Progress of Bathymetry Data Creation for the Western Branch (WBRTF)

Transect Data

- Transect data collected by MDE Field Services Program.
- Collected for incorporation into TMDL for Western Branch.

Depths for Transect #1

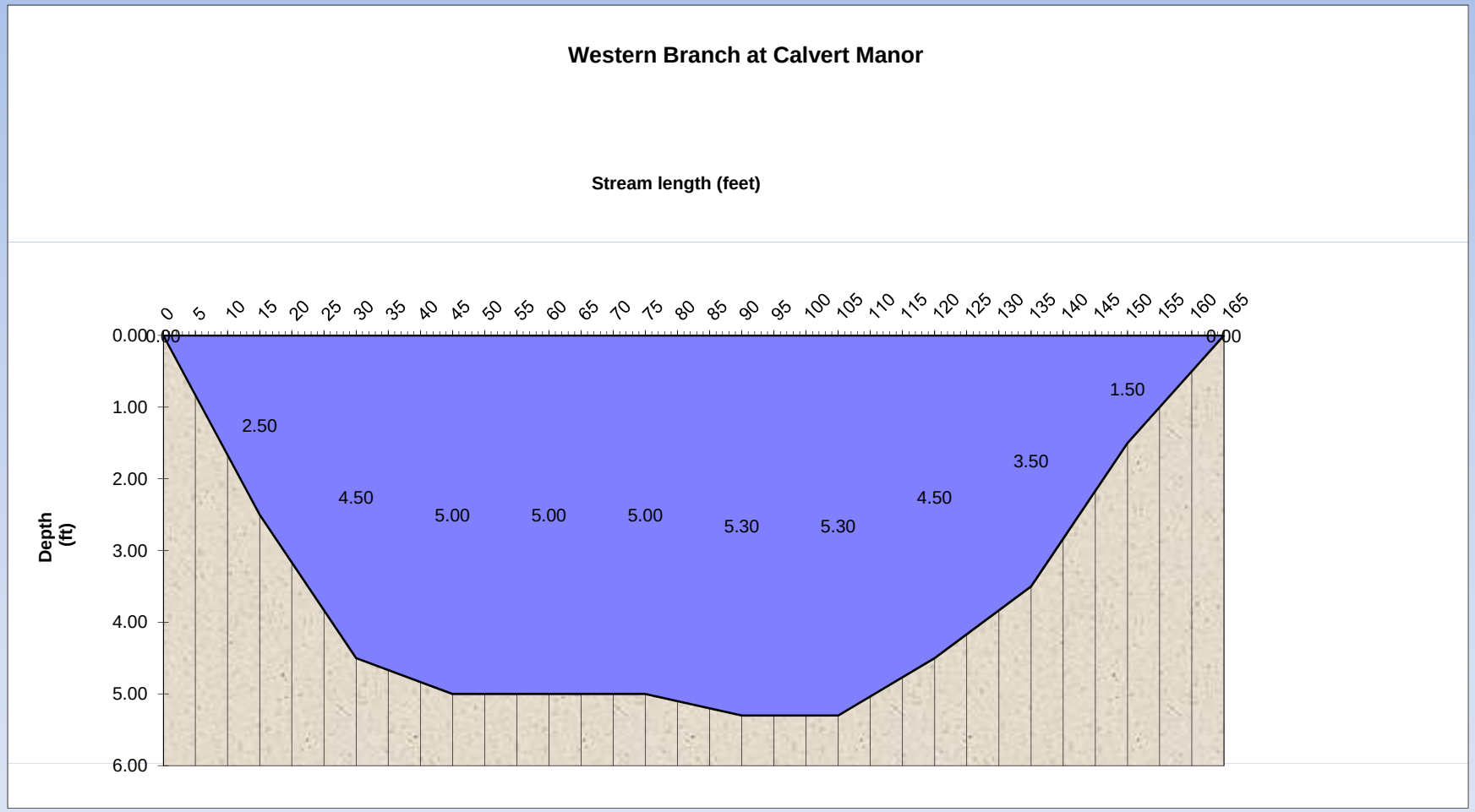
River Name:	Western Branch
Station Code:	Station #1
Date:	9/7/2001
Scientist(s):	DJR/SGL
Riverbed Description:	Soft mud
Site Location:	N 38 47.139
	W 76 42.794
	25 yds upstream of pier at Calvert Manor
Digital Photo Series:	Folder 113, images 1-2
Comments:	165 ft wide, when measurements were taken there was a 1.5 ft high tide mark visible

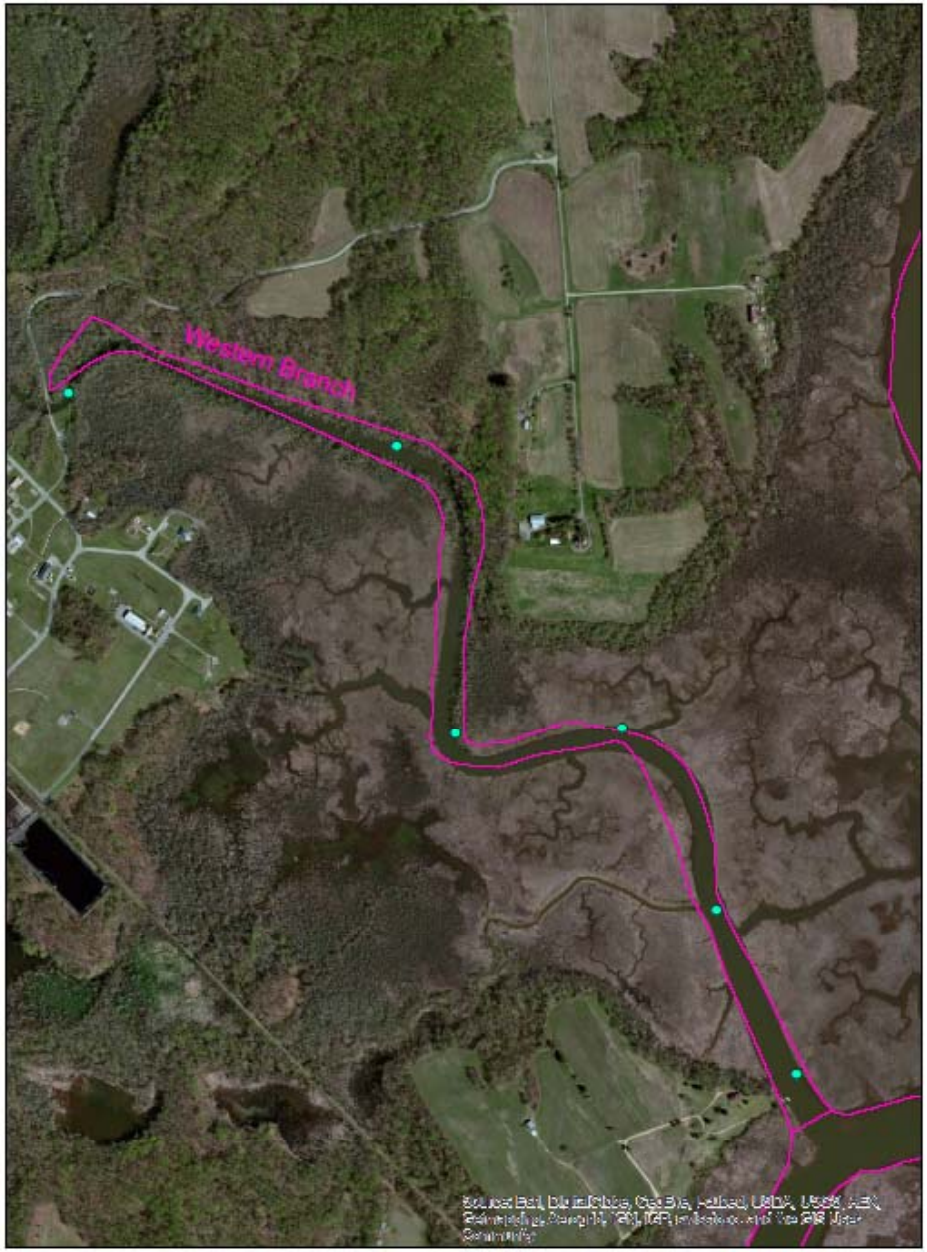
Orientation: Looking downstream measurements were collected left to right

Length	Depth	Cell width	Depth*width
0	0.00	7.5	0.00
15	2.50	15	37.50
30	4.50	15	67.50
45	5.00	15	75.00
60	5.00	15	75.00
75	5.00	15	75.00
90	5.30	15	79.50
105	5.30	15	79.50
120	4.50	15	67.50
135	3.50	15	52.50
150	1.50	15	22.50
165	0.00	7.5	0.00

Sum of (depth*width) = Area of streambed = 631.50(sq.feet)

Graph of Transect #1

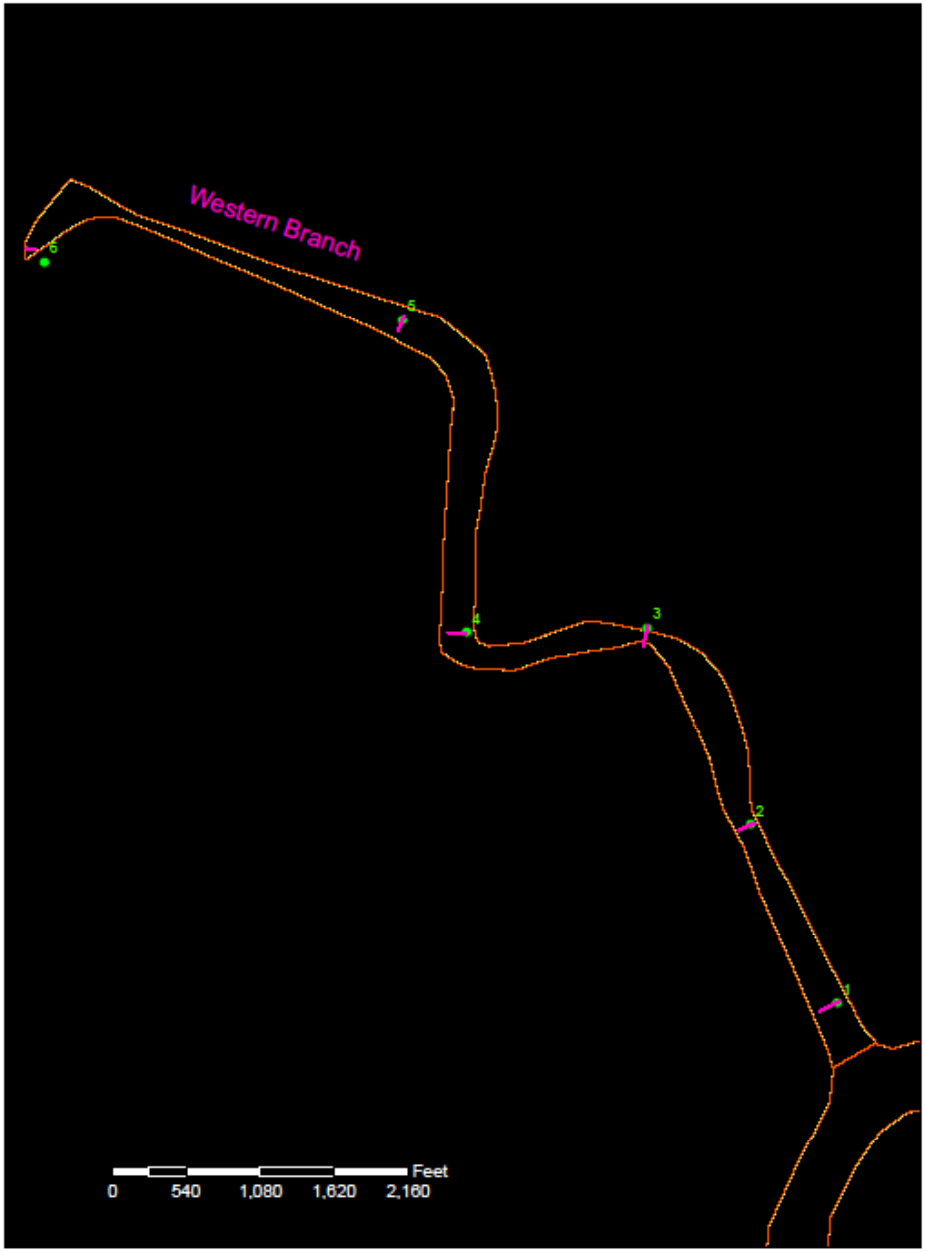




Issue #1:

The segment boundary does not reflect reality. (Not limited to WBRTF – see PAXTF in lower-right corner.)

The segment surface area is greater than the actual surface area (wetlands excluded), therefore the volume will be high.



Issue #2:

Transect lengths and segment widths do not match. Most transects are shorter than the segment.

This will affect the interpolation.

Issue #3:

There are only six transects within the segment, which will impact accuracy.

To Be Done

- Create sounding points in GIS manually based on distance between values for each transect.
- Create TIN (triangulated irregular network).
- Create gridded bathymetry.
- Add to existing bathymetry grid for the Bay.
- Give to modelers.