

Everglades LiDAR Breakline Description

There are three (3) types of breaklines delivered, both in a file geodatabase and as individual shapefiles.

Everglades North Inland Water Voids

These polygons are located where no bathymetric data were found in the lidar. Any points within these polygons that were grounded by the initial grounding macro were reclassified to Point Class 9: Water. In the final DEMs, these locations are represented as voids and set to No Data.

Everglades North Land Water Interface

These polygons are located where bathymetric data was found in the lidar that is deep enough to require refraction. Dewberry's internal refraction tool corrects the horizontal and vertical (depth) positions of each data point by accounting for the change in the speed of light as it travels through water and the change in angle or direction as light enters water. The refraction tool is applied to the Green sensor data. Because the LAS is a combination of NIR and Green sensor data, Dewberry applied a hydroclassification schema to the points within these polygons for the NIR sensor lidar points. All lidar points within these polygons follow the ASPRS topobathy classification schema.

Class 40 – Bathymetric point (submerged topography)

Class 41 – Water Surface (distinct from Point Class 9, which is used in topographic-only lidar and only designates "water," not "water surface")

Class 45 – No-bottom-found-at (bathymetric lidar point for which no detectable bottom return was received)

Everglades North Topobathy Voids

These polygons are located within the land/water interface polygons used for refraction, and are located where no submerged bottom data were found in the lidar. Points within these polygons follow the same classification schema used in the land/water interface polygons. In the final DEMs, these locations are represented as voids and set to No Data.