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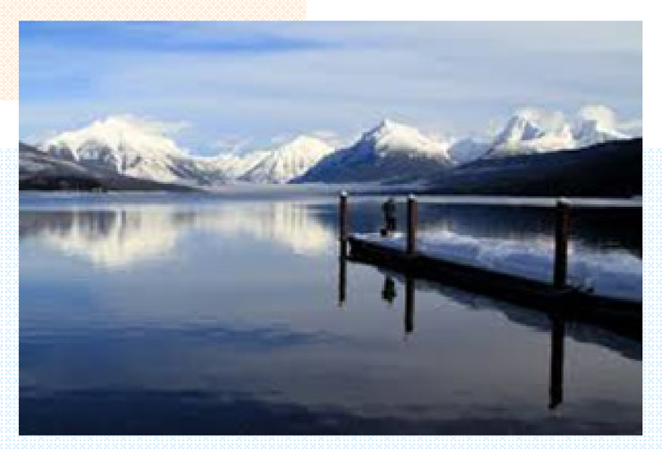
National Hydrography Dataset (NHD) Model (v2.2.1)

August 1, 2016

Model Changes
ComID field deleted from all feature classes/tables
DuuID field deleted from metadata tables
All other changes indicated as follows:
New element | Update | Deletion

The Catalog View

NHD Geodatabase
- Feature dataset **Hydrography**
  - Geometric network **HYDRO_NET**
  - Point feature class **HYDRO_NET_Junctions**
  - Polygon feature class **NHDArea**
  - Polygon feature class **NHDAreaEventFC**
  - Line feature class **NHDFlowline**
  - Line feature class **NHDLine**
  - Line feature class **NHDLineEventFC**
  - Point feature class **NHDPoint**
  - Point feature class **NHDPointEventFC**
  - Polygon feature class **NHDWaterbody**
- Object table **EXTERNALCROSSWALK**
- Object table **HYDRO_NET_BUILDERR**
- Relationship **NHDAreaEventFCToMeta**
- Relationship **NHDAreaToMeta**
- Object table **NHDFCode**
- Object table **NHDFeatureToMetadata**
- Object table **NHDFlow**
- Relationship **NHDFlowlineToMeta**
- Object table **NHDFlowlineVAA**
- Relationship **NHDLineEventFCToMeta**
- Relationship **NHDLineToMeta**
- Object table **NHDMetadata**
- Relationship **NHDMetadataHasSourceCitation**
- Relationship **NHDMetaToFeature**
- Relationship **NHDPointEventFCToMeta**
- Relationship **NHDPointToMeta**
- Object table **NHDProcessingParamaters**
- Object table **NHDReachCodeMaintenance**
- Object table **NHDReachCrossReference**
- Object table **NHDSourceCitation**
- Object table **NHDStatus**
- Object table **NHDVerticalRelationship**
- Relationship **NHDWaterbodyToMeta**



Attribute Tables

Feature Detail

Table NHDFCode

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
FCode	Long integer	No			0			Five-digit integer value comprised of the feature type and the combinations of characteristics and values.
Description	String	No					255	
CanalDitchType	String	Yes					32	Function or purpose (Aqueduct or Unspecified).
ConstructionMaterial	String	Yes					32	Predominant material used (Earthen, Nonearthen, or Unspecified.
HydrographicCategory	String	Yes					32	Portion of the year the feature contains water (Intermittent or Perennial).
InundationControlStatus	String	Yes					32	Existence of functional control structures (Controlled or Not Controlled).
OperationalStatus	String	Yes					32	State or condition (Abandoned or Operational).
PipelineType	String	Yes					32	Function or purpose (Aqueduct, General, Penstock, or Siphon).
PositionalAccuracy	String	Yes					32	The accuracy a feature can be confidently positioned (Approximate or Definite).
RelationshipToSurface	String	Yes					32	Vertical location relative to the surface (Abovewater or Underwater).
ReservoirType	String	Yes					32	Function or purpose (Aquaculture, Decorative Pool, Disposal, Evaporator, Swim Pool, Treatment, Unspecified, or Water Storage).
Stage	String	Yes					32	Height of water surface is the basis for elevation.

Table NHDFlow

Flow table values are derived from the topologic connectivity of the geometric network and attribute values of NHDFlowline features.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
DeltaLevel	Long integer	Yes			0			Difference in level from first reach to second reach.
Direction	Long integer	Yes		FlowDirection	0			Integer code for the direction of flow.
From_Permanent_Identifier	String	No					40	Permanent_Identifier **from** which feature flows.
To_Permanent_Identifier	String	No					40	Permanent_Identifier **to** which feature flows.

Table NHDFlowlineVAA

NHDFlowline Value Added Attributes are entirely derived from the NHDFlowline features and the Flow table values.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	Yes			0	0	8	Date of last feature modification.
StreamLevel	Long integer	Yes			0			Drain_level of the downstream mainstem drain.
StreamOrder	Long integer	Yes			0			Strahler stream order number for the drain.
FromNode	Double	Yes			0	0		Nationally unique ID for the "from" node endpoint of the drain.
ToNode	Double	Yes			0	0		Nationally unique ID for the "to" node endpoint of the drain.
HydroSeq	Double	Yes			0	0		Nationally unique sequence number that places the reach in hydrologic sequence.
LevelPathID	Double	Yes			0	0		Hydro Sequence No. of downstream drain that is on the same level path as this drain according to the DFlow Table.
PathLengthKM	Double	Yes			0	0		Distance from this drain pourpoint to its terminal drain's pourpoint according to the DFlow Table.
TerminalPathID	Double	Yes			0	0		Hydrologic sequence number of terminal flowline.
ArbolateSumKM	Double	Yes			0	0		Sum of the lengths of all the drains that drain to the downstream end of the current drain.
DivergenceFlag	Long integer	Yes			0			If this drain is 1 branch of a flow split, 1=drain is main branch, 2=otherwise, 0= drain not a branch of flow split.
StartFlag	Long integer	Yes			0			Set to '1' if the drain is a headwater drain according to the DFlow Table, otherwise '0'.
TerminalFlag	Long integer	Yes			0			Set to '1' if drain is a terminal drain (flows into ocean, Great Lakes, Canada, Mex. or the ground) otherwise set to '0'.
DnLevel	Long integer	Yes			0			Stream level of drain.
ThinnerCode	Long integer	Yes			0			Ordinal value designed to allow selection of progressively more dense networks. Least dense network=1.
UpLevelPathId	Double	Yes			0	0		LevelPathID of upstream mainstream drain.
UpHydroSeq	Double	Yes			0	0		Hydro Sequence No. of upstream mainstem drain.
UpMinHydroSeq	Double	Yes			0	0		Minimum Hydro Sequence No. of all upstream drains.
DnLevelPathID	Double	Yes			0	0		Level path ID of downstream drain.
DnMinHydroSeq	Double	Yes			0	0		At a divergence, the Hydro sequence number of the minor downstream drain.
DnDrainCount	Long integer	Yes			0			Number of drains immediately downstream.
GLOBALID	Global ID							

Table NHDVerticalRelationship

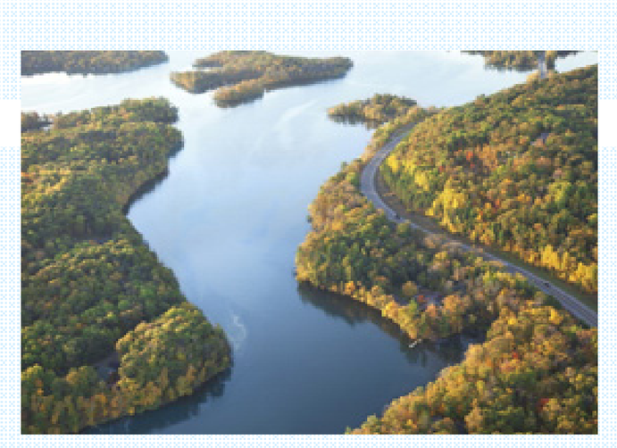
Only NHDFlowline features can participate in vertical relationships.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
Above_Permanent_Identifier	String	No					40	Permanent Identifier of feature above vertical offset.
Below_Permanent_Identifier	String	No					40	Permanent Identifier of feature below vertical offset.
GLOBALID	Global ID							

Table ExternalCrosswalk

Contains associations of Permanent_Identifiers to external source identifiers. (1:M)

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
ExternalID	String	Yes					40	Uniquely identifies the occurrence of each feature in the source dataset.
ExternalIDName	String	Yes					50	Field name in the external source dataset that contains the unique IDs.
ExternalIDOriginator	String	Yes					130	Name of the organization or individual who developed the external dataset/features.
OrganizationType	Long integer	Yes		Organization Type	0			Administrative level of the organization who developed the external dataset/features.
ExternalIDEntryDate	Date	Yes			0	0	8	LoadDate of ExternalID record.
GLOBALID	Global ID							



Processing

Table NHDProcessingParameters

Parameters used for processing data.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
ParameterName	String	No		ParameterName Domain			24
ParameterValue	String	No					100

Table NHDStatus

NHDStatus is used to track data changes for transaction uploads to the central depository.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
ID	String	No			0		40
Permanent_Identifier	String	No			0		40
Status	Long integer	No		Status	0		

Table NHDReachCodeMaintenance

Table used to maintain links for backward compatibility with FOD-based systems.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
ReachCode	String	No					14	Unique identifier composed of two parts, first eight digits = subbasin code as defined by FIPS 103, and next six digits = random-assigned sequential number unique within a Cataloging Unit.
ReachSMDate	Date	Yes			0	0	8	Reach Spatial Modification Date.
Resolution	Long integer	No		Resolution	0			Code of source resolution: 1=Local resolution, 2=High resolution, 3=Medium Resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS.
GNIS_Name	String	Yes					100	Proper name, specific term, or expression by which a particular geographic entity is known.
GLOBALID	Global ID							

Table NHDReachCrossReference

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
OldReachCode	String	Yes					17	Reach code prior to change.
OldReachDate	Date	Yes			0	0	8	Date when OldReachCode was originally assigned (yyyymmdd).
NewReachCode	String	Yes					17	Reach code after change.
NewReachDate	Date	Yes			0	0	8	Date when NewReachCode was assigned (yyyymmdd).
OldUPMI	String	Yes					5	Upstream Marker Index of Old Reach (RF-3-Alpha Only).
NewUPMI	String	Yes					5	Upstream Marker Index of New Reach (RF-3-Alpha Only).
ChangeCode	String	Yes		ChangeCode Domain			4	Type of change to the reach feature.
Process	String	Yes		Process Domain			6	Process where the change occurred.
ReachFileVersion	String	Yes		ReachFileVersion Domain			10	Reach File Version in which change became effective.
OldHUCode	String	Yes					8	Hydrologic Unit of feature prior to migration.
NewHUCode	String	Yes					8	Hydrologic Unit of feature after migration.
GLOBALID	Global ID							

Processing Domains

Coded value domain ChangeCode Domain
Description; Field type *String*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
11	11 Old reach to new reach
1P	1P Old reach to part of new reach
P1	P1 Part of old reach to new reach
A	A Add new reach
D	D Delete old reach
PP	PP Part of old reach to part of new reach
1M	historic) Old reach split to multiple new reaches
M1	(historic) Mult old reaches merged to single new reach

Coded value domain ReachFileVersion Domain
Description; Field type *String*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
M002.00000	M002.00000 GEO Medium Resolution
H002.00000	H002.00000 GEO High Resolution
L002.00000	L002.00000 GEO Local Resolution
TBD	TBD
M001.00000	M001.00000 (historic) FOD Medium Resolution
H001.00000	H001.00000 (historic) FOD High Resolution
L001.00000	L001.00000 (historic) FOD Low Resolution
M000.00000	M000.00000 (historic) Pre-FOD

Coded value domain ParameterName Domain
Description; Field type *String*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
Version	Version
Resolution	Resolution
Processing_Organization	Processing_Organization
SchemaVersion	SchemaVersion
Work_Type	Work Type
JTXWorkflow	JTX Workflow Type
JobId	JTX Job Id
ReachFileVersion	Reach File Version
WBDSchemaVersion	WBDSchemaVersion
ReleaseBuild	ReleaseBuild
SourceDB	SourceDB

Coded value domain Process Domain
Description; Field type *String*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
AVEDIT	AVEDIT
GDBEDT	GDBEDT
100_24	100_24
24_loc	24_loc
AK2FOD	AK2FOD (historic)
ARCUPD	ARCUPD (historic)
FODGDB	FODGDB (historic)
FTIEDT	FTIEDT (historic)
FTIFLO	FTIFLO (historic)
GDBCVN	GDBCVN (historic)
NHDVIS	NHDVIS (historic)
PNWNHD	PNWNHD (historic)
RF3DBL	RF3DBL (historic)

Coded value domain Status
Description; Field type *Long integer*; Split policy *Default value*; Merge policy *Default value*

Code	Description
1	Add Feature
2	Modify Feature Attribute
3	Modify Feature Geometry
5	Delete Feature
6	Delete Relationship
7	Add Metadata
8	Modify VAA
9	Add Event
10	Modify Event
11	Delete Event
12	Modify VAA All
13	Add Relationship
14	Add Metadata All (historic)
15	Add FeatureToMetadata All (historic)
16	Add FeatureToMeta Relationship
17	Create External Crosswalk
18	Modify External Crosswalk
19	Process External Crosswalk All

FEATURE CLASSES

Simple feature class NHDPoint
Geometry *Point*; Contains M values *No*; Contains Z values *Yes*

Contains points representing NHD hydrographic landmark features.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Shape	Geometry	Yes						
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	No			0	0	8	Date of last feature modification.
Resolution	Long integer	No		Resolution	0			Code for source resolution: 1=Local resolution, 2=High resolution, 3=Medium resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS, length 10.
GNIS_Name	String	Yes					65	Proper name, specific term, or expression by which a particular geographic entity is known.
ReachCode	String	Yes					14	Unique identifier composed of two parts. The first eight digits are the subbasin code as defines by FIPS 103, next six digits is a randomly assigned sequential number unique within a Cataloging Unit, length 14.
FType	Long integer	No	458		0			Three-digit integer value, unique identifier of a feature type.
FCode	Long integer	Yes	45800		0			Five-digit integer value comprised of the feature type and combinations of characteristics and values.
GLOBALID	Global ID							

Subtypes of NHDPoint — Subtype field *FType*; Default subtype *458*. List of defined default values and domains for subtypes in this class:

Subtype Code	Subtype Description	Field name	Default value	Domain	Definitions of features
343	DamWeir	Resolution, FCode	34305	Resolution, DamWeir FCode	Barrier constructed to control the flow, or raise the level, of water.
367	Gaging Station	Resolution, FCode	36700	Resolution, Gaging Station FCode	Structure used to measure the characteristics of a hydrographic feature.
369	Gate	Resolution, FCode	36900	Resolution, Gate FCode	Structure that may be swung, drawn, or lowered, to block an entrance or passageway.
398	Lock Chamber	Resolution, FCode	39800	Resolution, Lock Chamber FCode	Enclosure on a waterway used to raise or lower the vessels as they pass from one level to another.
431	Rapids	Resolution, FCode	43100	Resolution, Rapids FCode	Area of swift current in a stream or river characterized by standing waves, boulders, or rocks.
436	Reservoir	Resolution, FCode	43600	Resolution, Reservoir FCode	Constructed basin formed to contain water or other liquids.
441	Rock	Resolution, FCode	44101	Resolution, Rock FCode	Concreted mass of stony material.
450	SinkRise	Resolution, FCode	45000	Resolution, SinkRise FCode	Place at which a stream disappears underground, or reappears at the surface in a karst area.
458	SpringSeep	Resolution, FCode	45800	Resolution, SpringSeep FCode	Place where water issues from the ground naturally.
485	Water IntakeOutflow	Resolution, FCode	48500	Resolution, Water IntakeOutflow FCode	Structure through which water enters or exits a conduit.
487	Waterfall	Resolution, FCode	48700	Resolution, Waterfall FCode	Vertical or near vertical descent of water over a step or ledge in the bed of a river.
488	Well	Resolution, FCode	48800	Resolution, Well FCode	Pit or hole, dug or bored into the earth for the extraction of water or other fluids, or gasses.

Simple feature class NHDLine
Geometry *Polyline*; Contains M values *No*; Contains Z values *Yes*

Contains routes representing linear NHD hydrographic landmark features.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Shape	Geometry	Yes						
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	No			0	0	8	Date of last feature modification.
Resolution	Long integer	No		Resolution	0			Code for source resolution: 1=Local resolution, 2=High resolution, 3=Medium resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS, length 10.
GNIS_Name	String	Yes					65	Proper name, specific term, or expression by which a particular geographic entity is known.
LengthKm	Double	Yes			0	0		Length of linear feature, Albers Equal Area Conic, length 8.
FType	Long integer	No	411		0			Three-digit integer value, unique identifier of a feature type.
FCode	Long integer	Yes	41100		0			Five-digit integer value comprised of the feature type and combinations of characteristics and values.
VisibilityFilter	Long integer	No	0	VisibilityFilter Domain	0			Represents the appropriate use of individual features through scale. Does not reflect capture conditions.
GLOBALID	Global ID							
Shape_Length	Double	Yes			0	0		

Subtypes of NHDLine — Subtype field *FType*; Default subtype *411*. List of defined default values and domains for subtypes in this class:

Subtype Code	Subtype Description	Field name	Default value	Domain	Definitions of features
318	Bridge	Resolution, FCode	31800	Resolution, Bridge FCode	Structure spanning and providing passage over a waterway, railway, or other obstacle.
343	DamWeir	Resolution, FCode	34305	Resolution, DameWeir FCode	Barrier constructed to control the flow, or raise the level, of water.
362	Flume	Resolution, FCode	36200	Resolution, Flume FCode	Open inclined artificial channel constructed of wood, metal, or concrete; generally elevated.
369	Gate	Resolution, FCode	36900	Resolution, Gate FCode	Structure that may be swung, drawn, or lowered, to block an entrance or passageway.
568	Levee	Resolution, FCode	56800	Resolution, Levee FCode	A natural or manmade embankment along the edge of a stream/river, canal/ditch, or waterbody, that protects the surrounding land from flooding.
398	Lock Chamber	Resolution, FCode	39800	Resolution, Lock Chamber FCode	Enclosure on a waterway used to raise or lower vessels as they pass from one level to another.
411	Nonearthen Shore	Resolution, FCode	41100	Resolution, Nonearthen Shore FCode	Structure built of stone, concrete, or other building material, that borders a body of water.
431	Rapids	Resolution, FCode	43100	Resolution, Rapids FCode	Area of swift current in a stream or river characterized by standing waves, or by boulders and rocks.
434	Reef	Resolution, FCode	43400	Resolution, Reef FCode	Chain of rocks or coral at, or near, the surface of the water.
450	SinkRise	Resolution, FCode	45000	Resolution, SinkRise FCode	Place at which a stream disappears underground or reappears at the surface in a karst area.
503	Sounding Datum Line	Resolution, FCode	50302	Resolution, Sounding Datum Line FCode	Line representing the tidal datum to which bathymetric contours are referenced.
478	Tunnel	Resolution, FCode	47800	Resolution, Tunnel FCode	Underground or underwater passage.
483	Wall	Resolution, FCode	48300	Resolution, Wall FCode	Upright structure of masonry, wood, plaster, or other building material serving to enclose, divide, or protect an area.
487	Waterfall	Resolution, FCode	48700	Resolution, Waterfall FCode	Vertical or near vertical descent of water over a step or ledge in the bed of a river.

Simple feature class NHDFlowline
Geometry *Polyline*; Contains M values *Yes*; Contains Z values *Yes*

Consists of routes that make up a linear surface water drainage network.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Shape	Geometry	Yes						
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	No			0	0	8	Date of last feature modification.
Resolution	Long integer	No		Resolution	0			Code for source resolution: 1=Local resolution, 2=High resolution, 3=Medium resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS, length 10.
GNIS_Name	String	Yes					65	Proper name, specific term, or expression by which a particular geographic entity is known, length 65.
LengthKm	Double	Yes			0	0		Length of linear feature, Albers Equal Area Conic, length 8.
ReachCode	String	Yes					14	Unique identifier composed of two parts. The first eight digits are the subbasin code as defined by FIPS 103. The next six digits are randomly assigned, sequential numbers that are unique within a Cataloging Unit, length 14.
FlowDir	Long integer	No	0	HydroFlowDirections	0			Direction of flow relative to coordinate order, length 4.
WBArea_Permanent_Identifier	String	Yes					40	Permanent_Identifier of the waterbody through which the Flowline (Artificial Path) flows.
FType	Long integer	No	460		0			Three digit integer value, unique identifier of a feature type.
FCode	Long integer	Yes	46003		0			Five-digit integer value comprised of the feature type and combinations of characteristics and values.
MainPath	Long integer	No	0	MainPath Domain	0			
InNetwork	Long integer	Yes	0	NoYes Domain	0			
VisibilityFilter	Long integer	No	0	VisibilityFilter Domain	0			Represents the appropriate use of individual features through scale. Does not reflect capture conditions.
Shape_Length	Double	Yes			0	0		
GLOBALID	Global ID							

Subtypes of NHDFlowline — Subtype field *FType*; Default subtype *460*. List of defined default values and domains for subtypes in this class:

Subtype Code	Subtype Description	Field name	Default value	Domain	Definitions of features
558	Artificial Path	Resolution, FlowDir, FCode	0, 55800	Resolution, HydroFlowDirections, Artificial Path FCode	Abstraction to facilitate hydrologic modeling through open water bodies and along coastal and Great Lakes shorelines and to act as a surrogate for lakes and other water bodies.
336	CanalDitch	Resolution, FlowDir, FCode	0, 33600	Resolution, HydroFlowDirections, CanalDitch FCode	Artificial open waterway constructed to transport water, to irrigate or drain land, to connect two or more bodies of water, or to serve as a waterway for watercraft.
566	Coastline	Resolution, FlowDir, FCode	0, 56600	Resolution, HydroFlowDirections, Coastline FCode	Line that follows the main outline of the land, including bays, but crosses rivers at their mouth. In the NHD, the outline of selected coastal islands are included as part of the coastline.
334	Connector	Resolution, FlowDir, FCode	0, 33400	Resolution, HydroFlowDirections, Connector FCode	Known, but unspecific, connection between two nonadjacent network segments.
428	Pipeline	Resolution, FlowDir, FCode	0, 42805	Resolution, HydroFlowDirections, Pipeline FCode	Closed conduit with pumps, valves, and control devices, for conveying fluids, gasses, or finely divided solids.
460	StreamRiver	Resolution, FlowDir, FCode	0, 46006	Resolution, HydroFlowDirections, StreamRiver FCode	Body of flowing water.
420	Underground Conduit	Resolution, FlowDir, FCode	0, 42000	Resolution, HydroFlowDirections, Underground Conduit FCode	Underground passage of surface water.

Simple feature class NHDArea
Geometry *Polygon*; Contains M values *No*; Contains Z values *Yes*

Contains regions representing areal NHD hydrographic waterbody features.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Shape	Geometry	Yes						
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	No			0	0	8	Date of last feature modification.
Resolution	Long integer	No		Resolution	0			Code for source resolution: 1 = Local resolution, 2 = High resolution, 3 = Medium resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS, length 10.
GNIS_Name	String	Yes					65	Proper name, specific term, or expression by which a particular geographic entity is known, length 65.
AreaSqKm	Double	Yes			0	0		Area of areal features, Albers Equal Area Conic, length 8.
Elevation	Double	Yes		ElevationRange	0	0		Elevation, in meters, of water surfaces where water pools are encoded for a few features.
FType	Long integer	No	460		0			Three-digit integer value, unique identifier of a feature type.
FCode	Long integer	Yes	46006		0			Five-digit integer value comprised of the feature type and combinations of characteristics and values.
VisibilityFilter	Long integer	No	0	VisibilityFilter Domain	0			Represents the appropriate use of individual features through scale. Does not reflect capture conditions.
Shape_Area	Double	Yes			0	0		
GLOBALID	Global ID							

Subtypes of NHDArea — Subtype field *FType*; Default subtype *460*. List of defined default values and domains for subtypes in this class:

Subtype Code	Subtype Description	Field name	Default value	Domain	Definitions of features
537	Area of Complex Channels	Resolution, Elevation, FCode	53700	Resolution, ElevationRange, Area of Complex Channels FCode	Area where a stream or river flows in an intricate network of interlacing channels.
307	Area to be Submerged	Resolution, Elevation, FCode	30700	Resolution, ElevationRange, Area to be Submerged FCode	Known extent of the intended lake that will be created behind a dam under construction.
312	BayInlet	Resolution, Elevation, FCode	31200	Resolution, ElevationRange, BayInlet FCode	Water opening that is an opening into the sea/ocean into the land, or of an estuary, lake, or river into its shore.
318	Bridge	Resolution, Elevation, FCode	31800	Resolution, ElevationRange, Bridge FCode	Structure spanning and providing passage over a waterway, railroad, or other obstacle.
336	CanalDitch	Resolution, Elevation, FCode	33600	Resolution, ElevationRange, CanaDitch FCode	Artificial open waterway constructed to transport water, to irrigate or drain land, to connect two or more bodies of water, or to serve as a waterway for watercraft.
343	DamWeir	Resolution, Elevation, FCode	34305	Resolution, ElevationRange, DamWeir FCode	Barrier constructed to control the flow or raise the level of water.
362	Flume	Resolution, Elevation, FCode	36200	Resolution, ElevationRange, Flume FCode	Open, inclined, artificial channel constructed of wood, metal, or concrete; generally elevated.
364	Foreshore	Resolution, Elevation, FCode	36400	Resolution, ElevationRange, Foreshore FCode	Part of a seashore between high-water and low-water marks.
403	Inundation Area	Resolution, Elevation, FCode	40308	Resolution, ElevationRange, Inundation FCode	Area of land subject to flooding.
568	Levee	Resolution, Elevation, FCode	56800	Resolution, ElevationRange, Levee FCode	A natural or manmade embankment along the edge of a stream/river, canal/ditch, or waterbody, that protects the surrounding land from flooding.
398	Lock Chamber	Resolution, Elevation, FCode	39800	Resolution, ElevationRange, Lock Chamber FCode	Enclosure on a waterway used to raise/lower vessels as they pass from one level to another.
431	Rapids	Resolution, Elevation, FCode	43100	Resolution, ElevationRange, Rapids FCode	Area of swift current in a stream or river, characterized by standing waves or by boulders and rocks.
445	SeaOcean	Resolution, Elevation, FCode	44500	Resolution, ElevationRange, SeaOcean FCode	Great body of salt water that covers much of the earth.
455	Spillway	Resolution, Elevation, FCode	45500	Resolution, ElevationRange, Spillway FCode	Constructed passage for surplus water to run over or around a dam.
460	StreamRiver	Resolution, Elevation, FCode	46006	Resolution, ElevationRange, StreamRiver FCode	Body of flowing water.
461	Submerged Stream	Resolution, Elevation, FCode	46100	Resolution, ElevationRange, Submerged Stream FCode	Old river course inundated by an impounded water body.
484	Wash	Resolution, Elevation, FCode	48400	Resolution, ElevationRange, Wash FCode	Usually dry portion of a stream bed that contains water only during or after a local rainstorm or heavy snowmelt.
485	Water IntakeOutflow	Resolution, Elevation, FCode	48500	Resolution, ElevationRange, Water IntakeOutflow FCode	Structure through which water enters or exits a conduit.

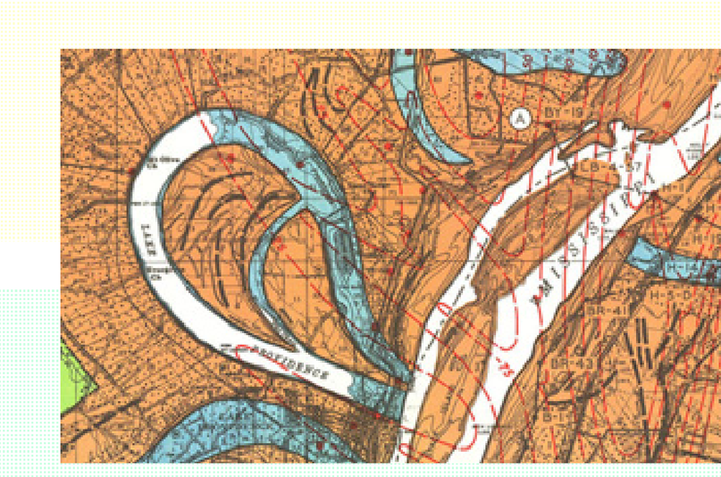
Simple feature class NHDWaterbody
Geometry *Polygon*; Contains M values *No*; Contains Z values *Yes*

Contains regions representing areal NHD hydrographic waterbody features.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Shape	Geometry	Yes						
Permanent_Identifier	String	No					40	40-char GUID value that uniquely identifies the occurrence of each feature in *The National Map*.
FDate	Date	No			0	0	8	Date of last feature modification.
Resolution	Long integer	No		Resolution	0			Code for source resolution: 1 = Local resolution, 2 = High resolution, 3 = Medium resolution.
GNIS_ID	String	Yes					10	Unique identifier assigned by GNIS, length 10.
GNIS_Name	String	Yes					65	Proper name, specific term, or expression by which a particular geographic entity is known, length 65.
AreaSqKm	Double	Yes			0	0		Area of areal features, Albers Equal Area Conic, length 8.
Elevation	Double	Yes		ElevationRange	0	0		Elevation, in meters, of water surfaces where water pools are encoded for a few features.
ReachCode	String	Yes					14	Unique identifier composed of two parts, first eight digits is subbasin code as defined by FIPS 103, next six digits is randomly assigned sequential number unique within a Cataloging Unit, length 14.
FType	Long integer	No	390		0			Three-digit integer value, unique identifier of a feature type.
FCode	Long integer	Yes	39004		0			Five-digit integer value comprised of the feature type and combinations of characteristics and values.
VisibilityFilter	Long integer	No	0	VisibilityFilter Domain	0			Represents the appropriate use of individual features through scale. Does not reflect capture conditions.
Shape_Area	Double	Yes			0	0		
GLOBALID	Global ID							

Subtypes of NHDWaterbody — Subtype field *FType*; Default subtype *390*. List of defined default values and domains for subtypes in this class:

Subtype Code	Subtype Description	Field name	Default value	Domain	Definitions of features
493	Estuary	Resolution, Elevation, FCode	49300	Resolution, ElevationRange, Estuary FCode	Lower end of a river, or a semi-enclosed coastal body of water with access to the open ocean, which is affected by the tides and where fresh and salt water mix.
378	Ice Mass	Resolution, Elevation, FCode	37800	Resolution, ElevationRange, Ice Mass FCode	A field of ice, formed in regions of perennial frost.
390	LakePond	Resolution, Elevation, FCode	39004	Resolution, ElevationRange, LakePond FCode	Standing body of water with a predominantly natural shoreline surrounded by land.
361	Playa	Resolution, Elevation, FCode	36100	Resolution, ElevationRange, Playa FCode	Flat area at the lowest part of an undrained desert basin, generally devoid of vegetation.
436	Reservoir	Resolution, Elevation, FCode	43600	Resolution, ElevationRange, Reservoir FCode	Constructed basin formed to contain water or other liquids.
466	SwampMarsh	Resolution, Elevation, FCode	46600	Resolution, ElevationRange, SwampMarsh FCode	Noncultivated, vegetated area that is inundated or saturated for a significant part of the year. The vegetation is adapted for life in saturated soil conditions.



Event Feature Classes

Simple feature class NHDAreaEventFC
Geometry *Polygon*; Contains M values *No*; Contains Z values *No*

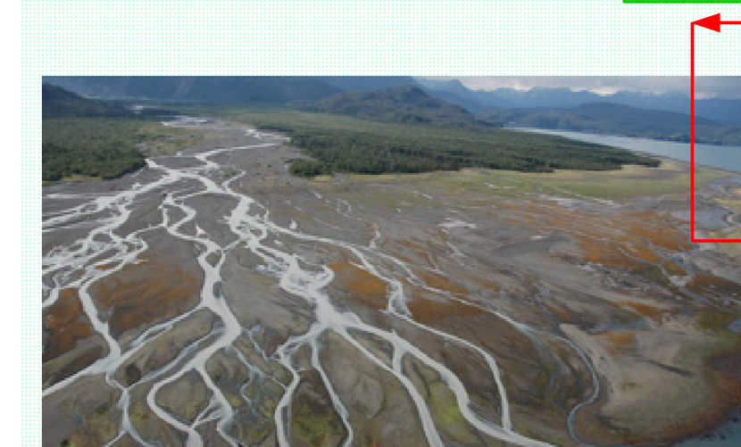
Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	No					40
EventDate	Date	Yes			0	0	8
ReachCode	String	No					14
ReachSMDate	Date	Yes			0	0	8
ReachResolution	Long integer	No		Resolution	0		
Feature_Permanent_Identifier	String	Yes					40
FeatureClassRef	Long integer	Yes		Event Feature Class Reference	0		
Source_Originator	String	Yes					130
Source_DataDesc	String	Yes					100
Source_FeatureID	String	Yes					100
FeatureDetailURL	String	Yes					255
EventType	Long integer	No		Area Event Type	0		
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	
GLOBALID	Global ID						

Simple feature class NHDLineEventFC
Geometry *Polyline*; Contains M values *No*; Contains Z values *No*

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	No					40
EventDate	Date	Yes			0	0	8
ReachCode	String	No					14
ReachSMDate	Date	Yes			0	0	8
ReachResolution	Long integer	No		Resolution	0		
Feature_Permanent_Identifier	String	Yes					40
FeatureClassRef	Long integer	Yes		Event Feature Class Reference	0		
Source_Originator	String	Yes					130
Source_DataDesc	String	Yes					100
Source_FeatureID	String	Yes					100
FeatureDetailURL	String	Yes					255
FMeasure	Double	Yes			0	0	
TMeasure	Double	Yes			0	0	
EventType	Long integer	No		Line Event Type	0		
EventOffset	Double	Yes			0		
Shape_Length	Double	Yes			0	0	
GLOBALID	Global ID						

Simple feature class NHDPointEventFC
Geometry *Point*; Contains M values *No*; Contains Z values *No*

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	No					40
EventDate	Date	Yes			0	0	8
ReachCode	String	No					14
ReachSMDate	Date	Yes			0	0	8
ReachResolution	Long integer	No		Resolution	0		
Feature_Permanent_Identifier	String	Yes					40
FeatureClassRef	Long integer	Yes		Event Feature Class Reference	0		
Source_Originator	String	Yes					130
Source_DataDesc	String	Yes					100
Source_FeatureID	String	Yes					100
FeatureDetailURL	String	Yes					255
Measure	Double	No			0	0	
EventOffset	Double	Yes			0	0	
EventType	Long integer	No		Point Event Type	0		
GLOBALID	Global ID						



Feature Metadata

In the NHD geodatamodel, feature-level metadata information is included in three tables: NHDFeatureToMetadata, NHDMetdata, and NHDSourceCitation. The NHDFeatureToMetadata table links the features to their instances of metadata. The NHDMetadata table contains the general metadata characteristics for each collection of features. The NHDSourceCitation table details the source associated with each metadata instance.

Relationship classes (One to many): NHDAreaEventFCToMeta; NHDAreaToMeta; NHDFlowlineToMeta; NHDLineEventFCToMeta; NHDPointToMeta; NHDLineToMeta; NHDPointEventFCToMeta; NHDWaterbodyToMeta; NHDMetaToFeature; NHDMetadataHasSourceCitation

To Meta

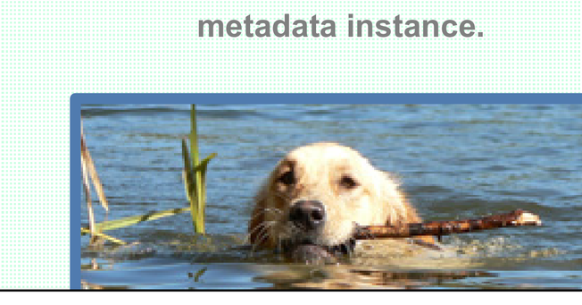


Table NHDFeatureToMetadata

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Meta_ProcessID	String	Yes					40
GLOBALID	Global ID						

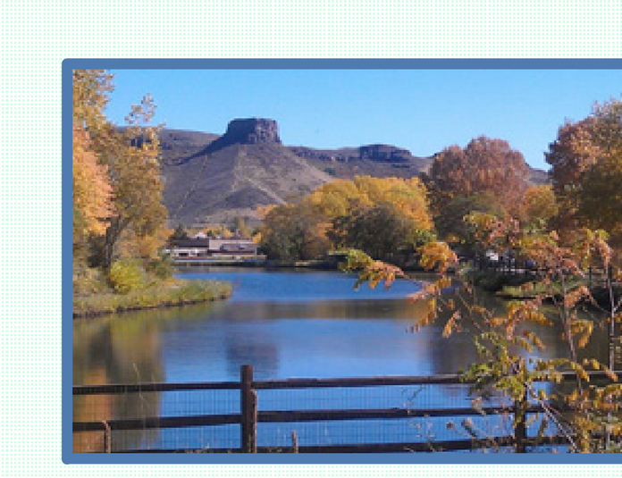
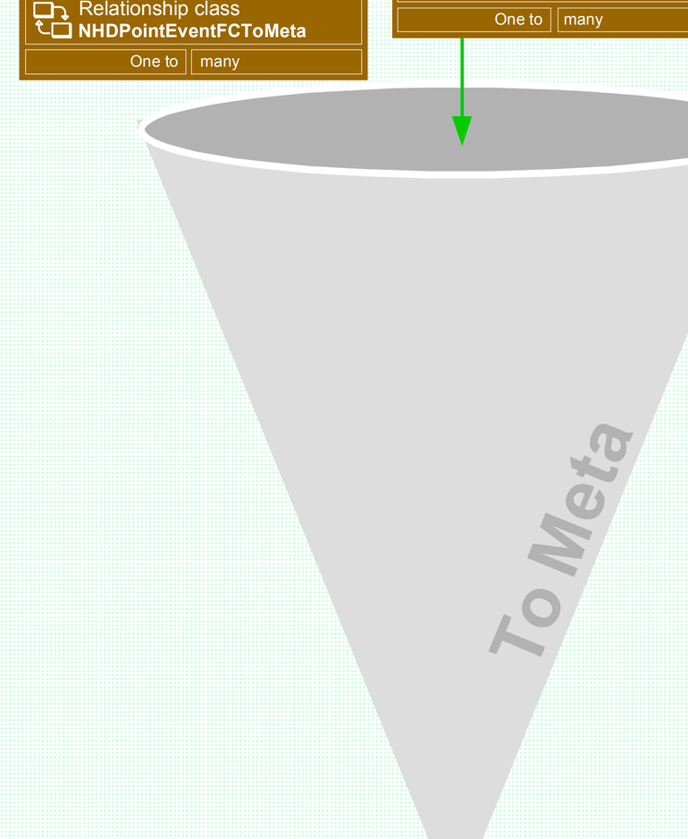


Table NHDMetadata

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Meta_ProcessID	String	Yes					40	Unique permanent ID value which uniquely identifies a process in *The National Map*.
ProcessDescription	String	No					4000	Explanation of the process, including parameters or tolerances.
ProcessDate	Date	No			0	0	8	Date when the process was completed.
AttributeAccuracyreport	String	Yes					1800	Explanation of entities and assignments of values in dataset.
LogicalConsistencyReport	String	Yes					1000	Explanation of fidelity of relationships in dataset, and tests used.
CompletenessReport	String	Yes					2400	Information about omissions, criteria, definitions used to derive dataset.
HorizPositionalAccuracyReport	String	Yes					3100	Horizontal coordinate measurements and description of tests used.
VertPositionalAccuracyReport	String	Yes					3100	Vertical coordinate measurements and description of tests used.
MetadataStandardName	String	Yes					100	Name of the metadata standard used to document the dataset.
MetadataStandardVersion	String	Yes					40	Identification of the version of the metadata standard used to document the dataset.
MetadataDate	Date	Yes			0	0	8	Date the metadata was last created or updated.
DataSetCredit	String	Yes					4000	Recognition of those who contributed to the dataset.
ContactOrganization	String	Yes					100	Name or organization to which type of contact applies.
AddressType	String	Yes					40	Information provided about the address, i.e.; mailing, physical, etc.
Address	String	Yes					100	Address line for the address.
City	String	Yes					40	City of the address.
StateOrProvince	String	Yes					30	State or province of the address.
PostalCode	String	Yes					20	ZIP or other postal code of the address.
ContactVoiceTelephone	String	Yes					40	Telephone number to reach organization or individual.
ContactInstructions	String	Yes					120	Supplemental instructions to contact organization or individual
ContactEmailAddress	String	Yes					40	E-mail address to reach contact organization or individual.
GLOBALID	Global ID							

Table NHDSourceCitation

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length	Description
OBJECTID	Object ID							
Source_DatasetID	String	Yes					40	Unique permanent ID value which uniquely identifies a source dataset used in *The National Map*.
Title	String	Yes					255	Name by which the dataset is known.
SourceCitationAbbreviation	String	Yes					255	Short form alias for source citation.
Originator	String	Yes					400	Name of an organization or individual that developed the dataset.
PublicationDate	Date	Yes			0	0	8	Date the dataset is published or made available for release.
BeginningDate	Date	Yes			0	0	8	First year of the event (if Range_of_Dates applies).
EndingDate	Date	Yes			0	0	8	Last year of the event (if Range_of_Dates applies).
SourceContribution	String	Yes					255	Brief statement identifying information contributed by source to dataset.
SourceScaleDenominator	Long integer	Yes			0			Denomination of representative fraction on a map.
TypeOfSourceMedia	String	Yes					255	The medium of the source dataset, i.e. paper, CD-ROM, online, etc.
CalendarDate	Date	Yes			0	0	8	The year (if Single_Date applies).
SourceCurrentnessReference	String	Yes					255	The basis on which the source time period of content information of the source data set is determined.
Meta_ProcessID	String	Yes					40	Unique permanent ID value which uniquely identifies a process used in *The National Map*.
GLOBALID	Global ID							



FCode (Feature) Domains

All coded value domains below: Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*.

Coded value domain	Code	Description
Area of Complex Channels FCode	53700	Area of Complex Channels
Area to be Submerged FCode	30700	Area to be Submerged
ArtificialPath FCode	55800	Artificial Path
BayInlet FCode	31200	Bay/Inlet
Bridge FCode	31800	Bridge
CanalDitch FCode	33600	Canal Ditch
	33601	Canal Ditch: Canal Ditch Type = Aqueduct
	33603	Canal Ditch: Canal Ditch Type = Stormwater
Coastline FCode	56600	Coastline
Connector FCode	33400	Connector
DamWeir FCode	34300	Dam/Weir
	34305	Dam/Weir: Construction Material = Earthen
	34306	Dam/Weir: Construction Material = Nonearthen
Estuary FCode	49300	Estuary
Flume FCode	36200	Flume
Foreshore FCode	36400	Foreshore
Gaging Station FCode	36700	Gaging Station
	36701	Gaging Station: Gaging Station Status = Active; Record = Continuous
Gate FCode	36900	Gate
Ice Mass FCode	37800	Ice Mass
Inundation Area FCode	40300	Inundation Area
	40308	Inundation Area; Inundation Control Status = Controlled
	40309	Inundation Area; Inundation Control Status = Controlled; Stage = Flood Elevation
	40307	Inundation Area; Inundation Control Status = Not Controlled
LakePond FCode	39000	Lake/Pond
	39001	Lake/Pond: Hydrographic Category = Intermittent
	39006	Lake/Pond: Hydrographic Category = Intermittent; Stage = Date of Photography
	39005	Lake/Pond: Hydrographic Category = Intermittent; Stage = High Water Elevation
	39004	Lake/Pond: Hydrographic Category = Perennial
	39009	Lake/Pond: Hydrographic Category = Perennial; Stage = Average Water Elev
	39011	Lake/Pond: Hydrographic Category = Perennial; Stage = Date of Photography
	39010	Lake/Pond: Hydrographic Category = Perennial; Stage = Normal Pool
	39012	Lake/Pond: Hydrographic Category = Perennial; Stage = Spillway
Levee FCode	56800	Levee
Lock Chamber FCode	39800	Lock Chamber
Nonearthen Shore	41100	Nonearthen Shore
Pipeline FCode	42800	Pipeline
	42816	Pipeline: Pipeline Type = Aqueduct
	42801	Pipeline: Pipeline Type = Aqueduct; Relationship to Surface = At or Near
	42802	Pipeline: Pipeline Type = Aqueduct; Relationship to Surface = Elevated
	42803	Pipeline: Pipeline Type = Aqueduct; Relationship to Surface = Underground
	42804	Pipeline: Pipeline Type = Aqueduct; Relationship to Surface = Underwater
	42814	Pipeline: Pipeline Type = General Case
	42805	Pipeline: Pipeline Type = General Case; Relationship to Surface = At or Near
	42806	Pipeline: Pipeline Type = General Case; Relationship to Surface = Elevated
	42807	Pipeline: Pipeline Type = General Case; Relationship to Surface = Underground
	42808	Pipeline: Pipeline Type = General Case; Relationship to Surface = Underwater
	42815	Pipeline: Pipeline Type = Penstock
	42809	Pipeline: Pipeline Type = Penstock; Relationship to Surface = At or Near
	42810	Pipeline: Pipeline Type = Penstock; Relationship to Surface = Elevated
	42811	Pipeline: Pipeline Type = Penstock; Relationship to Surface = Underground
	42812	Pipeline: Pipeline Type = Penstock; Relationship to Surface = Underwater
	42813	Pipeline: Pipeline Type = Siphon
	42820	Pipeline: Pipeline Type = Stormwater
	42821	Pipeline: Pipeline Type = Stormwater; Relationship to Surface = At or Near
	42822	Pipeline: Pipeline Type = Stormwater; Relationship to Surface = Elevated
	42823	Pipeline: Pipeline Type = Stormwater; Relationship to Surface = Underground
	42824	Pipeline: Pipeline Type = Stormwater; Relationship to Surface = Underwater
Playa FCode	36100	Playa
Rapids FCode	43100	Rapids
Reef FCode	43400	Reef
Reservoir FCode	43600	Reservoir
	43618	Reservoir: Construction Material = Earthen
	43619	Reservoir: Construction Material = Nonearthen
	43601	Reservoir: Reservoir Type = Aquaculture
	43609	Reservoir: Reservoir Type = Cooling Pond
	43603	Reservoir: Reservoir Type = Decorative Pool
	43606	Reservoir: Reservoir Type = Disposal
	43625	Reservoir: Reservoir Type = Disposal; Construction Material = Earthen
	43626	Reservoir: Reservoir Type = Disposal; Construction Material = Nonearthen
	43607	Reservoir: Reservoir Type = Evaporator
	43623	Reservoir: Reservoir Type = Evaporator; Construction Material = Earthen
	43610	Reservoir: Reservoir Type = Filtration Pond
	43611	Reservoir: Reservoir Type = Settling Pond
	43612	Reservoir: Reservoir Type = Sewage Treatment Pond
	43608	Reservoir: Reservoir Type = Swimming Pool
	43605	Reservoir: Reservoir Type = Tailings Pond
	43604	Reservoir: Reservoir Type = Tailings Pond; Construction Material = Earthen
	43624	Reservoir: Reservoir Type = Treatment
	43617	Reservoir: Reservoir Type = Water Storage
	43614	Reservoir: Reservoir Type = Water Storage; Construction Material = Earthen; Hydro Cat = Intermittent
	43615	Reservoir: Reservoir Type = Water Storage; Construction Material = Earthen; Hydro Cat = Perennial
	43613	Reservoir: Reservoir Type = Water Storage; Construction Material = Nonearthen
	43621	Reservoir: Reservoir Type = Water Storage; Hydrographic Category = Perennial
Rock FCode	44100	Rock
	44101	Rock: Relationship to Surface = Abovewater
	44102	Rock: Relationship to Surface = Underwater
SeaOcean FCode	44500	Sea Ocean
SinkRise FCode	45000	Sink/Rise
Sounding Datum Line FCode	50300	Sounding Datum Line
	50301	Sounding Datum Line: Positional Accuracy = Approx
	50302	Sounding Datum Line: Positional Accuracy = Definite
Spillway FCode	45500	Spillway
SpringSeep FCode	45800	Spring/Seep
StreamRiver FCode	46000	Stream/River
	46003	Stream/River: Hydrographic Category = Intermittent
	46006	Stream/River: Hydrographic Category = Perennial
	46007	Stream/River: Hydrographic Category = Ephemeral
Submerged Stream FCode	46100	Submerged Stream
SwampMarsh FCode	46600	Swamp/Marsh
	46601	Swamp/Marsh: Hydrographic Category: Intermittent
	46602	Swamp/Marsh: Hydrographic Category: Perennial
Tunnel FCode	47800	Tunnel
Underground Conduit FCode	42000	Underground Conduit
	42001	Underground Conduit: Positional Accuracy = Definite
	42002	Underground Conduit: Positional Accuracy = Indefinite
	42003	Underground Conduit: Positional Accuracy = Approx
Wall FCode	48300	Wall
Wash FCode	48400	Wash
Water IntakeOutflow FCode	48500	Water Intake/Outflow
Waterfall FCode	48700	Waterfall
Well FCode	48800	Well

Non-FCode Domains

Coded value domain Area Event Type — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description

Coded value domain Line Event Type — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description

Coded value domain Point Event Type — Description *Point Event Type*; Field type *Domain*; Split policy *Long integer*; Merge policy *Duplicate*

Code	Description
57001	Streamgage: Streamgage Status = Active; Record = Continuous
57002	Streamgage: Streamgage Status = Active; Record = Partial
57003	Streamgage: Streamgage Status = Inactive
57004	Water Quality Station
57100	Dam
57201	Flow Alteration = Addition
57202	Flow Alteration = Removal
57203	Flow Alteration = Unknown
57300	Hydrologic Unit Outlet

Range domain ElevationRange — Description; Field type *Double*; Split policy *Default value*; Merge policy *Default value*

Minimum value	Maximum value
-400	9000

Coded value domain Event Feature Class Reference — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
1	NHDArea
2	NHDFlowline
3	NHDLine
4	NHDPoint
5	NHDWaterbody

Coded value domain FlowDirection — Description; Field type *Long integer*; Split policy *Default value*; Merge policy *Default value*

Code	Description
709	In
712	NetworkStart
713	NetworkEnd
714	Non-Flowing

Coded value domain HydroFlowDirections — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
0	Uninitialized
1	WithDigitized

Coded value domain HydrologicUnitSource — Description; Field type *Long integer*; Split policy *Default value*; Merge policy *Default value*

Code	Description
0	Watershed Boundaries Dataset
1	NHD
2	Other

Coded value domain MainPath Domain — Description *MainPath Domain*; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
0	Unspecified
1	Confluence Main
2	Divergence Main
3	Both Confluence and Divergence

Coded value domain NoYes Domain — Description *NoYes Domain*; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
0	No
1	Yes

Coded value domain Organization Type — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

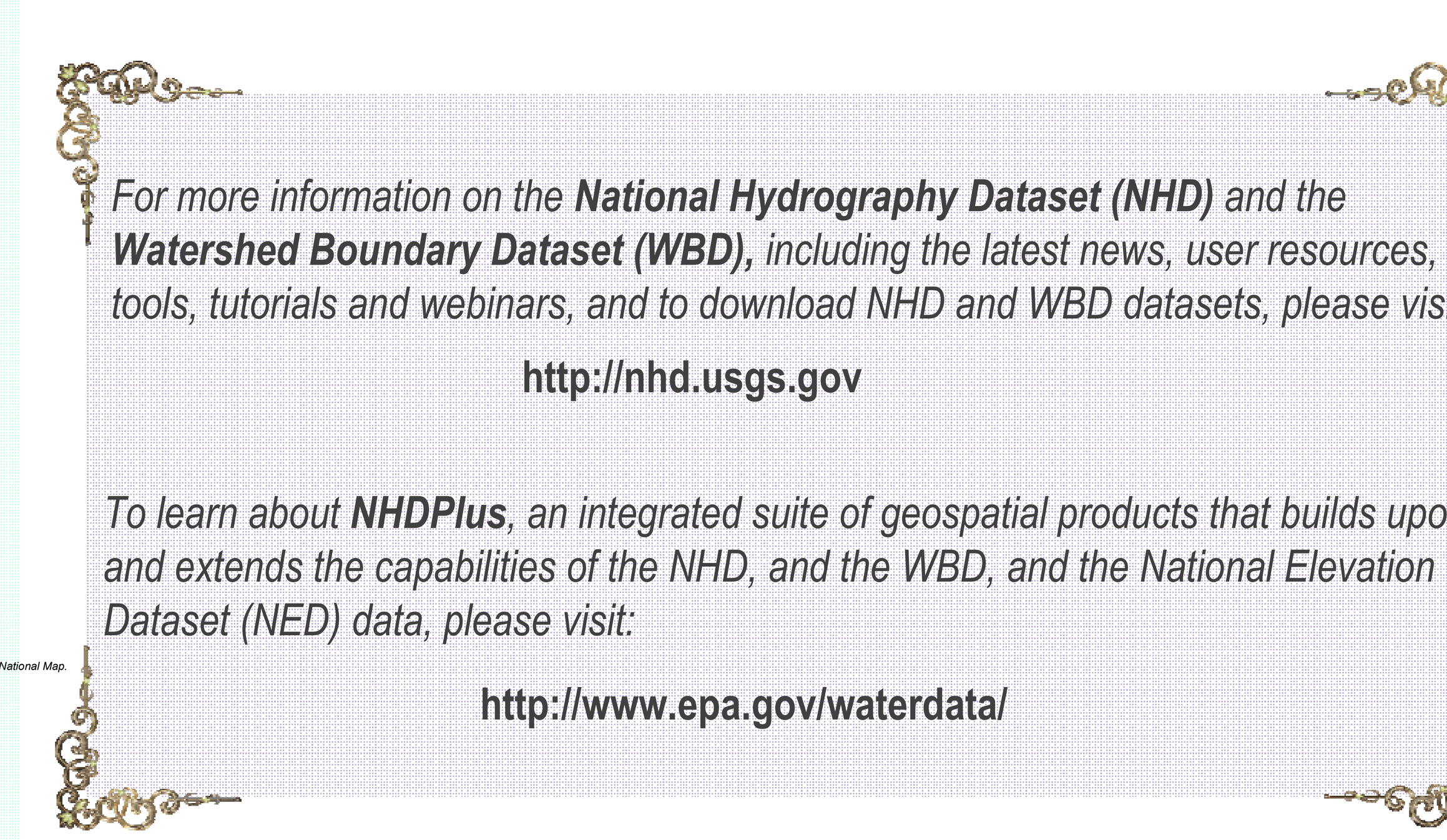
Code	Description
0	Unknown
1	International
2	Federal
3	Tribal
4	State
5	Regional
6	County
7	Municipal
8	Private

Coded value domain Resolution — Description; Field type *Long integer*; Split policy *Duplicate*; Merge policy *Default value*

Code	Description
1	Local
2	High
3	Medium

Coded value domain VisibilityFilter Domain — Description *VisibilityFilter*; Field type *Domain*; Split policy *Long integer*; Merge policy *Duplicate*

Code	Description
0	Unspecified
4800	Approximately 1:4,800 or Larger Scale
12500	Approximately 1:12,500 or Larger Scale
24000	Approximately 1:24,000 or Larger Scale
50000	Approximately 1:50,000 or Larger Scale
100000	Approximately 1:100,000 or Larger Scale
150000	Approximately 1:150,000 or Larger Scale
250000	Approximately 1:250,000 or Larger Scale
500000	Approximately 1:500,000 or Larger Scale
1000000	Approximately 1:1,000,000 or Larger Scale
2000000	Approximately 1:2,000,000 or Larger Scale
5000000	Approximately 1:5,000,000 or Larger Scale



*For more information on the **National Hydrography Dataset (NHD)** and the **Watershed Boundary Dataset (WBD),** including the latest news, user resources, tools, tutorials and webinars, and to download NHD and WBD datasets, please visit:*

http://nhd.usgs.gov

*To learn about **NHDPlus**, an integrated suite of geospatial products that builds upon and extends the capabilities of the NHD, and the WBD, and the National Elevation Dataset (NED) data, please visit:*

http://www.epa.gov/waterdata/