Release Notes: NHDPlusV21 Ocean Catchments

20190123 - Release of Ocean Catchments

Many NHDPlus users locate points and areas of interest using NHDPlus "Land Catchments". Water quality assessments, impairments, TMDLs, and Priority Waters are among these interests. When these interests are located off-shore there is no convenient way to tie them to NHDPlus. To provide a similar capability for off-shore waters, the ocean has been divided into catchments called "Ocean Catchments". Ocean catchments exist for the lower 48 states, Hawaii, Puerto Rice, US Virgin Islands, and the Pacific island territories.

Ocean Catchments were created by gridding the ocean from the land/sea boundary and extending out to the NOAA 14 mile Maritime Limit[1] (See Figure 1). At the land/sea boundary, the Land Catchments and Ocean Catchments are seamlessly adjacent without gaps or overlaps (see Figure 1a).

Excluding the Land Catchments on the Canadian and Mexican border that have been extended to capture international drainage, the average size of a Land Catchment is approximately 2.9 square kilometers. Ocean Catchments are a 1500 x 1500 meter square in open ocean waters and smaller at the land/sea boundary giving an average size of 2.01 square kilometers.

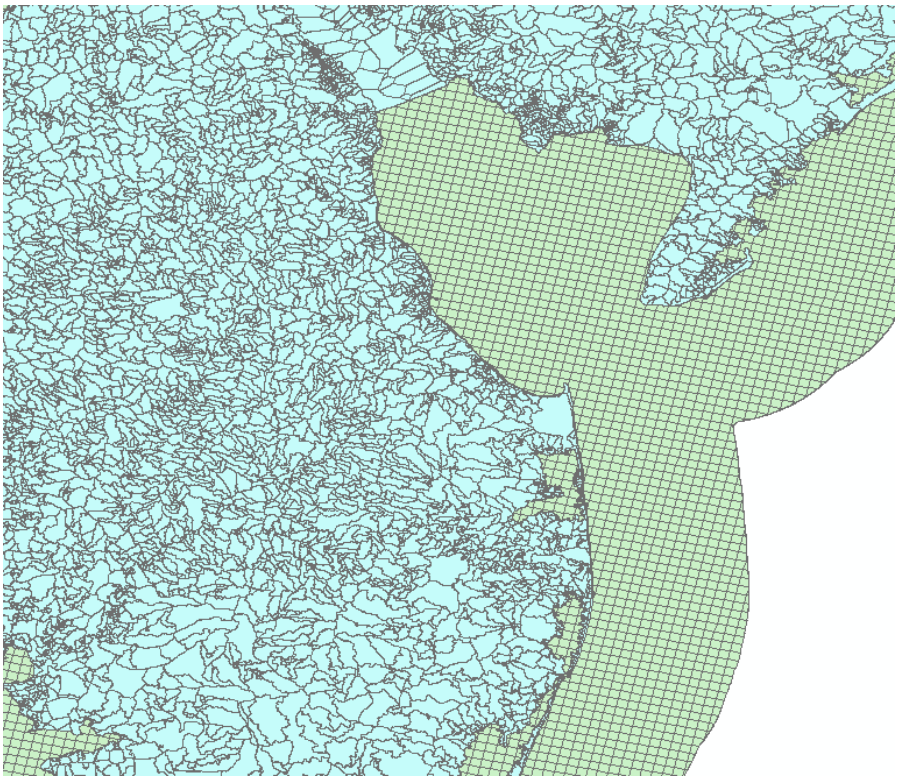

Figure 1 Land Catchments are Blue and Ocean Catchments are Green

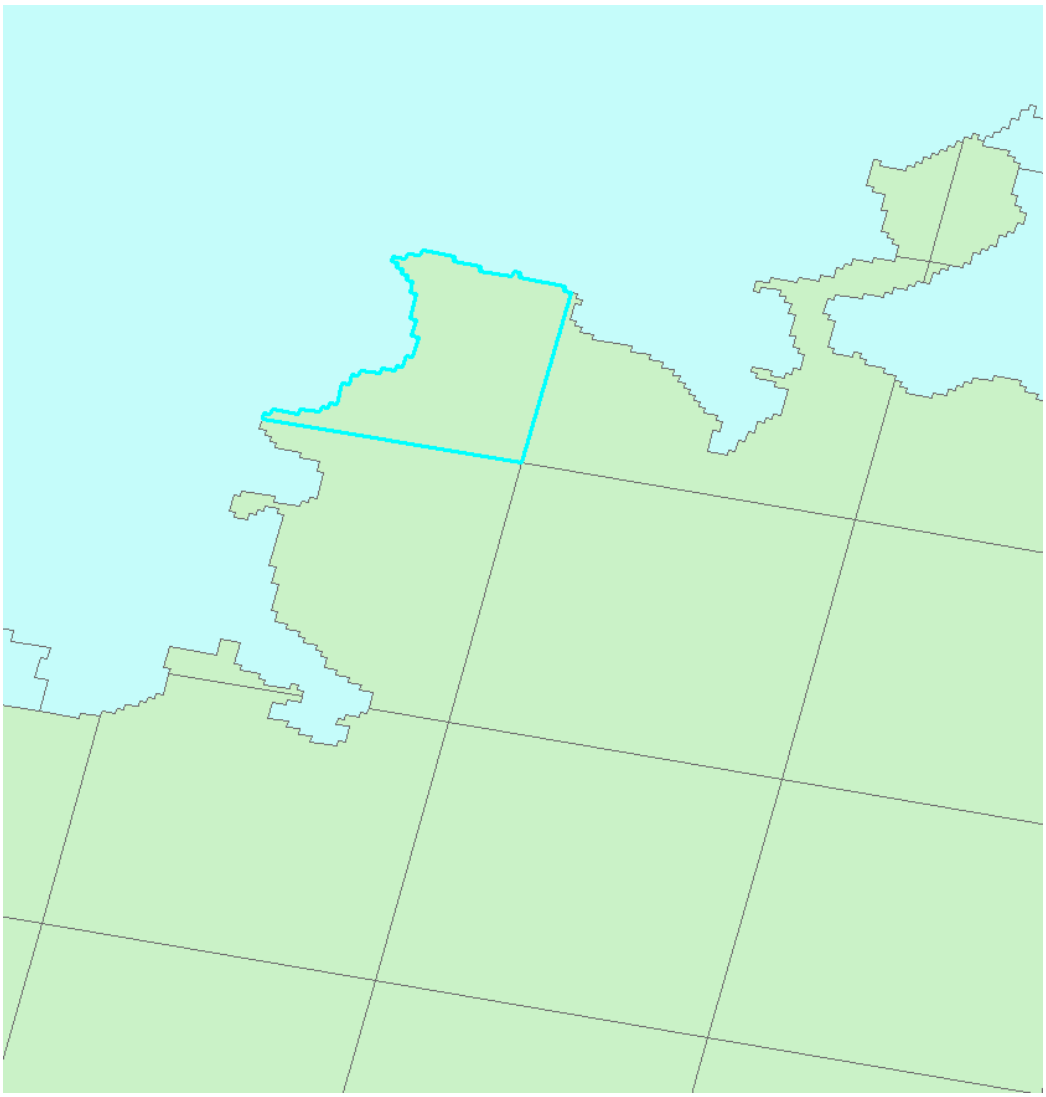

Figure 1a Land and Ocean Catchments are adjacent without gaps or overlaps (see selected ocean catchment).

Ocean Catchments have been stored in two file geodatabases (fgdb). One for the lower 48 states and one for Hawaii, Puerto Rico, U.S. Virgin Islands and the Pacific Territories. The data is posted on the NHDPlusV21 website from the "Get Data" link, then the "NHDPlusV2 Data Map" link, and then the "National Data" link.

The ocean catchments were developed using a variety of raster processes and thus were done in the native catchment projection for NHDPlusV21 which, for the lower-48, is USGS Albers. The data in the fgdb is in this native projection, but can be projected into Geographics, if needed. The Ocean Catchments for Hawaii, Puerto Rico, U.S. Virgin Islands, Guam, Northern Marianas, and American Samoa are each in their native NHDPlusV21 raster projection.

The Ocean Catchments have the same attribute structure as Land Catchments.

Field Name	Description	Format
FeatureID	FeatureID of an Ocean Catchment, unique across all NHDPlus Catchments	Long Integer
GridCode	Not populated	Long Integer
AreaSqKm	Catchment area in square kilometers	Num(13,4)
SourceFC	Source Feature Class (“Ocean”)	Char(20)

The SourceFC is set to "Ocean". The FeatureID is set such that it is unique for all NHDPlusV21 catchments (Land and Ocean). In general, the Ocean catchments are 1500m x 1500m squares except where they are edge matched to Land Catchments or to the Ocean Catchments in an adjacent hydrologic region.