

Layer Name: National Hydrography Dataset for Hawaii

File Name: NHD Areas, Flowlines, Lines, Points and Waterbodies

Layer Type: Point, Line, Polygon

Status: Complete

Geog. Extent: Islands of Niihau, Kauai, Oahu, Maui, Molokai, Lanai, Kahoolawe, and Hawaii

Projection: Universal Trans Mercator, Zone 4 (Meters)

Datum: NAD 83 HARN

Description: National Hydrography Dataset (<http://nhd.usgs.gov>) features for Hawaii as of 2015.

Source: Downloaded from the USGS National Hydrography Dataset download page:
<ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydro/FileGDB101/>

Note: *Please also see attached file - NHD Complete FCode Attribute Value List.pdf*
Downloaded from:
https://nhd.usgs.gov/userGuide/Robohelpfiles/NHD_User_Guide/Feature_Catalog/Hydrography_Dataset/Complete_FCode_List.htm

Note: *For additional information about this data, including data structure, attribute values, etc., please visit the National Hydrography Dataset website at <http://nhd.usgs.gov>.*

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Complete FCode list for NHD Hydrography Features

NHDinGEO FCodes by layer

NHDFlowline
 NHDWaterbody
 NHDLine
 NHDPoint
 NHDArea
 NHDEvent

NHDFlowline

Feature Type	FCode	Description
ARTIFICIAL PATH	55800	feature type only: no attributes
CANAL/DITCH	33600	feature type only: no attributes
CANAL/DITCH	33601	Canal/Ditch Type aqueduct
CANAL/DITCH	33603	Canal/Ditch Type stormwater
COASTLINE	56600	feature type only: no attributes
CONNECTOR	33400	feature type only: no attributes
PIPELINE	42800	feature type only: no attributes
PIPELINE	42801	Product water; Pipeline Type aqueduct; Relationship to Surface at or near
PIPELINE	42802	Product water; Pipeline Type aqueduct; Relationship to Surface elevated
PIPELINE	42803	Product water; Pipeline Type aqueduct; Relationship to Surface underground
PIPELINE	42804	Product water; Pipeline Type aqueduct; Relationship to Surface underwater
PIPELINE	42805	Product water; Pipeline Type general case; Relationship to Surface at or near
PIPELINE	42806	Product water; Pipeline Type general case; Relationship to Surface elevated
PIPELINE	42807	Product water; Pipeline Type general case; Relationship to Surface underground
PIPELINE	42808	Product water; Pipeline Type general case; Relationship to Surface underwater
PIPELINE	42809	Product water; Pipeline Type penstock; Relationship to Surface at or near
PIPELINE	42810	Product water; Pipeline Type penstock; Relationship to Surface elevated
PIPELINE	42811	Product water; Pipeline Type penstock; Relationship to Surface underground
PIPELINE	42812	Product water; Pipeline Type penstock; Relationship to Surface underwater
PIPELINE	42813	Product water; Pipeline Type siphon; Relationship to Surface unspecified
PIPELINE	42814	Product water; Pipeline Type general case
PIPELINE	42815	Product water; Pipeline Type penstock
PIPELINE	42816	Product water; Pipeline Type aqueduct
STREAM/RIVER	46000	feature type only: no attributes

STREAM/RIVER	46003	Hydrographic Category intermittent
STREAM/RIVER	46006	Hydrographic Category perennial
STREAM/RIVER	46007	Hydrographic Category ephemeral
UNDERGROUND CONDUIT	42000	feature type only: no attributes
UNDERGROUND CONDUIT	42001	Positional Accuracy definite
UNDERGROUND CONDUIT	42002	Positional Accuracy indefinite
UNDERGROUND CONDUIT	42003	Positional Accuracy approximate

NHDWaterbody

Feature Type	FCode	Description
ESTUARY	49300	feature type only: no attributes
ICE MASS	37800	feature type only: no attributes
LAKE/POND	39000	feature type only: no attributes
LAKE/POND	39001	Hydrographic Category intermittent
LAKE/POND	39004	Hydrographic Category perennial
LAKE/POND	39005	Hydrographic Category intermittent; Stage high water elevation
LAKE/POND	39006	Hydrographic Category intermittent; Stage date of photography
LAKE/POND	39009	Hydrographic Category perennial; Stage average water elevation
LAKE/POND	39010	Hydrographic Category perennial; Stage normal pool
LAKE/POND	39011	Hydrographic Category perennial; Stage date of photography
LAKE/POND	39012	Hydrographic Category perennial; Stage spillway elevation
PLAYA	36100	feature type only: no attributes
RESERVOIR	43600	feature type only: no attributes
RESERVOIR	43601	Reservoir Type aquaculture
RESERVOIR	43603	Reservoir Type decorative pool
RESERVOIR	43604	Reservoir Type disposal-tailings pond; Construction Material earthen
RESERVOIR	43605	Reservoir Type disposal-tailings pond
RESERVOIR	43606	Reservoir Type disposal-unspecified
RESERVOIR	43607	Reservoir Type evaporator
RESERVOIR	43608	Reservoir Type swimming pool
RESERVOIR	43609	Reservoir Type treatment-cooling pond
RESERVOIR	43610	Reservoir Type treatment-filtration pond
RESERVOIR	43611	Reservoir Type treatment-settling pond
RESERVOIR	43612	Reservoir Type treatment-sewage treatment pond
RESERVOIR	43613	Reservoir Type water storage; Construction Material nonearthen
RESERVOIR	43614	Reservoir Type water storage; Construction Material earthen; Hydrographic Category intermittent
RESERVOIR	43615	Reservoir Type water storage; Construction Material earthen; Hydrographic Category perennial
RESERVOIR	43617	Reservoir Type water storage
RESERVOIR	43618	Reservoir Type unspecified; Construction Material earthen
RESERVOIR	43619	Reservoir Type unspecified; Construction Material nonearthen

RESERVOIR	43621	Reservoir Type water storage; Hydrographic category perennial
RESERVOIR	43623	Reservoir Type evaporator; Construction Material earthen
RESERVOIR	43624	Reservoir Type treatment
RESERVOIR	43625	Reservoir Type disposal
RESERVOIR	43626	Reservoir Type disposal; Construction Material nonearthen
SWAMP/MARSH	46600	feature type only: no attributes
SWAMP/MARSH	46601	Hydrographic category intermittent
SWAMP/MARSH	46602	Hydrographic category perennial

NHDLine

Feature Type	FCode	Description
BRIDGE	31800	feature type only: no attributes
DAM/WEIR	34300	feature type only: no attributes
DAM/WEIR	34305	Construction Material earthen
DAM/WEIR	34306	Construction Material nonearthen
FLUME	36200	feature type only: no attributes
GATE	36900	feature type only: no attributes
LEVEE	56800	feature type only: no attributes
LOCK CHAMBER	39800	feature type only: no attributes
NONEARTHEN SHORE	41100	feature type only: no attributes
RAPIDS	43100	feature type only: no attributes
REEF	43400	feature type only: no attributes
SINK/RISE	45000	feature type only: no attributes
SOUNDING DATUM LINE	50300	feature type only: no attributes
SOUNDING DATUM LINE	50301	Positional Accuracy approximate
SOUNDING DATUM LINE	50302	Positional Accuracy definite
TUNNEL	47800	feature type only: no attributes
WALL	48300	feature type only: no attributes
WATERFALL	48700	feature type only: no attributes

NHDPoint

Feature Type	FCode	Description
DAM/WEIR	34300	feature type only: no attributes
DAM/WEIR	34305	Construction Material earthen
DAM/WEIR	34306	Construction Material nonearthen
GAGING STATION	36701	Gaging Station Status Active; Record Continuous
GATE	36900	feature type only: no attributes
LOCK CHAMBER	39800	feature type only: no attributes
RAPIDS	43100	feature type only: no attributes
RESERVOIR	43600	feature type only: no attributes
RESERVOIR	43601	Reservoir Type aquaculture;
RESERVOIR	43603	Reservoir Type decorative pool;
RESERVOIR	43604	Reservoir Type disposal-tailings pond; Construction Material earthen
RESERVOIR	43605	Reservoir Type disposal-tailings pond

RESERVOIR	43606	Reservoir Type disposal-unspecified
RESERVOIR	43607	Reservoir Type evaporator
RESERVOIR	43608	Reservoir Type swimming pool
RESERVOIR	43609	Reservoir Type treatment-cooling pond
RESERVOIR	43610	Reservoir Type treatment-filtration pond
RESERVOIR	43611	Reservoir Type treatment-settling pond; Construction Material unspecified
RESERVOIR	43612	Reservoir Type treatment-sewage treatment pond
RESERVOIR	43613	Reservoir Type water storage; Construction Material nonearthen
RESERVOIR	43614	Reservoir Type water storage; Construction Material earthen; Hydrographic Category intermittent
RESERVOIR	43615	Reservoir Type water storage; Construction Material earthen; Hydrographic Category perennial
RESERVOIR	43617	Reservoir Type water storage
RESERVOIR	43618	Reservoir Type unspecified; Construction Material earthen
RESERVOIR	43619	Reservoir Type unspecified; Construction Material nonearthen
RESERVOIR	43621	Reservoir Type water storage; Hydrographic category perennial
RESERVOIR	43623	Reservoir Type evaporator; Construction Material earthen
RESERVOIR	43624	Reservoir Type treatment
RESERVOIR	43625	Reservoir Type disposal
RESERVOIR	43626	Reservoir Type disposal; Construction Material nonearthen
ROCK	44100	feature type only: no attributes
ROCK	44101	Relationship to Surface abovewater
ROCK	44102	Relationship to Surface underwater
SINK/RISE	45000	feature type only: no attributes
SPRING/SEEP	45800	feature type only: no attributes
WATER INTAKE/OUTFLOW	48500	feature type only: no attributes
WATERFALL	48700	feature type only: no attributes
WELL	48800	feature type only: no attributes

NHDArea

Feature Type	FCode	Description
AREA OF COMPLEX CHANNELS	53700	feature type only: no attributes
AREA TO BE SUBMERGED	30700	feature type only: no attributes
BAY/INLET	31200	feature type only: no attributes
BRIDGE	31800	feature type only: no attributes
CANAL/DITCH	33600	feature type only: no attributes
CANAL/DITCH	33601	Canal/Ditch Type aqueduct
CANAL/DITCH	33603	Canal/Ditch Type stormwater
DAM/WEIR	34300	feature type only: no attributes
DAM/WEIR	34305	Construction Material earthen
DAM/WEIR	34306	Construction Material nonearthen
FLUME	36200	feature type only: no attributes
FORESHORE	36400	feature type only: no attributes
INUNDATION AREA	40300	feature type only: no attributes

INUNDATION AREA	40307	Inundation Control Status not controlled
INUNDATION AREA	40308	Inundation Control controlled
INUNDATION AREA	40309	Inundation Control controlled; Stage flood elevation
LEVEE	56800	feature type only: no attributes
LOCK CHAMBER	39800	feature type only: no attributes
RAPIDS	43100	feature type only: no attributes
SEA/OCEAN	44500	feature type only: no attributes
SPILLWAY	45500	feature type only: no attributes
STREAM/RIVER	46000	feature type only: no attributes
STREAM/RIVER	46003	Hydrographic Category intermittent;
STREAM/RIVER	46006	Hydrographic Category perennial;
STREAM/RIVER	46007	Hydrographic Category ephemeral;
SUBMERGED STREAM	46100	feature type only: no attributes
WASH	48400	feature type only: no attributes
WATER INTAKE/OUTFLOW	48500	feature type only: no attributes

NHDEvent

The NHD FCodes were designed to encode the content of USGS Topographic Maps to allow for a totally automated map production process. Features, attributes and attribute values were defined to capture all the symbols and descriptive labels found on the maps. When the NHD was implemented, the combinations of feature types and attributes were also encoded as an FCode. Although many people use the NHD to make maps, the need for a large-scale automated process became less important as digital data in GIS systems became more common. The FCodes codes were simplified and some of the detail found on the original USGS Topo Maps is no longer specifically encoded. The FCodes still include most of the information needed to re-create the hydrography on a USGS Topographic Map, but some detailed information that was shown on the maps with special labels is not available in the FCode and some unique and uncommon features were eliminated. Many of these features and attributes are better managed locally as events by the NHD data stewards. Some features and attributes of general value to the NHD community have also been added for maintenance in the national holdings.

Hydro-related features found on USGS Topo Maps that are not captured in the NHD.

Anchorage

Crevasse Field

Fish Ladder

Fumerole

Geyser

Hazard Zone

Mile Marker

Mud Pot

Post

Special Use Zone

Snag/Stump

Wreck

Deleted attributes required for some distinct labeling

Dam/Weir – operational status

Gate Type

Hazard Zone Type

Ice Mass Category – continental glaciation - only needed in Antarctica

Inundation Area Type

Reservoir (construction material, cover status and hydrographic category were simplified)

Sea/Ocean Category

Shoreline – positional accuracy

Spring/Seep – water characteristics

Well – water characteristics

Feature Type	FCode	Description
STREAMGAGE	57001	Streamgage Status Active; Record Continuous
STREAMGAGE	57002	Streamgage Status Active; Record Partial
STREAMGAGE	57003	Streamgage Status Inactive
WATER QUALITY STATION	57004	feature type only: no attributes
DAM	57100	feature type only: no attributes
FLOW ALTERATION	57201	Flow Alteration Addition
FLOW ALTERATION	57202	Flow Alteration Removal
FLOW ALTERATION	57203	Flow Alteration Unknown
HYDROLOGIC UNIT OUTLET	57300	feature type only: no attributes