Lake. The frontal drainages flowing into Hotham Inlet were moved into unit 19050304.

19050304's boundary was adjusted so that the unit included Hotham Inlet and the frontal drainages flowing into it.

19050403's boundary was adjusted to a buffer distance of 1000 meters off shore.

19050500 - Kotzebue Sound:

Added a new HUC8 unit to AK WBD for Kotzebue Sound. Inner coastal units that ended at the shore line were extended offshore to a 1000 meter buffer distance.

Legacy 19060204 Ikpikpuk River absorbed Inaru River from Legacy 19060202

Legacy unit 19060202 contained 2 different stream systems flowing into 2 different bodies of water.

The Inaru River flows into Admiralty Bay while the Kugrua River and the other small frontal drainages flows into the Chukchi Sea.

The boundary was adjusted so that flow into Admiralty Bay/Dease Inlet was separate from flow into Chukchi Sea. The Inaru River, Admiralty Bay/Dease Inlet and all associated frontal drainages were added to subbasin 19060204.

New Subbasin 19060206 is being named Admiralty Bay-Dease Inlet. This area use to be part of Subbasin 19060204

19020800 Cook Inlet is a new hydrologic unit as recommended by the Alaska in state stakeholders.

2011 - These updates where proposed by Forest Service partners within the Tongass National Forest. When major changes are made to the HUC8 container (i.e. the container is subdivided into multiple units) the national protocol has been to retire the old HUC8 code and name and assign new codes and names to the updates units

19010202 (Kuiu-Kupreanof-Mitkof-Etolin-Zarembo-Wrangell) is being retired and 2 new HUC8 units were formed.

Kuiu Island, Mitkof Island and Kupreanof Island were split out into their own 8-digit unit

HUC8 - 19010210

HU8_Name – Kuiu-Kupreanof-Mitkof Islands

Zarembo Island, Wrangell Island and Etolin Island were subdivided into their own 8 digit unit

HUC8 – 19010209

HU8_Name – Etolin-Zarembo-Wrangell Islands

19010203 (Baranof-Chichagof Islands)19010203 was retired. 19010203 was subdivided 3 new units; 2 island units and 1 channel unit.

Chichagof Island was split out into its own 8-digit unit

HUC8 – 19010211

HU8_Name – Chichagof Island

Baranof and Kruzof Islands were subdivided into their own 8-digit unit

HUC8 – 19010212

HU8_Name – Baranof Island

Created a new water hydrologic unit for the channel between Chichagof Island and Baranof/Kruzof Islands. This new water unit would become a HUC10 unit within the "Water" subbasin 19010500.

HUC10 – 1901050011

HUC10_Name - Peril Strait

Because of the varying width of the channel the boundary was graduated from a 1,000 meter buffer to 100 meter buffer from the Low Tide Shoreline. The Low Tide Shoreline was provided by the Forest Service.

A 1,000 meter buffer was used in the open channel to match the buffer distance used within the rest of SE AK WBD. There is a narrow portion of the channel where the boundary was gradually reduced from the 1,000 meter buffer to a 100 meter buffer.

2014 - Updated Alaska's region 1904 based on a request from NHD program and approved by state partners. 1904 was subdivided 3 new 4-digit hydrologic units.

The new units are
1907 – Upper Yukon River
190701 – Headwaters Yukon River
1908 – Middle Yukon River
1909 – Lower Yukon River

2016 - Updates to AK 8-digit units based on harmonization effort with Canada

19070504 (Eagle Creek-Yukon River) is being subdivided 2 new 8-digit hydrologic units. Original code and name are being retired.
HUC8 - 19070505 (Tatonduk River-Yukon River)
HUC8 - 19070506 (Charley River-Yukon River)

19060503 (Beaufort Lagoon) is being subdivided 3 new 8-digit hydrologic units. Original code and name are being retired.
HUC8 - 19060504 (Kongakuat River-Beaufort Lagoon)
HUC8 - 19060505 (Firth River)
HUC8 - 19060506 (Babbage River) is completely within Canada Yukon Territory

Arizona:

Legacy 15010009 Fort Pierce Wash name changed to Fort Pearce Wash to account for misspell.

Legacy 15010007 Hualapai Wash name should change as the wash is now in the adjacent Subbasin. Changed to Red Lake

California:

Legacy 18010109 Gualala-Salmon had an area the size of several 12-digit HUs that has been aggregated into the adjacent legacy 18050005 Tomales-Drake Bays as a result of coastal implementation. This is approved by the in-state WBD Steward and T3.Legacy 18030012 and new 18030012 Tulare-Buena Vista Lakes changed to Tulare Lake Bed as the boundary has changed so significantly that Buena Vista Lakes are no longer in the adjusted hydrologic unit.

Legacy 18040001 and new 18040007 name changed from Upper Chowchilla-Upper Fresno to Fresno River as the Chowchilla is no longer in the adjusted hydrologic unit.

Legacy 18040002 and new 18040002 name changed from Middle San Joaquin-Lower Merced-Lower Stanislaus to Lower San Joaquin River as Merced and Stanislaus Rivers are no longer in the adjusted hydrologic unit.

Legacy 18050006 San Francisco-Coastal South will absorb 4 coastal 12-digit HUs from legacy 18060001 San Lorenzo-Soquel as a result of coastal implementation. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC)

Legacy 18060006 Central Coastal will absorb an area the size of 6 12-digit HU's from legacy 18060012 Carmel which all drains directly to the Pacific

Ocean. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC)

Portions of legacy 18060011, 18060012, and part of 19060001 will become a new subbasin accounting for all of these frontal pieces. It will be coded 18060015 and named Monterey Bay. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC)

Legacy 18060013 Santa Barbara Coastal had an area the size of one 12-digit HU which will be aggregated with legacy 18070101 Ventura as a result of coastal implementation. This is approved by the in-state WBD Steward and the WBD National Technical Coordinators (NTC)

Legacy 18070104 Santa Monica Bay had an area the size of several 12-digit HUs which will be aggregated with legacy 18070106 San Gabriel as a result of coastal implementation. This is approved by the in-state WBD Steward and WBD National Technical Coordinators (NTC)

Legacy 18100200 has now been subdivide into 18100201, 18100202, 18100203, and 18100204.

The legacy name for 180100200 has been retained as the Salton Sea for new code 18100204. New names for the other subdivisions have been reviewed and accepted as follows:

18100201 Whitewater River
18100202 Carrizo Creek
18100203 San Felipe Creek

Legacy 18040002 and new 18040051 name Middle San Joaquin-Lower Merced-Lower Stanislaus was change to Rock Creek-French Camp Slough.

Legacy 18020124 Honcut Headwaters name and code have been retired. It was absorbed in to legacy 18020106 Lower Feather to form the new 18020159. WBD National Technical Coordinators (NTC) recommends the name retain the combined legacy names of Honcut Headwaters-Lower Feather.

Legacy 18020120 Upper Butte and legacy 18020105 Lower Butte have been retired.

The two hydrologic units were combined in to the new accepted code and name of 18020158 Butte Creek.

Legacy 18020119 Mill-Big Chico, 18020103 Sacramento-Lower Thomes, and 18020114 Upper Elder Thomes have been retired. The accepted names and codes for the newly delineated hydrologic units to replace those areas are 18020157 Big Chico Creek-Sacramento River, 18020156 Thomes Creek-Sacramento River, and 18020155 Paynes Creek-Sacramento River.

The following legacy names and codes have been retired: 18020113 Cottonwood Headwaters, 18020102 Lower Cottonwood, 18020101 Sacramento-Lower Cow-Lower Clear, 18020118 Upper Cow-Battle, and 18020112 Sacramento-Upper Clear. The accepted codes for the newly delineated hydrologic units that replace those areas will be 18020151-18020154.

The approved names are:
18020151 Cow Creek
18020152 Cottonwood Creek
18020153 Battle Creek
18020154 Clear Creek-Sacramento River

18010111 code and name have been retired and the area has been subdivided. A portion is in 18010109 Gualala-Salmon, and the other portion in 18050005 Tomales-Drake Bays

18020107 code and name have been retired and the area is now included with 18020125 Upper Yuba

18020108 code and name have been retired and the area is now included with 18020126 Upper Bear

18020110 code and name have been retired and the area is now included with 18020116 Upper Cache

18030008 code and name have been retired and the area is now included with 18030012 Tulare Lake Bed

18030011 code and name have been retired and the area has been subdivided. A portion is in 18030012 Tulare Lake Bed, and the other portion in 18030009 Upper Dry

18040004 code and name have been retired and the area is now part of 18040011 Upper Calaveras California

18040005 code and name have been retired and the area is now part of 18040003 San Joaquin Delta, 18040012, 18040012 Upper Mokelumne, and 18040003 Upper Cosumnes

18020109 code and name have been retired and the area is now part of 18020163 Lower Sacramento

18020117 code and name have been retired and the area is now part of 18020162 Upper Putah

18060001 code and name have been retired, and the areas are now subdivided between 18050006 San Francisco Coastal South and 18060015 Monterey Bay

18060011 code and name have been retired and now is subdivided between 18060015 Monterey Bay and 18060005 Salinas

18060012 code and name have been retired and the area is now part of 18060006 Central Coast and 18060015 Monterey Bay

Colorado:

Legacy 14010006 Parachute-Roan name and code have been retired. This area has been combined with 14010005 Colorado Headwaters-Plateau.

Connecticut:

01100007 code and name have been retired and the area is now part of 0110004 Quinnipiac

Delaware:

02060007 code and name have been retired and this area now included with 02080110 Tangier

02060008 code and name have been retired and this area now included with 02080109 Nanticoke

02060009 code and name have been retired and this area is now part of 02080111 Pokomoke-Western Lower Delmarva and 02080110 Tangier

02060010 code and name have been retired and this area is now part of 02040303 Chincoteague

Florida:

Legacy 03090202 Everglades has been modified as follows:

The largest part of 03090202 Everglades carries the legacy code and name.

Subdivided out new Subbasin 03090206 Florida Southeast Coast

Combined additional smaller portions of 03090202 with adjacent Subbasins.

Louisiana:

2009 - USGS Water Science Center, Salt Lake City, UT. Recoded all HUC12 codes and DS codes for 08080100 Atchafalaya to 08080101 Atchafalaya. 08080101 is the correct code. During the development of the WBD the 12-digit hydrologic units were miscoded as 08080100.

Maine

Updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details.

Massachusetts:

01070002 is retained for the headwaters of this original code, but ¾ of the original area is now coded 01070006. The area now coded 01070006 retained the original name for the area of legacy 01070002 and is called Merrimack, whereas 01070002 is not called Winnipesaukee River (other state documentation supporting this decision)

New Hampshire:

Legacy 01070002 Merrimack was subdivided in to 01070002 Merrimack to the North and 01070006 Merrimack River to the South. The technical team requests that the portion to the South retain the legacy code and name of 01070002, Merrimack, and that the northern hydrologic unit receive the code and name 01070006 Winnipesaukee River. There is no Merrimack River in the northern portion and the southern portion most closely resembles the legacy delineation.

Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details

New York:

Legacy 04150307 English-Salmon was subdivided into 04150307 Salmon and 04150308 Chateaugay-English. The Technical Team accepts this change.

2010- Edits were made to Lake Champlain Basin moving it from Region 02 to Region 04. Update to delineation data in Lake Champlain area on the US side and Canadian side. All lines within Canada are draft delineations only. These boundaries were based on Canada's 1:50,000 National Hydrography Network Work Units or were delineated using either 1:50,000 scale topos or CDED elevation data. These boundaries have not been fully reviewed or approved by either the Canadian federal or provincial agencies and are subject to change. Border polygons are based off of these internal boundaries within Canada and so are also subject to change within Canada. Edits made by USGS Salt Lake City, Water Science Center: to the Lake Champlain and surrounding subbasins to remove all shoreline representations from the WBD. The codes, DS codes and names where updated where necessary.

02010004 name and code have been retired, and this area was subdivided, part is in 04150404 Ausable River and part in 04150408 Lake Champlain.

02010006 name and code have been retired and this area was subdivided. Part is in 04150406 Saranac River and part is in 04150408 Lake Champlain.

02010001 name and code have been retired and this area was subdivided into 04150401 Mettawee River and 04150408 Lake Champlain

The new Lake Champlain unit 04150408 is made up of parts of original HUC250K units 02010001, 02010002, 02010003, 02010004, 02010005, 02010006 and 02010007

Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details

North Carolina:

Legacy subbasin 03030001 and legacy subbasin 03020106 have been combined and recommended for acceptance as a new 6-digit Basin 030203 Onslow Bay.

Legacy Subbasin 03030001 New has been recoded and renamed to 03020302 New River. The technical team accepts the new code and name.

Legacy Subbasin 03020106 Bogue-Core Sounds has been recoded and renamed to 03020301 White Oak River. The technical team accepts the new code and name.

03040207 code and name are still in use, but the portion that stretches along the coast has been broken out to a new 03040208 Coastal Carolina

North Dakota:

Legacy 10160007 East Missouri Coteau, changed to North Fork Snake as that is a better hydrologic representation of the hydrologic unit.

Legacy 10170103 South Big Sioux Coteau name changed to Lake Thompson

Legacy 10170201 Middle Big Sioux Coteau name changed to Upper Big Sioux

Legacy 10170202 Upper Big Sioux name changed to Middle Big Sioux

Because legacy 10170203 Lower Big Sioux should stay the same, it doesn't make sense not to have a middle and an upper. Although the boundaries have significantly relocated, it seem like most viable option is to retain the Upper, Middle, Lower naming convention.

Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details

Oregon:

Legacy 17100304 Coos was subdivided into 17100304 Coos to the north and 17100306 Sixes to the south. The Technical team accepts this change.

South Carolina:

Legacy 03040207 Carolina Coastal-Sampit was subdivided into a southern portion called 03040207 Carolina Coastal-Sampit and a northern portion newly coded and named 03040208 Coastal Carolina. The technical team recognizes this as an acceptable solution, however, future coastal delineations may require additional modification.

Legacy 03050202 South Carolina Coastal has now been subdivided into subbasins 03050202 South Carolina Coastal and 03050209 Bulls Bay with an additional portion of 03050202 being aggregated in with legacy 03050201

Legacy 03050208 Broad-St. Helena has had the following modifications which the NTC concurs with:

03050208 Broad-St. Helena code and name retained into a much smaller unit capturing only the Broad-St. Helena Rivers

Subdivided into new 03060110 Calibogue Sound-Wright River, and now part of the adjacent Subregion to the south.

Subdivided into new 03050210 St. Helena Island portion combined with 03050207 Salkehatchie.

Legacy 03050205 name is changed to Four Hole Swamp (from Edisto...this name was flipped with the hydrologic unit the water feature resides in). The WBD National Technical Team recommended that this name not be reused as it has been historically assigned to 03050206, but all in state interagency folks felt strongly that it should be reused as that is by far the predominant feature for the HU. Reports since 2005 reflect this.

Legacy 03050206 name is changed to Edisto River to reflect the major hydrologic feature.

South Dakota:

2009 - Edits made by in-state data steward; all of sub-basin 10160010 (now retired) was recoded to 10160011 (Lower James); In addition to the recoding of this 8-digit level unit in the James Basin, this group of edits primarily consisted of minor corrections to linework and 12-digit downstream codes, populating ncontrb_A fields of selected 12-digit units, and tweaking selected 5th- and 6th-level unit names to facilitate merging with GNIS.

Texas:

Legacy13070008 Lower Pecos was subdivided into a northern and southern portion. The northern portion retains the 13070008 code but name should be Pecos. The new subdivided 13070012 hydrologic unit should carry the legacy name Lower Pecos.

Legacy 13090002 Lower Rio Grande is missing from the current WBD.

Vermont:

Updated 01110000 from Region 01 to Region 04 and is now 04150500 (St. Francois River). Craig Johnston (USGS) pointed out that this unit contains the St. Francois River which flows up into Canada and then dumps into the St Lawrence River. Region 01 is Maine Coastal drainage's while region 04 is St. Lawrence drainage's, so this unit really belongs in region 04.

2010- Edits were made to Lake Champlain Basin moving it from Region 02 to Region 04. Update to delineation data in Lake Champlain area on the US side and Canadian side. All lines within Canada are draft delineations only. These boundaries were based on Canada's 1:50,000 National Hydrography Network Work Units or were delineated using either 1:50,000 scale topos or CDED elevation data. These boundaries have not been fully reviewed or approved by either the Canadian federal or provincial agencies and are subject to change. Border polygons are based off of these internal boundaries within Canada and so are also subject to change within Canada. Edits made by USGS Salt Lake City, Water Science Center: to the Lake Champlain and surrounding subbasins to remove all shoreline representations from the WBD. The codes, DS codes and names where updated where necessary.

02010001 name and code have been retired and this area was subdivided into 04150401 Mettawee River and 04150408 Lake Champlain.

02010002 name and code have been retired and this area was subdivided into 04150402 Otter Creek and 04150408 Lake Champlain.

02010003 name and code have been retired and this area was subdivided into 04150403 Winooski River and 04150408 Lake Champlain.

02010005 name and code have been retired and this area was subdivided into 04150405 Lamoille River and 04150408 Lake Champlain.

02010007 name and code have been retired and this area was subdivided into 04150407 Missiquoi River and 04150408 Lake Champlain.

The new Lake Champlain unit 04150408 is made up of parts of original HUC250K units 02010001, 02010002, 02010003, 02010004, 02010005, 02010006 and 02010007.

Additional updates at the 8-digit occurred as a result of the US/Canada harmonization effort. See process section on Canadian harmonization for these details

Wisconsin:

Legacy 07090001Upper Rock keeps the same code and name but the original hydrologic unit delineation changed significantly.

Legacy 07090002 Crawfish keeps the same code and is renamed to Middle Rock. The original hydrologic unit delineation changed significantly.

PROCESS DATE 2016

PROCESS STEP

PROCESS DESCRIPTION

Below is a list of updates (from 2011 to 2016) resulting from harmonization work with Canada.

Alaska:

Legacy 19010101 Southeast Mainland name and code were retired and the area subdivided into four units. New codes and names are as follows and accepted by the National Technical Team and approved with Canadian and Alaska partners (USFS):

19010104 Bradfield Canal
19010105 Burroughs Bay
19010106 Headwaters Portland Canal
19010107 Outlet Portland Canal

Legacy 19010201 Mainland had a portion broken out. 19010201 will be preserved and the small piece broekn out in order to harmonize with Canada. The smaller piece will have the new code 19010205 and the name will be Lower Iskut.

Revised again 5/31/11: 19010201 Mainland was broken into three new units

19010206 Holkham Bay
19010207 Stikine River
19010208 Thomas Bay

Legacy 19010301 Lynn Canal now has the Taku River broken out to accommodate Canada. Taku River will be code 19010304. The National Technical Coordinators (NTC) accepts this. Revised again 5/31/11:(AK group consulted along with Pete Steeves, Kim Jones, Stephen Daw, Karen Hanson):

19070101 Atlin Lake was broken out of the legacy Lynn Canal 19010301 and is part of the newly accepted Subregion 1907

Legacy 19010302 Glacier Bay was subdivided along the ridge separating out the ocean flow. The unit broken out is:

19010406 Palma Bay (this unit also includes a portion of the original 19010401)

Note: Legacy 19010302 Glacier Bay will be retained although the area is now smaller. Other options didn't make as much sense.

Legacy 19010303 Chilkat-Skagway Rivers was subdivided into:

19070102 Bennett Lake
19070103 Tagish Lake
19070104 Takhini River

Note: 19010303 Chilkat-Sakgway Rivers is retained

Legacy 19010401 Yakutat Bay name and code retired and the area subdivided into 4 new units. New codes and names are as follows

19010403 Tatshenshini River
19010404 Alsek River
19010405 Yakutat Bay-Gulf of Alaska
19010406 Palma Bay (This new unit also includes a portion of the original 19010302)

Idaho and Washington -

2013 - The Columbia River Basin and Puget Sound Coastal area was updated to include the harmonized 8-, 10, and 12-digit hydrologic units within Canada. This harmonized data was created with contributions from US and Canadian Federal, State, Provincial and local partners. The British Columbia 20K Fresh Water Atlas watershed data and DEM data were used to create the units within Canada. Border units were updated through a review/agreement process with local and state/provincial partners using the best available data (DEM, DRG, Imagery, Field Verification).

During the harmonization effort there were some 8-digit updates that were agreed to.

Legacy 17010101 Upper Kootenai name will change to Middle Kootenai to coordinate with Canada since there is an Upper Kootenay solely in Canada.

Legacy 17010101 Upper Kootenai boundary changed slightly. The WBD Technical Team recommends retaining the legacy name and code.

A new subbasin was created as a result of the international border harmonization which slightly goes into the U.S. (the portion of 17010101 referenced above). The WBD Technical Team recommends coding this unit with the next down sequential code which would be 17010106 and using the name that Canada refers to this hydrologic unit as "Elk".

17110001 legacy name "Fraser" is being changed to "Sumas River" to match with Canada, and because the Fraser River doesn't flow through this unit.

Montana:

1001 flows into Canada and the Saskatchewan River and not into the Missouri River as originally thought. As such this 4-digit hydrologic units was moved from region 10 to 09.

0904 - Saskatchewan River

090400- Upper South Saskatchewan River (This matches the Canadian FDA at the WSCSDA level (sub drainage area)).

10010001 name and code have been retired, and this area is now 09040002 Belly

10010002 name and code have been retired, and this area is now 09040001 St. Marys

Minnesota:

2014 - Rainy River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over a 6 month time period with cooperation from Federal, State, Provincial and Local Partners.

Some of the boundaries within MN were updated using the MN LiDAR data. The MN LiDAR was also used in the creation of boundaries within Canada when the LiDAR data overlapped into Canada. The other boundaries within Canada were generated using the province of Ontario's 20K DEM and Hydrography data.

There were some 8-digit updates as a result of the harmonization effort.

09030004 Upper Rainy has been retired

09030004 is now a part of 09030008 the Lower Rainy

2 new 8-digit units were broken out in Canada

09030010 – Big Turtle River-Rainy Lake

09030011 – Shoal Lake

North Dakota:

Legacy 09020313 Pembina was subdivided into two new units.

The legacy name and code were retired.

The new codes and names are:

09020315 Upper Pembina River
09020316 Lower Pembina River

2014- Souris River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over a 6 month time period with cooperation from Federal, State, Provincial and Local Partners.

There were some 8-digit updates as a result of the harmonization effort.

Legacy 09010001 Upper Souris has now been subdivided. That code and name have been retired and the new units are:

09010006 Long Creek
09010007 Headwaters Souris River
09010008 Moose Mountain Creek-Souris River

North Dakota and Minnesotta: Red River Basin

Legacy 09020311 Lower Red name is being changed to Middle Red in order to harmonize with Canada. Lower Red is the Basin name for this entire area but the impact to change at that level isn't known so won't change.

2016 - Red River Basin was updated to include the harmonized 8-, 10-, and 12-digit hydrologic units within Canada. Some of the boundaries within MN and ND were updated using Lidar data. Lidar data was also used in the development of hydrological units within Canada. Where Lidar data did not exist the province of Manitoba provided either 1:20,000 scale or 1:50,000 scale digital elevation data for boundary delineations.

Maine

All HUC8 boundaries were updated with the Harmonized US/CAN border into Canada.

Coding was updated as needed.
01010001 was subdivided into 6 new units.
01010001 code retired
01010001 HUC8 name retired (Upper St. John)
New codes and HUC8 names

01010006 – Headwaters Saint John River
01010007 – Big Black River-Saint John River
01010008 – St. Francis River-Saint John River
01010009 – Little River-Saint John River
01010010 – Becaguimec Stream-Saint John River (This unit now contains a portion of the original 01010005)
01010011 – Keswick River-Saint John River

01010004 - Boundary within Canada was updated with harmonized boundary.

01010005 - Boundary was updated with US/CAN harmonized boundary. A small portion of 01010005 was moved into the new 01010010 so that 01010005 is a standard HUC 8 unit for the Meduxnekeag River.

01020001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated.

01030001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international

boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated.

01030002 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated.

01040001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated.

01050001 - Boundary was updated with US/CAN harmonized boundary. This boundary was developed during the initial St. Croix pilot and includes updates within the US as well as Canada. Coding left as is

01050002 - The harmonized boundary for 01050004 required updates to 01050002.

A portion of 01050002 was moved to 01050004 to accommodate the new harmonized boundary.

This required re-coding of the entire 01050002.

01050004 - Boundary was updated with US/CAN harmonized boundary. A portion of 01050002 was moved into this unit. Codes were updated to reflect this boundary change.

04150600 – Chaudiere River

This is a new unit that was created when the WBD boundary was moved from the international boundary on to the ridgelines

Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline.

04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

New Hampshire

01040001 - Original WBD boundary between the US and Canada used the international boundary. However when this boundary was compared to the 1:24,000 scale DRGs in the US and 1:20,000 hypsography in Canada the international boundary and ridgelines were not coincident. The Boundary was updated to the ridgeline. Coding not updated.

04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

New York

04150301 - Subdivided into 2 new units

04150301 code retired

04150301 HUC8 name retired (Upper St. Lawrence)

New Codes and HUC8 names

04150309 – Headwaters St. Lawrence River

04150310 – Raisin River-St. Lawrence River

04150306 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

04150307 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

04150308 - Boundary was updated with US/CAN harmonized boundary. Coding left as is
04150408 - Boundary was updated with US/CAN harmonized boundary. Coding left as is
04150409 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

Vermont
04150407 - Boundary was updated with US/CAN harmonized boundary. Coding left as is
04150408 - Boundary was updated with US/CAN harmonized boundary. Coding left as is
04150409 - Boundary was updated with US/CAN harmonized boundary. Coding left as is
04150500 - Boundary was updated with US/CAN harmonized boundary. Coding left as is

Great Lakes
The boundaries for Lake Ontario (0415200), Lake Erie (04120200), Lake Huron (04080300) and Lake Superior (04020300) were updated using the new inland lakes coastal method. All updates were coordinated with the WBD state steward for each adjacent state. The area within Wisconsin was excluded per the state partner's request. All surrounding 8-digits (units touching the lakes) were reviewed and updated as well.

PROCESS DATE 2016

PROCESS STEP

PROCESS DESCRIPTION
Mexico Harmonization (2010-2014)

2010 - Harmonization with Texas and Mexico; HUC12 polygons and line rework by USGS Water Science Center, Salt Lake City, UT.

2014 - Harmonized 8-, 10 and 12-digit units for all border 8-digit units with Mexico were incorporated into the WBD. These datasets were developed through a coordinated effort between the USGS and INEGI along with input from State and local partners. Due to the harmonization effort some 8-digit boundaries may have been adjusted. In addition to this the 10- and 12-digit boundaries along the border might have also been adjusted based on the availability of better base information within Mexico provided by INEGI.

PROCESS DATE 2014

PROCESS STEP

PROCESS DESCRIPTION
The following section describes updates to the WBD data model (2012-2016).

July 2012
National responsibility for stewardship and maintenance of the WBD transferred from NRCS to the USGS. As a result the WBD data model was updated and the data was incorporated into the NHD database.
WBD model updated based on input from NRCS, USGS, NHD program and user community.
WBD polygon dataset subdivided into individual polygon datasets for each level of hydrologic units.

Two additional datasets added for the next 2 levels of subdivisions (14- and 16-digit) but are not required for each state to populate these.

Attribute tables for polygons and lines were updated with some fields being added, renamed or removed. See below for a list of changes.

WBD Line attribute table changes:

Old Model:

HU_LEVEL
LINESOURCE
META_ID – removed – Feature level metadata functionality is added to track updates in the new model
LEFT_HUC_8 – removed
RIGHT_HUC_8 – removed

New Model:

Permanent_Identifier – New field for feature level metadata
Source_FeatureID – New field for feature level metadata
Meta_SourceID – New field for feature level metadata
Source_DataDesc – New field for feature level metadata
Source_Originator – New field for feature level metadata
HU_Level
HU_Class – New field populated with the number of digits of the hydrologic unit
LoadDate – New field for feature level metadata
LineSource

WBD Polygon attribute table changes:

Codes and names moved from single polygon dataset to the appropriate hydrologic unit dataset for each level

Old Model:

HUC_8 – moved to 8-digit polygon dataset
HUC_10 – moved to 10-digit polygon dataset
HUC_12 – moved to 12-digit polygon dataset
ACRES – re-named to AREA_ACRES
NCONTRB_A
HU_10_GNIS – Replaced with Gaz_ID
HU_12_GNIS – Replaced with Gaz_ID
HU_10_DS – Removed from new model
HU_10_NAME – moved to 10-digit polygon dataset
HU_10_MOD – moved to 10-digit polygon dataset
HU_10_TYPE – moved to 10-digit polygon dataset
HU_12_DS – moved to 12-digit polygon dataset
HU_12_NAME – moved to 12-digit polygon dataset
HU_12_MOD – moved to 12-digit polygon dataset
HU_12_TYPE – moved to 12-digit polygon dataset
META_ID - removed – Feature level metadata functionality is added to track updates in the new model
STATES

New Model:

Fields included in all levels of hydrologic unit polygon datasets.

Gaz_ID – Old model was the GNIS field
Area_Acres - Renamed
Area_SqKm – New field
States
LoadDate- New field

HUC_"#digit" - For Example: HUC12
HU_"#digit"_Name - For Example: HU_12_Name

Fields included with the 10-, 12-, 14- and 16- digit polygon datasets.
HU_"#digit"_Type - For Example HU_12_Type
HU_"#digit"_Mod - For Example HU_12_Mod

Fields included with the 12-, 14- and 16- digit polygon datasets.
NContrb_Acres
NContrb_SqKm – New field

Tables
New Model:
ExternalIDCrosswalk
FeaturetoHUMod
FeatureToMetadata
Meta_ProcessDetail
Meta_SourceDetail
ProcessingParameters
UpdateStatus
WBD_Attributes
WBD_Nav

October 2012
Changes to the WBD data model include the elimination of the underscore "_" in field and table names, switching to camelCase. Other changes to the WBD data model include the elimination of the WBDPoint table, the WBDPointEvent table, and the WBDAtributes table. Fields have been added to the WBDHU12 polygon feature dataset that allow metadata record linking and also include the downstream attribute. NWIS drainage area line and polygon feature classes have been added also.

New Model:
WBD line dataset
TNMID – Use to be PermanentID
HULevel
HUClass – New field populated with the number of digits of the hydrologic unit
HUMod
LineSource
LoadDate – New field for feature level metadata
(Source_FeatureID, Meta_SourceID, Source_DataDesc, Source_Originator fields removed from WBDLine dataset)

WBD polygon dataset
Fields included in all levels of hydrologic unit polygon datasets.
TNMID – New field for feature level metadata
MetaSourceID – New field for feature level metadata
SourceDataDesc – New field for feature level metadata
SourceOriginator – New field for feature level metadata
SourceFeatureID – New field for feature level metadata
LoadDate – New field for feature level metadata
GNIS_ID = replaces Gaz_ID
AreaAcres
AreaSqKm
States
LoadDate

HUC"digit" - for example: HUC12
Name

Fields included with the 10-, 12-, 14- and 16- digit polygon datasets.
HUType
HUMod

Fields included with the 12-, 14- and 16- digit polygon datasets.
NContrbAcres
NContrbSqKm

Field included with the 12-digit polygon dataset.
ToHUC – This attribute was included in the original WBD data model as HU_12_DS and represents the code of the next unit downstream. The values for this field were populated for the last version of the dataset in the old model by linking the 2 tables by the 12-digit code and calculating the value over.

NWISDrainageArea polygon dataset added as a place holder for when these datasets are generated.
Attribute Fields:
TNMID
MetaSourceID
SourceDataDesc
SourceOriginator
SourceFeatureID
LoadDate
ReferenceTNMID
SiteID
AgencyCode
SiteNumber
StationName
TotalDrainageArea
ContributingDrainageArea

NWISBoundary line dataset added as a place holder for when these datasets are generated.
Attribute Fields:
TNMID
MetaSourceID
SourceDataDesc
SourceOriginator
SourceFeatureID
LoadDate
ReferenceTNMID

NonContributingDrainageArea polygon dataset added as a place holder for when these datasets are generated.
Attribute Fields:
TNMID
MetaSourceID
SourceDataDesc
SourceOriginator
SourceFeatureID
LoadDate

2013

Changes to the WBD data model include updates to the field for the NonContributingDrainageArea polygon dataset, NWISBoundary line dataset and the NWISDrainageArea polygon dataset. This includes the addition of new fields and the re-naming of some of the existing fields.

NWISDrainageArea polygon dataset:
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator
- SourceFeatureID
- LoadDate
- ReferenceTNMIDNHDPointEvent – Renamed from ReferenceTNMID
- AgencyCode
- SiteNumber
- StationName
- ContributingDrainageAreaAcres – Originally called ContributingDrainageArea
- TotalDrainageAreaAcres – Originally called TotalDrainageArea
- ContributingDrainageAreaSqKm – New field
- TotalDrainageAreaSqKm – New field
- SiteID - Removed

NWISBoundary line dataset:
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator
- SourceFeatureID
- LoadDate
- ReferenceTNMIDPointEvent – Originally called ReferenceTNMID
- SiteNumber – New field

NonContributingDrainageArea polygon dataset
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator
- SourceFeatureID
- LoadDate
- NonContributingSqKm – New field
- NonContributingAcres – New field
- ReferenceTNMID12digitHU – New field

Tables
- ExternalCrosswalk - Originally called ExternalIDCrosswalk
- FeatureToHUMod - removed
- FeatureToMetadata
- HUMod - NewField
- MetaProcessDetail - Previous version called Meta_ProcessDetail
- MetaSourceDetail - Previous version called Meta_SourceDetail
- ProcessingParameters
- UpdateStatus

WBD_Attributes - removed
WBDNavigation - Originally WBD_Nav

2014

2015

Changes to the WBD data model include updates or additions to the fields for the NonContributingDrainageArea polygon dataset, NWISBoundary line dataset and the NWISDrainageArea polygon dataset. The majority of these are due to the length of the original name for the field. A new line dataset was created for Non Contributing Area called NonContributingDrainageLine NWISBoundary was re-named NWISDrainageLine

NWISDrainageArea polygon dataset:
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator
- SourceFeatureID
- LoadDate
- AreaSqKm – New Field
- AgencyCode
- SiteNumber
- StationName
- TotalAreaSqMi – New Field
- NWISTotalAreaSqMi – New Field
- ContributingAreaSqMi – New Field
- NWISContributingAreaSqMi – New Field
- ReferenceTNMIDNHDPointEvent
- Remarks – New Field
- ContributingDrainageAreaAcres – Removed
- TotalDrainageAreaAcres – Removed
- ContributingDrainageAreaSqKm – Removed
- TotalDrainageAreaSqKm – Removed

NWISDrainageLine line dataset
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator
- SourceFeatureID
- LoadDate
- LengthKm – New Field
- LineSource – New Field
- Agency Code – New Field
- SiteNumber
- ReferenceTNMIDPointEvent – Removed

NonContributingDrainageArea polygon dataset
Attribute Fields:
- TNMID
- MetaSourceID
- SourceDataDesc
- SourceOriginator

SourceFeatureID
LoadDate
AreaSqKm – New Field
NonContributingAreaSqKm – Re-named from NonContributingSqKm
Remarks – New Field
NonContributingAcres - Removed
ReferenceTNMID12digitHU - Removed

NonContributingDrainageLine line dataset – New dataset
Attribute Fields:
TNMID
MetaSourceID
SourceDataDesc
SourceOriginator
SourceFeatureID
LoadDate
LengthKm
LineSource

2016

WBDLine dataset
TNMID
HULevel - removed
HUDigit - Originally called HUClass
HUMod
LineSource
MetaSourceID
LoadDate

WBD polygon datasets
Fields included with the 12-, 14- and 16- digit polygon datasets.
NonContributingAreaAcres - previous version was NonContributingAcres
NonContributingAreaSqKm - previous version was NonContributingSqKm

PROCESS DATE 2016

PROCESS STEP

PROCESS DESCRIPTION
Additional information about the processes used to create and maintain the WBD after June of 2012 can be found in the table called METAPROCESSDETAIL. The process descriptions are linked using the TNMID to the FEATURETOMETADATA table. In addition the METASOURCEDETAIL table can also be linked to determine the sources used to create or update the WBD data.

PROCESS DATE 2012

Hide Data Quality ▲

HORIZONTAL COORDINATE SYSTEM DEFINITION
GEODETIC MODEL
HORIZONTAL DATUM NAME North American Datum of 1983
ELLIPSOID NAME Geodetic Reference System 80
SEMI-MAJOR AXIS 6378137.0
DENOMINATOR OF FLATTENING RATIO 298.257222101

Hide Spatial Reference ▲

Detailed Description
Entity Type
Entity Type Label MS_Watersheds_12
Entity Type Definition
Polygon feature class representing the 2-digit hydrologic unit boundaries (previously referred to as Regions) and are part of the WBD delivery.
Entity Type Definition Source Federal Standards and Procedures for the National Watershed Boundary Dataset

Attribute
Attribute Label FID
Attribute Definition
Internal feature number.
Attribute Definition Source Esri
Attribute Domain Values
Unrepresentable Domain
Sequential unique whole numbers that are automatically generated.

Attribute
Attribute Label OBJECTID
Attribute Definition
Internal feature number.
Attribute Definition Source Esri
Attribute Domain Values
Unrepresentable Domain
Sequential unique whole numbers that are automatically generated.

Attribute
Attribute Label Shape
Attribute Definition
Feature geometry.
Attribute Definition Source Esri
Attribute Domain Values
Unrepresentable Domain
Coordinates defining the features.

Attribute
Attribute Label TNMID

Attribute
Attribute Label MetaSource

Attribute
Attribute Label SourceData

Attribute
Attribute Label SourceOrig

Attribute
Attribute Label SourceFeat

Attribute
Attribute Label LoadDate

Attribute
Attribute Label NonContrib

Attribute

ATTRIBUTE LABEL NonContr_1

ATTRIBUTE
ATTRIBUTE LABEL AreaSqKm

ATTRIBUTE
ATTRIBUTE LABEL AreaAcres

ATTRIBUTE
ATTRIBUTE LABEL GNIS_ID

ATTRIBUTE
ATTRIBUTE LABEL Name

ATTRIBUTE
ATTRIBUTE LABEL States

ATTRIBUTE
ATTRIBUTE LABEL HUC12

ATTRIBUTE
ATTRIBUTE LABEL HUType

ATTRIBUTE
ATTRIBUTE LABEL HUMod

ATTRIBUTE
ATTRIBUTE LABEL ToHUC

ATTRIBUTE
ATTRIBUTE LABEL Shape_Leng

ATTRIBUTE
ATTRIBUTE LABEL Shape_Area
ATTRIBUTE DEFINITION
Area of feature in internal units squared.
ATTRIBUTE DEFINITION SOURCE Esri
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Positive real numbers that are automatically generated.

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU4
ENTITY TYPE DEFINITION
Polygon feature class representing the 4-digit hydrologic unit boundaries (previously referred to as Subregions) that are part of the WBD delivery.
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC4
ATTRIBUTE DEFINITION
The HUC4 field is a unique 4-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU6
ENTITY TYPE DEFINITION
Polygon feature class representing the 6-digit hydrologic unit boundaries (previously referred to as Basins) and are part of the WBD delivery.
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC6
ATTRIBUTE DEFINITION
The HUC6 field is a unique 6-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU8
ENTITY TYPE DEFINITION
Polygon feature class representing the 8-digit hydrologic unit boundaries (previously referred to as Subbasins) and are part of the WBD delivery.
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC8
ATTRIBUTE DEFINITION
The HUC8 field is a unique 8-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU10
ENTITY TYPE DEFINITION
Polygon feature class representing the 10-digit hydrologic unit boundaries (previously referred to as Watersheds).
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC10
ATTRIBUTE DEFINITION
The HUC10 field is a unique 10-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Provide Codeset Definition Reference (Citatation/URL)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU12
ENTITY TYPE DEFINITION
Polygon feature class representing the 12-digit hydrologic unit boundaries (previously referred to as Subwatersheds).
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC12
ATTRIBUTE DEFINITION
The HUC12 field is a unique 12-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE
ATTRIBUTE LABEL ToHUC
ATTRIBUTE DEFINITION
The 12-digit hydrologic unit ToHUC code attribute is the code for the 12-digit hydrologic unit that is downstream from and naturally receives the majority of the flow from another 12-digit hydrologic unit.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU14
ENTITY TYPE DEFINITION
Polygon feature class representing the 14-digit hydrologic unit boundaries.
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC14
ATTRIBUTE DEFINITION
The HUC14 field is a unique 14-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDHU16
ENTITY TYPE DEFINITION
Polygon feature class representing the 16-digit hydrologic unit boundaries.
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUC16
ATTRIBUTE DEFINITION
The HUC16 field is a unique 16-digit hydrologic unit code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDLine
ENTITY TYPE DEFINITION
Line feature class defining the hydrologic unit boundaries
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL HUDigit
ATTRIBUTE DEFINITION
HUDigit is a domain-based field that indicates the minimum number of digits used to represent the hydrologic unit bounded by the line.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE
ATTRIBUTE LABEL HUMod

ATTRIBUTE DEFINITION

Two-character, uppercase abbreviation used to track either a modification to natural overland flow that alters the location of the hydrologic unit boundary or special conditions that are applied to a specific boundary line segment. The value identifies the type of modification, from the list provided, that has been applied to the boundary segment. If more than one abbreviation is used, the list is separated by commas without spaces and organized from most to least predominant.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE

ATTRIBUTE LABEL LineSource

ATTRIBUTE DEFINITION

LineSource represents the code for the base data used for delineating hydrologic unit boundaries. If more than one code is used,then the list is separated by a comma with no spaces with the most recent LineSource listed first in the sequence.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION

ENTITY TYPE

ENTITY TYPE LABEL NWISDrainageArea

ENTITY TYPE DEFINITION

Polygon features representing PROVISIONAL contributing drainage area for select gage locations in the U.S. Geological Survey National Water Information System

ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE

ATTRIBUTE LABEL AreaSqKm

ATTRIBUTE DEFINITION

Area of the gaged watershed

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

UNREPRESENTABLE DOMAIN

Calculated polygon area, square kilometers

ATTRIBUTE

ATTRIBUTE LABEL AgencyCode

ATTRIBUTE DEFINITION

Site Agency code

ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME U.S. Geological Survey National Water Information System
CODESET SOURCE http://help.waterdata.usgs.gov/

ATTRIBUTE
ATTRIBUTE LABEL SiteNumber
ATTRIBUTE DEFINITION
U.S. Geological Survey unique site identifier
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Unique code identifying a measurement site in the National Water Information System database

ATTRIBUTE
ATTRIBUTE LABEL StationName
ATTRIBUTE DEFINITION
Site Name
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Common name associated with site in the National Water Information System database

ATTRIBUTE
ATTRIBUTE LABEL TotalAreaSqMi
ATTRIBUTE DEFINITION
Total drainage area
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Total area of the polygon, square miles

ATTRIBUTE
ATTRIBUTE LABEL NWISTotalAreaSqMi
ATTRIBUTE DEFINITION
Total drainage area reported in U.S. Geological Survey National Water Information System
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Total area in square miles

ATTRIBUTE
ATTRIBUTE LABEL ContributingAreaSqMi
ATTRIBUTE DEFINITION
Total contributing drainage area, square miles
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Total contributing area, square miles

ATTRIBUTE
ATTRIBUTE LABEL NWISContributingAreaSqMi

ATTRIBUTE DEFINITION
Contributing drainage area reported in U.S. Geological Survey National Water Information System
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Total contributing area, square miles

ATTRIBUTE
ATTRIBUTE LABEL ReferenceTNMIDNHDPointEvent
ATTRIBUTE DEFINITION
Unique identifier for NHD point event representing gage
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Unique identifier that is automatically generated

ATTRIBUTE
ATTRIBUTE LABEL Remarks
ATTRIBUTE DEFINITION
Remarks
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Free text holding remarks from reviewers and/or dataset originator

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL NWISDrainageLine
ENTITY TYPE DEFINITION
Line features representing the boundary of the contributing gaged drainage area
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL LengthKm
ATTRIBUTE DEFINITION
Length of the line
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Calculated line length, kilometers

ATTRIBUTE
ATTRIBUTE LABEL LineSource
ATTRIBUTE DEFINITION
Code identifying the base data used for delineating hydrologic unit boundaries
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE
ATTRIBUTE LABEL AgencyCode
ATTRIBUTE DEFINITION
Site Agency code
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME U.S. Geological Survey National Water Information System
CODESET SOURCE http://help.waterdata.usgs.gov/

ATTRIBUTE
ATTRIBUTE LABEL SiteNumber
ATTRIBUTE DEFINITION
U.S. Geological Survey unique site identifier
ATTRIBUTE DEFINITION SOURCE U.S. Geological Survey National Water Information System
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Unique code identifying a measurement site in the National Water Information System database

DETAILED DESCRIPTION
ENTITY TYPE
ENTITY TYPE LABEL WBDLine, WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NWISDrainageLine, NonContributingDrainageArea, NonContributingDrainageLine
ENTITY TYPE DEFINITION
The following attribute fields are common to all feature classes within the WBD
ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE
ATTRIBUTE LABEL OBJECTID
ATTRIBUTE DEFINITION
Internal feature number.
ATTRIBUTE DEFINITION SOURCE ESRI
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Sequential unique whole numbers that are automatically generated.

ATTRIBUTE
ATTRIBUTE LABEL Shape
ATTRIBUTE DEFINITION
Feature geometry.
ATTRIBUTE DEFINITION SOURCE ESRI
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
Coordinates defining the features.

ATTRIBUTE
ATTRIBUTE LABEL TNMID
ATTRIBUTE DEFINITION
TNMID (short for The National Map Identification) is a unique 40-character field that identifies each element in the database exclusively.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
TNMID is an automatically assigned code that stays with each element. When an element is updated or changed, TNMID links the element to the metadata record and documents the change. TNMID is also used to maintain relationship classes in the normalized data model. When an element is deleted or split, TNMID stays with the original element and is not used again. When an element is split, new permanent identifiers are assigned to the resultant parts.

ATTRIBUTE
ATTRIBUTE LABEL MetaSourceID
ATTRIBUTE DEFINITION
MetaSourceID is a unique identifier that links the element to the metadata tables.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
MetaSourceID is a unique identifier that links the element to the metadata tables. This ID is generated and assigned automatically by the database and remains with the object permanently.

ATTRIBUTE
ATTRIBUTE LABEL SourceDataDesc
ATTRIBUTE DEFINITION
SourceDataDesc is a space provided for a brief description of the type of base data used to update or change the current WBD.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
The WBD In-State Steward completes this field as part of the metadata form.

ATTRIBUTE
ATTRIBUTE LABEL SourceOriginator
ATTRIBUTE DEFINITION
SourceOriginator is the description of the agency that created the base data used to improve the WBD.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
The WBD In-State Steward completes this field as part of the metadata form

ATTRIBUTE
ATTRIBUTE LABEL SourceFeatureID
ATTRIBUTE DEFINITION
SourceFeatureID is a long, unique code.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
UNREPRESENTABLE DOMAIN
This code identifies the parent of the feature if the feature is the result of a split or merge, and it is automatically generated and assigned.

ATTRIBUTE
ATTRIBUTE LABEL LoadDate

Attribute Definition
LoadDate represents the date when the data were loaded into the official USGS WBD ArcSDE database. The field is the effective date for all feature edits, and it is automatically generated.
Attribute Definition Source Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
Attribute Domain Values
Range Domain
Range Domain Minimum 12:00:00 AM
Range Domain Maximum 5/22/2015 9:18:54 AM

Attribute
Attribute Label SHAPE_Length
Attribute Definition
Length of feature in internal units.
Attribute Definition Source Esri
Attribute Domain Values
Range Domain
Range Domain Minimum 0.00969668135620442
Range Domain Maximum 156.106394893564

Detailed Description
Entity Type
Entity Type Label WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea, NonContributingDrainageArea
Entity Type Definition
The following attribute field is common to all polygon feature classes within the WBD
Entity Type Definition Source Federal Standards and Procedures for the National Watershed Boundary Dataset

Attribute
Attribute Label Shape_Area
Attribute Definition
Area of feature in internal units squared.
Attribute Definition Source Esri
Attribute Domain Values
Range Domain
Range Domain Minimum 1.4877635179339E-06
Range Domain Maximum 9.79299310229808

Detailed Description
Entity Type
Entity Type Label WBDHU2, WBDHU4, WBDHU6, WBDHU8, WBDHU10, WBDHU12, WBDHU14, WBDHU16
Entity Type Definition
The following attribute fields are common to the WBD hydrologic unit polygon datasets
Entity Type Definition Source Federal Standards and Procedures for the National Watershed Boundary Dataset

Attribute
Attribute Label GNIS_ID
Attribute Definition
GNIS_ID is a preassigned numeric field that uses a unique number to relate the name of the hydrologic unit to the GNIS names database.
Attribute Definition Source Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
Attribute Domain Values
Codeset Domain

CODESET NAME Geographic Names Information System (GNIS)
CODESET SOURCE GNIS (http://gnis.usgs.gov/)

ATTRIBUTE
ATTRIBUTE LABEL AreaAcres
ATTRIBUTE DEFINITION
The area of each hydrologic unit including non-contributing areas stored in acres AreaAcres is common to all polygon feature classes and is calculated at the 12-digit hydrologic unit from the intrinsic area value maintained by the GIS software; therefore, acreage values may vary from user calculations, depending on the projection of the data. North American Albers Equal Area Conic, North American Datum 1983 is the required projection to use for calculation. If the units of the area field are stored in square meters, then use the conversion factor 0.0002471. For example, 40,469,446 square meters multiplied by 0.0002471 =10,000 acres
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
RANGE DOMAIN
RANGE DOMAIN MINIMUM 0
RANGE DOMAIN MAXIMUM 50000000
ATTRIBUTE UNITS OF MEASURE acres

ATTRIBUTE
ATTRIBUTE LABEL AreaSqKm
ATTRIBUTE DEFINITION
The area of each hydrologic unit including non-contributing areas stored in square kilometers. AreaSqKm is calculated at the 12-digit hydrologic unit from the intrinsic area value maintained by the GIS software; therefore, the square kilometer values may vary from user calculations, depending on the projection of the data. North American Albers Equal Area Conic, North American Datum 1983 is the default projection.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
RANGE DOMAIN
RANGE DOMAIN MINIMUM 0
RANGE DOMAIN MAXIMUM 100000
ATTRIBUTE UNITS OF MEASURE square kilometers

ATTRIBUTE
ATTRIBUTE LABEL States
ATTRIBUTE DEFINITION
The States or outlying area attribute identifies the State(s) or outlying areas that the hydrologic unit falls within or touches. Will be populated with the 2 character state abbreviation or outlying area attribute for each area that the unit falls within in alphabetical order.
ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
ATTRIBUTE DOMAIN VALUES
CODESET DOMAIN
CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)
CODESET SOURCE Section 6: Geospatial Data Structure and Attributes http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE
ATTRIBUTE LABEL Name

ATTRIBUTE DEFINITION

Name refers to the GNIS name for the geographic area in which the hydrologic unit is located.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION

ENTITY TYPE

ENTITY TYPE LABEL WBDHU10, WBDHU12, WBDHU14, WBDHU16

ENTITY TYPE DEFINITION

The following attribute fields are common to the 10-digit, 12-digit, 14-digit and 16-digit WBD polygon datasets

ENTITY TYPE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset

ATTRIBUTE

ATTRIBUTE LABEL HUType

ATTRIBUTE DEFINITION

The 12-digit hydrologic unit type attribute is the single-letter abbreviation for Watershed type from the list of official names provided in the WBD Standards.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

ATTRIBUTE

ATTRIBUTE LABEL HUMod

ATTRIBUTE DEFINITION

The hydrologic unit modification attribute is a two-character, uppercase abbreviation(s) for either (1) the type of modification to natural overland flow that alters the natural delineation of a hydrologic unit or (2) the special conditions GF-groundwater flow, GL-glacier, IF-ice field, KA-karst, and NC-noncontributing area. The value of the HUMod field helps to indicate where the modification to the hydrologic unit is located. If more than one abbreviation is used, the will be separated by commas without spaces and listed from most to least predominant.

ATTRIBUTE DEFINITION SOURCE Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

ATTRIBUTE DOMAIN VALUES

CODESET DOMAIN

CODESET NAME Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

CODESET SOURCE Section 6: Geospatial Data Structure and Attributes (http://pubs.usgs.gov/tm/11/a3/)

DETAILED DESCRIPTION

ENTITY TYPE

Entity Type Label: WBDHU12, WBDHU14, WBDHU16, NWISDrainageArea and NonContributingDrainageArea

Entity Type Definition:
The following attribute fields are common to the 12-digit, 14-digit and 16-digit WBD polygon datasets as well as the NWISDrainageArea, and NonContributingDrainageArea polygon datasets

Entity Type Definition Source: Federal Standards and Procedures for the National Watershed Boundary Dataset

Attribute

Attribute Label: NonContributingAreaAcres

Attribute Definition:
The noncontributing area attribute represents the area, in acres, of hydrologic units that do not contribute to downstream accumulation of streamflow under normal flow conditions.

Attribute Definition Source: Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

Attribute Domain Values

Range Domain

Range Domain Minimum: 0

Range Domain Maximum: 50000000

Attribute

Attribute Label: NonContributingAreaSqKm

Attribute Definition:
The noncontributing area attribute represents the area, in square kilometers, of hydrologic units that do not contribute to downstream accumulation of streamflow under normal flow conditions.

Attribute Definition Source: Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)

Attribute Domain Values

Range Domain

Range Domain Minimum: 0

Range Domain Maximum: 100000

Overview Description

Entity and Attribute Overview:
The Watershed Boundary Dataset is a comprehensive set of digital spatial data that represents the surface drainages areas of the United States. The information included with the features includes a feature date, a unique common identifier, name, the feature length or area, and other characteristics. Names and their identifiers are assigned from the Geographic Names Information System. The data also contains relations that encode metadata. The names and definitions of all these feature attributes are in the Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD). The document is available online at http://pubs.usgs.gov/tm/11/a3/.

Entity and Attribute Detail Citation:
The names and definitions of all fields within the WBD attribution are in the U.S. Geological Survey, Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD). The document is available online at http://pubs.usgs.gov/tm/11/a3/. Information about the attribute tables and fields are in Section 6: Geospatial Data Structure and Attributes

Hide Entities and Attributes ▲

Distributor

Contact Information

Contact Organization Primary

CONTACT ORGANIZATION U.S. Geological Survey
CONTACT ADDRESS
ADDRESS TYPE Mailing
ADDRESS U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046
CITY Denver
STATE OR PROVINCE CO
POSTAL CODE 80225

CONTACT VOICE TELEPHONE 1-877-275-8747
CONTACT ELECTRONIC MAIL ADDRESS bpgeo@usgs.gov

DISTRIBUTION LIABILITY
The distributor shall not be held liable for improper or incorrect use of this data, based on the description of appropriate/inappropriate uses described in this metadata document. It is strongly recommended that this data is directly acquired from the distributor and not indirectly through other sources which may have changed the data in some way. The Watershed Boundary Dataset is public information and may be interpreted by all organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application of the data. Federal, State, or local regulatory bodies are not to reassign to the U.S. Department of Agriculture-Natural Resources Conservation Service or the U.S. Geological Survey any authority for the decisions they make. Photographic or digital enlargement of these maps to scales greater than that at which they were originally delineated can result in misrepresentation of the data. If enlarged, the maps will not include the fine detail that would be appropriate for mapping at the small scale. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data from the source distributor.
STANDARD ORDER PROCESS
DIGITAL FORM
DIGITAL TRANSFER INFORMATION
FORMAT NAME Vector Digital Data Set (Polygon)

DIGITAL TRANSFER OPTION
ONLINE OPTION
COMPUTER CONTACT INFORMATION
NETWORK ADDRESS
NETWORK RESOURCE NAME
ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/National_WBD.zip

FEES None. No fees are applicable for obtaining the data set.

Hide Distribution Information ▲
METADATA DATE 2016-07-27
METADATA CONTACT
CONTACT INFORMATION
CONTACT PERSON PRIMARY
CONTACT PERSON WBD Point of Contact
CONTACT ORGANIZATION U.S. Geological Survey
CONTACT ADDRESS
ADDRESS TYPE Mailing
ADDRESS U.S. Geological Survey, National Geospatial Technical Operations Center, P.O. Box 25046
CITY Denver
STATE OR PROVINCE CO
POSTAL CODE 80225

CONTACT VOICE TELEPHONE 1-877-275-8747
CONTACT ELECTRONIC MAIL ADDRESS bpgeo@usgs.gov

METADATA STANDARD NAME FGDC Content Standard for Digital Geospatial Metadata
METADATA STANDARD VERSION FGDC-STD-001-1998

Hide Metadata Reference ▲