Watersheds (HUC2)

Tags

Watershed Boundary Dataset, Region, US, United States, 2-digit, Hydrologic Units, WBD, Hydrologic Unit Code, HUC

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.

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), herein after referred to as the "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 HU's are delineated at 1:24,000-scale in the conterminous United States, 1:25,000-scale in Hawaii 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 polygons 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. WBDHU2 represents the 2-digit hydrologic unit boundaries (previously referred to as Regions) and are part of the WBD delivery, but these boundaries are not editable by the WBD In-State Steward. There are 22 2-digit hydrologic units (Regions) in the WBD, and each has the following unique attribute fields.

Credits

Funding for the Watershed Boundary Dataset (WBD) was provided by the USDA-NRCS, USGS and EPA along with other federal, state and local agenies. 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. See dataset specific metadata for further information

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 -179.229655 East 179.856675
North 71.439573 South 18.910722

Scale Range

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

ArcGIS Metadata

Topics and Keywords

* 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.
THEME KEYWORDS Watershed Boundary Dataset, Region, 2-digit, Hydrologic Units, WBD, Hydrologic Unit Code, HUC

Citation

TITLE Watersheds (HUC2)
PUBLICATION DATE 2015-12-16
PRESENTATION FORMATS * digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data Set (Polygon)

Citation Contacts

RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Environmental Protection Agency (EPA)
CONTACT'S ROLE originator
RESPONSIBLE PARTY
ORGANIZATION'S NAME Other Federal, State, and local partners (see dataset specific metadata for details)
CONTACT'S ROLE originator

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

Resource Details

DATASET LANGUAGES English (UNITED STATES)
STATUS completed
SPATIAL REPRESENTATION TYPE vector
* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.0.4322
CREDITS
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ARCGIS ITEM PROPERTIES
* NAME hydrologic_units_huc2

Extents

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
WEST LONGITUDE -179.229655487
EAST LONGITUDE 179.856674735
SOUTH LATITUDE -14.4246950943
NORTH LATITUDE 71.4395725902
EXTENT
DESCRIPTION
publication date
TEMPORAL EXTENT
BEGINNING DATE 1980-01-01
ENDING DATE 2016-01-01
EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -179.229655
* EAST LONGITUDE 179.856675
* NORTH LATITUDE 71.439573
* SOUTH LATITUDE 18.910722
* EXTENT CONTAINS THE RESOURCE Yes
EXTENT IN THE ITEM'S COORDINATE SYSTEM
* WEST LONGITUDE -19951753.983917
* EAST LONGITUDE 20021553.447315
* SOUTH LATITUDE 2144427.712451
* NORTH LATITUDE 11554273.714548
* EXTENT CONTAINS THE RESOURCE Yes

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

Resource Maintenance

RESOURCE MAINTENANCE
UPDATE FREQUENCY as needed

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
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Spatial Reference

ARCGIS COORDINATE SYSTEM

* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_WGS_1984
* PROJECTION WGS_1984_Web_Mercator_Auxiliary_Sphere
* COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102100
X ORIGIN -22041257.77387803
Y ORIGIN -30241100
XY SCALE 144148035.89861274
Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 0.001
Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
LATEST WELL-KNOWN IDENTIFIER 3857
WELL-KNOWN TEXT PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER

* VALUE 3857
* CODESPACE EPSG
* VERSION 8.2.6

Spatial Data Properties

VECTOR

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME hydrologic_units_huc2

* OBJECT TYPE composite
* OBJECT COUNT 20

ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME hydrologic_units_huc2

* FEATURE TYPE Simple
* GEOMETRY TYPE Polygon
* HAS TOPOLOGY FALSE
* FEATURE COUNT 20
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

Data Quality

SCOPE OF QUALITY INFORMATION

RESOURCE LEVEL dataset

DATA QUALITY REPORT - TOPOLOGICAL CONSISTENCY

EVALUATION METHOD

Lines, polygons (area) 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.

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY

MEASURE DESCRIPTION

Lines, polygons (area) 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.

DATA QUALITY REPORT - COMPLETENESS OMISSION

MEASURE DESCRIPTION

The WBD contains completed polygons at every level for the United States. All required field within the polygon and line datasets are populated. Some of these fields may be populated with a 0 value. The lines coincident with the international boundary area 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. Detailed description of delineation methods and full attribute definitions can be found in the WBD Standards.

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY

MEASURE DESCRIPTION

100% of the initially required attributes were visually verified using 24K digital raster graphics (DRG's) 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.

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY

DIMENSION horizontal

MEASURE DESCRIPTION

The WBD was produced using Digital Raster Graphics (DRG's) as the source map. Data completeness for DRG files reflects content of the source graphic and may therefore be reflected in the completeness and accuracy of the WBD. The map was digitized from USGS 1:24,000-scale digital raster graphic base maps, with an inherited error of +/- 40 feet according to the USGS National Map Accuracy Standards. It is estimated that any errors detected were less than 10%. It should also be noted that while general rules of hydrology were used (i.e. natural water flow is downhill), the locations of boundaries is still somewhat subjective as the 1:24,000-scale DRG's do not always provide enough information for identifying the location of the boundaries. 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.

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.

Lineage

PROCESS STEP

WHEN THE PROCESS OCCURRED 2004-20-07

DESCRIPTION

META_ID: AL05: Edit polygons that have duplicate huc12 polygons elsewhere in the WBD. MD02: Edits to the Maryland WBD MI02: Edits to the Michigan WBD to better match the WBD Standards. MT02: Edits to the Montana WBD to better match the WBD Standards. WY02: Edits to the WY WBD to edgematch with surrounding states.

PROCESS STEP

WHEN THE PROCESS OCCURRED

INDETERMINATE DATE unknown

DESCRIPTION

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 STEP

WHEN THE PROCESS OCCURRED 1980-20-00

DESCRIPTION

The original hydrologic unit boundaries were hand-digitized on a tablet from the USGS 7.5 minute quadrangles. This process occurred over a span of approximately 20 years.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-20-13

DESCRIPTION

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. 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 STEP

WHEN THE PROCESS OCCURRED 2011-20-14

DESCRIPTION

Below is a list of updates as a result of the harmonization work that is going on 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 broken 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 technical team 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) Montana: 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 North Dakota: Legacy 09020313 Pembina has now been split. The legacy name and code should be retired. The new codes and names should be: 09020315 Upper Pembina River 09020316 Lower Pembina River 09030004 Upper Rainy has been retired 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.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-20-13

DESCRIPTION

The following are 8-digit updates 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 breaking out 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 had a portion broken out, 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 broken into 19030406 Middle Flork Kuskokwim River and 19030407 South Fork Kuskokwim River. Legacy 19040204 Black River has had a portion split out. 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. It makes hydrologic unit sense. The legacy 19040504 had 3 separate outlet; Delta River, Delta Creek and Little Delta River. The boundary was adjusted so that 19040504 contained just the Delta River as a classic unit. The Delta Creek and Little Delta River where moved into 19040507. Legacy 19040507 Tanana Flats Linework changed significantly. It makes hydrologic unit sense. 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/ classic 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 subbasin 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 Admirality Bay while the Kugrua River and the other small frontal drainages flows into the Chukchi Sea. The boundary was adjusted so that flow into Admirality Bay/Dease Inlet was separate from flow into Chukchi Sea. The Inaru River, Admirality 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. 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 HU's 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 HU's from legacy 18060001 San Lorenzo-Soquel as a result of coastal implementation. This is approved by the in-state WBD Steward and the national WBD Technical Team 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 national WBD Technical Team 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 national WBD Technical Team 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 national WBD Technical Team Legacy 18070104 Santa Monica Bay had an area the size of several 12-digit HU's 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 national WBD Technical Team 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. Technical Team 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, but will require rework of the sequence if the proposed delineation correction above is accepted. The approved names should be: 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 split. 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 split. 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 split between 18050006 San Francisco Coastal South and 18060015 Monterey Bay 18060011 code and name have been retired and now is split 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. Split out new Subbasin 03090206 Florida Southeast Coast Combined additional smaller portions of 03090202 with adjacent Subbasins. 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. New York: Legacy 04150307 English-Salmon was subdivided into 04150307 Salmon and 04150308 Chateaugay-English. The Technical Team accepts this change. 02010004 name and code have been retired, and this area is split, part is in 04150404 Ausable River and part in 041504008 Lake Champlain 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 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 split 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 technical team concurs with: 03050208 Broad-St. Helena code and name retained into a much smaller unit capturing only the Broad-St. Helena Rivers Split into new 03060110 Calibogue Sound- Wright River, and now part of the adjacent Subregion to the south. Split 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 resued 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. 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. 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. 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 STEP

WHEN THE PROCESS OCCURRED 2005-20-11

DESCRIPTION

Hydrologic units from surrounding states were used to edge match watershed boundaries.

PROCESS STEP

DESCRIPTION

META_ID: IL02 META_ID: OH02 Process_Description: Name or Code updates by EPA Region 5.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-20-15

DESCRIPTION

During this time period the WBD national technical team reviewed all the ToHUC codes within the 12-digit polygon and made updates as necessary. All updates were coordinated and approved by WBD State-Stewards.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2005-20-11

DESCRIPTION

The new WBD dataset was reviewed on-screen by USGS, EPA, or NRCS personnel using DRG's and DOQ's 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 classic watersheds that fell within the federal guidelines size criteria (12-digit: 10,000-40,000 acres, 10-digit: 40,000-250,000 acres) were broken out. 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 what were greater than 40,000 acres (12- digit units) and 250,000 acres (10-digit units) were reviewed. If possible these unit where then broken down 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 (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 break out as their own unit). In these instances the unit was left big.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2005-20-11

DESCRIPTION

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 hydrologic unit name discrepancies between the NHD and what was printed on the DRG's. In these instances the DRG's were used instead of the NHD.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2003-01-01

DESCRIPTION

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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2004-05-23

DESCRIPTION

META_ID: NE02: Updated polygons in Nebraska per Walt Rassmussen's shapefile (subbasin 10230001) sent to the National Cartography and Geospatial Center in May, 2007 (Blackbird-Soldier4thby6thpoly23May2007_IA-NE.shp). Renumbered huc12 codes for Watershed 1017010115 to correct data with SD WBD submittal.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2007-01-24

DESCRIPTION

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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2007-07-01

DESCRIPTION

META_ID: NM02: Edits provided by NRCS to alleviate duplicate HUC12 coding.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2007-10-01

DESCRIPTION

META_ID: KS02: EPA made attribute edits to HUC 8- 10300101 and 10240011 in order to edge match with Missouri. META_ID: KY02: Edits made so polygons will edge match with Ohio and Missouri line work and polygons.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-01-01

DESCRIPTION

META_ID: OK02: edits requested by Larry Ferguson in Stillwater, OK. to line work or HUC10 name changes.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-02-01

DESCRIPTION

META_ID: KY03: Edits made by USGS, Water Science Center in Salt Lake City, UT, so that polygon numbering will better follow guidelines of lower to higher number sequence flow. META_ID: IN02: edits by Indiana NRCS State office to edge match Ohio's Watershed Boundary Dataset. META_ID: MI03: edits made or errors caught by EPA Region 5 to edge match Ohio's Watershed Boundary Dataset. META_ID: WI02: errors caught by EPA Region

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-04-30

DESCRIPTION

META_ID: SD02: HU_12_Type or NCONTRB_A updates by NRCS SD.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-05-01

DESCRIPTION

META_ID: AR02: EPA made attribute edits to HUC 8- 11010001 in order to edge match with Missouri.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-05-07

DESCRIPTION

META_ID: IL03: Name, Code, or Arc updates by EPA Region 5.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-07-01

DESCRIPTION

META_ID: AR03: NRCS made attribute edits to HUC 8- 08020100 and 08030100 in order to edge match with Mississippi.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-07-16

DESCRIPTION

META_ID: IL04: Name updates by EPA Region 5. META_ID: OH03: Name and DS code updates by EPA Region 5.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2008-11-30

DESCRIPTION

META_ID: GA02: SC02: TN02: AL06: USGS Edits to Georgia, South Carolina, Tennessee, and Alabama to eliminate duplicate HUC12 codes.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-01-01

DESCRIPTION

META_ID: CO02: USGS Edits to Colorado Downstream coding. META_ID: CA02: USGS Edits to California to edge match across the US/Mexico border. META_ID: OR02: USGS Edits to Oregon to edge match at CA border.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-02-01

DESCRIPTION

META_ID: NM03: Edits provided by USGS Water Science Center, Salt Lake City, to edge match with Mexico.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-02-11

DESCRIPTION

META_ID: IL05: Name updates by NRCS Illinois.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-02-22

DESCRIPTION

META_ID: AL07: USGS Edits to Alabama line work.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-03-01

DESCRIPTION

META_ID: NH02: Corrections to data; USGS Water Science Center, Salt Lake City.
META_ID: VT02: Corrections to data; USGS Water Science Center, Salt Lake City.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-05-01

DESCRIPTION

META_ID: MS02: USGS; Mississippi State Steward, Van Wilson: Edits to polygons.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-06-01

DESCRIPTION

META_ID: TN03: USGS Edits to Tennessee to correct edge match problems with Virginia. Some name corrections also.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-08-01

DESCRIPTION

META_ID: OH04: USGS Water Science Center, Salt Lake City; Edits to Ohio downstream coding. META_ID: NM04: Edits provided by USGS Water Science Center, Salt Lake City, to correct Downstream coding. META_ID: CO03: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: NE03: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: MT03: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: WY03: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: MO02: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: WI03: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: MI04: USGS,

Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: PA02: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: AZ02: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding. META_ID: HI02: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-08-01

DESCRIPTION

META_ID: OH05: HUC12 Name corrections made by in-state data steward.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-09-01

DESCRIPTION

META_ID: VA04: HUC12 edits made by in-state data steward. Meta_ID: HI03: State data steward changed order of coding for 84 HUC12 polygons. Some downstream coding, MODs and TYPEs were also changed.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-09-16

DESCRIPTION

Meta_ID: MN02: USGS, Water Science Center, Salt Lake City; Edits to Downstream coding and switch huc12 codes for 090201030302 & 090201030303.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-09-17

DESCRIPTION

Meta_ID: CO04: USGS, Water Science Center, Salt Lake City; Edits to linework and recoding.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-09-24

DESCRIPTION

META_ID: OH06: HUC12 Name correction made by in-state data steward.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-10-01

DESCRIPTION

META_ID: MS03 and MS04: USGS; Mississippi State Steward, Van Wilson: Edits to polygons and line work; MS03 was used where a number, name, or line was changed; MS04 was used where only the acres were revised.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-10-01

DESCRIPTION

META_ID: AR04: HUC12 edits made by USGS Water Science Center, Salt Lake City, UT. META_ID: LA02: HUC12 edits made by USGS Water Science Center, Salt Lake City, UT. META_ID: MD03: Linework edit.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-10-29

DESCRIPTION

Meta_ID: CO05: Linework and name edit per state steward, Andy Bock (e-mail on October 29, 2009).

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-11-12

DESCRIPTION

META_ID: SD03: 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 4th level unit in the James Basin, this group of edits primarily consisted of minor corrections to linework and 6th-level downstream codes, populating ncontrb_A fields of selected 6th-level units, and tweaking selected 5th- and 6th-level unit names to facilitate merging with GNIS.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-11-18

DESCRIPTION

Meta_ID: MN03: NCGC corrected original HUC12 polygon 090201030103 that had a couple of slivers. MN DNR office said to look up and correct per their website: http://deli.dnr.state.mn.us/

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-11-30

DESCRIPTION

META_ID: AL08: USGS Edits to Alabama line work and some attributes as well as polygon attributes.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-12-01

DESCRIPTION

META_ID: LA03: USGS Water Science Center, Salt Lake City, UT. Recoded all HUC12 codes and DS codes for 08080100 Atchafalaya to 08080101 Atchafalaya. META_ID: CA03: USGS Edits to California to attributes and linework to update and correct subbasin coding. META_ID: AL09: Alabama State Steward recommended HUC12 name attribute updates. META_ID: AR05: HUC10 name updates made by in-state data steward. META_ID: OK03: HUC10 name updates made by in-state data steward.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-12-22

DESCRIPTION

Meta_ID: CO06: Some HUC12 recoding and HUC12 downstream updates per state steward, Andy Bock (e-mail on December 22, 2009).

PROCESS STEP

WHEN THE PROCESS OCCURRED 2009-12-29

DESCRIPTION

Meta_ID: AZ03: Edits to HUC10 names submitted by in-state data steward.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-01-01

DESCRIPTION

META_ID: GA03 (Sub-Region 0315) - Updates to polygons and linework from USGS Water Science Center, Salt Lake City, Utah. Details: Watershed boundary lines adjusted to USGS DRG24. Attributes HU_12_NAME field populated, HU_10_NAME field updated to conform to National WBD and GNIS naming structure. HU_10_DS, HU_12_DS, HUC_10, and HUC_12 numeric fields updated to conform to WBD downstream numbering order (i.e. huc must flow into higher numbered huc). META_ID: GA04 (Interior) - Updates to polygons and linework from USGS Water Science Center, Salt Lake City, Utah. Details: Watershed boundary lines adjusted to USGS DRG24. Attributes HU_12_NAME field populated, HU_10_NAME field updated to conform to National WBD and GNIS naming structure. HU_10_DS, HU_12_DS, HUC_10, and HUC_12 numeric fields updated to conform to WBD downstream numbering order (i.e. huc must flow into higher numbered huc). META_ID: GA05 (Coastal) - Updates to polygons and linework from USGS Water Science Center, Salt Lake City, Utah. Coastal Delineation Processes (Huc10 units along coastline): Input watershed boundary lines in accordance with the Coastal Georgia Watershed Review Team (GACoastalHUC12) (Estuaries, 1994). Refined boundary lines to 24k DRGs and NOAA Bathymetry (USGS DRG24) (NOAA_RNC). Shoreline to 100 meter buffer (LINESOURCE "Buffer100") from NOAA_RNC MLLW and corrected to the International Maritime Organization's COLREG Demarcation Lines across inlets as delineated on NOAA_RNC, input NOAA three nautical mile offshore boundary as agreed upon by Coastal Georgia Watershed Review Team.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-01-11

DESCRIPTION

Meta_ID: MO03: In-state data steward update to HUC10 name. META_ID: NM05: Edit sent to AZ state office by Arizona Water Science Center, USGS, to correct HUC12 Downstream code; confirmed by New Mexico state office.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-03-01

DESCRIPTION

META_ID: ND02: Edits supplied by Ann Fritz (state data steward) of the North Dakota Department of Health.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-04-01

DESCRIPTION

META_ID: AK02: HUC12 polygons and line rework by USGS Water Science Center, Salt Lake City, UT. META_ID: TX02: Harmonization with Mexico; HUC12 polygons and line rework by USGS Water Science Center, Salt Lake City, UT.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-05-01

DESCRIPTION

META_ID: VT03: USGS Salt Lake City: update to data in Lake Champlain area on the US side. META_ID: VT04: USGS Salt Lake City: update to data in Lake Champlain area on the 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. Process_Date: 201005 Process_Step: META_ID: NY02 Process_Description: 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. META_ID: NY03: USGS Salt Lake City: update to data in Lake Champlain area on the 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.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-05-01

DESCRIPTION

META_ID: SD04: Edits made by In-state steward. Meta_ID: HI04: State data steward changed some coding, corrected some downstream codes, and corrected a couple of names.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-06-01

DESCRIPTION

META_ID: ND03: Edits to HUC12 Names supplied by USGS Water Science Center in Salt Lake City, Utah. META_ID: NV02: edits to attributes by USGS, Water Science Center, Salt Lake City, UT. META_ID: UT02: edits made by USGS, Water Science Center, Salt Lake City, UT. when NV was completed. META_ID: UT03: edits to some boundaries as well as coding and names by USGS, Water Science Center, Salt Lake City, UT. META_ID: UT04: edits to attributes by USGS, Water Science Center, Salt Lake City, UT. META_ID: VT05: USGS Water Science Center, Salt Lake City: update to boundary.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-07-08

DESCRIPTION

META_ID: IN04 META_ID: MI05 META_ID: MN04 META_ID: NY04 META_ID: OH08 META_ID: PA03 META_ID: WI04 For the listed META_ID's the following Name review and updates were completed by the USGS Water Science Center, Salt Lake City. Populate blank fields. Correct spelling, ex. Srping to Spring, St. to Saint or vice versa depending on how GNIS has it, Cemetary to Cemetery. Standardize use of "Frontal". Standardize use of "Headwaters, Outlet". Standardize use of "Upper, Middle, Lower". Cursory check that name is contained within the hydrologic unit. Remove extraneous non-domain or non-GNIS names at, near, below, above, from, to, directional-northernmost, southern, easterly, etc. Incorrect spacing, ex. Oakcreek should be Oak Creek

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-07-13

DESCRIPTION

Meta_ID: OR03: The Oregon WBD dataset was updated to incorporate changes submitted by Pacific Northwest Hydrography Framework (PNWHF) partner organizations. The changes included small boundary adjustments that result in a better match with NHD, an updated 12 digit HU boundary derived from LiDAR source data, and WBD HU name changes. Each of these proposed changes were reviewed by affected stewards for validity. The WBD boundary was changed in areas where the NHD was crossing the WBD boundary. In these instances, the NHD source was the PNWHF dataset and not the DRG. Subwatershed 171002030602 was completely replaced using Oregon Department of Forestry's (ODF) boundaries that were derived from LiDAR source data (see ftp://ftp.ftw.nrcs.usda.gov/pub/wbd/hu/metadata/or_hu12_support_documentation.docx). This LiDAR based DEM highlighted several areas where the WBD did not accurately reflect the condition on the ground. In several locations the old WBD boundary crossed stream channels indicated on the DEM. ODF used a 5 foot contour layer, derived from the LiDAR DEM, to delineate the boundary changes. Updates to the WBD boundaries for this subwatershed were performed using the ESRI Reshape Featuretool. This update affected six adjoining 12 digit HUs all within the same 10 digit HU. Name changes were submitted at the 10 and 12 digit HU level. The attributes HU_10_NAME and HU_12_NAME were updated depending on the change request.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-08-01

DESCRIPTION

META_ID: TX03: In-State Data Steward made edits to boundaries. META_ID: ND04: Edits made by USGS Water Science Center, Salt Lake City META_ID: MN06: Edits made by USGS Water Science Center, Salt Lake City META_ID: SD05: Edits made by USGS Water Science Center, Salt Lake City

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-10-01

DESCRIPTION

META_ID: SD06: Edits made by in-state data steward to correct a HUC12 polygon that was in the wrong basin. HUC12 coding and downstream coding updated for the entire watershed 1015000404. Meta_ID: IA02: USGS, Water Science Center, SLC; Edits to polygons and linework. Line Mods, HU_Level, Linesource, DS codes and states were also checked. Meta_ID: KS03: USGS, Water Science Center, SLC; Edits to polygons and linework. Line Mods, HU_Level, Linesource, DS codes and states were also checked. Meta_ID: MO05: USGS, Water Science Center, SLC; Edits to polygons and linework. Line Mods, HU_Level, Linesource, DS codes and states were also checked. Meta_ID: NE04: USGS, Water Science Center, SLC; Edits to polygons and linework. Line Mods, HU_Level, Linesource, DS codes and states were also checked. META_ID: LA04: In-state Stewards and USGS Water Science Center, Salt Lake City, UT.; Edits to LA Coastal HUCs.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-10-01

DESCRIPTION

For the following list of Meta_ID's the following was completed: Updates by USGS Water Science Center, Salt Lake City, Utah. Edits to any of the following: Polygon attributes, Line Mods, HU_Level, Linesource, DS codes and states. META_ID: CO09 META_ID: IA03 META_ID: IA04 META_ID: IL07 META_ID: IL08 META_ID: IN05 META_ID: KY04 META_ID: MN07 META_ID: MO05 META_ID: MT04 META_ID: MT05 META_ID: NC02 META_ID: ND07 META_ID: ND08 META_ID: NE04 META_ID: OH09 META_ID: PA04 META_ID: SD07 META_ID: SD08 META_ID: TN05 META_ID: VA05 META_ID: WI05 META_ID: WV02 META_ID: WY05

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-10-14

DESCRIPTION

Meta_ID: WY04: Edits to Wyoming HUC10 and HUC12 naming, STATES values, HU_MOD, some coding and linework delineation corrections.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-11-01

DESCRIPTION

Meta_ID: GA06 : Edits submitted to correct HUC10 coding in Georgia.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-11-01

DESCRIPTION

The following was completed for the META_ID's listed. USGS, Water Science Center, Salt Lake City. Edits to Lake Champlain Basin moving it from Region 02 to Region 04. Also updated 01110000 from Region 01 to Region 04. Craig Johnston pointed out that this unit contains the St. Francois River which flows up into Canadaand 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. Meta_ID: NH03 Meta_ID: NY05 Meta_ID: VT06

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-11-01

DESCRIPTION

The following tasks applies to all the META_ID's listed. Updates by USGS Water Science Center, Salt Lake City, Utah. Edits to any of the following: Polygon attributes, Line Mods, HU_Level, Linesource, DS codes and states. META_ID: AL10 Meta_ID: AR06 Meta_ID: CO10 Meta_ID: GA05 Meta_ID: KS03 Meta_ID: KY05 Meta_ID: KY06 Meta_ID: LA04 Meta_ID: LA05 Meta_ID: MS05 Meta_ID: MS06 Meta_ID: NM06 Meta_ID: OK04 Meta_ID: TN05 Meta_ID: TN06 Meta_ID: TX04 Meta_ID: VA05

PROCESS STEP

WHEN THE PROCESS OCCURRED 2010-12-01

DESCRIPTION

META_ID: ND09: Updates sent to NRCS by in-state steward to correct a duplicate HUC12 code, name, and downstream code.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-01-01

DESCRIPTION

META_ID: CA04: USGS Water Science Center in Salt Lake City, Utah: Coastal updates; HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates (CAN for Canada instead of Province codes); DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA). META_ID: ID03 - NHDPlus updates META_ID: ID04 - Canadian border updates: USGS Water Science Center in Salt Lake City, Utah: HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates (CAN for Canada instead of Province codes); DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA). META_ID: MT06 - NHDPlus updates. META_ID: MT07 - Canadian border updates: USGS Water Science Center in Salt Lake City, Utah: HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates (CAN for Canada instead of Province codes); DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA). META_ID: OR04 - NHDPlus updates META_ID: OR05: USGS Water Science Center in Salt Lake City, Utah: HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates: DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA). META_ID: WA02 - NHDPlus updates. META_ID: WA03 - Canadian border updates and coastal updates: USGS Water Science Center in Salt Lake City, Utah: HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates (CAN for Canada instead of Province codes); DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA). META_ID: WY06 - NHDPlus updates (HUC Level codes updated along HUC8 boundary): USGS Water Science Center in Salt Lake City, Utah: HUC Level changes; Line Mods (SL for shoreline, PL for Playa); State updates; DS codes (OCEAN, CLOSED BASIN, CLOSED BAS, CANADA) META_ID: TX06: USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked. META_ID: NM07: USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked. META_ID: AK04 : HUC12 polygons and arcs reworked, attributes updated and a new HUC8 created, by USGS Water Science Center, Salt Lake City, UT.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-02-01

DESCRIPTION

META_ID: MT08: Updates by in-state WBD Steward. Edits to names and some boundary rework.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-03-01

DESCRIPTION

META_ID: AK05: HUC10 and HUC12 polygons and arcs were not delineated due to lack of base data at 1:63360 scale. Place holders were put into the attribute table to keep data from being dissolved/dropped out during future updates. DRG250 HUC8 lines and polygons, for the Western Aleutian Islands, Pribilof Islands, and Saint Lawrence Island, were snapped to the NOAA Three Nautical Mile Line and the DRG250 coastline was removed. Editing was done by USGS Water Science Center, Salt Lake City, UT.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-03-22

DESCRIPTION

META_ID: CA05: Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked. META_ID: NV05: Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked. META_ID: OR06: Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-04-14

DESCRIPTION

META_ID: OH10: HUC12 name changes submitted by in-state steward, Jim Stafford. Also some boundary edits.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-05-01

DESCRIPTION

Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level,

Linesource, DS codes and states were checked and updated as needed for each of the following META-ID's. META_ID: AZ04 META_ID: CA06 META_ID: NM08 META_ID: NV06 META_ID: UT06 META_ID: WY07

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-05-03

DESCRIPTION

Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked for the following META_ID's. META_ID: CO11 META_ID: NM07 META_ID: TX08 Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked for the following META_ID's.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-05-04

DESCRIPTION

META_ID: IL09: Updates to HUC12 Names

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-05-19

DESCRIPTION

Edits by USGS Water Science Center in Salt Lake City, Utah: The Line Mods, HU_Level, Linesource, DS codes and states were checked and updated as needed for each of the META_ID: CA09 META_ID: ID05 META_ID: NV07 META_ID: UT07 META_ID: WY08

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-05-31

DESCRIPTION

META_ID: CA07 and CA08: Edits by USGS Water Science Center in Salt Lake City, Utah: CA07 for interior updates including a couple of line changes, name updates and ds code updates.CA08 was used for the coastal updates and the Mexico updates. The Mexico HU-8 boundaries where put in and the international boundary was left in as HU_Level 0 for the HUC10 and HUC12 units.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-06-01

DESCRIPTION

Edits submitted by Sue Buto and USGS Water Science Center, Salt Lake City, Utah. HU10 and HU 12 codes and downstream codes updated for the following Meta_ID's. META_ID: ID06 META_ID: NM09 META_ID: OR07 META_ID: UT08 META_ID: WY09. META_ID: AK06: HUC12 polygons and arcs reworked, new subbasins created, old subbasins retired, attributes updated by USGS Water Science Center, Salt Lake City, UT. META_ID: ME02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-07-01

DESCRIPTION

META_ID: MN08: Updates by MN DNR - In-state WBD Stewards. Edits to polygon attributes and Linework. META_ID: MT09: Name updates as well as a few DS code updates. Also fixed were coding errors in the couple areas where it looks like the labels just got flipped (code and names were okay they were just in the wrong polygons).

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-09-01

DESCRIPTION

META_ID: AL11: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: FL03: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: GA07: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: LA06: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: MS07: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: NC02: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: SC03: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: VA06: The Line Mods, HU_Level, Linesource, DS codes and states were checked, the following meta ids were used for any updates. META_ID: MO07: Edits to HU names by USGS Water Science Center in Salt Lake City, Utah. META_ID: CT02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake

City, Utah. META_ID: MA02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: ME03: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: NH04: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: NY06: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: RI02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-09-09

DESCRIPTION

Meta_ID: MO06: HUC12 code correction.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-09-30

DESCRIPTION

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 split 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 MetaID used – AK07 Arcs HU_Level checked and updated as needed Linesource checked and updated as needed Polygons Codes (HUC8, HUC10 and HUC12) checked and updated as needed DS codes checked and updated as needed Names (HUC10 and HUC12) checked and updated as needed Type checked and updated as needed 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 split out into their own 8 digit unit HUC8 – 19010209 HU8_Name – Etolin-Zarembo-Wrangell Islands 19010203 (Baranof-Chichagof Islands)19010203 is being retired. 19010203 was split into 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 split out into their own 8-digit unit HUC8 – 19010212 HU8_Name – Baranof Island Created a new water hydrologic unit for the channel in-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.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-10-01

DESCRIPTION

META_ID: SD09: USGS caught DS coding error corrections. META_ID: DE02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: MD03: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: NJ02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: NY06: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: PA05: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: RI02: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: VA06: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: WV03: The Line Mods, HU_Level, Linesource, DS codes and states were edited by USGS Water Science Center in Salt Lake City, Utah. META_ID: AK07: Coding updates by USGS Water Science Center, Salt

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-11-09

DESCRIPTION

Edits by USGS Water Science Center in Salt Lake City, Utah; made changes to the linework and the polys. The linework and the corresponding polygons were updated, as well as the linesource codes, and downstream codes where applicable for the following META_ID's; META_ID: AZ06 META_ID: CO12 META_ID: NM10 META_ID: UT09

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-12-01

DESCRIPTION

HUC8 boundaries have been updated to include the Canadian side of the unit by USGS Water Science Center, Salt Lake City, UT. Meta_ID's included are AK08, MI06, NY07

PROCESS STEP

WHEN THE PROCESS OCCURRED 2011-12-01

DESCRIPTION

META_ID: GA08: Edits to names. META_ID: MT10: Edits to names. META_ID: CO13: Edits to downstream codes by in-state steward. META_ID: PA06: Edits to linework by in-state steward. META_ID: OR08: Edits to linework and attributes by in-state steward. META_ID: WA04: Edits to linework and attributes by in-state steward. META_ID: AK09: OTH - Lines edits were based on local knowledge from the USGS Alaska Water Science Center. Which includes; personal knowledge, photos and High Resolution imagery (Google Earth http://www.google.com/earth/index.html).

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-01-01

DESCRIPTION

The following updates were made to the WBD along the US/CAN border for NY,VT,NH,ME during 8-digit harmonization effort with Canada Metadata ID's used; ME04, NH05, NY08, VT07 All HUC8 boundaries were updated with the Harmonized US/CAN border into Canada. Coding was updated as needed. 01010001 01010001 was split 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 classic/standard HUC 8 unit for the Meduxnekeag River. The image below was provided during the harmonization process and shows the updates made. 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 DRG's 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 DRG's 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 DRG's 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 DRG's 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 04150301 Split 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 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 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 DRG's 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.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-01-01

DESCRIPTION

META_ID: AZ07: USGS Water Science Center in Salt Lake City, Utah:Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. META_ID: CA10: USGS Water Science Center in Salt Lake City, Utah:Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. META_ID: NV08: USGS Water Science Center in Salt Lake City, Utah:Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. META_ID: UT10: USGS Water Science Center in Salt Lake City, Utah:Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. META_ID: ME04: USGS Water Science Center in Salt Lake City, Utah: Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. Updated coding where applicable for new subbasins. META_ID: NH05: USGS Water Science Center in Salt Lake City, Utah: Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. Updated coding where applicable for new subbasins. META_ID: NY08: USGS Water Science Center in Salt Lake City, Utah: Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. Updated coding where applicable for new subbasins. META_ID: VT07: USGS Water Science Center in Salt Lake City, Utah: Changes to the linework and the polys; updated the linework and the corresponding polygons, as well as the linesource codes, and downstream codes where applicable. Updated coding where applicable for new subbasins.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-05-01

DESCRIPTION

The following edits were completed for a number of states and noted in the included list of Meta_ID's. Edits by USGS Water Science Center in Salt Lake City, Utah. 1. Added in the 8-digit (Subbasin) boundaries for the US/Mex harmonized units within Mexico 2. Added in the new boundaries for Lake Ontario this includes the new 8-digit boundaries around the lake in the US and Canada as well as updated codes where necessary 3. Added in the harmonized 10- and 12- digit units for the Columbia River basin and the WA/BC coastal areas 4. Updated Cook inlet within AK and removed true/parametric curves from the AK dataset. 5. Updated DS codes where agreed upon by state stewards 6. Updated Linesource code (misspellings, removed extra spaces etc.) where needed to match Federal Standards (There are still a few instances where additional input from state is needed) 7. Updated the HU_Mod fields (misspellings, removed extra spaces, added commas instead of periods, etc.) where needed to match Federal Standards. 8. Updated State field for Canada (CN) and Mexico (MX) based on the new version of the Standards 9. Updated names where agreed upon by state stewards 10. Checked and updated HU_Level field where HU_Level = 99 or = null META_ID: AK10 - Cook inlet updates, true curve updates META_ID: AZ08 - MEX/US border updates META_ID: AZ09 - Mod updates META_ID: FL04 - DS code updates, name updates, mod updates META_ID: GA09 - HU_Level updates, HUC10 code updates where the HUC10 code did not match the HUC12 code, DS code updates, Name Updates, Mod Updates META_ID: ID07 - US/CAN border updates, DS code updates, HU_Mod updates META_ID: IL10 - HU Mod updates META_ID: LA07 - Name and Mod Updates META_ID: MI07 - HU_Mod updates and DS code updates META_ID: MS08 - linesource updates and MOD updates META_ID: MT11 - US/CAN border updates, HU_Level update META_ID: NH06 - MOD updates META_ID: NM11 - MEX/US border updates META_ID: NM12 - DS code updates and MOD updates META_ID: NY09 - Lake Ontario new

boundaries and codes, HU_Mod updates META_ID: OK05 - Mod Updates META_ID: SC04 - Mod Updates META_ID: TX07 - HUC12 code updates, DS code updates, Mod Updates META_ID: UT11 - DS code updates META_ID: WV04 - HU_Level updates

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-07-01

DESCRIPTION

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 split 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_<number of digits for that level> For Example: HUC12 HU_<number of digits for that level>_Name Fields included with the 10-, 12-, 14- and 16- digit polygon datasets. HU_<number of digits for that level>_Type HU_<number of digits for that level>_Mod Fields included with the 12-, 14- and 16- digit polygon datasets. NContrb_Acres NContrb_SqKm – New field

PROCESS STEP

WHEN THE PROCESS OCCURRED 2012-10-22

DESCRIPTION

Changes to the WBD data model include the elimination of the underscore _ in field and table names, switching to camel casing instead. Camel casing is where the first letter of each word is capitalized with regular letters for the rest of the word (Example: LoadDate). 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. WBD line dataset New Model: TNMID – Use to be PermanentID HU_Level HU_Class – New field populated with the number of digits of the hydrologic unit LoadDate – New field for feature level metadata LineSource (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<number of digits for that level> 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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2013-01-01

DESCRIPTION

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 features 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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2013-05-01

DESCRIPTION

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 over the last year 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.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-02-13

DESCRIPTION

Updated Alaska’s region 1904 based on a request from NHD program and approved by state partners. 1904 was split into 3 new 4-digit hydrologic units. (sub-region). The new units are 1907 – Upper Yukon River 190701 – Headwaters Yukon River 1908 – Middle Yukon River 1909 – Lower Yukon River

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-03-01

DESCRIPTION

WBD boundaries for New Hampshire were reviewed and updated based on a state hydrologic unit dataset. At the same time the attributes were reviewed and updated. This include migrating the HU Modification field from the old model to the new model

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-03-06

DESCRIPTION

Rainy River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over the past 6 months 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 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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-04-14

DESCRIPTION

Souris River Basin was updated to include the harmonized 8-, 10- and 12-digit hydrologic units with Canada. This harmonized data was created over the past 6 months 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

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-05-01

DESCRIPTION

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 STEP

WHEN THE PROCESS OCCURRED 2015-06-01

DESCRIPTION

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

SOURCE DATA
DESCRIPTION
GIS coverage 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
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data Set
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher
CONTACT INFORMATION
ADDRESS
DELIVERY POINT Denver, CO
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator
RESOURCE LOCATION ONLINE
LOCATION http://nhd.usgs.gov/data.html
EXTENT OF THE SOURCE DATA
DESCRIPTION
publication date

SOURCE DATA
DESCRIPTION
GIS raster coverage 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
FGDC GEOSPATIAL PRESENTATION FORMAT Raster Digital Data (Aerial Imagery)
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
RESOURCE LOCATION ONLINE
LOCATION http://datagateway.nrcs.usda.gov
EXTENT OF THE SOURCE DATA
DESCRIPTION
20100325
TEMPORAL EXTENT
DATE AND TIME
INDETERMINATE DATE unknown

SOURCE DATA ▶
DESCRIPTION
base information for hydrologic unit map delineation and digitize map
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 originator
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher
CONTACT INFORMATION
ADDRESS
DELIVERY POINT Reston, Virginia
EXTENT OF THE SOURCE DATA
DESCRIPTION
map delineation
TEMPORAL EXTENT
BEGINNING DATE 1884-01-01
ENDING DATE 2006-01-01

SOURCE DATA
DESCRIPTION
Reference dataset for the 2-, 4-, 6- and 8-digit hydrologic unit
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
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data Set
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher
CONTACT INFORMATION
ADDRESS
DELIVERY POINT Reston, Virginia
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE originator
RESOURCE LOCATION ONLINE
LOCATION http://water.usgs.gov/lookup/getspatial?huc250k
EXTENT OF THE SOURCE DATA
DESCRIPTION
publication date
TEMPORAL EXTENT
BEGINNING DATE
INDETERMINATE DATE unknown
ENDING DATE 1994-01-01
SOURCE DATA
DESCRIPTION
base information for hydrologic unit map delineation and digitize map
SOURCE MEDIUM NAME hardcopy
RESOLUTION OF THE SOURCE DATA
SCALE DENOMINATOR 24000
SOURCE CITATION
TITLE U.S. Geological Survey
ALTERNATE TITLES USGSDRG
PUBLICATION DATE 1999-01-01
FGDC GEOSPATIAL PRESENTATION FORMAT Raster Digital Data Set
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey
CONTACT'S ROLE publisher
CONTACT INFORMATION
ADDRESS
DELIVERY POINT Unknown
RESPONSIBLE PARTY
ORGANIZATION'S NAME U.S. Geological Survey

CONTACT'S ROLE originator
RESOURCE LOCATION ONLINE
LOCATION http://datagateway.nrcs.usda.gov
EXTENT OF THE SOURCE DATA
DESCRIPTION
map delineation
TEMPORAL EXTENT
BEGINNING DATE
INDETERMINATE DATE unknown
ENDING DATE 1999-01-01

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
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 http://nhd.usgs.gov/wbd.html
DISTRIBUTION FORMAT
* NAME File Geodatabase Feature Class
TRANSFER OPTIONS
ONLINE SOURCE
LOCATION http://nhd.usgs.gov/wbd.html

Fields

DETAILS FOR OBJECT hydrologic_units_huc2
* TYPE Feature Class
* ROW COUNT 20
DEFINITION
Table containing attribute information associated with the data set.
DEFINITION SOURCE
Producer defined

FIELD OBJECTID
* ALIAS OBJECTID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
Internal feature number.
* DESCRIPTION SOURCE
Esri
* DESCRIPTION OF VALUES
Sequential unique whole numbers that are automatically generated.

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

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/)

FIELD LOADDATE
* ALIAS LOADDATE
* DATA TYPE Date
* WIDTH 8
* PRECISION 0
* SCALE 0

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)

FIELD SOURCEFEATUREID
* ALIAS SOURCEFEATUREID
* DATA TYPE String
* WIDTH 40
* PRECISION 0
* SCALE 0

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. For Example: 5DD21DC6-3692-4197-889B-49E652AA43D0

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

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. Example {5DD21DC6-3692-4197-889B-49E652AA43D0}

FIELD NAME
* ALIAS NAME
* DATA TYPE String
* WIDTH 120
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Name refers to the GNIS name for the geographic area in which the hydrologic unit is located. Populated using GNIS names and guidelines as outlined in the WBD Standards. For Example: Upper Blue River

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/)

FIELD HUC2
* ALIAS HUC2
* DATA TYPE String
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

The HUC2 field is a unique 2-digit hydrologic unit code. Represents the 2-digit hydrologic unit boundaries (previously referred to as Regions) These codes are set and cannot be updated. For Example: 14

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/)

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

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 1000000000

UNITS OF MEASURE square kilometers

FIELD SOURCEORIGINATOR
* ALIAS SOURCEORIGINATOR
* DATA TYPE String
* WIDTH 130
* PRECISION 0
* SCALE 0

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 For Example: USDA–FS LiDAR

FIELD METASOURCEID ►
* ALIAS METASOURCEID
* DATA TYPE String
* WIDTH 40
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
MetaSourceID is an 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 an 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. For Example: 5DD21DC6-3692-4197-889B-49E652AA43D0

FIELD STATES
* ALIAS STATES
* DATA TYPE String
* WIDTH 50
* PRECISION 0
* SCALE 0
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 attibute for each area that the unit falls within in alphabetical order. For Example: CO,UT,WY
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/)

FIELD SOURCEDATADESC
* ALIAS SOURCEDATADESC
* DATA TYPE String
* WIDTH 100
* PRECISION 0
* SCALE 0
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. Example: Montgomery County 1-meter LiDAR

FIELD AREAACRES
* ALIAS AREAACRES
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0
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 1000000

MAXIMUM VALUE 1000000000

UNITS OF MEASURE acres

FIELD SHAPE

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

  Feature geometry.
* DESCRIPTION SOURCE

  Esri
* DESCRIPTION OF VALUES

  Coordinates defining the features.

FIELD SHAPE_Length

* ALIAS SHAPE_Length
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION

  Length of feature in internal units.
* DESCRIPTION SOURCE

  Esri
* DESCRIPTION OF VALUES

  Positive real numbers that are automatically generated.

FIELD SHAPE_Area

* ALIAS SHAPE_Area
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION

  Area of feature in internal units squared.
* DESCRIPTION SOURCE

  Esri
* DESCRIPTION OF VALUES

  Positive real numbers that are automatically generated.

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

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 2016-12-22
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 2016-12-21 17:33:34
LAST MODIFIED IN ARCGIS FOR THE ITEM 2016-12-22 11:56:28
AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2016-12-21 17:45:51

Metadata Contacts

METADATA CONTACT
INDIVIDUAL'S NAME Kimberly Jones
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