NHDPlus Version 2.0 Database – 5/7/2012

NHDPlus Catchments linked to NHDFlowlines through ComID (for VPU)

Catchment	
PK	**FeatureID**
	Gridcode AreaSqKm SourceFC **Shape_Len** **Shape_Area**

FeatureIDGridCode	
PK PK	**FeatureID** **GridCode**
	RPUId SourceFC

cat	
	Value **Count** **FeatureID** SourceFC

NHDPlus Grids (for RPU)

fdr	
	Value **Count**

fac	
	Value

catseed	
	Value

fdrnull	
	Value Count

hydrodem	
	Value

filledareas	
	Value

Feature Classes for Hydro-Enforcement Process (for VPU)

BurnLineEvent	
PK PK PK	**ComID** **Hydroseq** **GridCode**
	Fdate FType FCode **ReachCode** **ReachSMDat** **FromMeas** **ToMeas** StartFlag LengthKM BurnLengKM Divergence StreamLeve StreamCalc StatusFlag InRPU Shape_Leng Catchment Burn

BurnAddLine	
PK PK	**LineID** **GridCode**
	PurpCode PurpDesc Shape_Leng StreamLeve Hydroseq

Sink	
PK PK	**SinkID** GridCode
	PurpCode PurpDesc StatusFlag FeatureID SourceFC Fdate InRPU Catchment Burn

LandSea	
PK	**LandSeaID**
	Land Shape_Leng Shape_Area

Wall	
PK	**WallID**
	SourceID Shape_Leng

BurnWaterbody	
PK	**ComID**
	SourceFC **FCode** ReachCode ReachSMDat OnOffNet PurpCode PurpDesc Shape_Leng Shape_Area

BurnAddWaterbody	
PK	**PolyID**
	PurpCode PurpDesc OnOffNet FCode Shape_Leng Shape_Area

NHDPlus Attributes Linked to NHDFlowline Through ComID (for VPU)

HeadwaterNodeArea	
PK	**ComID**
	FDate HwNodeSqKm

CumulativeArea	
PK	**ComID**
	TotDASqKM DivDASqKm

DivFracMP	
PK	**ComID**
	NodeNumber **DivFrac** StatusFlag

ElevSlope	
PK	**ComID**
	Fdate MaxElevRaw MinElevRaw MaxElevSmo MinElevSmo Slope SlopeLenKM ElevFixed HWType StatusFlag

PlusFlowlineVAA	
PK	**ComID**
	Fdate StreamLeve StreamOrde StreamCalc FromNode ToNode Hydroseq LevelPathI PathLength TerminalPa ArbolateSu Divergence StartFlag TerminalFl DnLevel ThinnerCod(na) UpLevelPat UpHydroSeq DnLevelPat DnMinorHyd DnDrainCou DnHydroSeq FromMeas ToMeas ReachCode LengthKM FCode RTNDiv OutDiv(na) DivEffect(na) VPUIn VPUOut AreaSqKM TotDASqKM DivDASqKM TravTime PathTime

PlusFlow	
	FromComID FromHydSeq FromLvlPat ToComID ToHydSeq ToLvlPat NodeNumber DeltaLevel Direction GapDistKM HasGeo TotDASqKM DivDASqKM

PlusARPointEvent	
PK	**Comid**
	EventDate **Reachcode** **ReachSMDat** **Reachresol** **FeatureCom** **FeatureCla** Source_Ori Source_Dat **Source_Fea** FeatureDet **Measure** Offset **EventType**

MegaDiv	
	FromComID ToComID

PlusFlowAR	
	FromComID FromFC ToComID ToFC Quantity Units

NHD Feature Classes/Tables Directly Related to NHDPlus (for VPU)

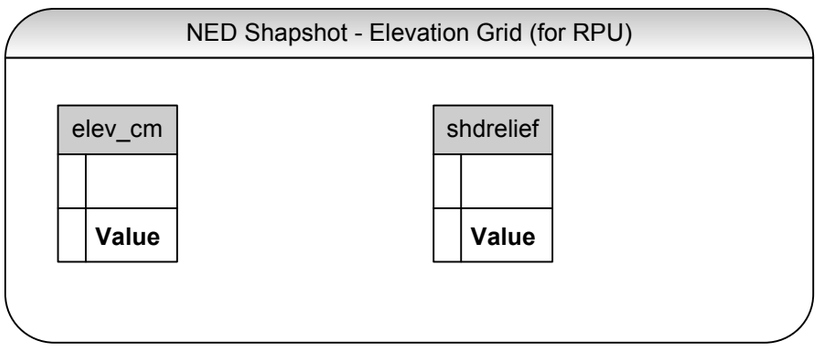
NHDFlowline	
PK	**ComID**
	Fdate Resolution GNIS_ID GNIS_Name LengthKM **ReachCode** **FlowDir** **WBAreaComID** **FType** FCode **Shape_Len** **Enabled**

NHDWaterbody	
PK	**ComID**
	Fdate **Resolution** GNIS_ID GNIS_Name **AreaSqKm** Elevation ReachCode **FType** **FCode** **Shape_Len** **Shape_Area**

NHDArea	
PK	**ComID**
	Fdate **Resolution** GNIS_ID GNIS_Name **AreaSqKm** Elevation **FType** **FCode** **Shape_Len** **Shape_Area**

NHDReachCode_ComID	
PK **PK**	**ComID** **ReachCode**
	ReachSMDate **Resolution** GNIS_ID GNIS_NAME

ReachcodeCrossReference	
	OldReachCo OldReachDA NewReachCo NewReachDA OldUpMi NewUpMi ChangeCode Process ReachfileV OldHUCCode NewHUCode


NED Shapshot - Elevation Grid (for RPU)
elev_cm
Value
shdrelief
Value

WBD Snapshot Feature Classes and Tables

WBD_Subwatershed	
PK	**HUC_12**
	HUC_8 HUC_10 Acres NContrb_A HU_10_GNIS HU_12_GNIS HU_10_DS HU_12_DS HU_12_NAME HU_12_MOD HU_12_TYPE META_ID STATES GlobalID GAZ_ID

Global Data Tables and Feature Classes (part 1)

BoundaryRel	
PK	**HUCCode**
	DrainageID
	HUCName
	InVPU
	InVDU
	InRPU
	InRDU

BoundaryRel contains one record for each unique HUC8. The purpose of the table is to assign each HUC8 to a VPU, a VDU, an RPU, and an RDU. Each HUC8 is in a drainage area defined by its DrainageID (e.g. 01, 02, 03, 04, MS, 09, 12, 13, CO, 16, 17, 18, 19, 20, 21).

BoundaryUnit	
PK	**UnitID**
	DrainageID
	UnitName
	UnitType
	Hydroseq
	AreaSQKM
	UnitPath
	Shape_Leng
	Shape_Area

BoundaryUnit contains the geometry for each HUC8, VPU, RPU, VDU, and RDU.

BoundaryValue	
	DrainageID
	UnitID
	UnitType
	FeatureKey
	KeyType
	AttrName
	AttrValue
	AttrValTyp
	AttrDate
	SessionID
	ProcName

BoundaryValue holds NHDPlus attribute values at the downstream and upstream connections between VPUs and RPUs. Build steps are run on VPUs and RPUs. These steps place values in the table for the VPU/RPU being processed and obtain values from the table for upstream and downstream VPUs and RPUs.

NHDPlusConnect	
	DrainageID
	UpUnitID
	UpUnitType
	DnUnitID
	DnUnitType
	UpComID
	DnComID

NHDPlusConnect describes the inter-unit connections between HUC8s, VPUs, VDUs, RPUs, and RDUs. Each connection consists of an upstream NHDFlowline comid and a downstream NHDFlowline comid.

Global Data Tables and Feature Classes (Part 2)

PlusMetadata	
PK	**ProcName**
	ProcDesc **ProcDate** **UnitID**

PlusSourceUsed	
PK **PK**	**ProcName** **SrceAbbrev**

PlusSourceCitation	
PK	**SrceAbbrev**
	Originator **PubDate** **Title** **PubPlace** **Publisher** **OnlineLink** **SrceScale** **Period** **CurrentRef** Descriptio

ProcessName = <DA>.<VPU>.<RDU>.Stepnn
For a DA = <DA>.000.000.Stepnn
For a VPU = <DA>.<VPU>.000.Stepnn
For a RPU = <DA>.<VPU>.<RPU>.Stepnn

PlusNEDMetadata	
	Shape_Leng Shape_Area

PlusNEDMetadata contains NED metadata records for each snapshot taken from NED for an NHDPlus refresh. The attributes in the shapefile mimic the NED metadata available at http://ned.usgs.gov/downloads.asp

PlusWBDMetadata	

PlusWBDMetadata contains WBD metadata records for each snapshot taken from WBD for an NHDPlus refresh. The attributes in the shapefile mimic the WBD metadata available at http://nhd.usgs.gov

National Tables and Feature Classes

GageLoc	
PK	**Comid**
	EventDate **Reachcode** **ReachSMDat** **Reachresol** **FeatureCom** **FeatureCla** Source_Ori Source_Dat **Source_Fea** FeatureDet **Measure** Offset **EventType**

GageInfo	
PK	**GageID**
	Agency_CD Station_NM State_CD State SiteStatus DA_SQ_MILE Lon_site Lat_Site Lon_NHD Lat_NHD NHD2Gage_D Reviewed

- Future data: Disturbance Index & other Flow Proposal Gage data Fields.

GageBasin	
PK	**GageID**
	DA Shape_Area Shape_leng

Not included in V2

nationalcat	
PK	**FeatureID**
	Value **Count**

Gage_Smooth	
PK	**GageID**
	Year Month Ave Complete

EROM Extension
NHDPlus Extended Attributes Linked to NHDFlowlines and Catchments Through ComID

EROM_<qtype>ffff	
PK	**ComID**
	QffffA
	VfffffA
	QIncrfffffA
	QffffB
	VfffffB
	QIncrfffffB
	QffffC
	VfffffC
	QIncrfffffC
	QffffD
	VfffffD
	QIncrfffffD
	QffffE
	VfffffE
	QincrfffffE
	QffffF
	VfffffF
	QincrfffffF
	ARQffffNAV
	TEMPffff
	PPTffff
	PETffff
	QLOSSffff
	QGffffADJ
	QGffffNAV
	DivDASqKM
	AreaSQKM
	Lat
	GageAdj
	Avgqadj
	SMgageID
	SMgageq
	ETFract1
	ETFract2
	a
	b
	BCF
	r2
	SER
	NRef
	gageseqp
	gageseq

EROM_QA<qtype>ffff	
PK	**ComID**
	GageID
	GageRef
	DivDASqKM
	Q_E
	Q_A
	Q_B
	Q_C
	Q_D
	Q_Eunitro
	Q_Aunitro
	Q_Bunitro
	Q_Cunitro
	Q_Dunitro
	Q_Adelta
	Q_Bdelta
	Q_Cdelta
	Q_Ddelta
	Q_Aurodelt
	Q_Burodelt
	Q_Curodelt
	Q_Durodelt

Where mm = month of year, 01, 02, …., 12
ffff = numeric runid

Attribute Extensions
NHDPlus Extended Attributes Linked to NHDFlowlines and Catchments Through ComID

ROMAeeee	
PK	**FeatureID**
	MissDataA RunOffVT RunOffV Hydroseq SourceFC

ROMMmmeeee	
PK	**FeatureID**
	MissDataA RunoffVT RunoffV Hydroseq SourceFC

IncrLat	
PK	**FeatureID**
	MissDataA LatVT LatV Hydroseq FeatureFC

IncrPrecipMA	
PK	**FeatureID**
	MissDataA PrecipVT PrecipV Hydroseq SourceFC

CumTotPrecipMA	
PK	**ComID**
	MissDataA PrecipVCT PrecipVC Hydroseq

CumDivPrecipMA	
PK	**ComID**
	MissDataA PrecipVCT PrecipVC Hydroseq

IncrPrecipMMmm	
PK	**FeatureID**
	MissDataA PrecipVT PrecipV Hydroseq SourceFC

CumTotPrecipMMmm	
PK	**ComID**
	MissDataA PrecipVCT PrecipVC Hydroseq

CumDivPrecipMMmm	
PK	**ComID**
	MissDataA PrecipVCT PrecipVC Hydroseq

IncrTempMA	
PK	**FeatureID**
	MissDataA TempVT TempV Hydroseq SourceFC

CumTotTempMA	
PK	**ComID**
	MissDataA TempVCT TempVC Hydroseq

CumDivTempMA	
PK	**ComID**
	MissDataA TempVCT TempVC Hydroseq

IncrTempMMmm	
PK	**FeatureID**
	MissDataA TempVT TempV Hydroseq SourceFC

CumTotTempMMmm	
PK	**ComID**
	MissDataA TempVCT TempVC Hydroseq

CumDivTempMMmm	
PK	**ComID**
	MissDataA TempVCT TempVC Hydroseq

Vogel Extension
NHDPlus Extended Attributes Linked to NHDFlowlines and Catchments Through ComID

VogelFlow1	
PK	**ComID**
	MAFlowV MAVelV