

**FCODE Changes Implemented between the Feature Operational Database (FOD)  
and the Geodatabase National Hydrography Dataset (NHD)**

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The following table identifies changes that have occurred in the FCODE values between the Feature Operational Database (FOD) and geodatabase National Hydrography Database (NHD) model implementations.

FOD_FCODE	FTYPE	DELETE	GEO_FCODE
30200	ANCHORAGE	1	0
30201	ANCHORAGE	1	0
30202	ANCHORAGE	1	0
30203	ANCHORAGE	1	0
30700	AREA TO BE SUBMERGED	0	30700
31200	BAY/INLET	0	31200
31800	BRIDGE	0	31800
33400	CONNECTOR	0	33400
33600	CANAL/DITCH	0	33600
33601	CANAL/DITCH	0	33601
33602	CANAL/DITCH	0	33600
34000	CREVASSE FIELD	1	0
55800	COASTLINE	0	56600
34300	DAM/WEIR	0	34300
34301	DAM/WEIR	0	34305
34302	DAM/WEIR	0	34305
34303	DAM/WEIR	0	34306
34304	DAM/WEIR	0	34306
36000	FISH LADDER	1	0
36100	PLAYA	0	36100
36200	FLUME	0	36200
36400	FORESHORE	0	36400
36600	FUMAROLE	2	45800
36700	GAGING STATION	0	36700
36900	GATE	0	36900
36901	GATE	0	36900
36902	GATE	0	36900
36903	GATE	0	36900
36904	GATE	0	36900
36905	GATE	0	36900
37000	GEYSER	2	45800
37300	HAZARD ZONE	0	37300
37301	HAZARD ZONE	0	37300
37302	HAZARD ZONE	0	37300
37303	HAZARD ZONE	0	37300

37304 HAZARD ZONE	0	37300
37305 HAZARD ZONE	0	37300
37306 HAZARD ZONE	0	37300
37307 HAZARD ZONE	0	37300
37308 HAZARD ZONE	0	37300
37309 HAZARD ZONE	0	37300
37310 HAZARD ZONE	0	37300
37311 HAZARD ZONE	0	37300
37312 HAZARD ZONE	0	37300
37800 ICE MASS	0	37800
37801 ICE MASS	0	37800
37802 ICE MASS	0	37800
37803 ICE MASS	0	37800
37804 ICE MASS	0	37800
37805 ICE MASS	0	37800
37806 ICE MASS	0	37800
39000 LAKE/POND	0	39000
39001 LAKE/POND	0	39001, 39005, 39006
39002 LAKE/POND	0	39001, 39005, 39006
39003 LAKE/POND	0	39004, 39009-39012
39004 LAKE/POND	0	39004, 39009-39012
39800 LOCK CHAMBER	0	39800
40300 INUNDATION AREA	0	40300
40301 INUNDATION AREA	0	40308, 40309
40302 INUNDATION AREA	0	40308, 40309
40303 INUNDATION AREA	0	40308, 40309
40304 INUNDATION AREA	0	40308, 40309
40305 INUNDATION AREA	0	40308, 40309
40306 INUNDATION AREA	0	40308, 40309
40307 INUNDATION AREA	0	40307
40900 MUD POT	2	45800
41100 NONEARTHERN SHORE	0	41100
42200 POST	1	0
42201 POST	1	0
42202 POST	1	0
42800 PIPELINE	0	42800
42801 PIPELINE	0	42801
42802 PIPELINE	0	42802
42803 PIPELINE	0	42803
42804 PIPELINE	0	42804
42805 PIPELINE	0	42805
42806 PIPELINE	0	42806
42807 PIPELINE	0	42807
42808 PIPELINE	0	42808
42809 PIPELINE	0	42809
42810 PIPELINE	0	42810
42811 PIPELINE	0	42811
42812 PIPELINE	0	42812

42813 PIPELINE	0	42813
42814 PIPELINE	0	42814
43100 RAPIDS	0	43100
43400 REEF	0	43400
43600 RESERVOIR	0	43600
43601 RESERVOIR	0	43601
43602 RESERVOIR	0	43603
43603 RESERVOIR	0	43603
43604 RESERVOIR	0	43604
43605 RESERVOIR	0	43605
43606 RESERVOIR	0	43606
43607 RESERVOIR	0	43607
43608 RESERVOIR	0	43608
43609 RESERVOIR	0	43609
43610 RESERVOIR	0	43610
43611 RESERVOIR	0	43611
43612 RESERVOIR	0	43612
43613 RESERVOIR	0	43613
43614 RESERVOIR	0	43614
43615 RESERVOIR	0	43615
43616 RESERVOIR	0	43613
43617 RESERVOIR	0	43617
43618 RESERVOIR	0	43618
43619 RESERVOIR	0	43619
43620 RESERVOIR	0	43600
43621 RESERVOIR	0	43621
43622 RESERVOIR	0	43613
43623 RESERVOIR	0	43623
44100 ROCK	0	44100
44101 ROCK	0	44101
44102 ROCK	0	44102
44500 SEA/OCEAN	0	44500
44501 SEA/OCEAN	0	44500
44502 SEA/OCEAN	0	44500
45000 SINK/RISE	0	45000
45200 SNAG/STUMP	1	0
45201 SNAG/STUMP	1	0
45202 SNAG/STUMP	1	0
45203 SNAG/STUMP	1	0
45204 SNAG/STUMP	1	0
45400 SPECIAL USE ZONE	0	45400
45401 SPECIAL USE ZONE	0	45401
45402 SPECIAL USE ZONE	0	45402
45403 SPECIAL USE ZONE	0	45403
45404 SPECIAL USE ZONE	0	45404
45500 SPILLWAY	0	45500
45800 SPRING/SEEP	0	45800
45801 SPRING/SEEP	0	45800

45802 SPRING/SEEP	0	45800
45803 SPRING/SEEP	0	45800
45804 SPRING/SEEP	0	45800
46000 STREAM/RIVER	0	46000
46001 STREAM/RIVER	0	46003
46002 STREAM/RIVER	0	46003
46003 STREAM/RIVER	0	46003
46004 STREAM/RIVER	0	46006
46005 STREAM/RIVER	0	46006
46006 STREAM/RIVER	0	46006
46100 SUBMERGED STREAM	0	46100
46600 SWAMP/MARSH	0	46600
47800 TUNNEL	0	47800
48100 UNDERPASS	1	0
48300 WALL	0	48300
48301 WALL	0	48300
48302 WALL	0	48300
48400 WASH	0	48400
48500 WATER INTAKE/OUTFLOW	0	48500
48501 WATER INTAKE/OUTFLOW	0	48500
48502 WATER INTAKE/OUTFLOW	0	48500
48700 WATERFALL	0	48700
48800 WELL	0	48800
48801 WELL	0	48800
48802 WELL	0	48800
48803 WELL	0	48800
48804 WELL	0	48800
48805 WELL	0	48800
48806 WELL	0	48800
49200 WRECK	1	0
49201 WRECK	1	0
49202 WRECK	1	0
49203 WRECK	1	0
49300 ESTUARY	0	49300
50300 SOUNDING DATUM LINE	0	50300
50301 SOUNDING DATUM LINE	0	50301
50302 SOUNDING DATUM LINE	0	50302
53300 SPECIAL USE ZONE LIMIT	0	53300
53301 SPECIAL USE ZONE LIMIT	0	53301
53302 SPECIAL USE ZONE LIMIT	0	53302
53700 AREA OF COMPLEX CHANNELS	0	53700
55800 ARTIFICIAL PATH	0	55800

Seven FOD feature types--anchorage, crevasse field, fish ladder, post, snag/stump, underpass, and wreck—have been deleted in the NHD geodatabase. These features may have existed as points, landmark routes, or landmark regions in the NHD FOD. Thus, the 19 FCODE values-- 30200, 30201, 30202, 30203, 34000, 36000, 42200, 42201, 42202,

45200, 45201, 45202, 45203, 45204, 48100, 49200, 49201, 49202, and 49203--do not exist in the geodatabase.

The point feature types fumarole, geyser, and mud pot are changed to the feature type spring/seep, which converts FCODE values 36600, 37000, and 40900 to 45800.

Coastline artificial path features, which have a FCODE of 55800 in the FOD, convert to coastline feature types with an FCODE of 56600 in the geodatabase. FCODE 56600 is a feature type class that has not been used before. In the NHD geodatabase, coastlines feature types should exist in the NHDFlowline layer along the coasts of the Great Lakes and oceans.

While flood stage was explicitly defined through the STAGE item for waterbody and landmark regions in the FOD model, the STAGE item is not retained in the geodatabase model. Therefore, flood stage is retained for these features through new FCODE definitions.

The feature types affected by STAGE values in the geodatabase are inundation area and lake/pond. Inundation area type definitions—debris basin, dewatering area, duck pond, general case, percolation basin, and retarding basin—are not retained in the geodatabase. Inundation areas are only differentiated by the control status and stage. Thus, all controlled inundation area FCODEs in the FOD (40301-40306) convert to the geodatabase FCODE 40308, which is a controlled inundation area. If the stage of a controlled inundation area had been defined as ‘Flood Elevation’, then the geodatabase FCODE converts to 40309. Uncontrolled inundation areas are maintained with FCODE 40307. Thus, six inundation area FCODE values from the FOD are retired in the geodatabase and two new FCODEs, 40308 and 40309, are added in the geodatabase.

Lake/pond FCODE values 39001 and 39004 are retained in the geodatabase, but FCODEs 39002 and 39003 are retired. Six new lake/pond FCODE values are added in the geodatabase to retain the possible stage values. The new FCODEs, 39005 and 39006 represent intermittent lake/pond features with stage defined as ‘High Water Elevation’ and ‘Date of Photography’, respectively. New FCODE values 39009, 39010, 39011, and 39012 represent perennial lake/pond features with stage defined as ‘Average Water Elevation’, ‘Normal Pool’, ‘Date of Photography’, and ‘Spillway Elevation’, respectively. So, overall two lake/pond FCODE values from the FOD are retired in the geodatabase, but six lake/pond FCODE values have been added in the geodatabase.

Additional FCODE values that are included in the NHD geodatabase and not in the FOD are listed below. No FOD feature types convert to these FCODEs.

GEO_FCODE	FTYPE	DESCRIPT
42815	PIPELINE	Product water; Pipeline Type penstock
42816	PIPELINE	Product water; Pipeline Type aqueduct
43624	RESERVOIR	Reservoir Type treatment
43625	RESERVOIR	Reservoir Type disposal; Construction Material earthen
43626	RESERVOIR	Reservoir Type disposal; Construction Material nonearthen

