Attribute Type	Field Name	Metric	Description	Source		Units	WQ	HYD	HAB	Model function
Ecological (higher is better)	FSHAPctAr	Percent fish strategic habitat	Areas that haven been identified to provide exceptional habitat functions or are at risk due to threats, vulnerability or rarity.	NC DMF		% area	X[1]	X[1]	X[1]	The presence of Strategic Habitat Area indicates potential for restoration/enhancement of aquatic habitats with high ecological function
	ORWWSW	High Quality Waters / Outstanding Resource Waters	1 = catchment (centroid) contains HQW/ORW, WSW, or both; 0 = catchment contains neither HQW nor WSW	NC DWR		binary	X	X	X	Presence of HQW/ORW is an indicator of potential existing function
	PctWdyVeg	Percent woody veg in WS (+emergent wetlands)	Percent forest, shrub/herb, woody wetlands, emergent wetlands	StreamCat		% area	X	X	X	Forested/wetland land use is an indicator of potential existing function
	NHPNatArea	Conservation lands	NC Natural Heritage Program Natural Areas, Dedicated Nature Preserves and Managed Areas; NC Division of Marine Fisherires Estuarine Benthic Habitat (I1 & I2) and Submerged Aquatic Veg	NC NHP	NC DMF	% area	X	X	X	The presence of conservation lands indicates limits on development and potential for watershed resiliency
	StreamOrde	Headwater flag	Identifies catchments at the top of the hydrologic network (with no upstream catchments)	NHD+		binary	X	X	X	Watersheds with smaller streams are less likely to be impacted by upstream stressors
	HCZ_per_Cat	Area of Hydrologic connected zone per catchment	Desribes the abundance and continuity of hydrologic zones within the system	NHD+	StreamCat	area	X	X	X	Identifies catchments with abundant interconnected aquatic resources
	PrgBMMI	Ppredicted biological condition	Predicted biological condition based on 2008/2009 NRSA benthic invirtibrate multi-metric index	StreamCat		probability	X	X	X	Abundance and diversity of benthic invertebrates are an indicator of potential existing stream function
	TroutWtrs	Trout waters	Public Mountain Trout Waters - % of total stream length	NC DMF		binary	X[2]	X[2]	X[2]	Indicator of existing function in cold water thermal regime streams
Social (higher is better)	Pct_HCZwAg	Percent ag in HCZ	Percent row crop, pasture, grassland in HCZ for each catchment	NLCD		% area	X	X	X	Ag land indicates both potential presence of WQ stressors and potential for mitigation
	PctRestWet	Percent restorable wetlands in WS	Areas with hydric soils indicated that are not designated as forested, developed or a waterbody	SSURGO	NLCD	% area	X	X	X	Indicator of potential for wetland restoration - non-developed areas with hydric soils
	Gwth_2070	Predicted Development	Identifies developing catchments with small drainage areas that are predicted to have significant urban growth by 2070	Created from SLEUTH	NLCD	% area	X	X	X	Risk of development in 2070 scenario as predicted by SLEUTH
	DMSEasPerC	DMS projects as % of area	DMS easements as % of catchment area	Created from NCDEQ DMS		% area	X	X	X	Presence of DMS projects indicates landowner willingness and momentum toward restoration
	IRTMDL	Impaired Waters	2014 Category 4 & 5 waters; excludes mercury, heavy metals, or pesticides ONLY; 1 = IR, TMDL, or both; 0 = neither IR nor TMDL	Created from NCDEQ DWR		binary	X	X	X	Catchments with listed waters may have incentives or momentum toward restoration projects
	STIP	Transportation Improvement Projects	Catchments that are adjacent to areas where Transportation Improvement Projects are projected to be implemented	NCDOT		binary	X	X	X	Projected transportation projects indicate where there will be future need
	WSW	Water Supply Watersheds	Indicates whether a catchment is within a designated water supply watershed or not	Created from NCDEQ DWR		binary	X	X	X	WSWs may have incentives or momentum toward restoration projects
Stressors (higher is worse)	CCONN	ICI - Catchment hydrologic connectivity	Identifies presence of hydrologic pathways within watersheds	ICI - StreamCat (Flotemersch et al 2016)		index		X		Identify watersheds that have changes in hydrologic connectivity, isolation and fragmentation due to impacts from watershed stressors such as dams, groundwater, stream/road crossings and riparian removal
	CHABT	ICI - Catchment habitat provision	Identifies presence and maintenance of full range of natural landscape features that represent the complete set of conditions that are needed to maintain the natural diversity and abundances of aquatic biota	ICI - StreamCat (Flotemersch et al 2016)		index			X	Identify watersheds that have habitat degradation, fragmentation and loss due to impacts from watershed stressors such as imperviousness, agriculture, riparian removal, dams and stream/road crossings
	CHYD	ICI - Catchment hydrologic regulation	Identifies the maintenance fo natural timing, pattern, supply and storage of water that flows through the watershed	ICI - StreamCat (Flotemersch et al 2016)		index		X		Identify watersheds that have changes in flow, timing, storage and pathway due to impacts from watershed stressors such as dams, imperviousness, agriculture, roads, housing and riparian removal
	CTEMP	ICI - Catchment temperature regulation	Identifies the maintenance of the full range of natural landscape features required to maintain temperatures that support the aquatic chemistry and biota	ICI - StreamCat (Flotemersch et al 2016)		index			X	Identify watersheds that have changes in temperature, max/min, range and timing due to impacts from watershed stressors such as dams, agriculture, imperviousness, groundwater, stream/road crossings and forest cover
	PCT_HCZwIB	Non-functioning buffer	Percent of the HCZ that inersects Land Use/Land Cover types developed, pasture/hay, cultivated crops, grassland/herbaceous or barren	StreamCat	NLCD	%	X		X	Absent, narrow, or one-sided buffer within the HCZ is an indicator of the potential for direct water quality stressor inputs (nutrients, sediment, FC) to aquatic resources
	N_PLOAD_IN	NC SPARROW - Catchment N Inputs	Predicted total flux generated within the reach's incremental watershed	USGS		kg/yr	X			Incremental indicator of agricultural and urban N inputs to stream channel network
	P_PLOAD_IN	NC SPARROW - Catchment P Inputs	Predicted total flux generated within the reach's incremental watershed	USGS		kg/yr	X			Incremental indicator of agricultural and urban P inputs to stream channel network
	S_PLOAD_IN	NC SPARROW - Catchment Sediment Inputs	Predicted total flux generated within the reach's incremental watershed	USGS		megagrams/yr	X			Incremental indicator of upland and channel sediment inputs

[1] This metric will only remain in the model run when values are present for included catchments, mainly relevant for eastern watersheds.

[2] This metric will only remain in the model run when values are present for included catchments, mainly relevant for western watersheds.