

Dewberry – Federal program - GIS

**LiDARgrammetry Data Dictionary
& Stereo Compilation Rules**

3D breaklines for TO009 Connecticut

June 4, 2007

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Linear Hydrographic Features

Feature Dataset: None
Contains M Values: No

Feature Class: HYDROLINEFEATURE **Feature Type:** Polyline
Contains Z Values: Yes

Description

This polyline feature class will depict linear hydrographic features with a length of 0.5 miles or longer and a width of 20 feet or less as breaklines.

Table Definition

Field Name	Data Type	Allow Null Values	Default Value	Domain	Precision	Scale	Length	Responsibility
OBJECTID	Object ID							Assigned by Software
SHAPE	Geometry							Assigned by Software
SHAPE_LENGTH	Double	Yes			0	0		Calculated by Dewberry
BKL_CODE	Long Integer	No	1	HydroL	0	0		Assigned by Dewberry

Feature Definition

Code	Description	Definition	Capture Rules
1	Single Line Feature	Linear hydrographic features such as streams, canals, swales, etc. with an average width less than or equal to 20 feet.	Capture linear hydro features as single breaklines. Average width shall be 20 feet or less to show as single line. Each vertex placed should maintain vertical integrity and monotony.
2	Hidden Single Line Feature	Hidden section of hydrographic features such as streams, shorelines, canals, swales, etc. with an average width less than or equal to 20 feet that are hidden under a bridge or a box culvert.	Capture hidden linear hydro features as single breaklines. Average width shall be 20 feet or less to show as single line. Each vertex placed should maintain vertical integrity and monotony between them and relatively to the associated non hidden stream line.

Large Hydrographic Features

Feature Dataset: None
Contains M Values: No

Feature Class: HYDROPOLYFEATURE
Contains Z Values: Yes

Feature Type: Polygon

Description

This polygon feature class will depict hydrographic features with a length of 0.5 miles or longer and a width over 20 feet.

Table Definition

Field Name	Data Type	Allow Null Values	Default Value	Domain	Precision	Scale	Length	Responsibility
OBJECTID	Object ID							Assigned by Software
SHAPE	Geometry							Assigned by Software
SHAPE_LENGTH	Double	Yes			0	0		Calculated by Dewberry
SHAPE_AREA	Double	Yes			0	0		Calculated by Dewberry
BKL_CODE	Long Integer	No	10	WaterP	0	0		Assigned by Dewberry

Feature Definition

Code	Description	Definition	Capture Rules
10	Large Linear Hydrographic Feature	Large linear hydrographic features such as streams, canals, etc. with an average width over 20 feet.	Capture linear hydro features as closed polygons with the water feature to the right. Average width shall be over 20 feet to show as polygons. Each vertex placed should maintain vertical integrity and monotony.
20	Hidden Large Linear Hydrographic Feature	Hidden section of large linear hydrographic features such as streams, canals, etc. with an average width over 20 feet that are hidden under a bridge or a box culvert.	Capture hidden linear hydro features as closed polygons with the water feature to the right. Average width shall be over 20 feet. Each vertex placed should maintain vertical integrity and monotony between them and relatively to the associated non hidden stream polygon.

Water Body Features

Feature Dataset: None
Contains M Values: No

Feature Class: WATERBODY
Contains Z Values: Yes

Feature Type: Polygon

Description

This polygon feature class will depict inland waters and closed water body features with an area over 0.5 acre and will have the associated water elevation available as an attribute.

Table Definition

Field Name	Data Type	Allow Null Values	Default Value	Domain	Precision	Scale	Length	Responsibility
OBJECTID	Object ID							Assigned by Software
SHAPE	Geometry							Assigned by Software
SHAPE_LENGTH	Double	Yes			0	0		Calculated by Dewberry
SHAPE_AREA	Double	Yes			0	0		Calculated by Dewberry
WATBODY_Z	Double	Yes			0	0		Assigned by Dewberry
BKL_CODE	Long Integer	No	30	WaterP	0	0		Assigned by Dewberry

Feature Definition

Code	Description	Definition	Capture Rules
30	Water Body	Land/Water boundaries of constant elevation water bodies such as lakes, reservoirs, ponds, inland bays, etc. Features shall be defined as closed polygons and contain an elevation value that reflects the best estimate of the water elevation at the time of data capture. Islands will be acquired as a separate feature class.	Water bodies shall be captured as closed polygons with the water feature to the right. The compiler shall take care to ensure that the z-value remains consistent for all vertices placed on the water body. The field "WATBODY_Z" shall be automatically computed from the z-value of the vertices. Islands will be acquired as a separate feature class. In presence of a dam, the compiler should include the dam structure inside the reservoir polygon and in this case a gap in elevation is allowed between this water body polygon and the next snapped hydro feature, due to the dam.

Islands

Feature Dataset: None
Contains M Values: No

Feature Class: ISLAND
Contains Z Values: Yes

Feature Type: Polygon

Description

This polygon feature class will depict islands.

Table Definition

Field Name	Data Type	Allow Null Values	Default Value	Domain	Precision	Scale	Length	Responsibility
OBJECTID	Object ID							Assigned by Software
SHAPE	Geometry							Assigned by Software
SHAPE_LENGTH	Double	Yes			0	0		Calculated by Dewberry
SHAPE_AREA	Double	Yes			0	0		Calculated by Dewberry
BKL_CODE	Long Integer	No	31	WaterP	0	0		Assigned by Dewberry

Feature Definition

Code	Description	Definition	Capture Rules
31	Island	Land/Water boundaries of constant elevation for islands. Features shall be defined as closed polygons and contain an elevation value that reflects the best estimate of the water elevation at the time of data capture.	Water bodies shall be captured as closed polygons with the water feature to the right. The compiler shall take care to ensure that the z-value remains consistent for all vertices placed on the island. The elevation should be consistent with the corresponding waterbody elevation.

Coastal Shoreline

Feature Dataset: None
Contains M Values: No

Feature Class: COASTALSHORELINE
Contains Z Values: Yes

Feature Type: Polygon

Description

This polygon feature class will emulate the coast. Polygons will cover water.

Table Definition

Field Name	Data Type	Allow Null Values	Default Value	Domain	Precision	Scale	Length	Responsibility
OBJECTID	Object ID							Assigned by Software
SHAPE	Geometry							Assigned by Software
SHAPE_LENGTH	Double	Yes			0	0		Calculated by Dewberry
SHAPE_AREA	Double	Yes			0	0		Calculated by Dewberry
BKL_CODE	Long Integer	No	40	WaterP	0	0		Assigned by Dewberry

Feature Definition

Code	Description	Definition	Capture Rules
40	Coastal Shoreline	Apparent edge of shoreline shown at the appropriate maximum extent of tidal influence, in lieu of a mean high water line.	Capture as closed polygon with water feature to the right of the line. Polygons will cover water to the extent of the available dataset. Force the elevation to be constant, the elevation value should emulate a mean high water line (get this value from the project manager, it could differ from place to place), the line should represent the outer limit of vegetation. Coastal polygon should include bays and estuaries that can reasonably be considered as part of the shoreline and have a constant elevation. Coastal polygon should cross over small inlets (200ft). Coastal polygon shall snap and merge seamlessly with other hydrographic features (polygons and lines), a gap in elevation is allowed in presence of a dam.



Figure 1 – Water body (in blue) and coastal polygon (in purple), here the islands have been punched out the water body but there were previously acquired as 2 separated feature classes.

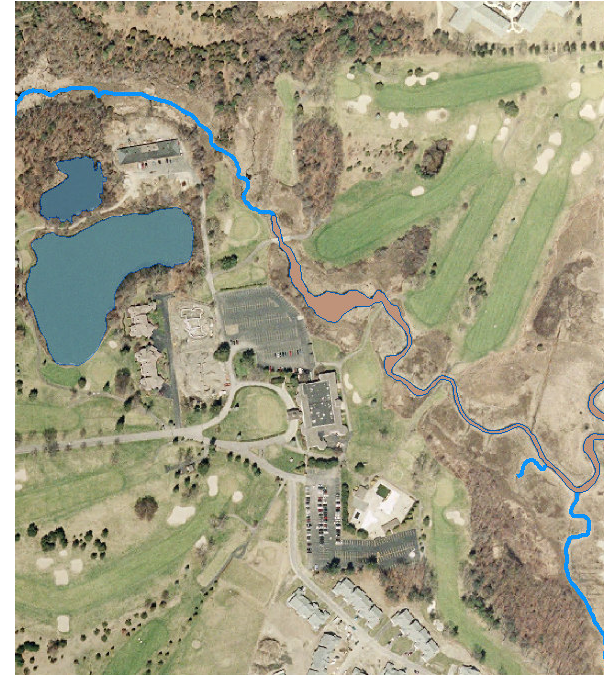


Figure 2 - Water body polygon (in blue), large stream polygon (in red) and single line stream.