Figure 2.4-11 — {Local Drainage Boundaries}

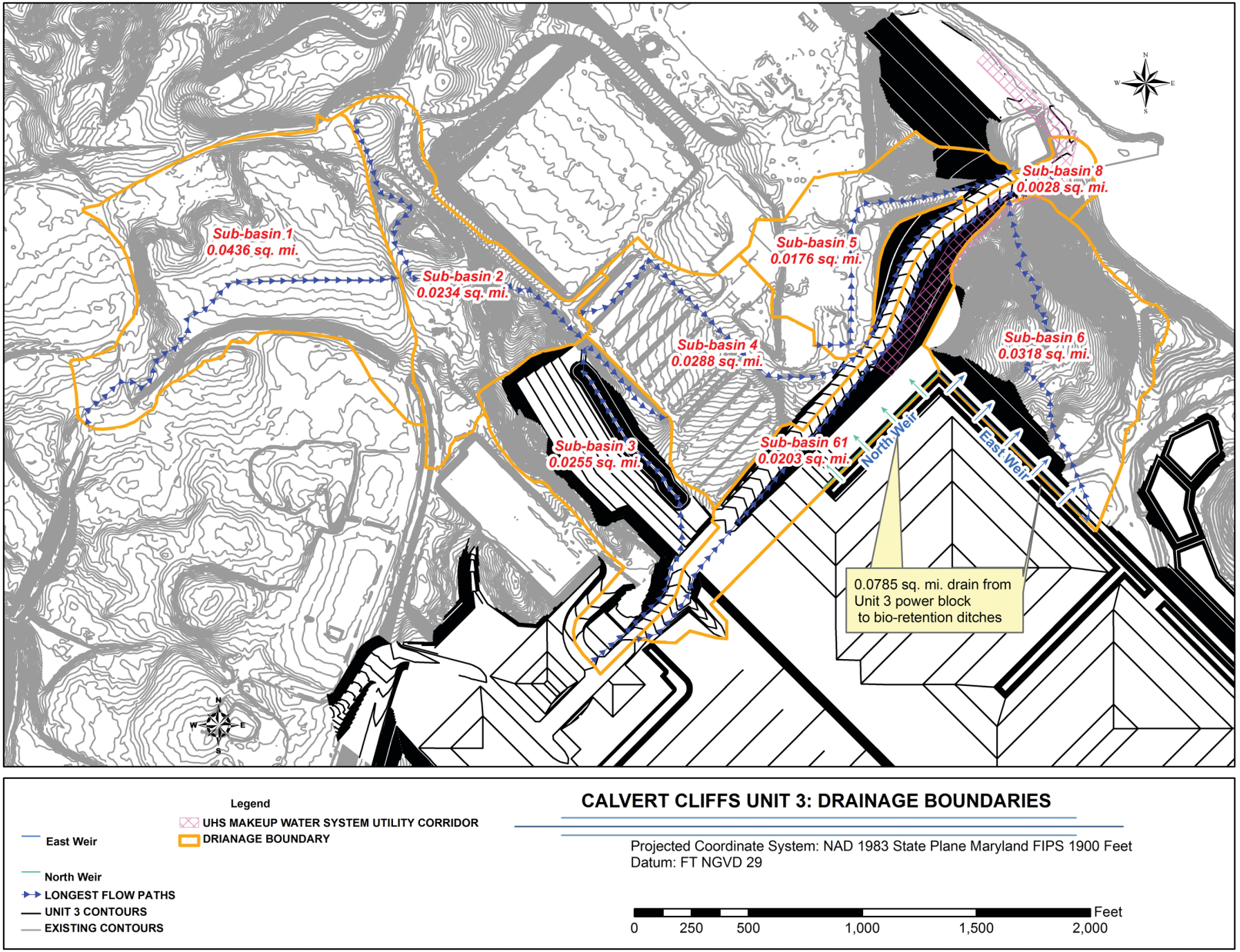


Figure 2.4-12 — {HEC-HMS Basin Model}

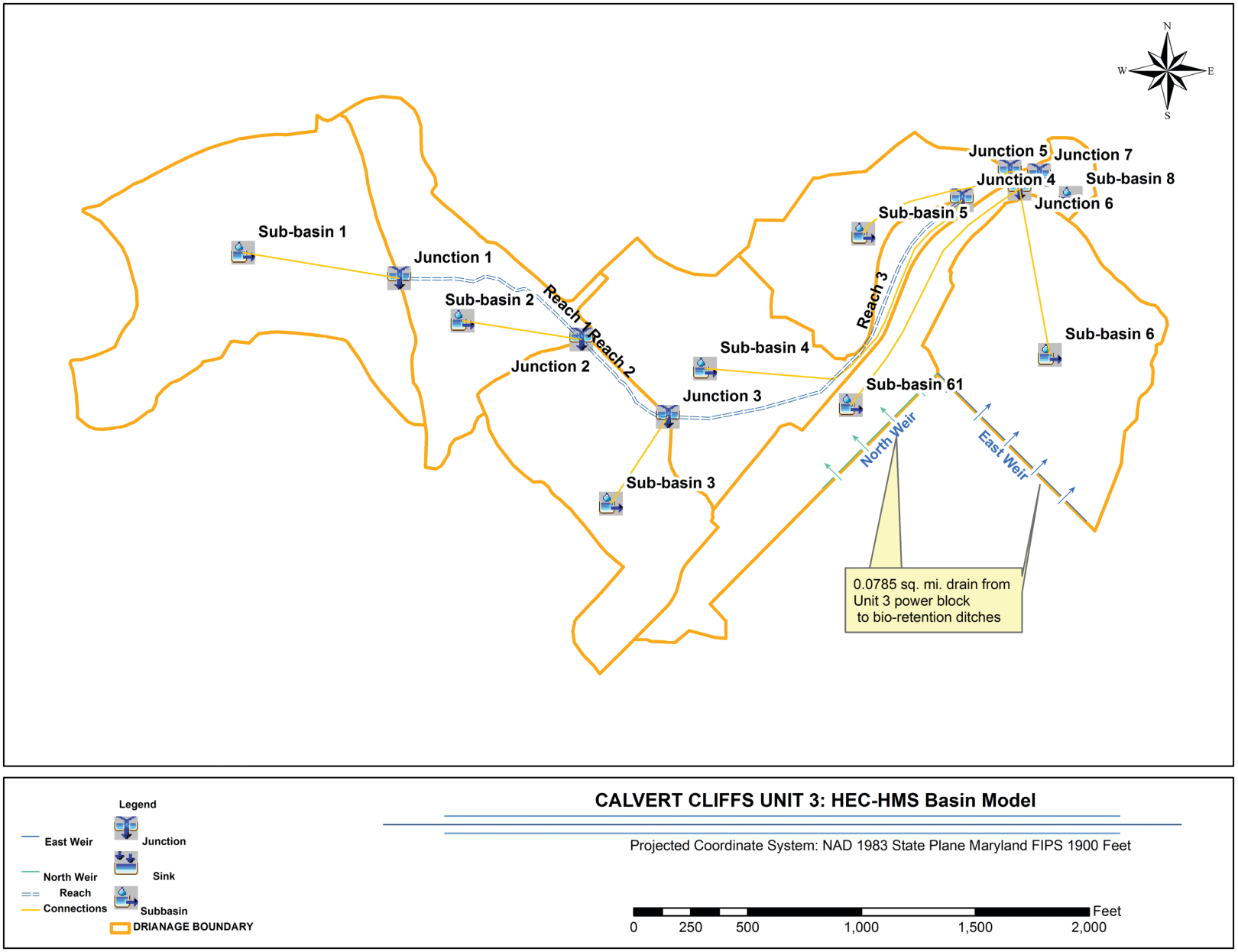


Figure 2.4-13 — {HEC-RAS Cross Section Location Plan}

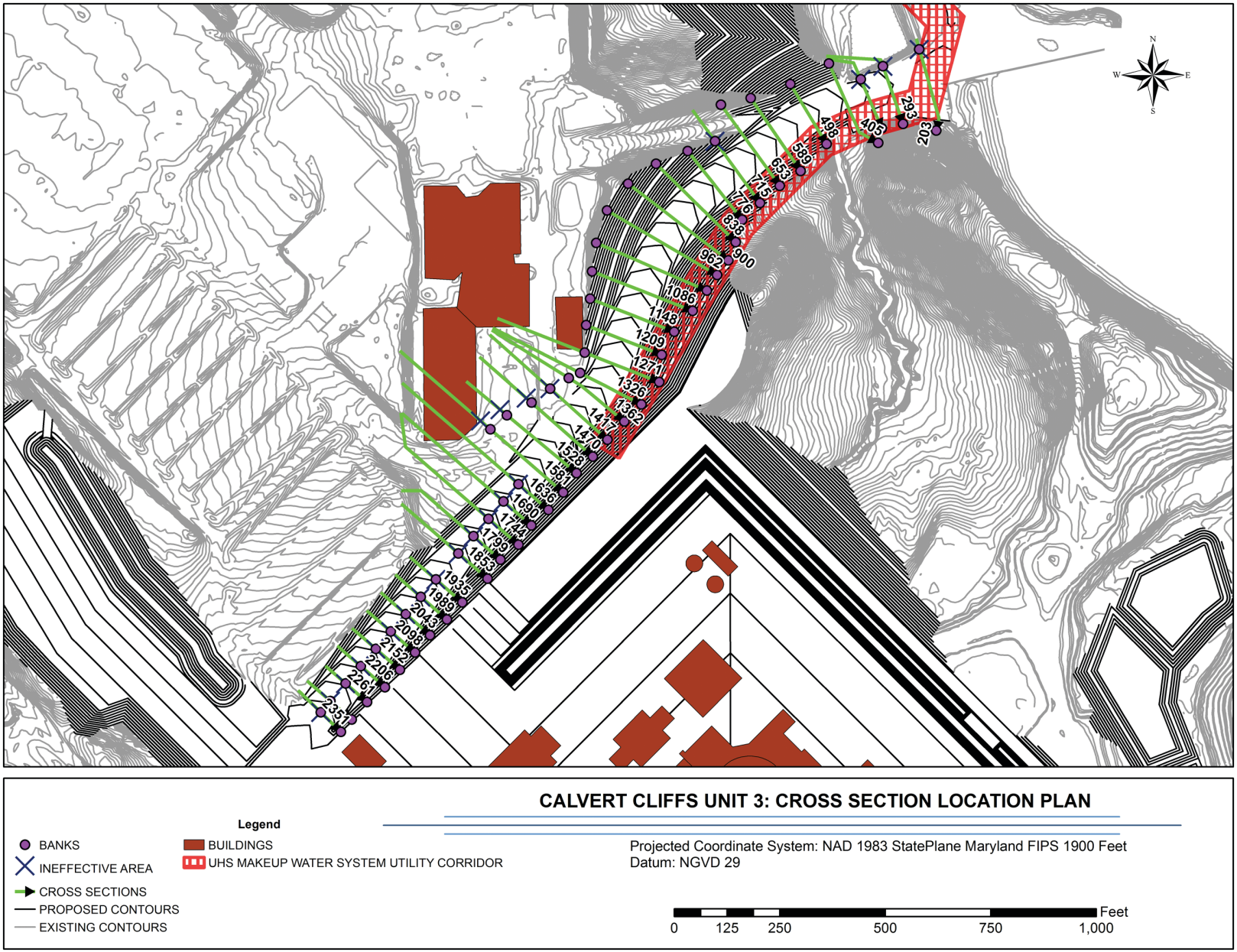


Figure 2.4-14 — {Water Surface Profile Plot for Concrete Lined Swales}

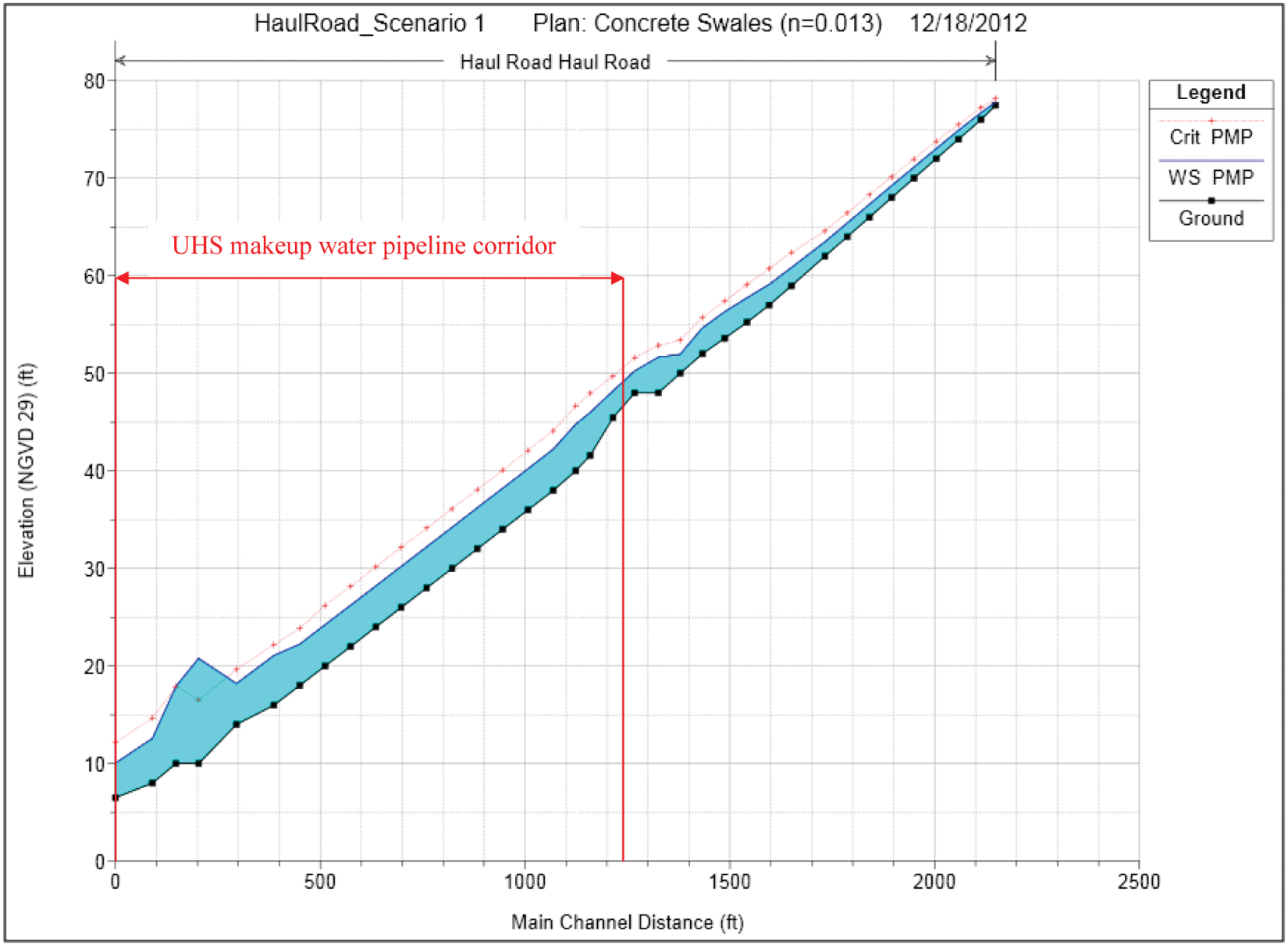


Figure 2.4-15 — {HEC-HMS Hydrologic Diagram}

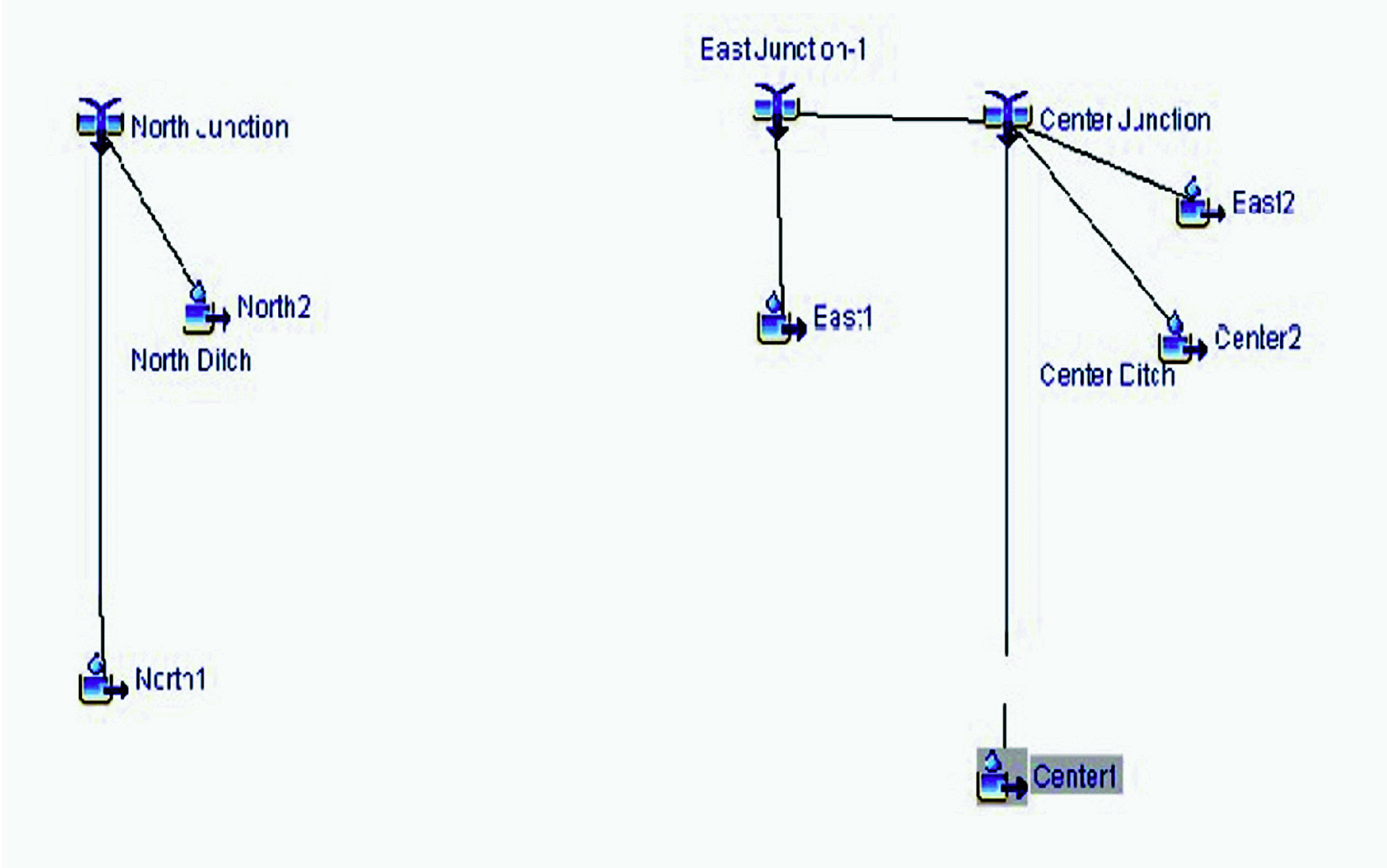
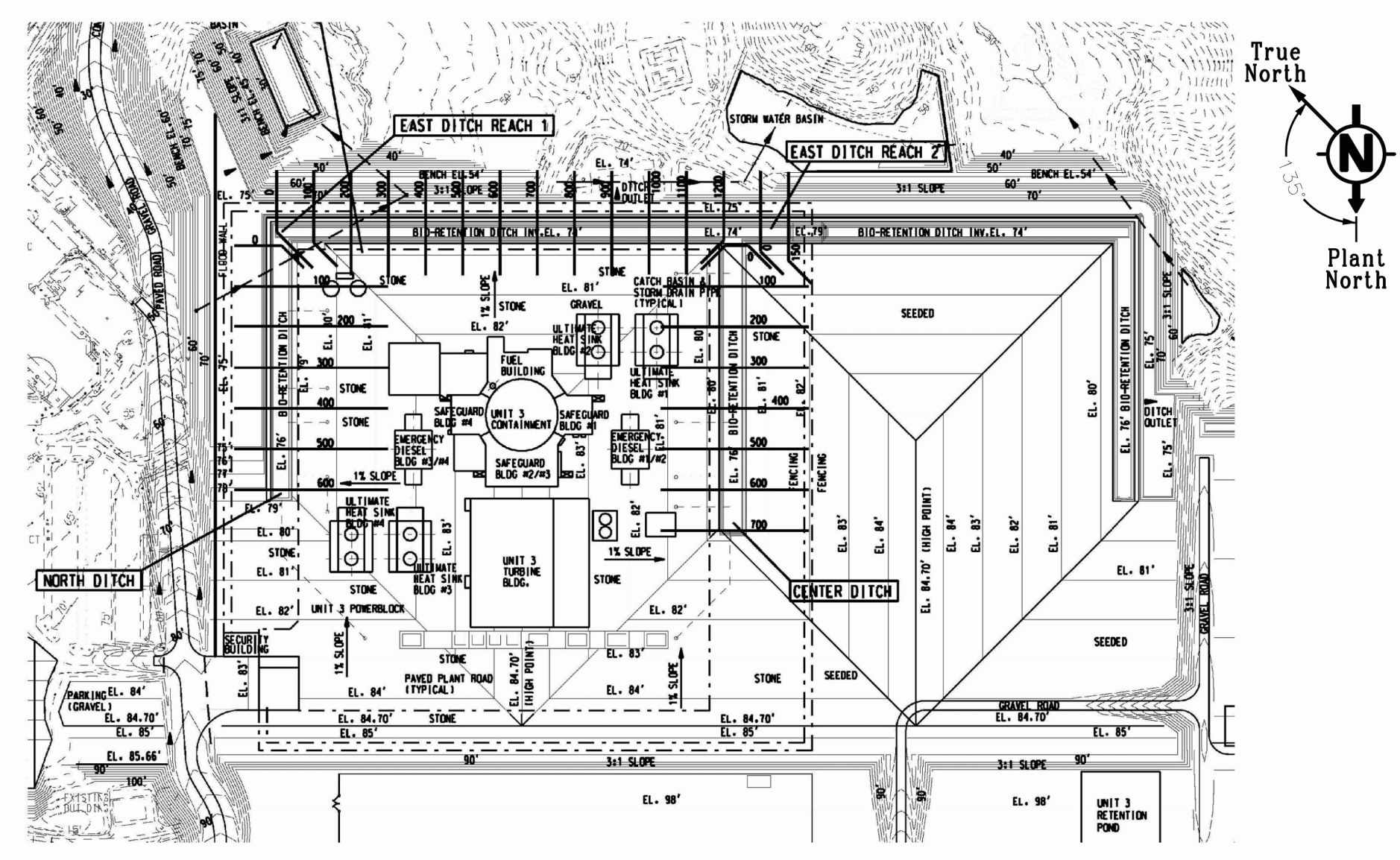


Figure 2.4-16 — {CCNPP Unit 3 Drainage Ditch Cross Sections}



See Figure 1.2-1 for Powerblock layout

Figure 2.4-17 — {Site Location}

Figure 2.4-18 — {Johns Creek Watershed}

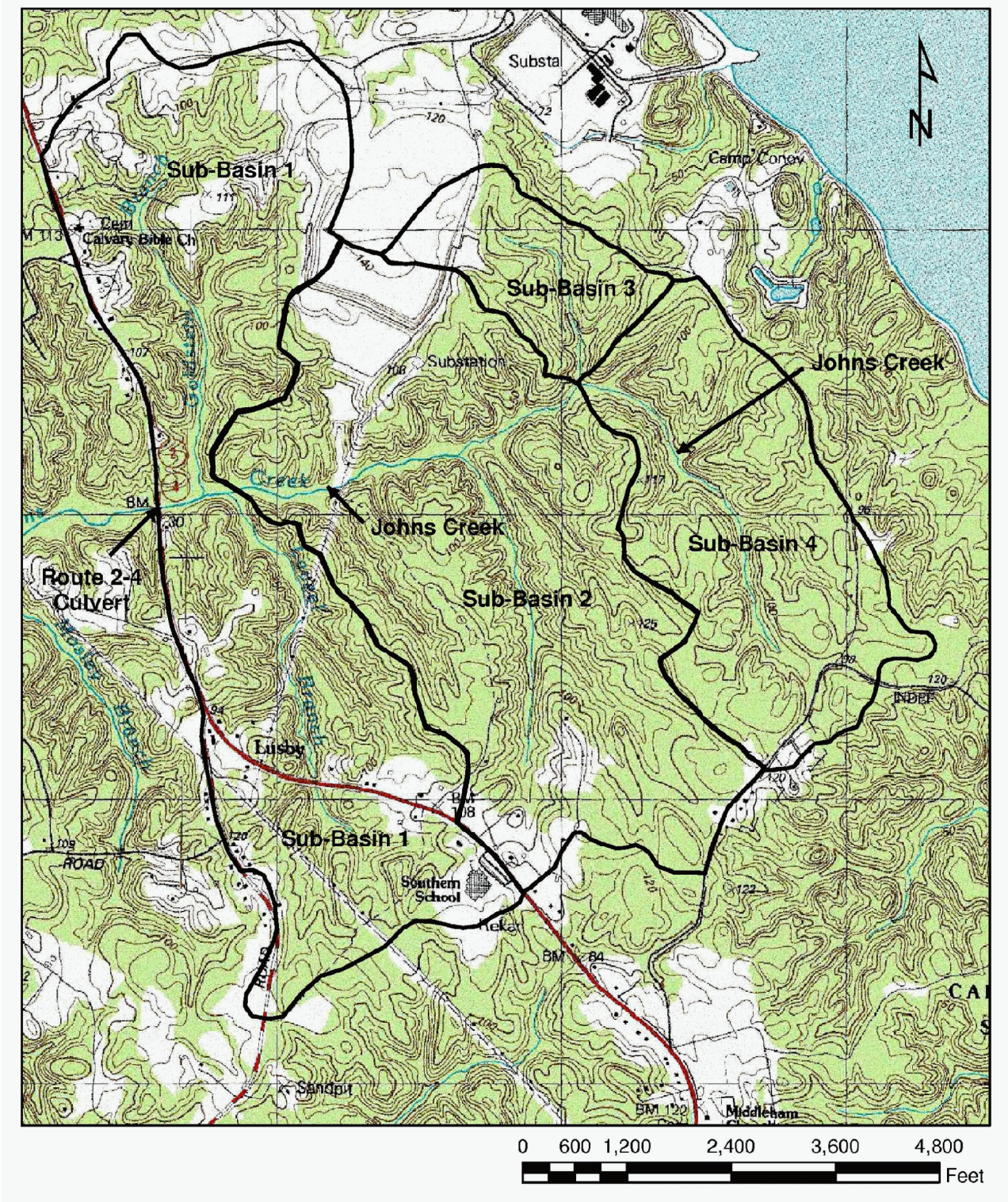


Figure 2.4-19 — {HEC-HMS Watershed Schematic}

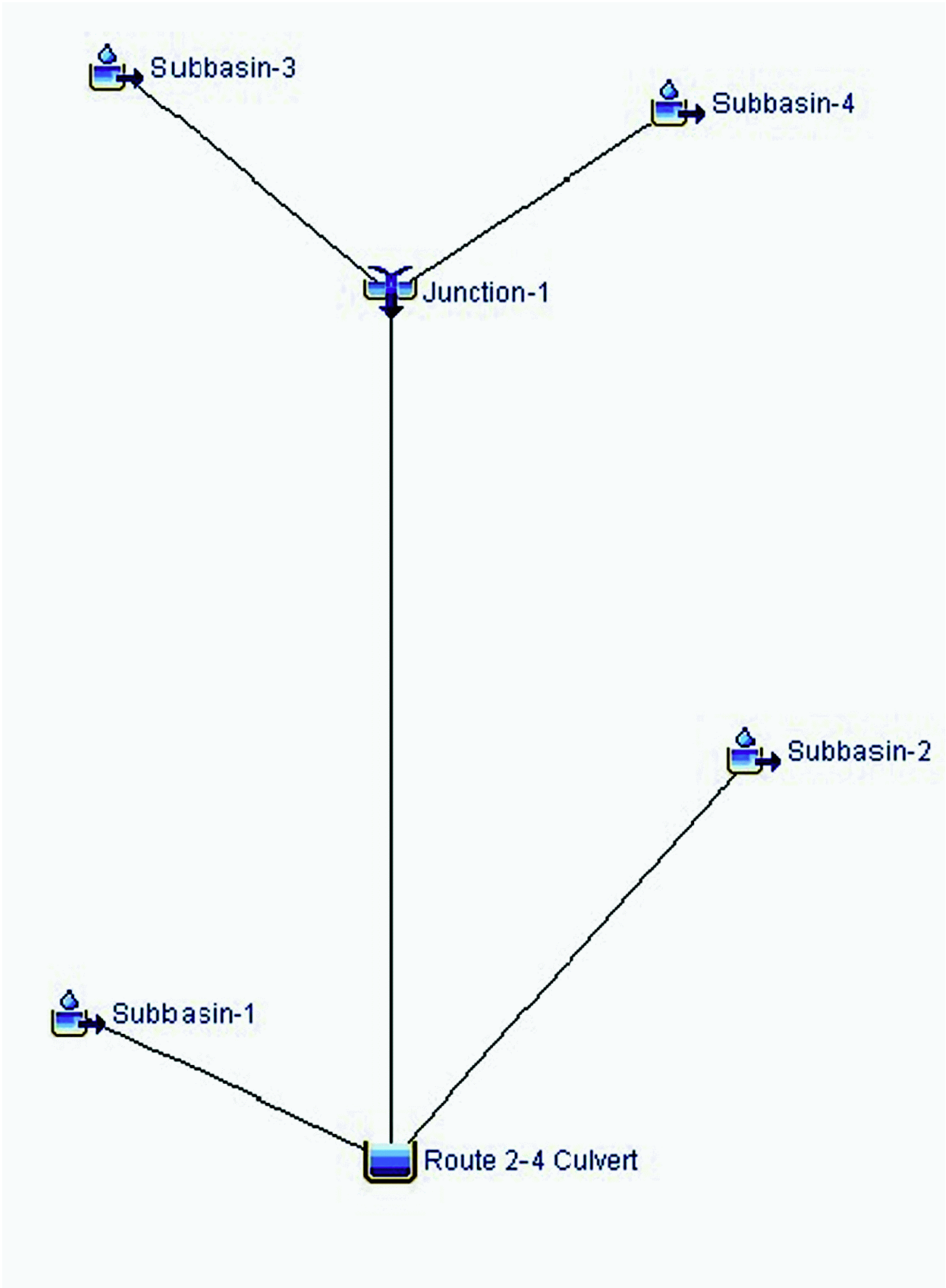


Figure 2.4-20 — {Storage And Inflow & Outflow Hydrographs at Maryland Route 2-4 Culvert}

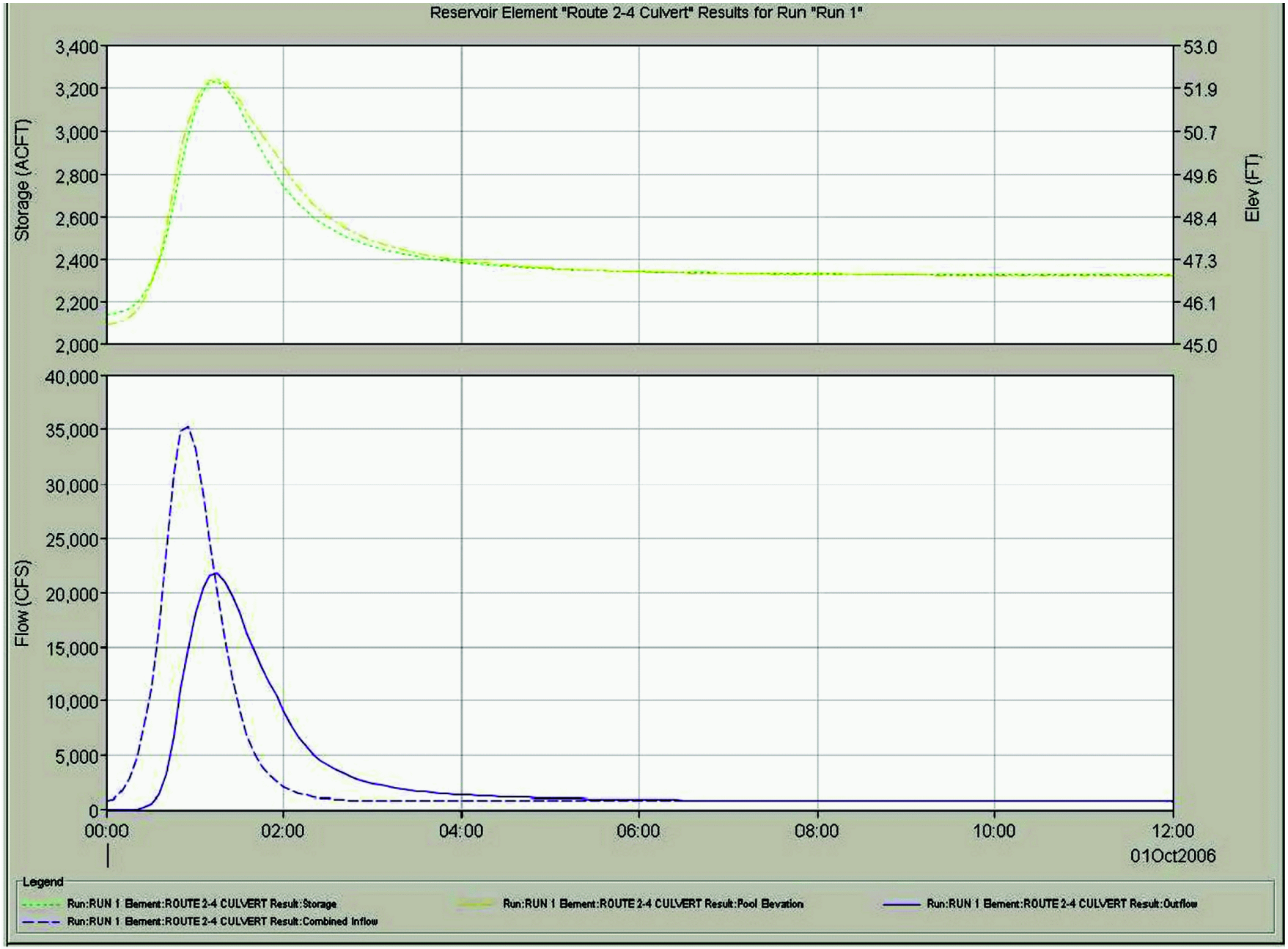


Figure 2.4-21 — {Sub-Basin 1 Hydrograph}

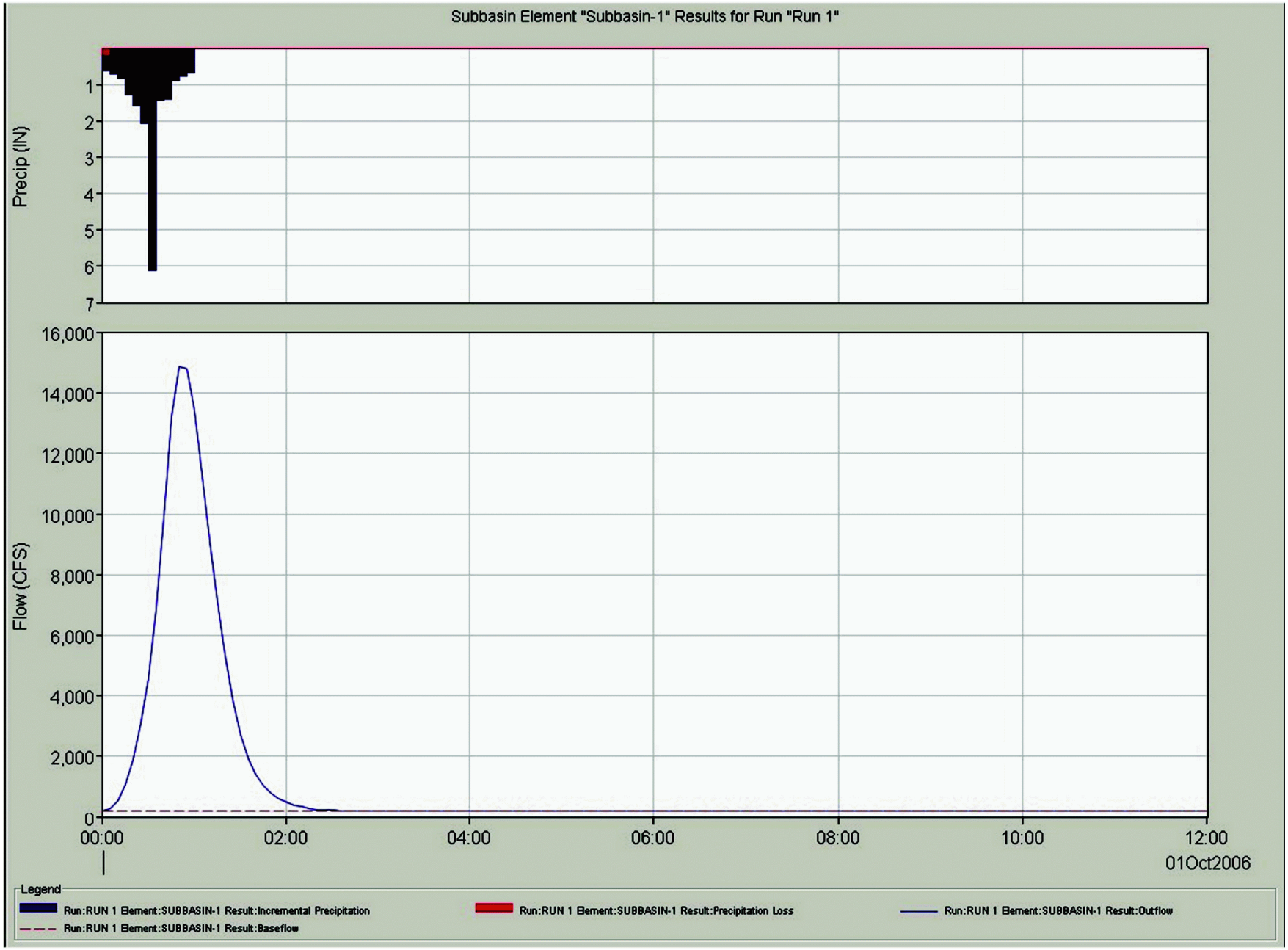


Figure 2.4-22 — {Sub-Basin 2 Hydrograph}

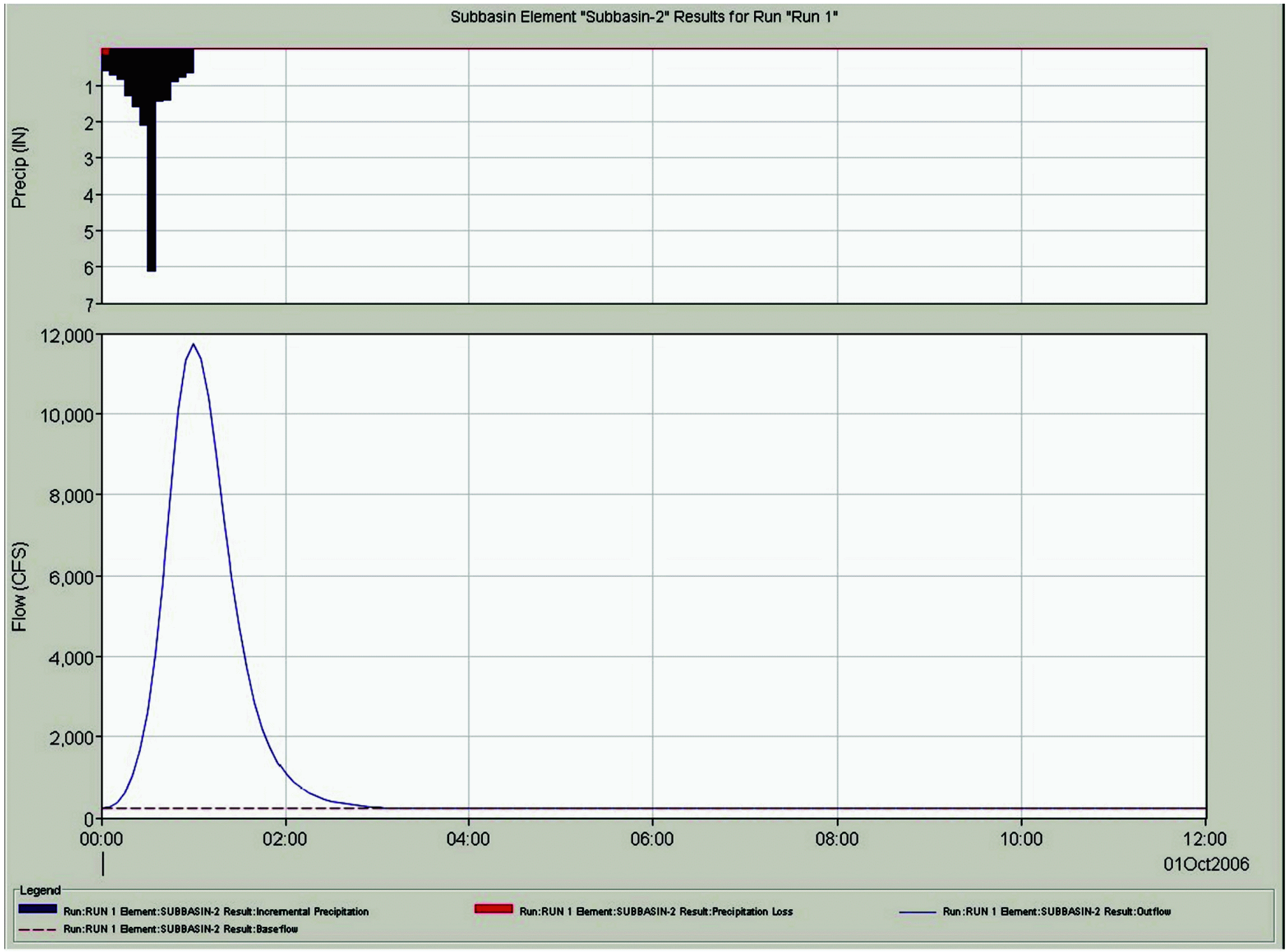


Figure 2.4-23 — {Sub-Basin 3 Hydrograph}

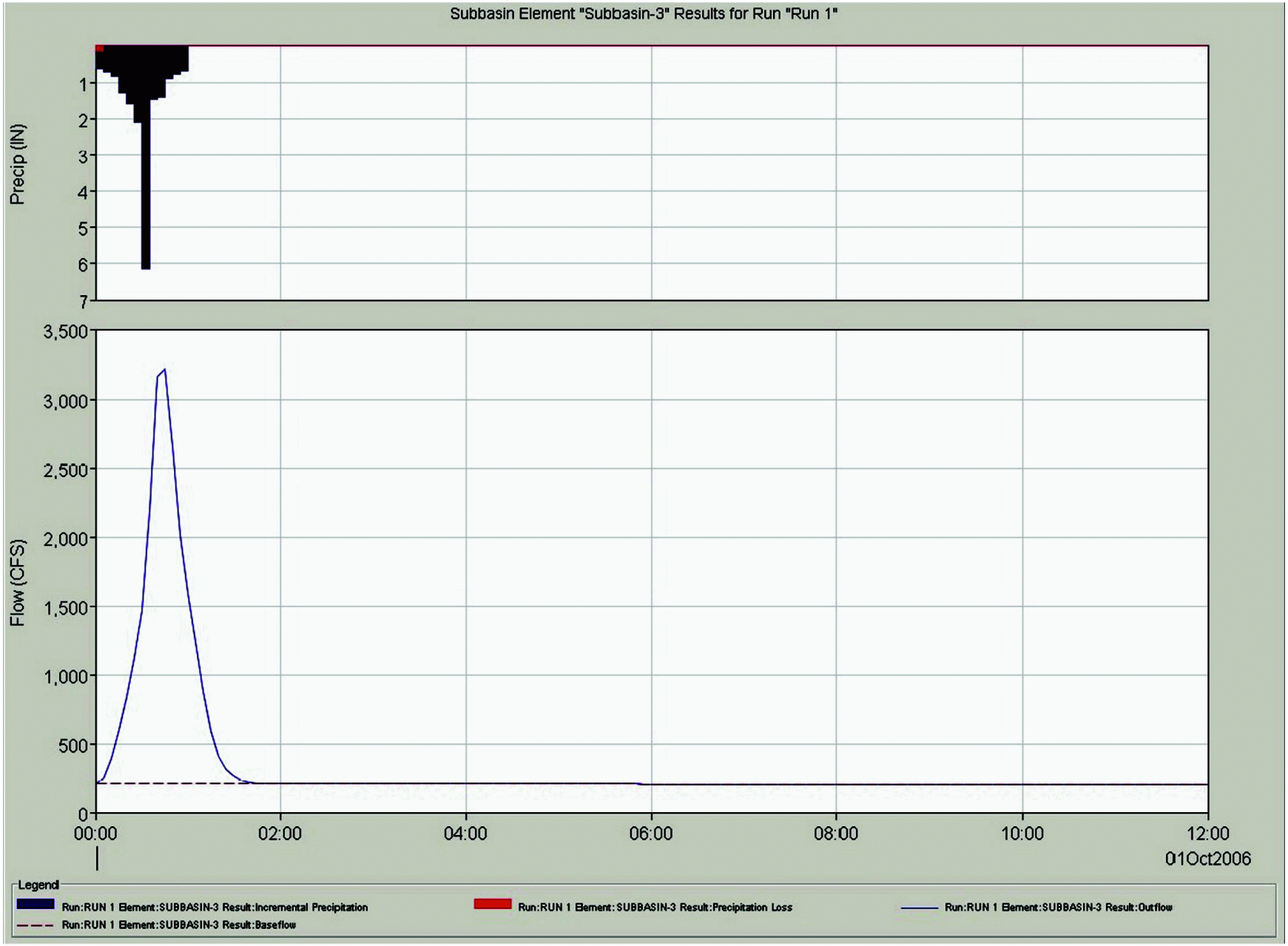


Figure 2.4-24 — {Sub-Basin 4 Hydrograph}

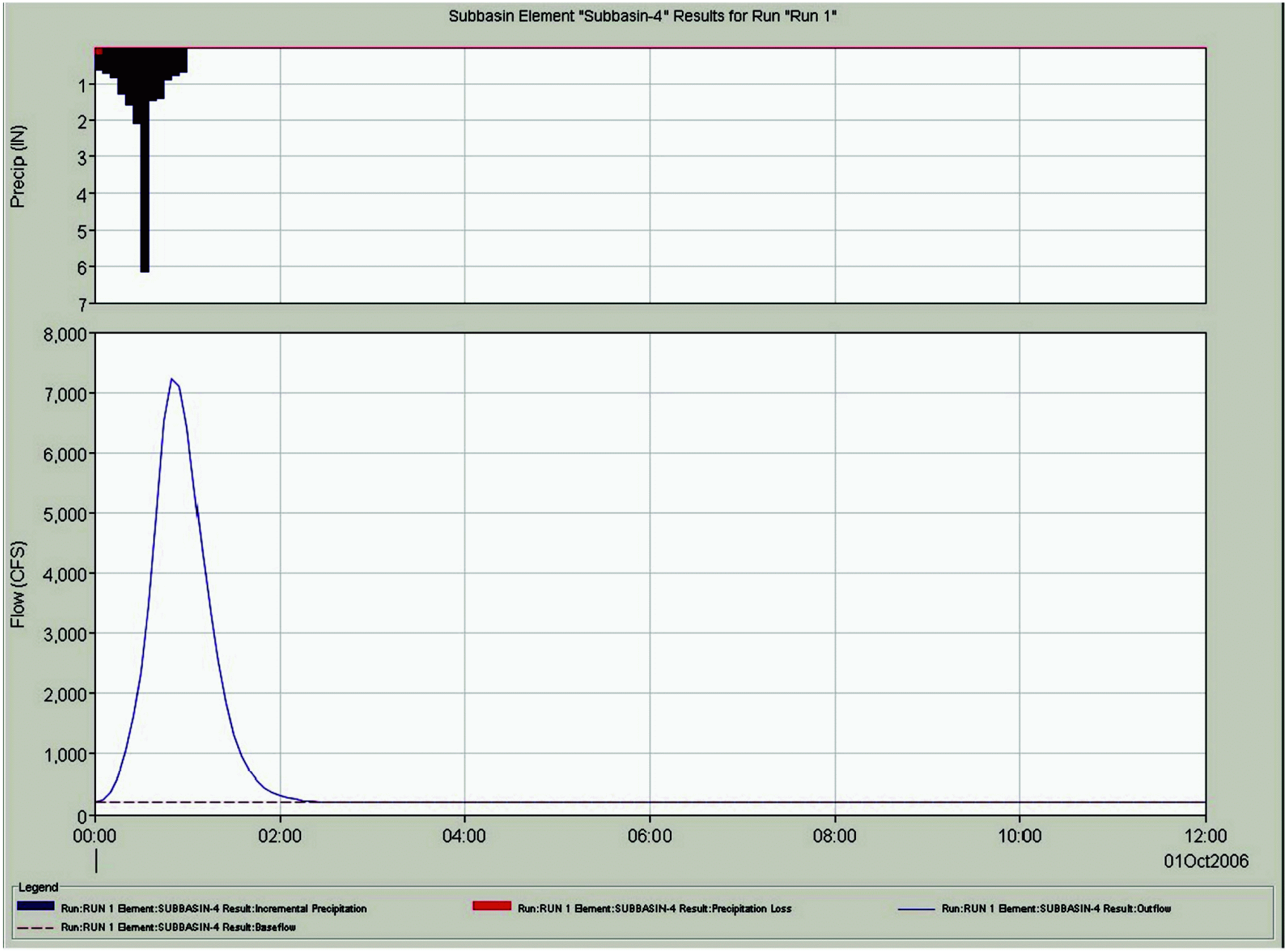


Figure 2.4-25 — {HEC-RAS Cross Section Locations}

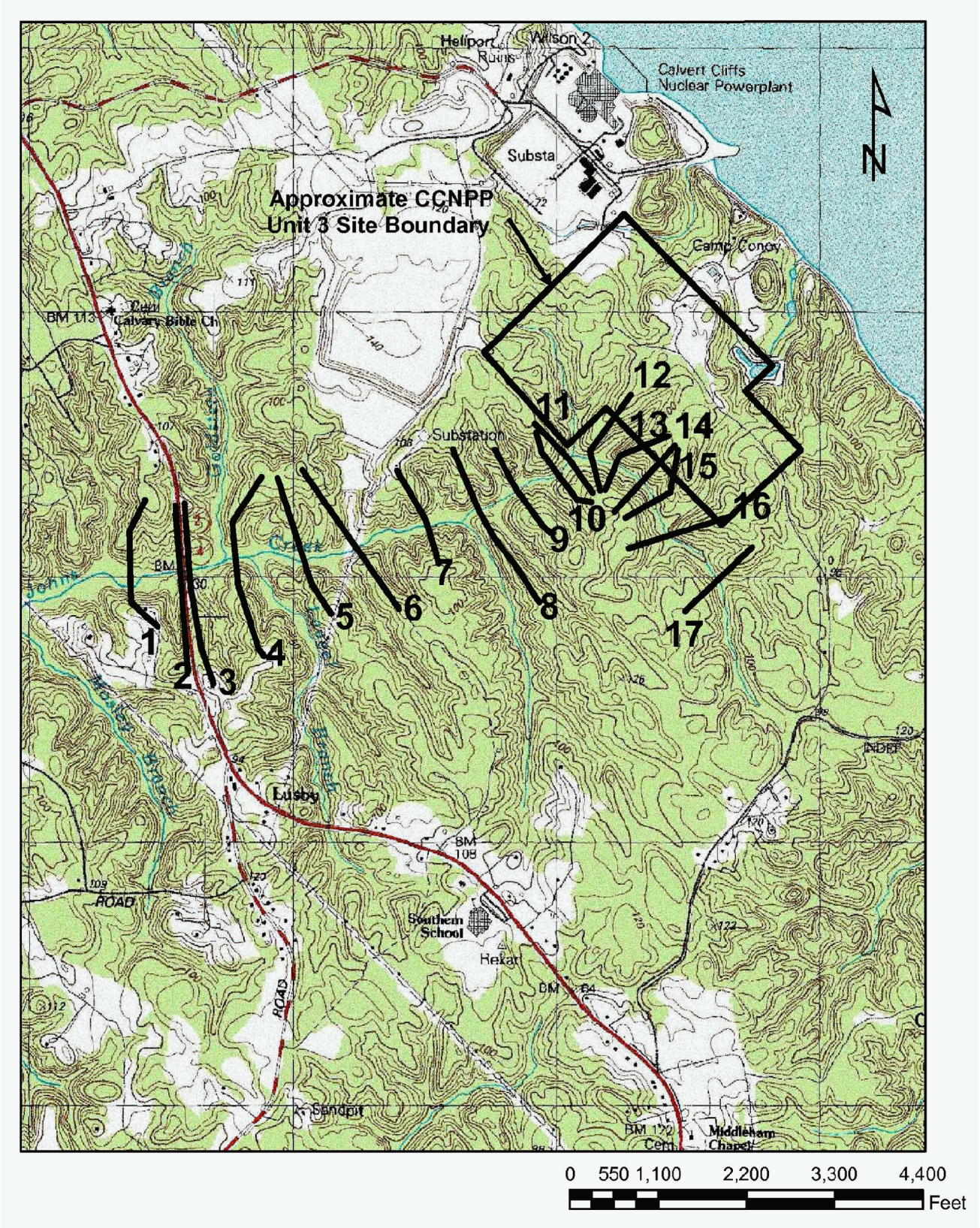


Figure 2.4-26 — {Johns Creek PMF Water Surface Profiles}

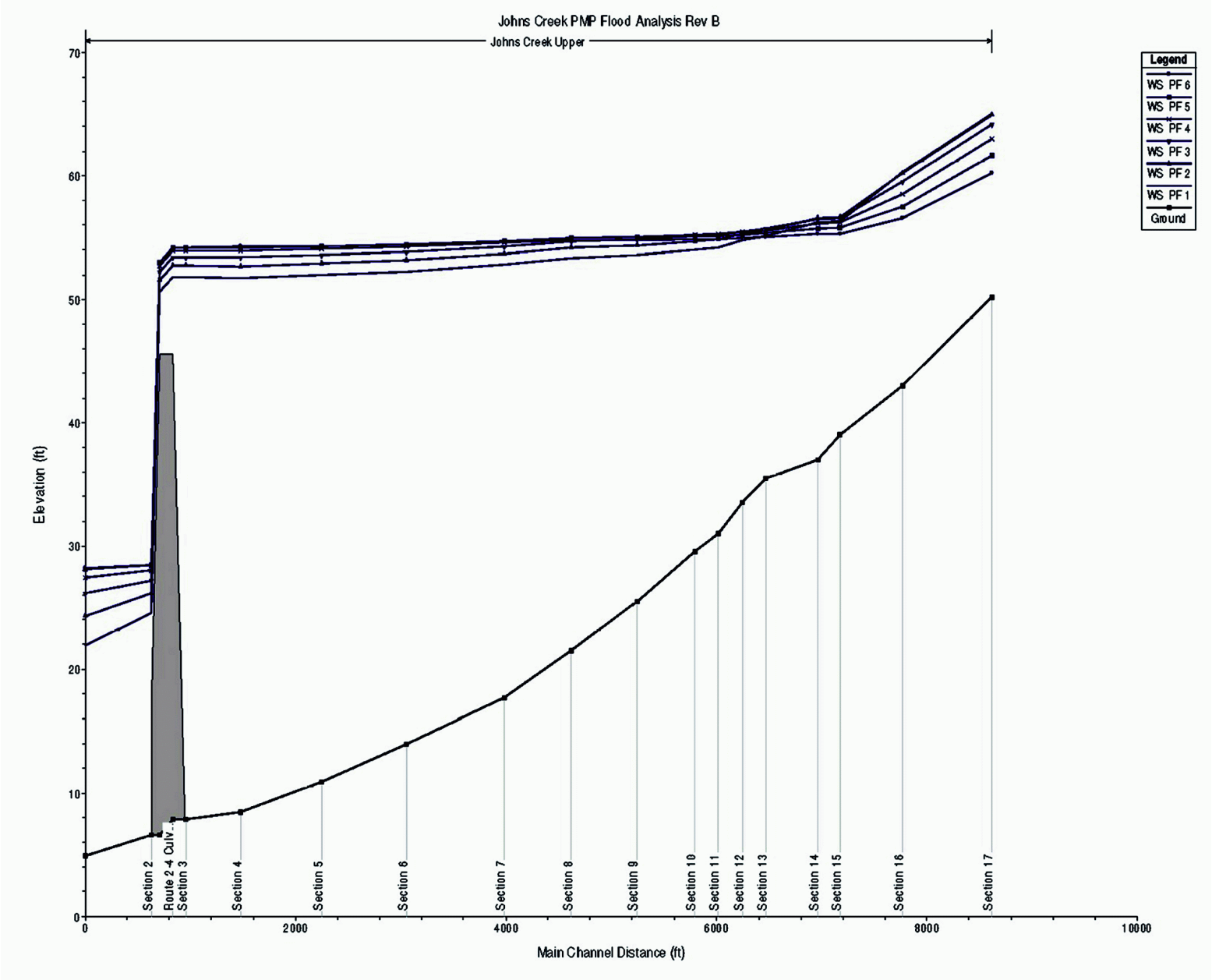


Figure 2.4-27 — {Patuxent River Watershed And Dam Locations}

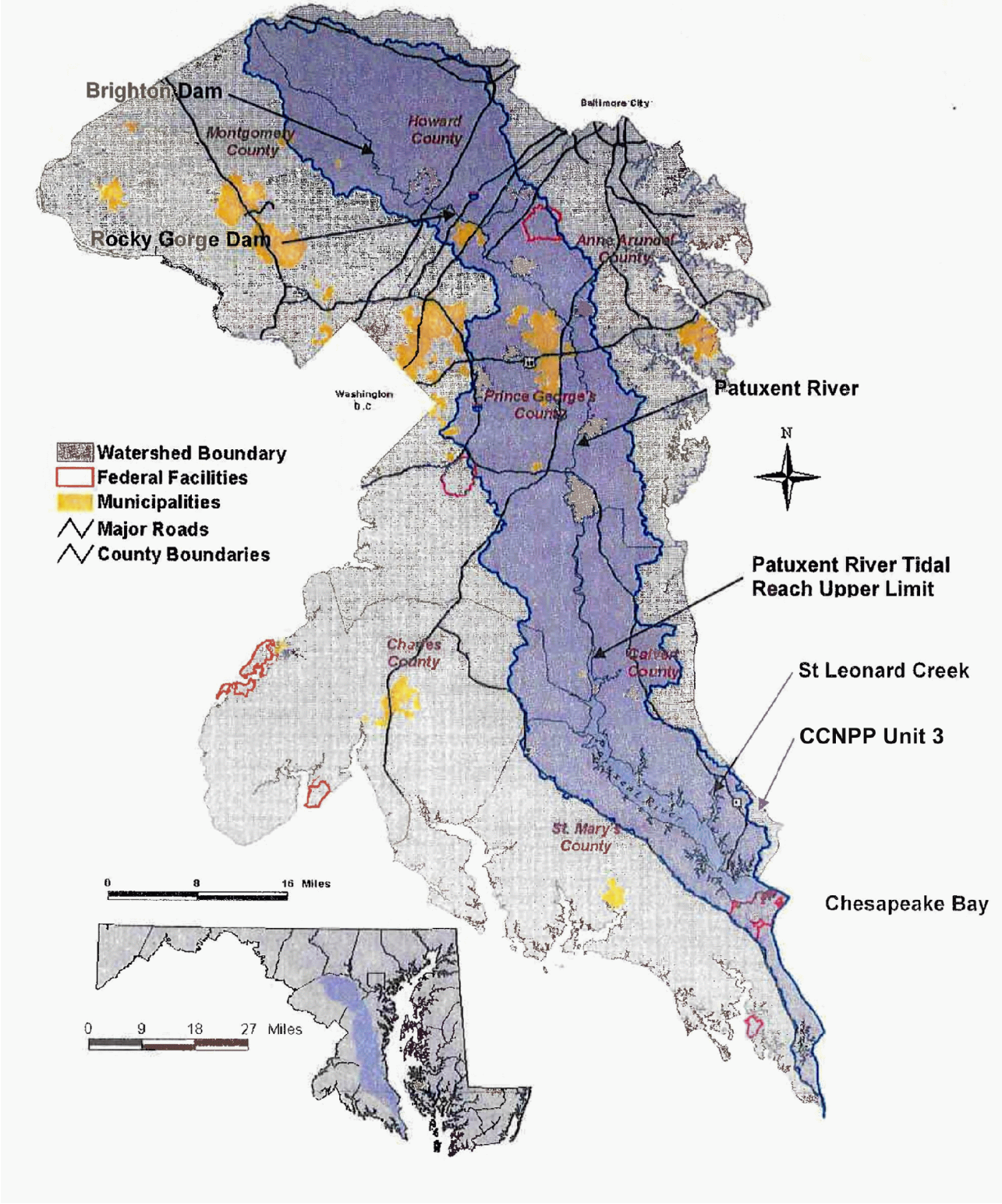


Figure 2.4-28 — {SLOSH Chesapeake Bay Model Grid (SLOSH Basin cp2) and the Location of CCNPP Unit 3}

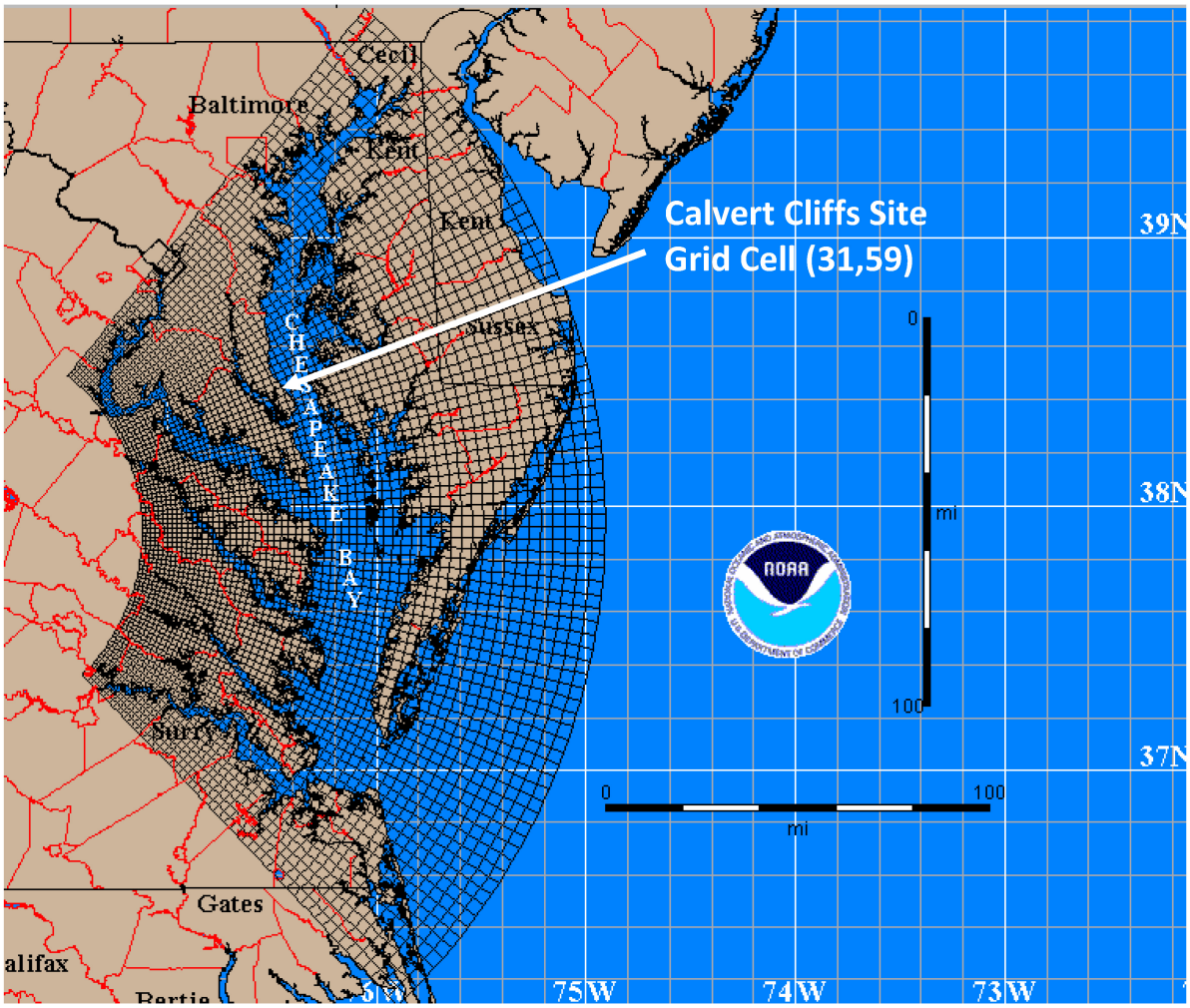
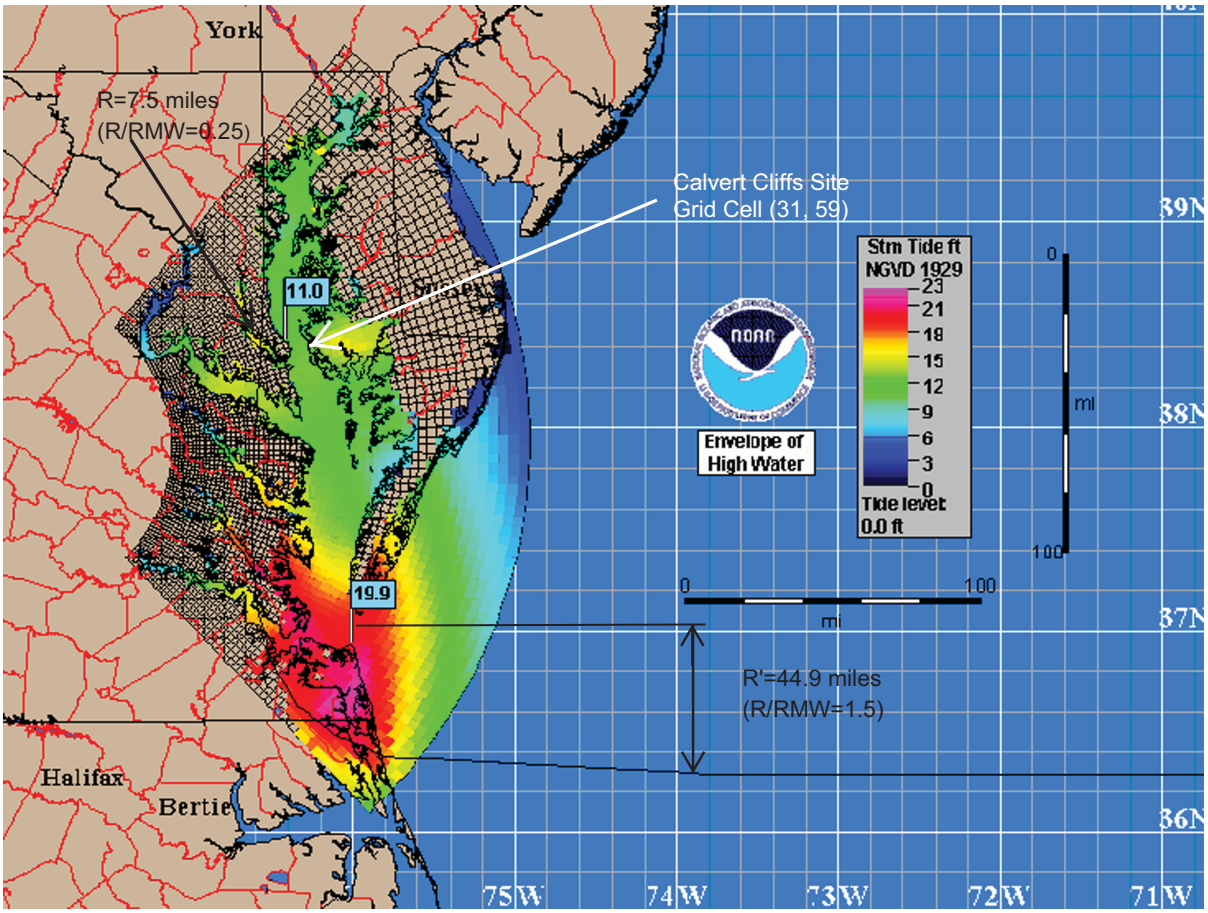


Figure 2.4-29 — {Selected Storm Track and the Envelop of Resulting Surge Elevation in the SLOSH Chesapeake Bay Basin for the PMH}



Note: R is the distance from the Site; R' is the distance from the Chesapeake Bay entrance; RMW is the PMH upper bound radius of maximum wind.

Colors and the flags show the maximum surge elevations at the grid locations.

Figure 2.4-30 — {SLOSH Model Simulated Time History of Surge Elevation at the Site (Grid Cell 31, 59) for the Selected PMH Conditions}

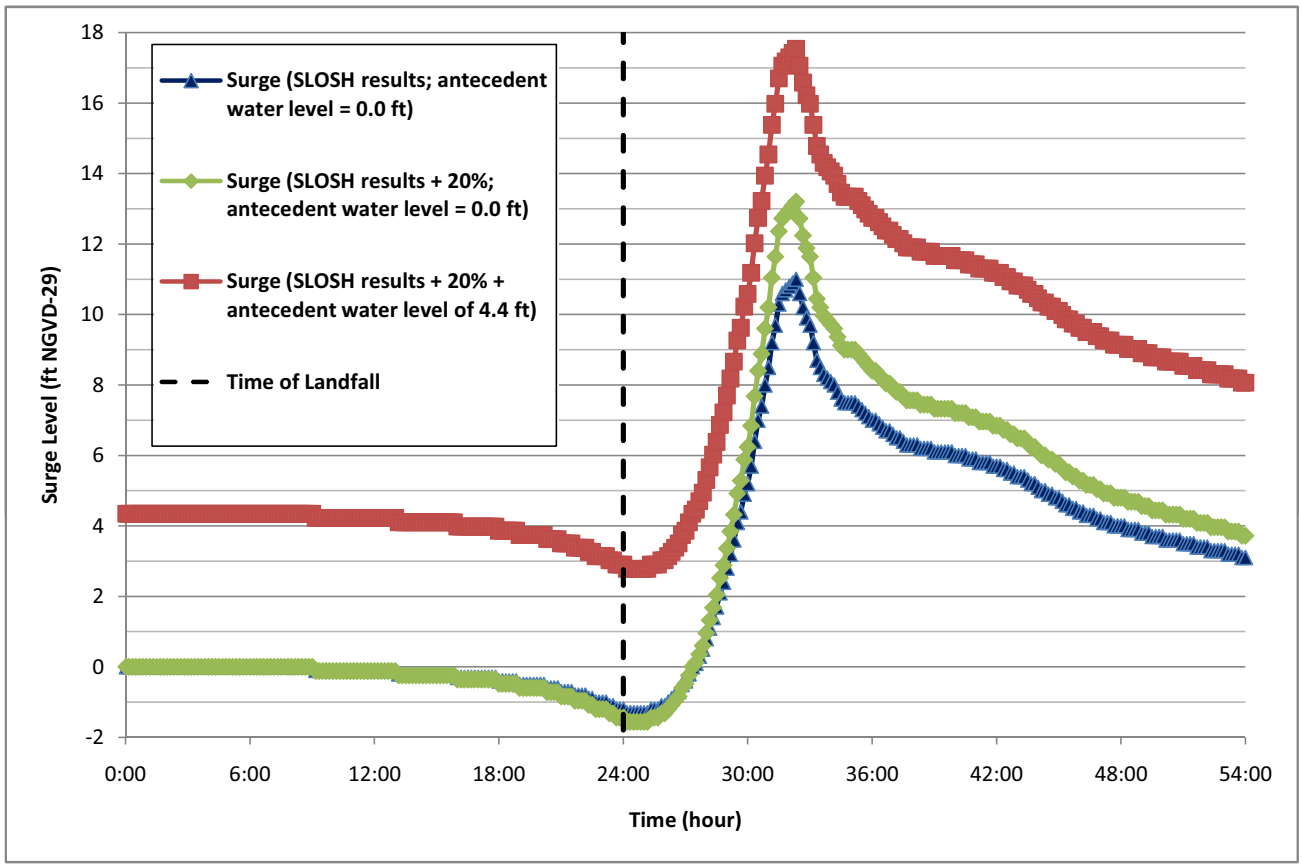


Figure 2.4-31 — {SLOSH Model Simulated Time History of Wind Speed at the Site (grid cell 31, 59) for the Selected PMH Conditions}

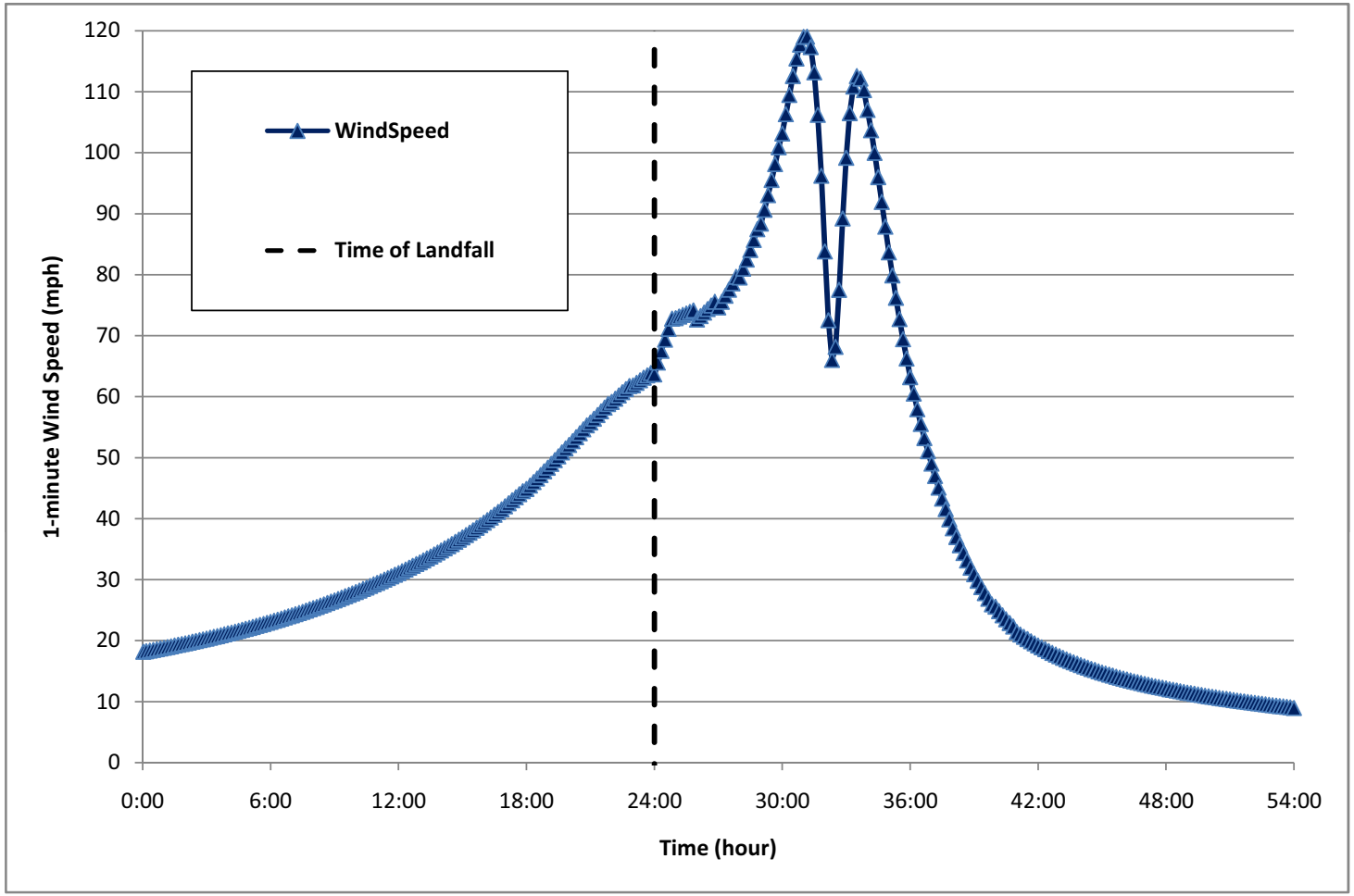


Figure 2.4-32 — {Schematic Description of UHS Makeup Water Intake Location and Exposure for Wind Wave Estimation}

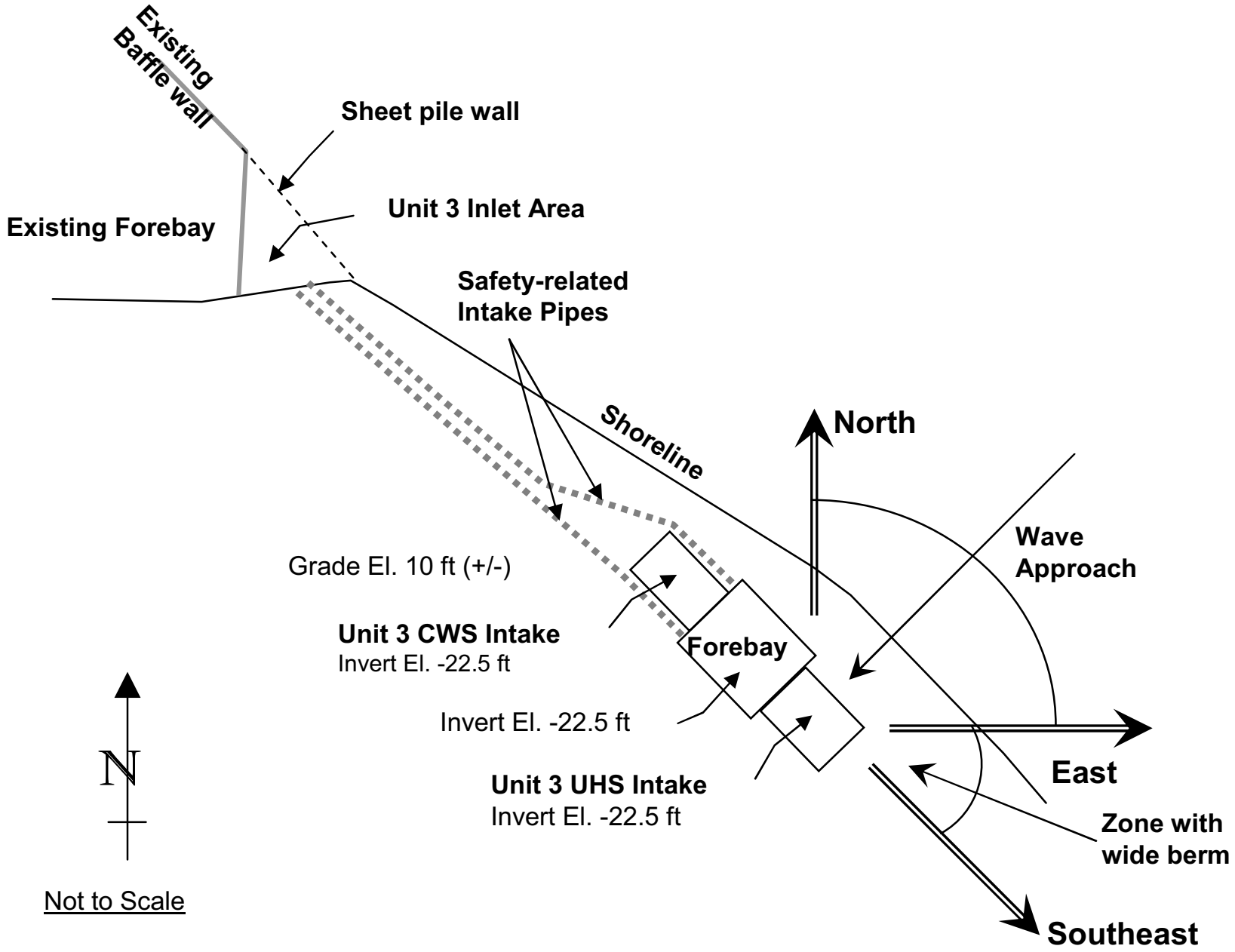


Figure 2.4-33 — {Schematic Diagram Wave Runup on the UHS Makeup Water Intake Structure (MWIS)}

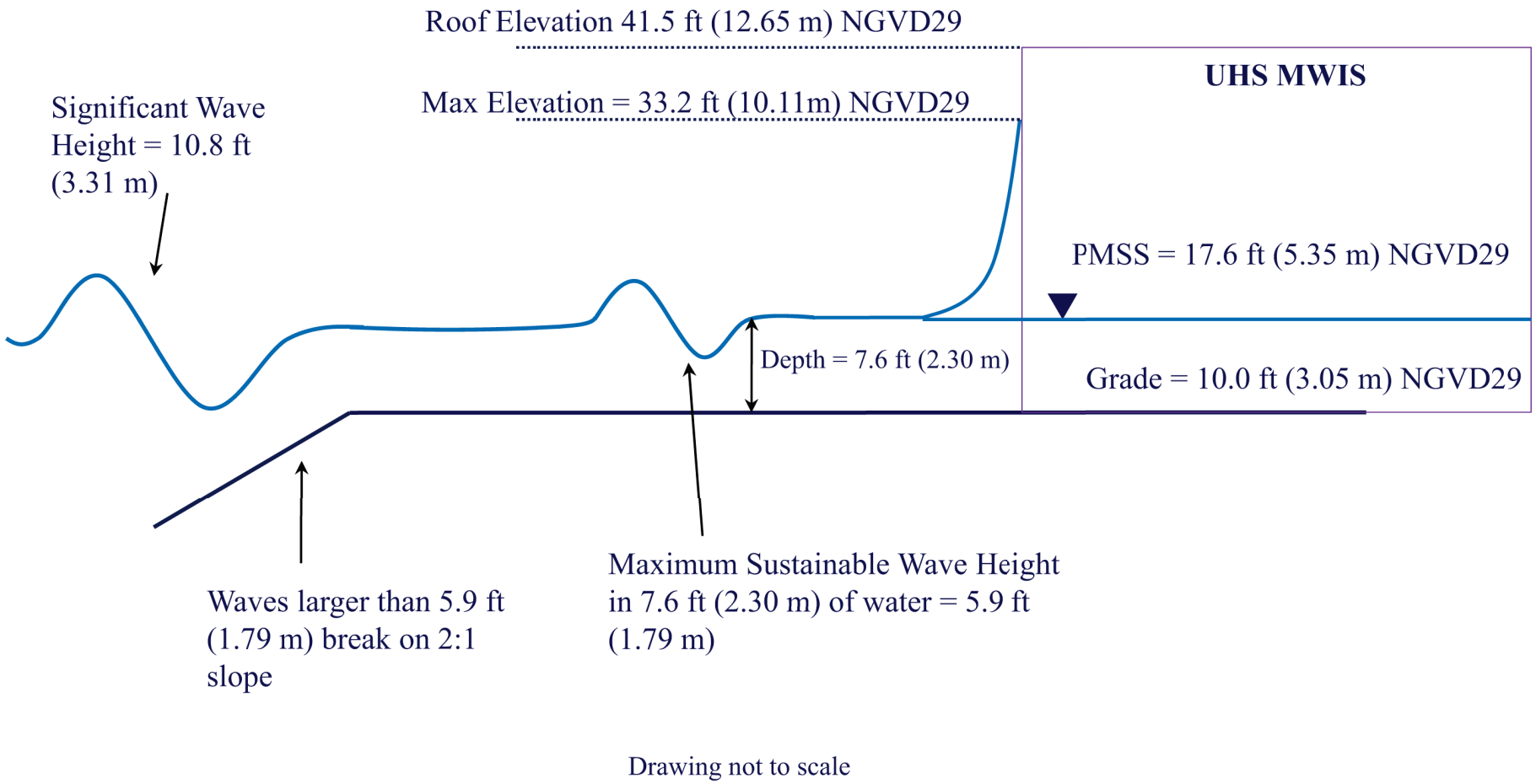


Figure 2.4-34 — {Storm Surge Heights at Different Locations in the Chesapeake Bay During Hurricane Isabel 2003}

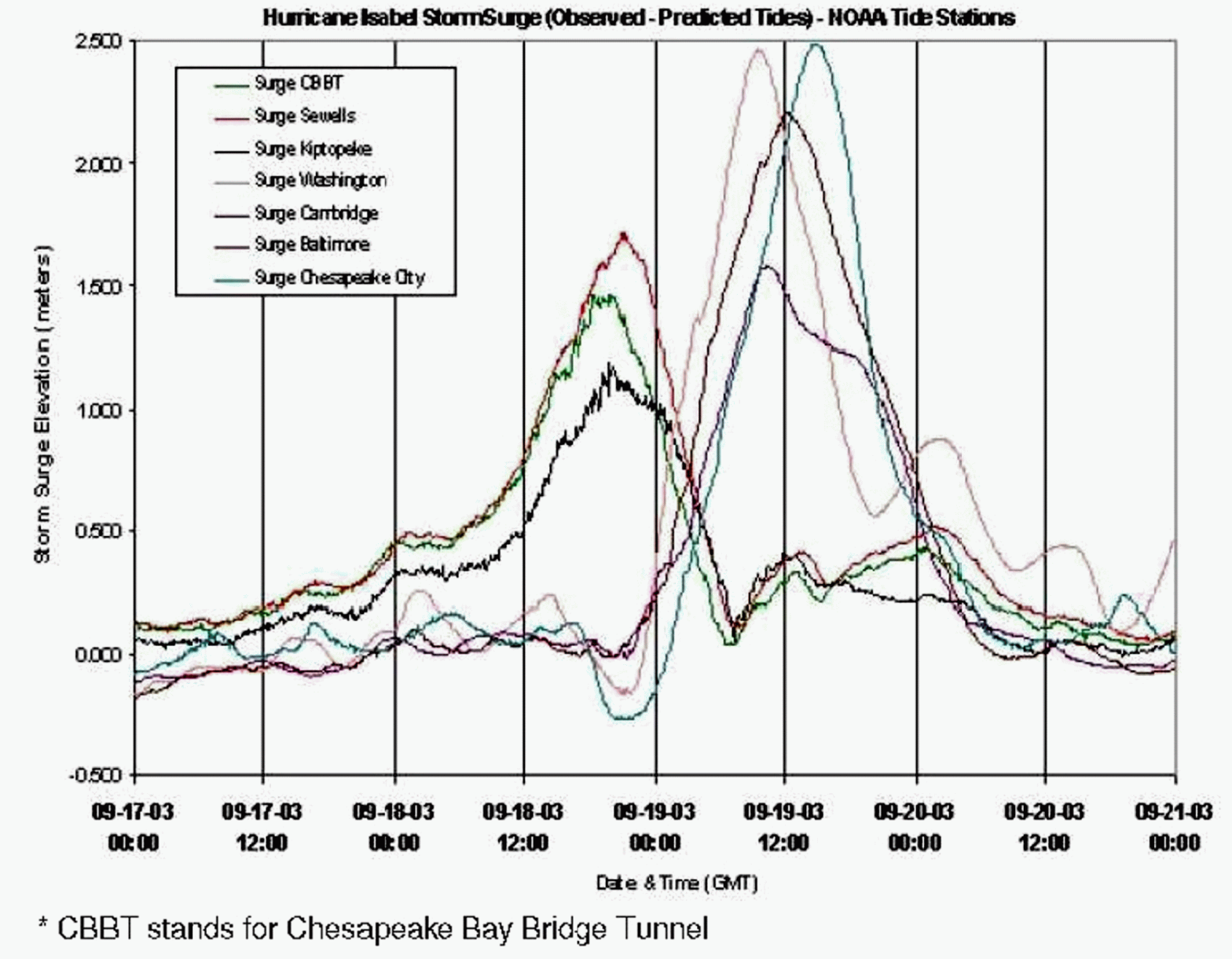


Figure 2.4-35 — {Map Of Tsunami Source Generators}

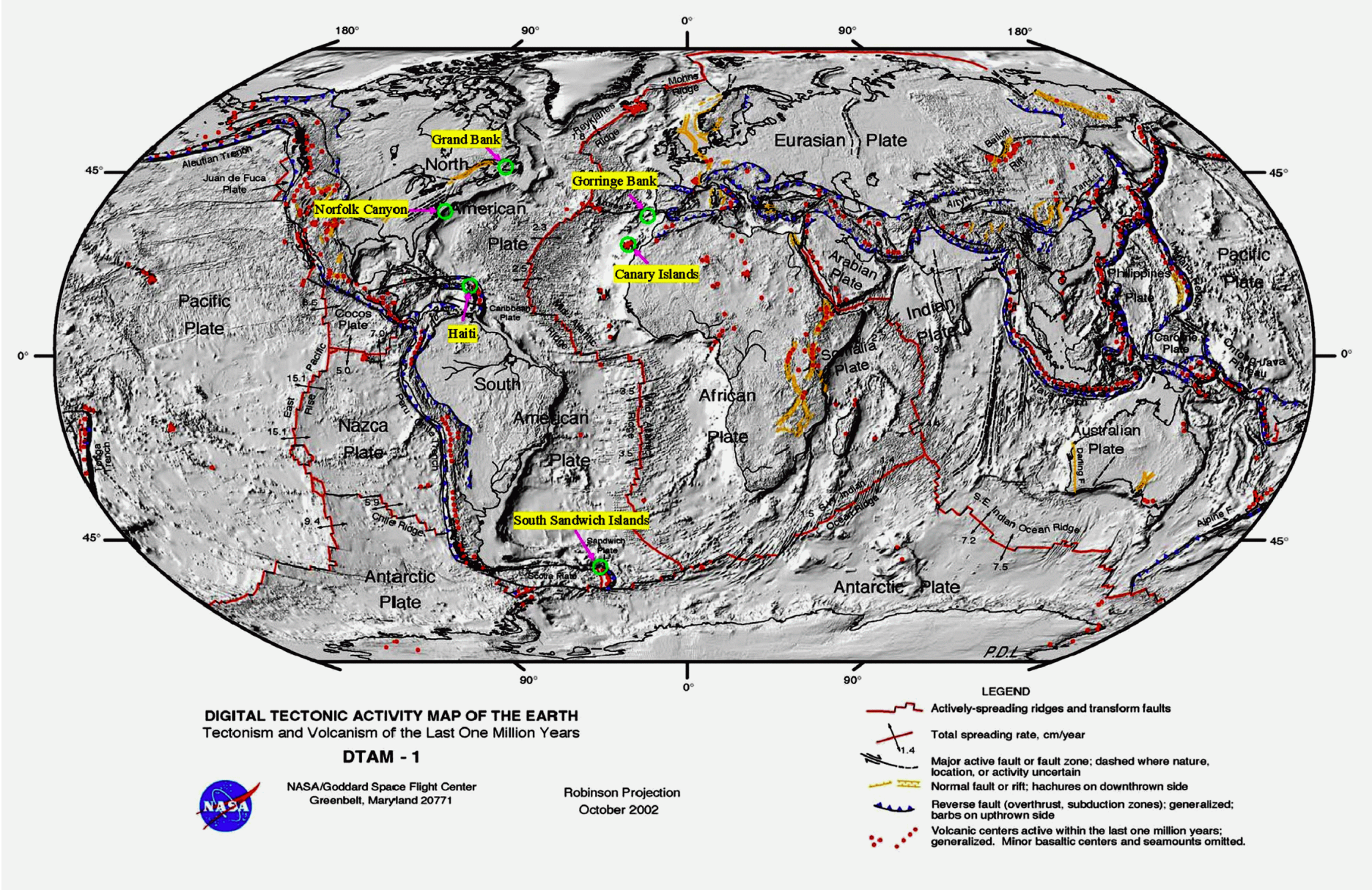


Figure 2.4-36 — {Staggered Grid for Leap-Frog Scheme}

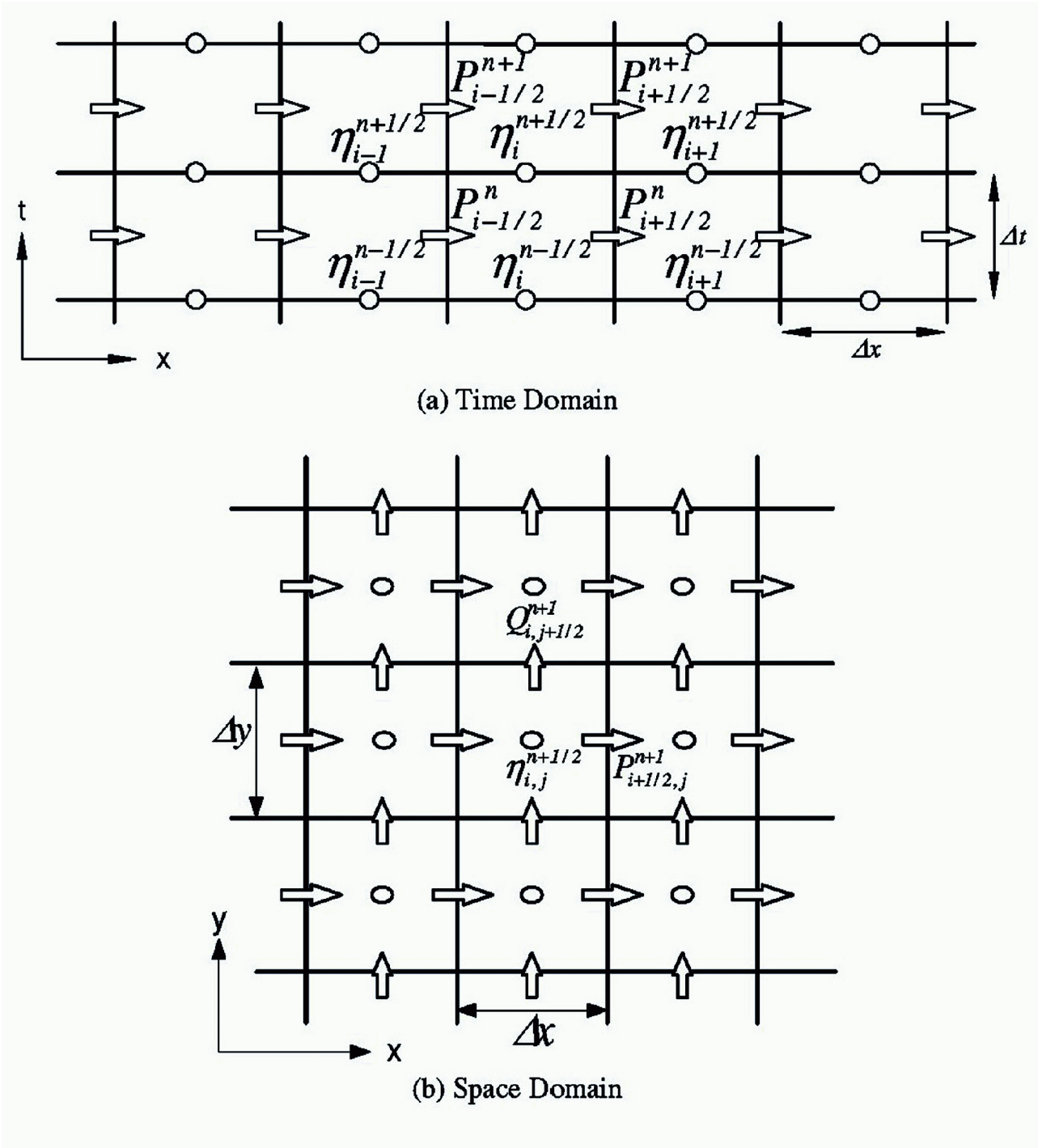


Figure 2.4-37 — {Time Grid Scheme for Assignment of Variables}

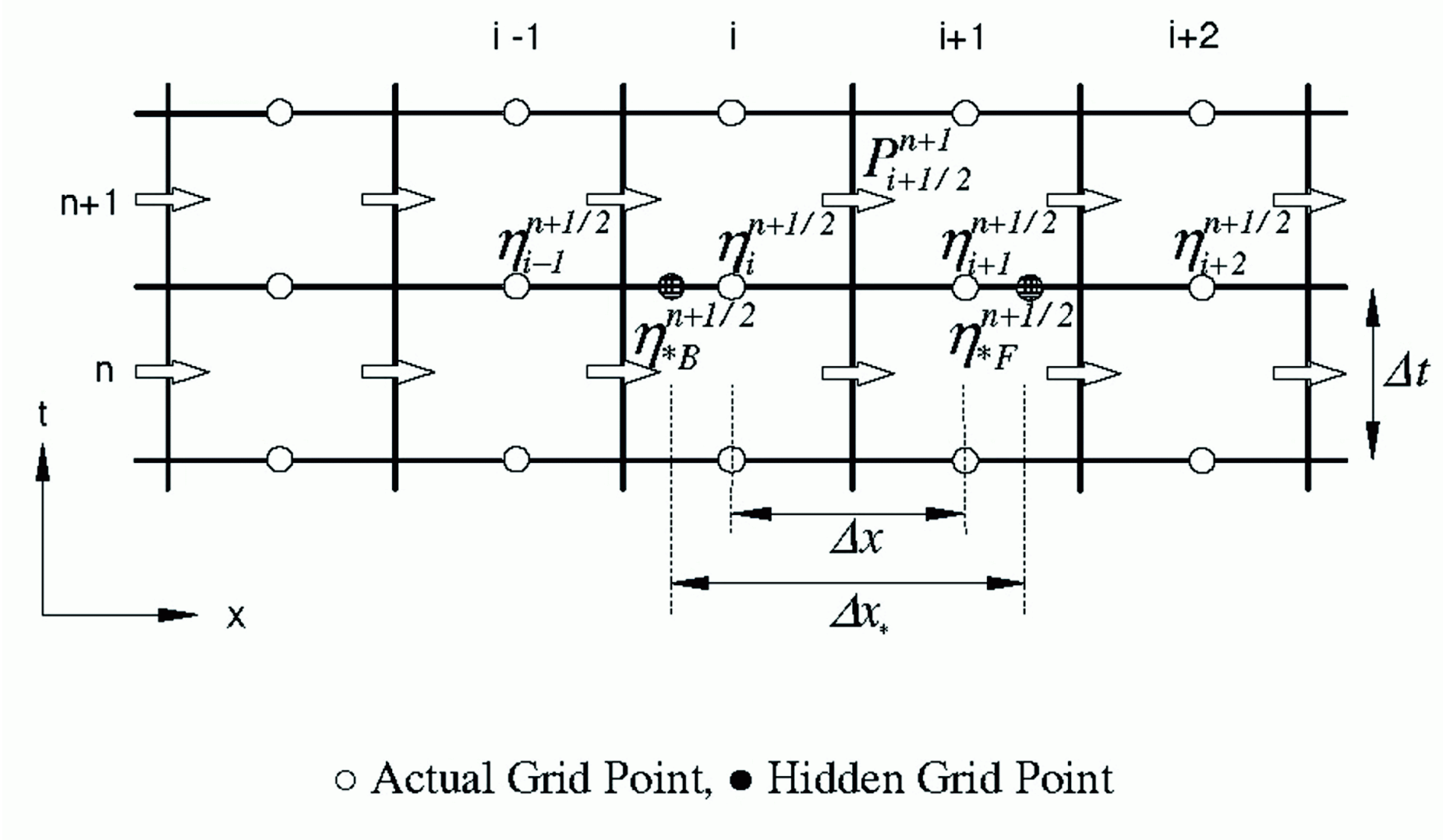


Figure 2.4-38 — {Spatial Grid Scheme for Assignment of Variables}

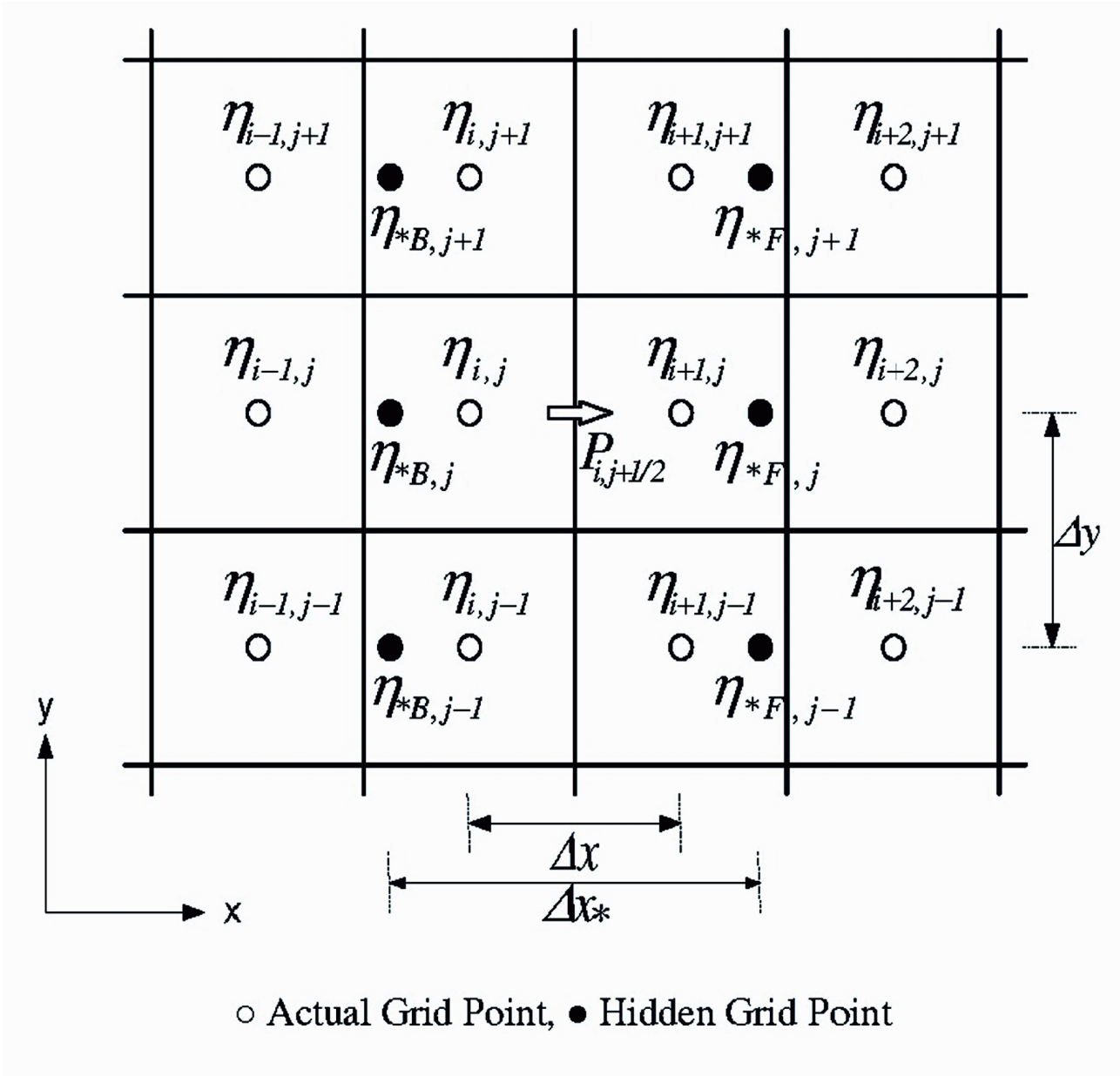


Figure 2.4-39 — {Computational Domain and Model Bathymetry for Tsunami Simulation in Chesapeake Bay}

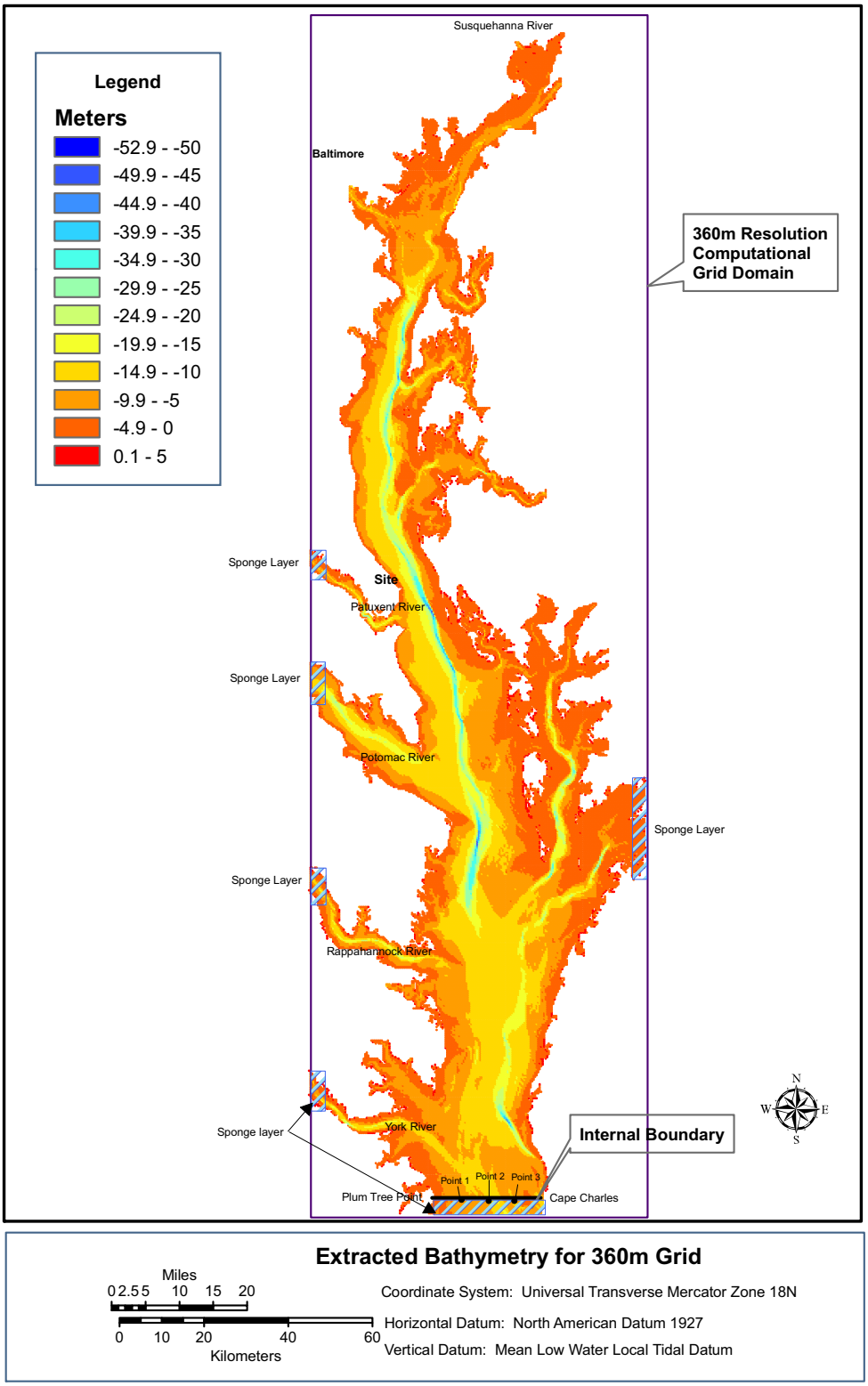


Figure 2.4-40 — {Water Levels Along Internal Boundary for Case 1, Nonlinear Model}

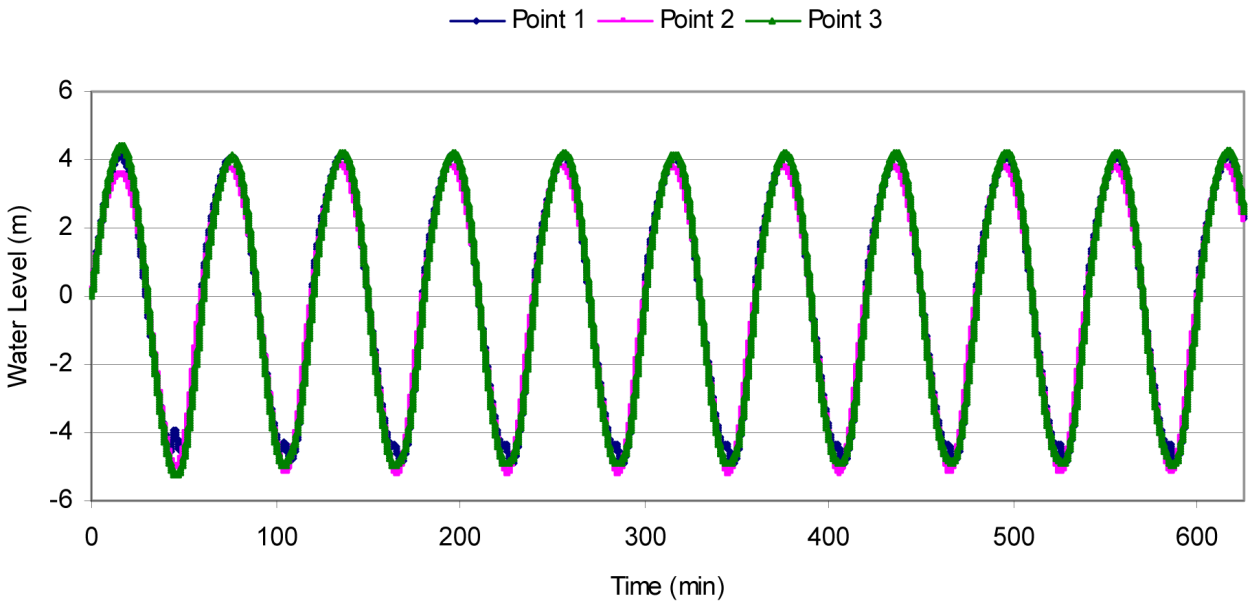


Figure 2.4-41 — {Water Levels Along Internal Boundary Case 2, Nonlinear Model}

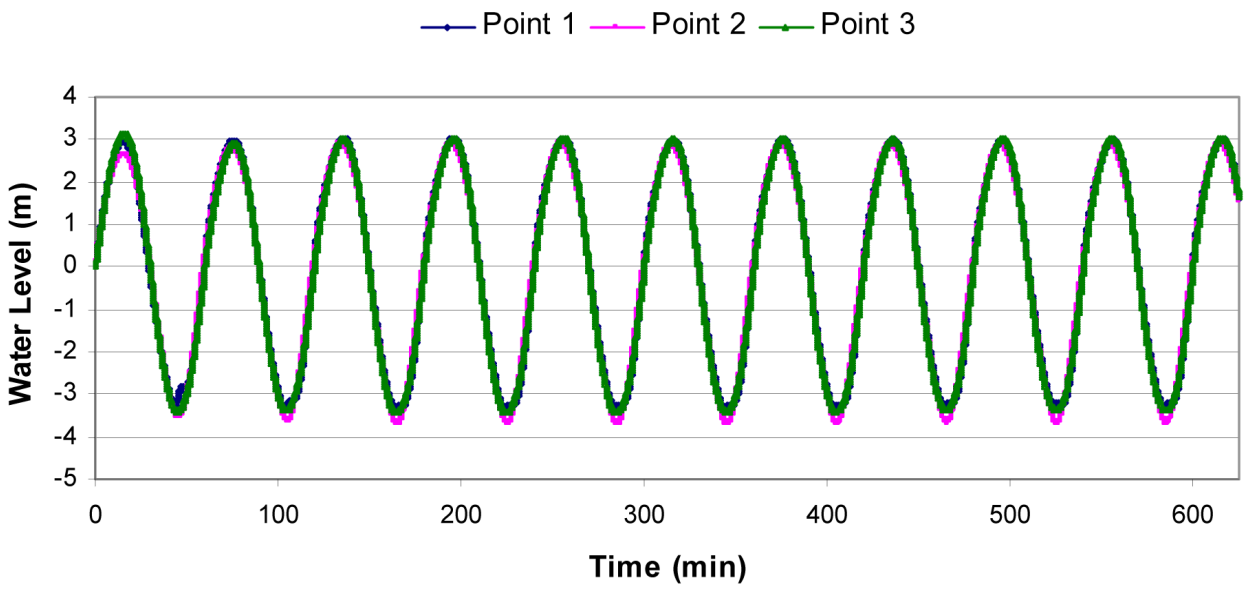


Figure 2.4-42 — {Water Levels Along Internal Boundary for Case 3, Nonlinear Model}

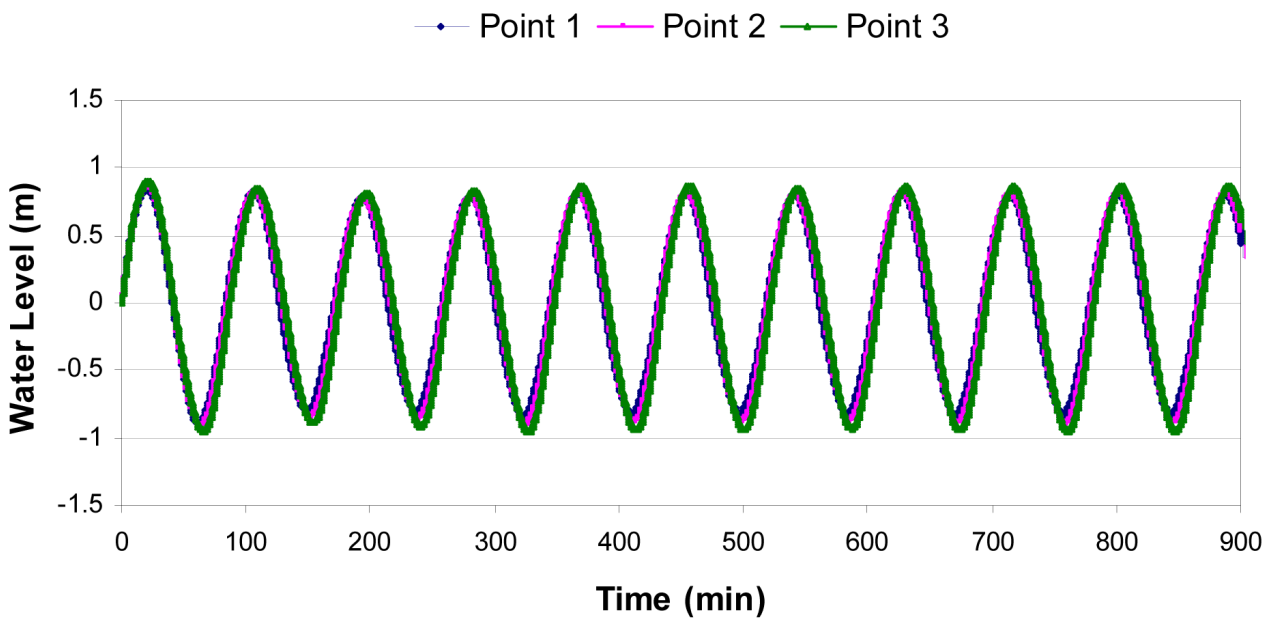


Figure 2.4-43 — {Water Levels Along Internal Boundary for Case 3, Linear Model}

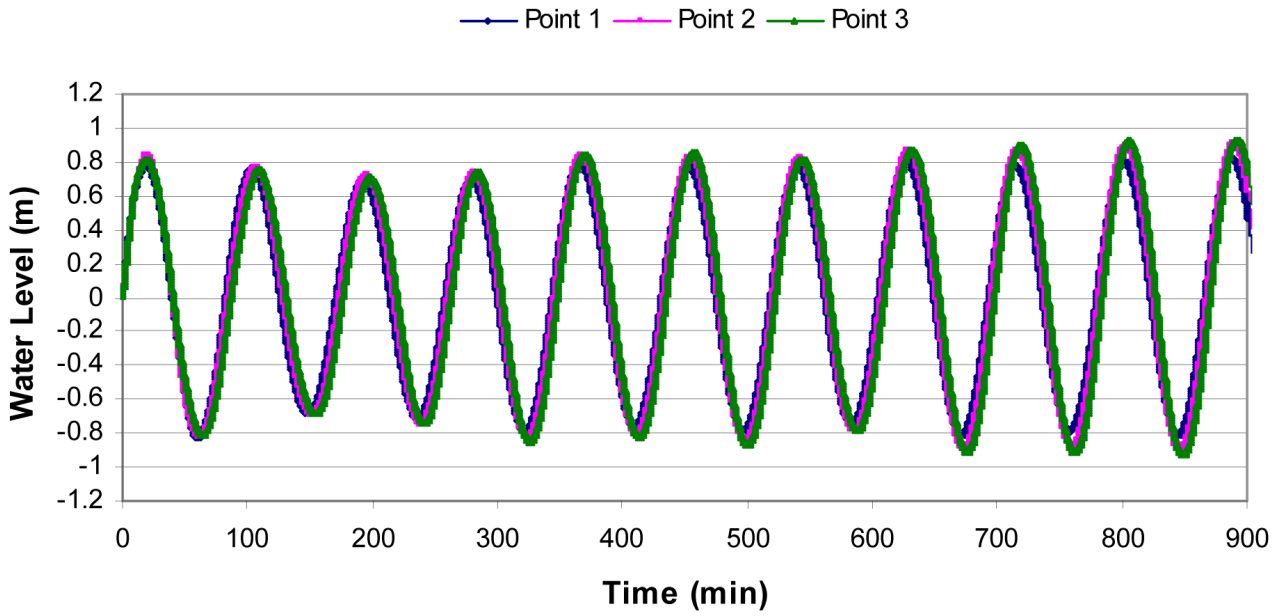


Figure 2.4-44 — {Time History Of Tsunami Water Levels Case 1 through 3, Nonlinear Model}

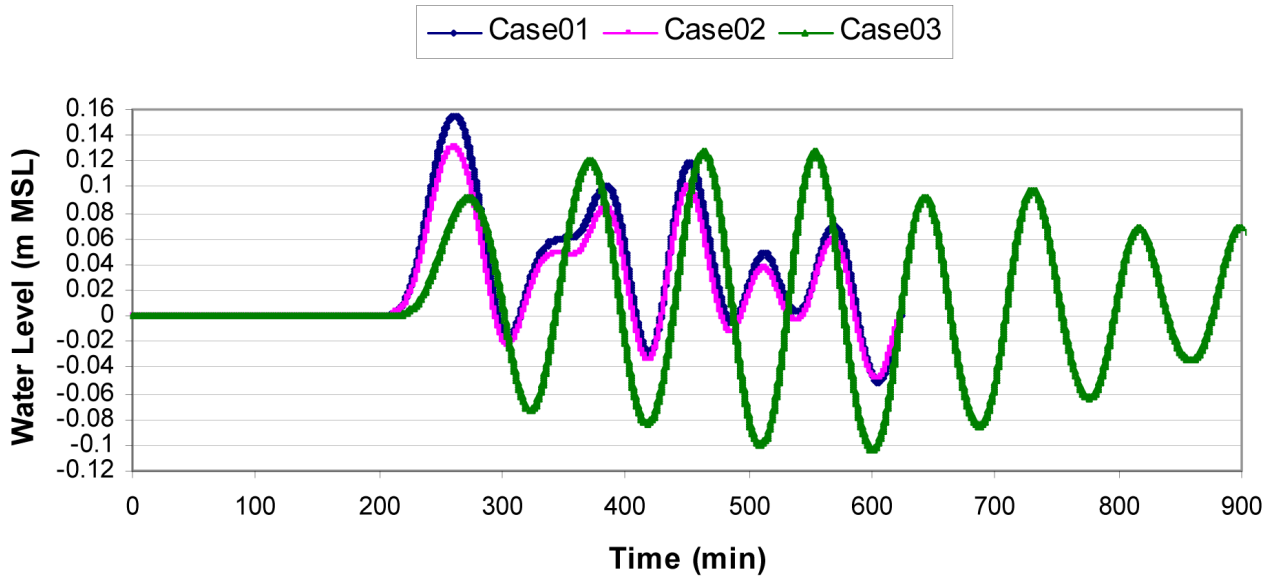


Figure 2.4-45 — {Time History Of Tsunami Water Levels Case 1 through 3 Linear Model}

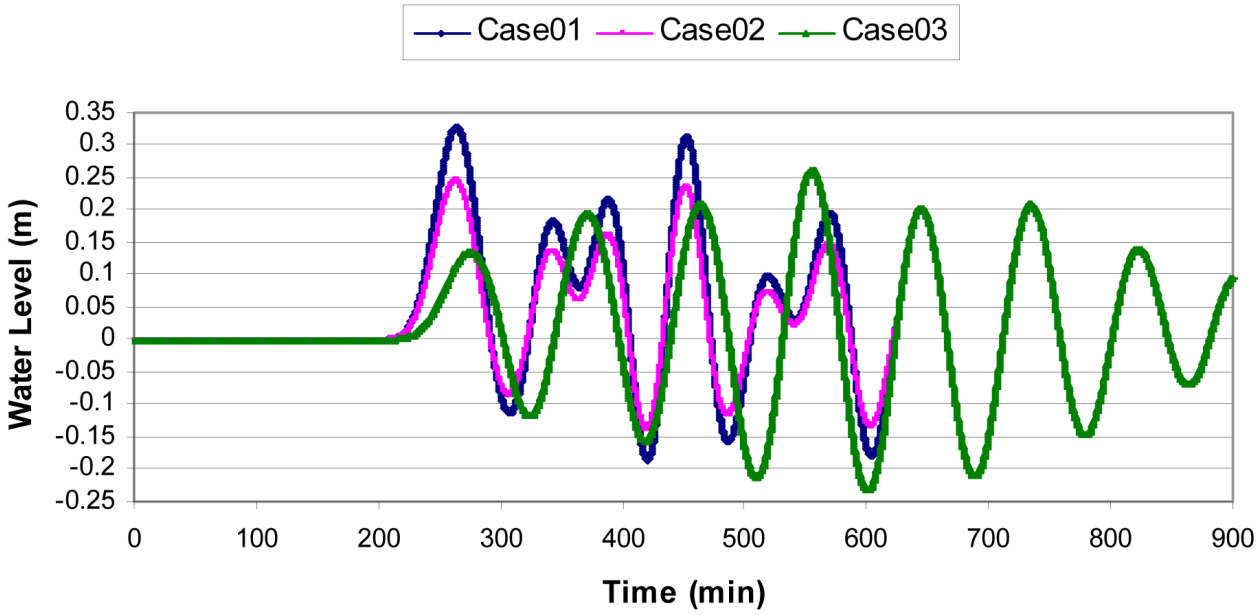


Figure 2.4-46 — {General Site Region}

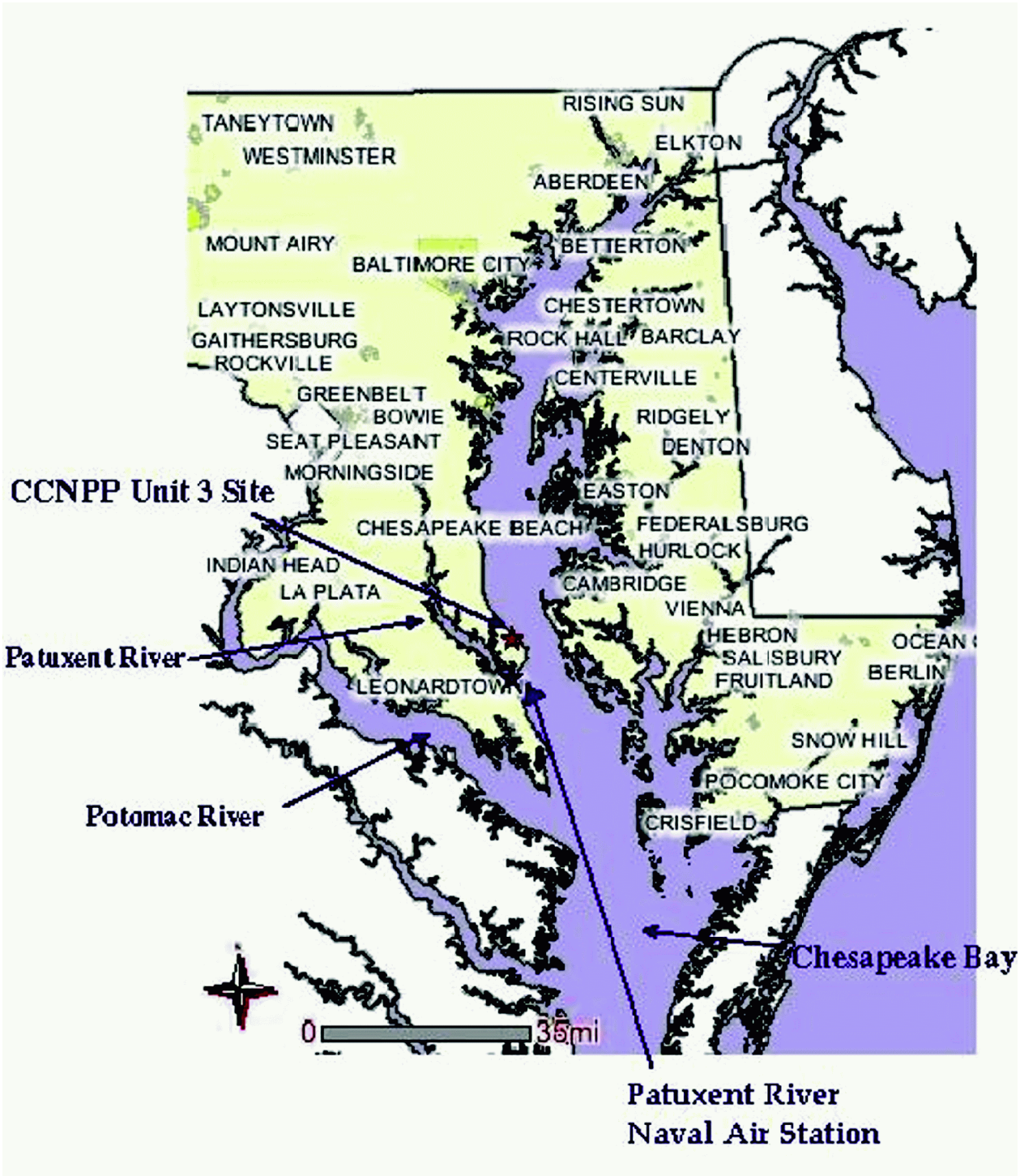


Figure 2.4-47 — {South Chesapeake Bay Ice Analysis- January 28, 2000}

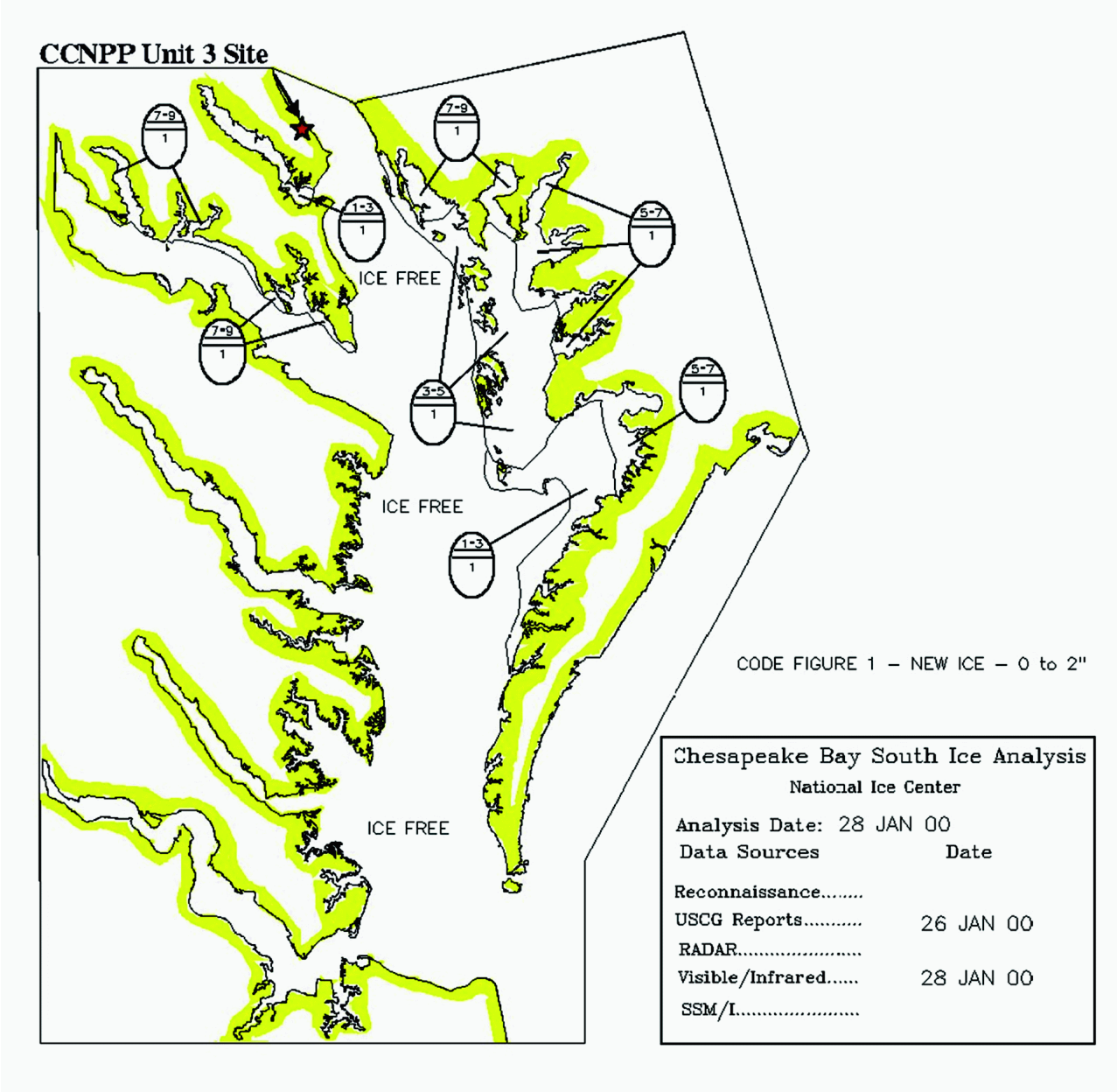


Figure 2.4-48 — {South Chesapeake Bay Ice Analysis- February 01, 2004}

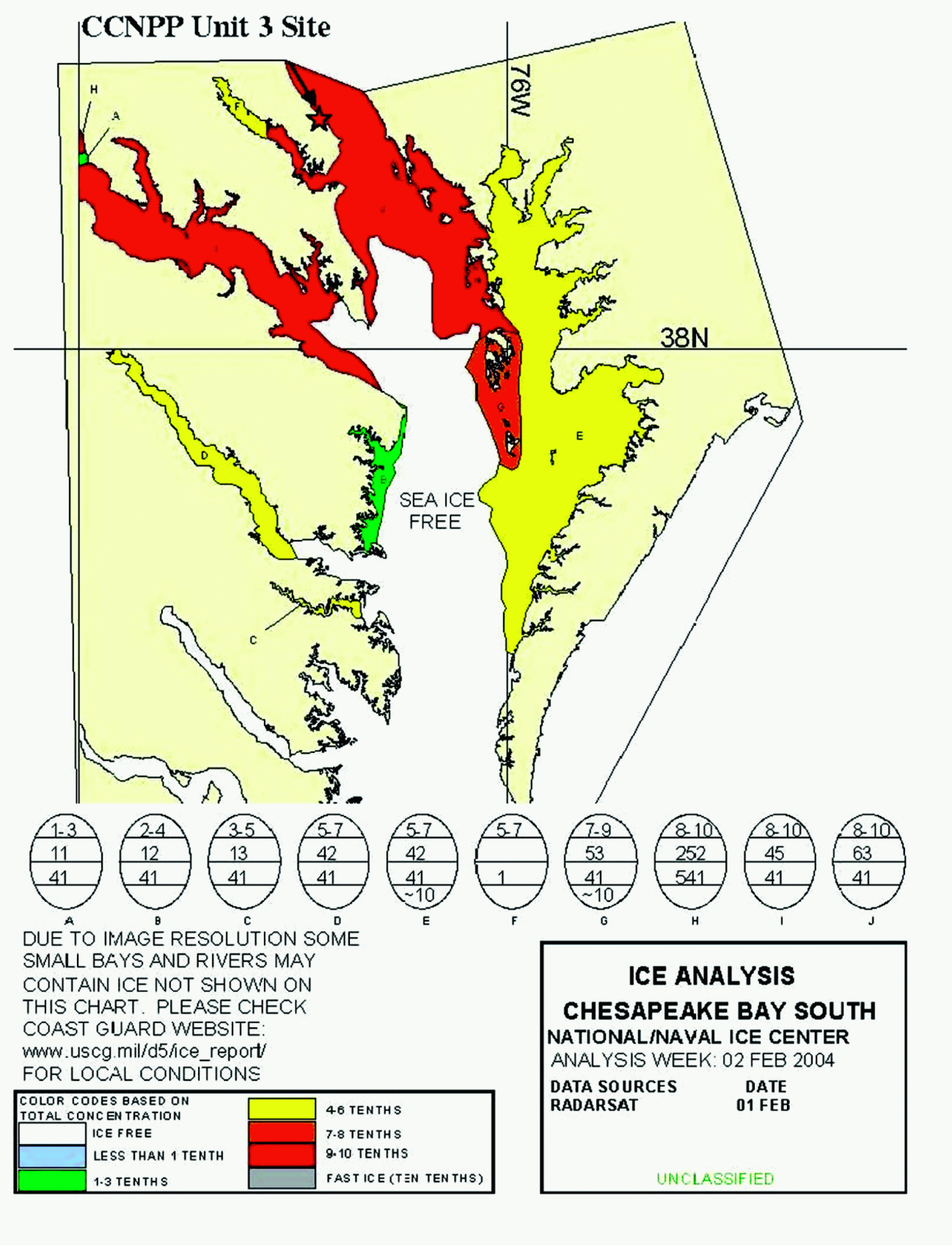


Figure 2.4-49 — {South Chesapeake Bay Ice Analysis- January 24, 2005}

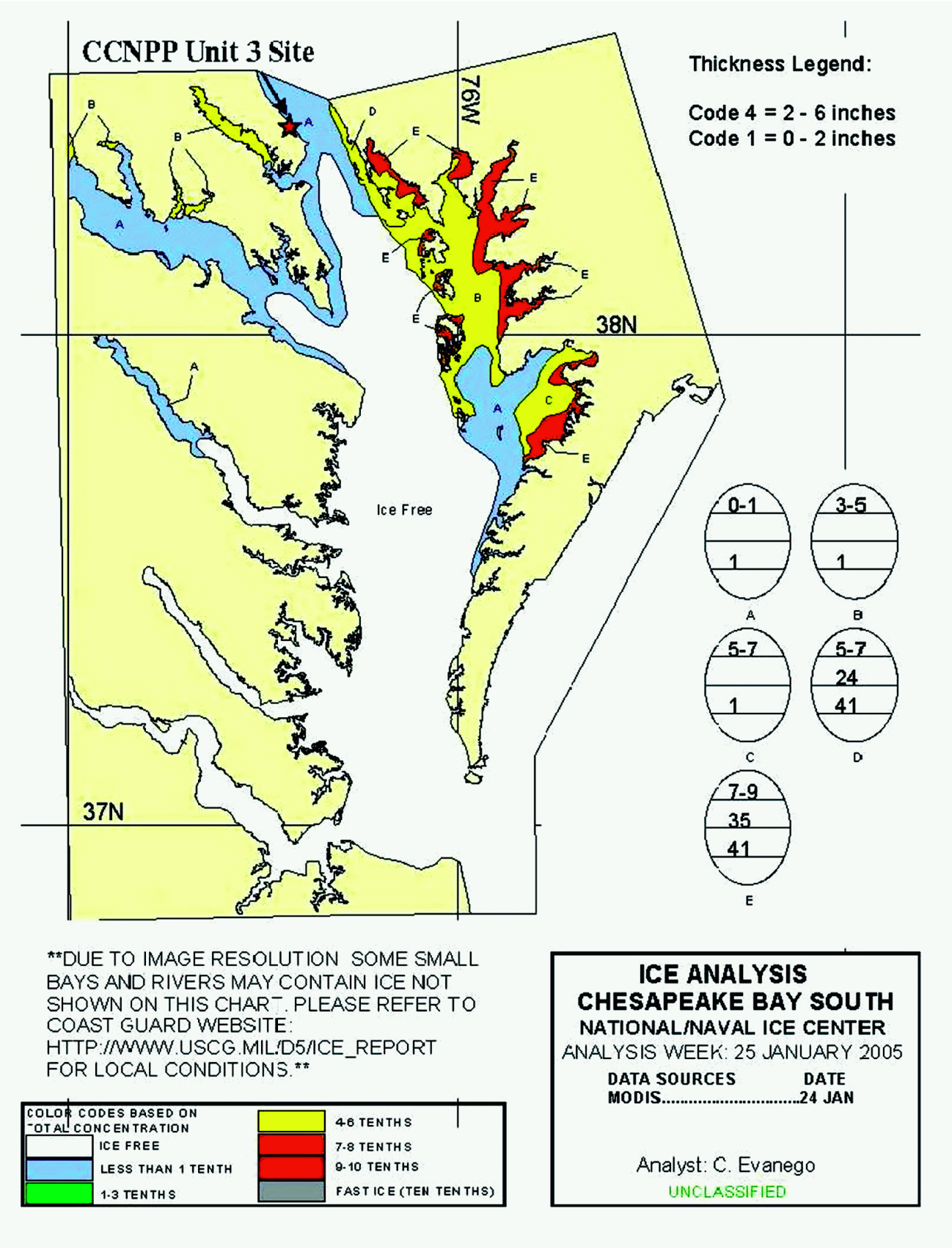


Figure 2.4-50 — {South Chesapeake Bay Ice Analysis- January 26, 2005}

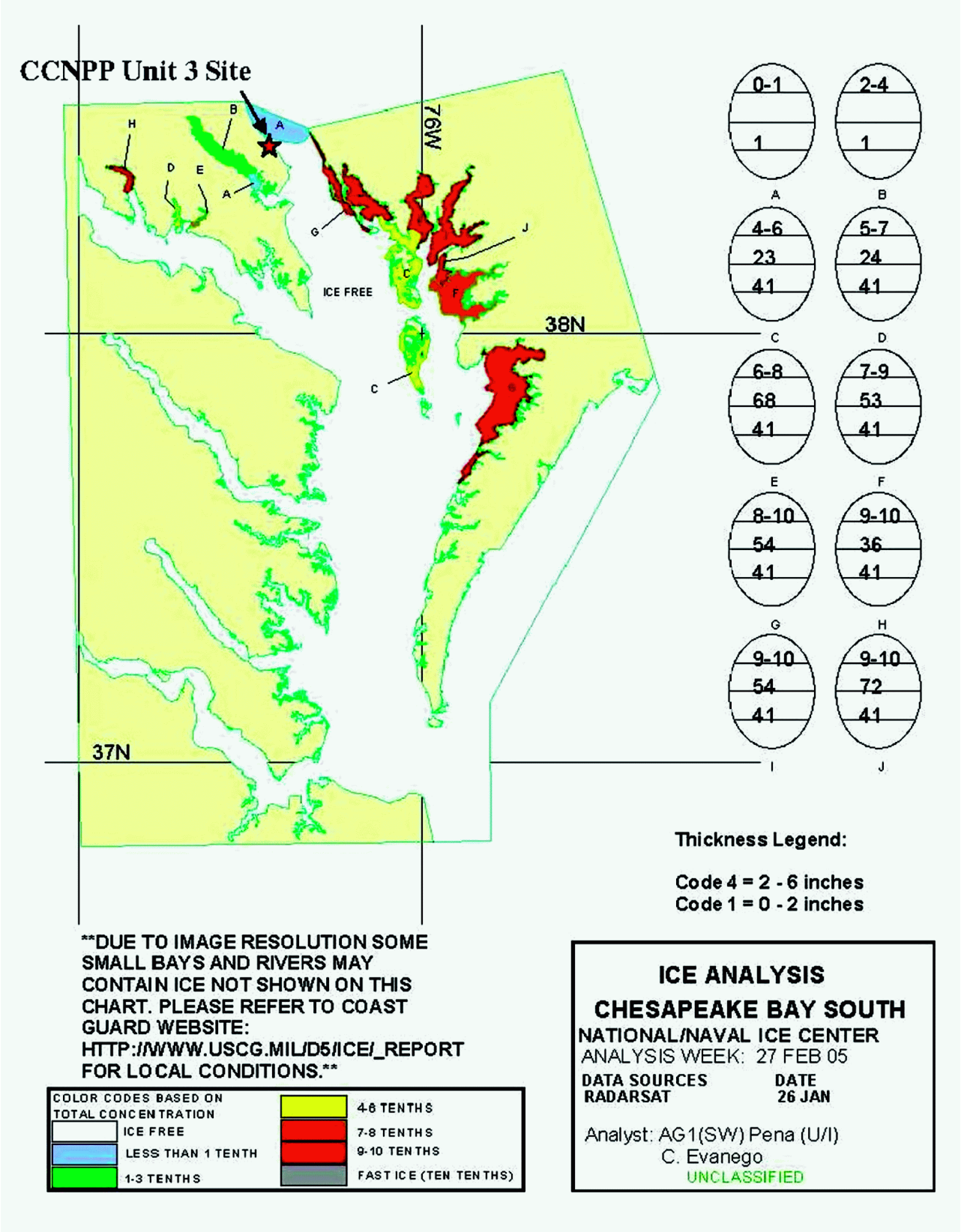
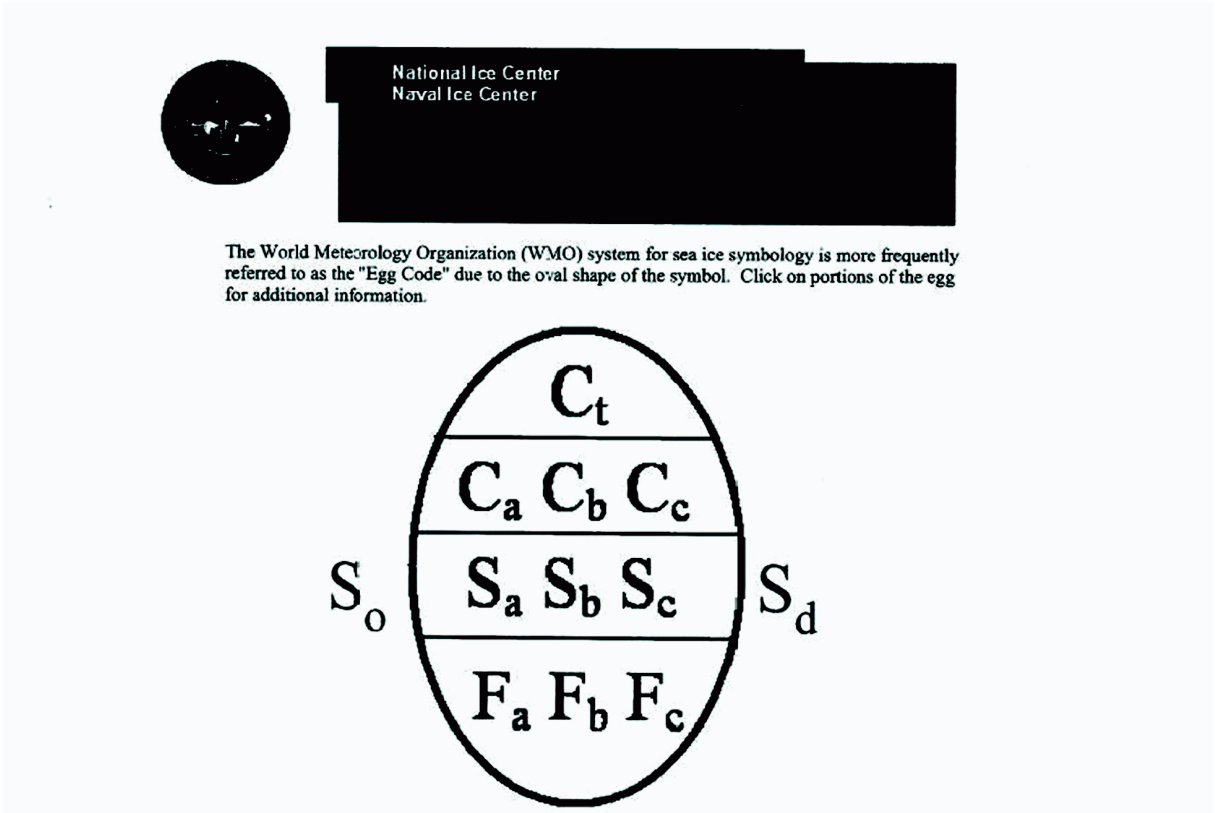


Figure 2.4-51 — {EGG Code}



C_t - Total concentration of ice in area, reported in tenths.
Concentration may be expressed as a single number or as a range, not to exceed two tenths (3-5, 5-7 etc.)

C_a C_b C_c - Partial concentration (C_a, C_b, C_c) are reported in tenths, but must be reported as a single digit. These are reported in order of decreasing thickness. C_a is the concentration of the thickest ice and C_c is the concentration of the thinnest ice.

S_a S_b S_c - Stages of development (S_a, S_b, S_c) are listed using the following code in decreasing order of thickness. (NOTE: If there is a dot (.), all stage of development codes to the left of the dot (.) are assumed to carry the dot (.)) These codes are directly correlated with the partial concentrations above. C_a is the concentration of stage S_a, C_b is the concentration of stage S_b, and C_c is the concentration of S_c. (Table 1)

F_a F_b F_c - Predominant form of ice (floe size) corresponding to S_a, S_b and S_c respectively. (Table 2)

S_o S_d - Development stage (age) of remaining ice types. So if reported is a trace of ice type thicker/older than S_a. S_d is a thinner ice type which is reported when there are four or more ice thickness types.

Figure 2.4-52 — {EGG Code: Stages Of Ice Development}

The following codes are used to denote forms of sea ice:		*The following codes are used to denote forms of sea ice for fresh water ice:*	
Forms of Sea Ice	**Code Figure**	**Forms of Sea Ice**	**Code Figure**
New Ice (0 cm - 10 cm)	X	Fast Ice	8
Pancake Ice (30 cm - 3 m)	0	Belts and Strips symbol followed by the concentration of ice	~F
Brash Ice (less than 2 m)	1		
Ice Cake (3 m - 20 m)	2		
Small Ice Floe (20 m - 100 m)	3		
Medium Ice Floe (100 m - 500 m)	4		
Big Ice Floe (500 m - 2 km)	5		
Vast Ice Floe (2 km - 10 km)	6		
Giant Ice Floe (greater than 10 km)	7		
Fast Ice	8		
Ice of Land Origin	9		
Undetermined or Unknown (Iceberg, Growlers, Bergy Bits) (Used for Fa, Fb, Fc, only)	/		

Figure 2.4-53 — {EGG Code: Predominant Forms Of Ice}

The following codes are used to denote stages of development for sea ice.		*The following codes are used to denote stages of development for fresh water ice:*	
Stage of Development	**Code Figure**	**Stage of Development**	**Code Figure**
New Ice-Frazil, Grease, Slush, Shuga (0-10 cm)	1	New Ice (0 cm - 5 cm)	1
Nilas, Ice Rind (0 - 10 cm)	2	Thin Ice (5 cm - 15 cm)	4
Young (10 - 30 cm)	3	Medium Ice (15 cm - 30 cm)	5
Gray (10 - 15 cm)	4	Thick Ice (30 cm - 70 cm)	7
Gray - White (15 - 30 cm)	5	First Stage Thick Ice (30 cm - 50 cm)	8
First Year (30 - 200 cm)	6	Second Stage Thick Ice (50 cm - 70 cm)	9
First Year Thin (30 - 70 cm)	7	Very Thick Ice (70 cm - 120 cm)	1.
First Year Thin- First Stage (30 - 70 cm)	8		
First Year Thin- Second Stage (30 - 70 cm)	9		
Med First Year (70 - 120 cm)	1.		
Thick First Year (>120 cm)	4.		
Old-Survived at least one seasons melt (>2 m)	7.		
Second Year (>2 m)	8.		
Multi-Year (>2 m)	9.		
Ice of Land Origin			

Figure 2.4-54 — {Change In The Chesapeake Bay Shoreline Position Near The CCNPP Unit 3 Site Between 1848, 1942 and 1993}

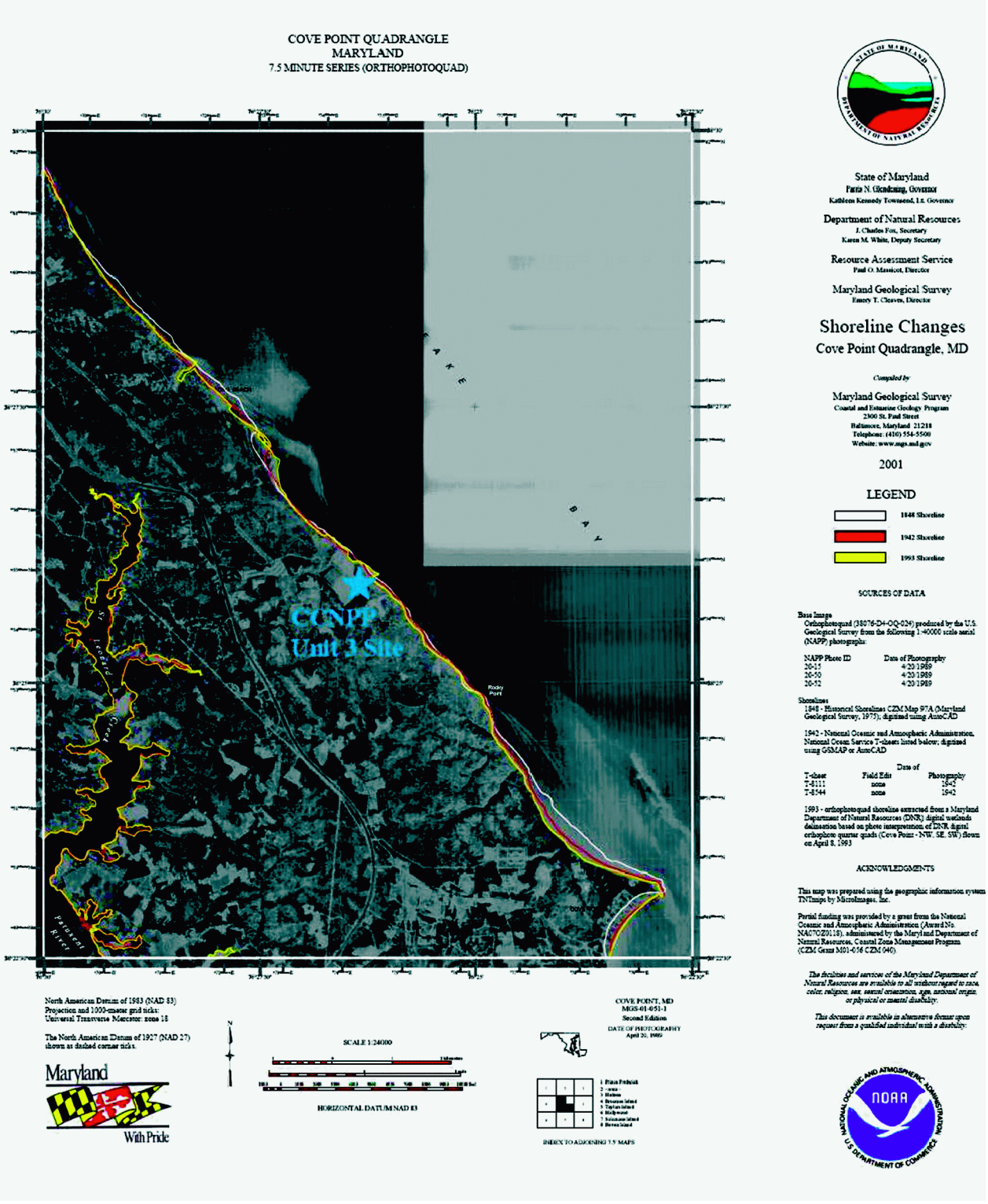


Figure 2.4-55 — {Chesapeake Bay Shoreline Erosion Rates Near The CCNPP Unit 3 Site Estimated By Maryland Department Of Natural Resources}

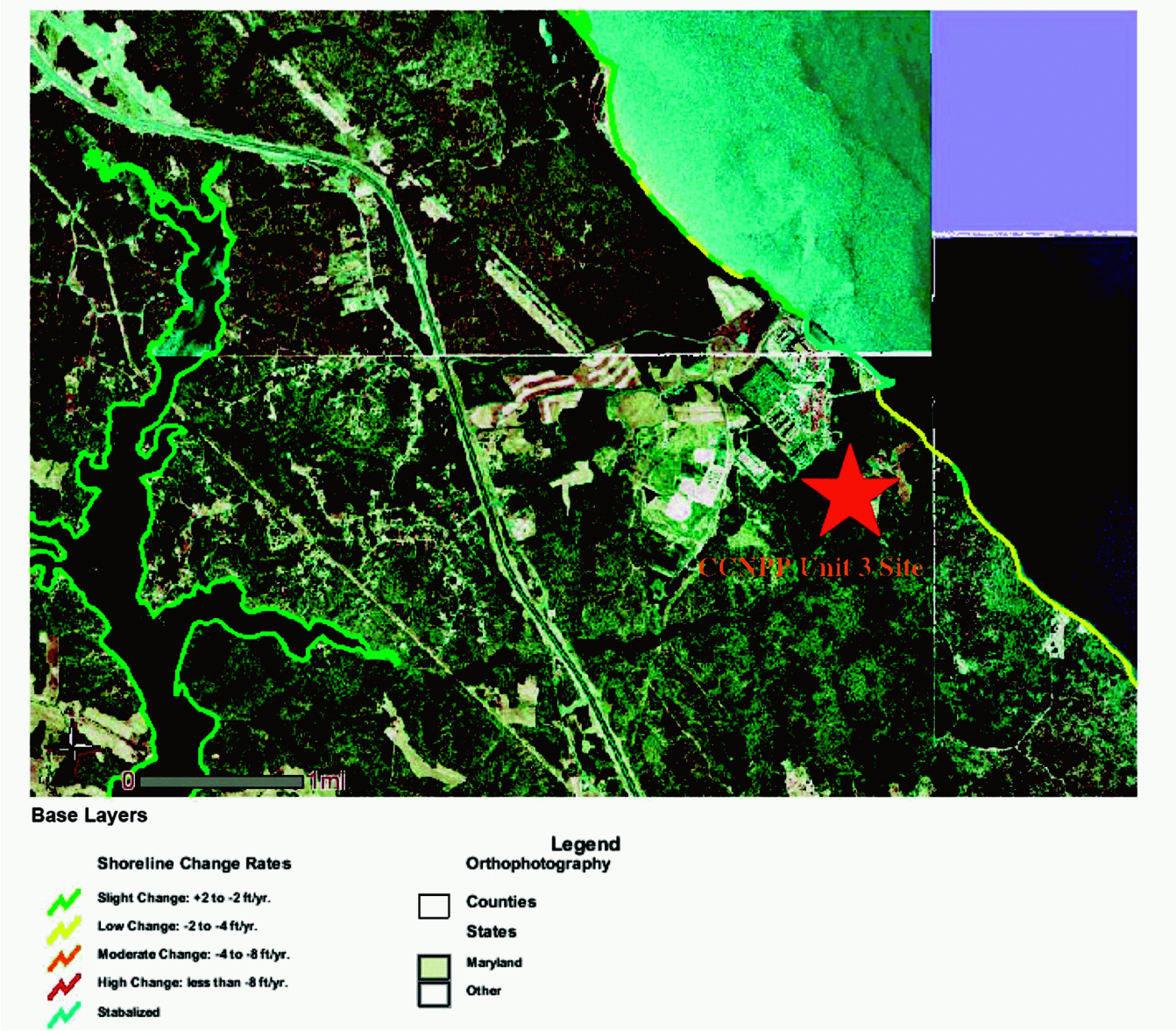


Figure 2.4-56 — {UHS Make-Up Intake Structure}

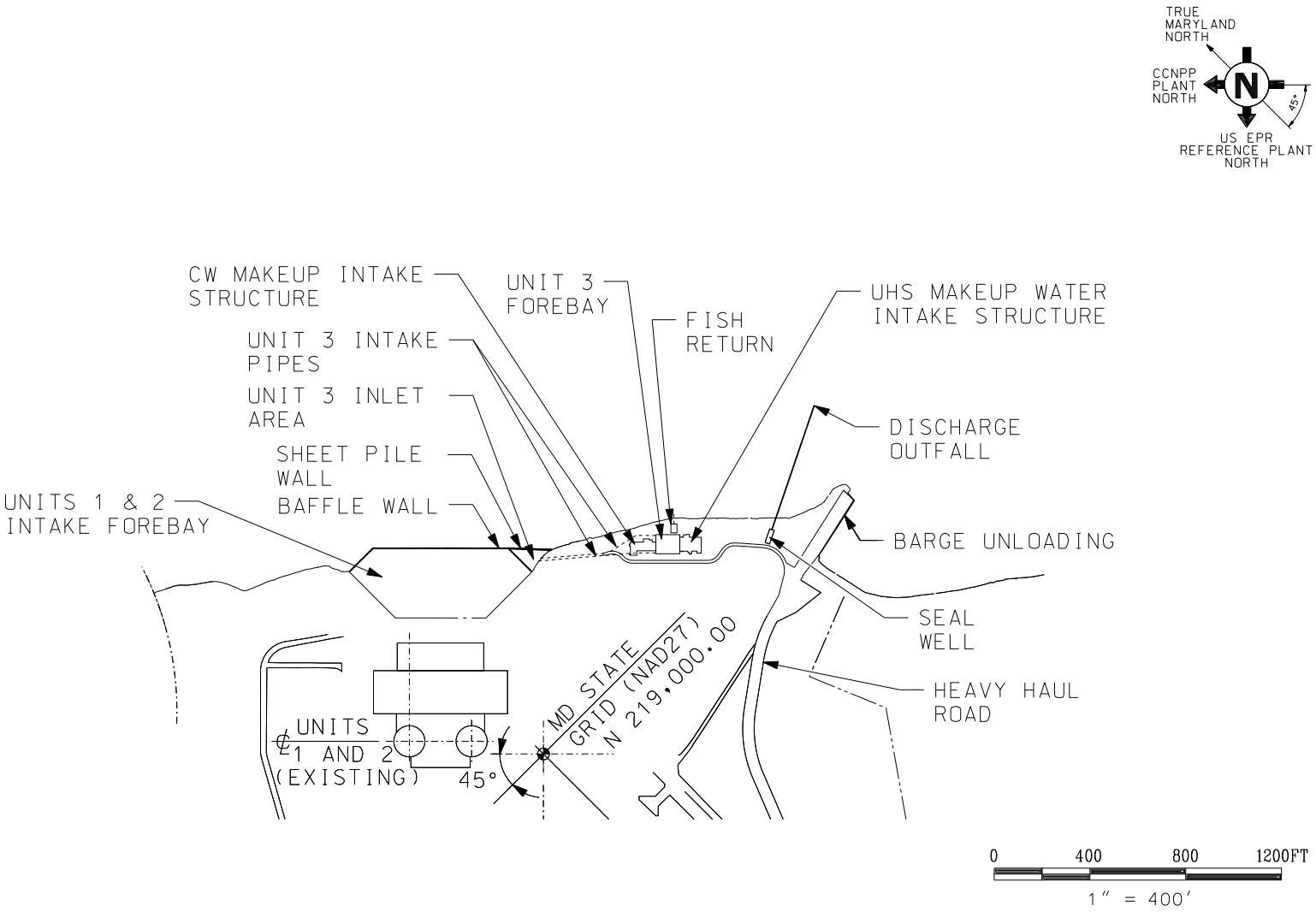


Figure 2.4-57 — {Shoreline Area and Bathymetry}

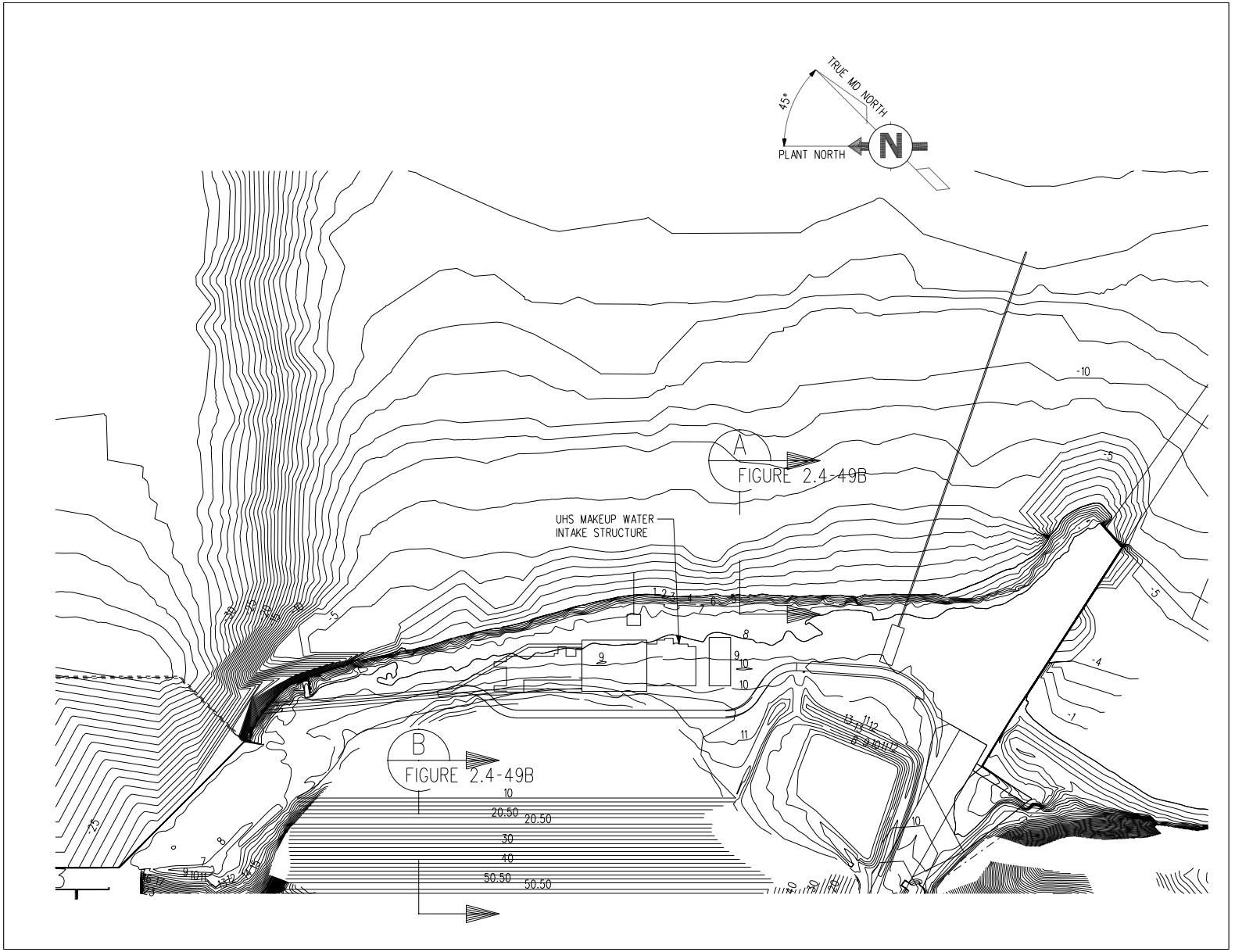


Figure 2.4-58 — {Riprap Protection}

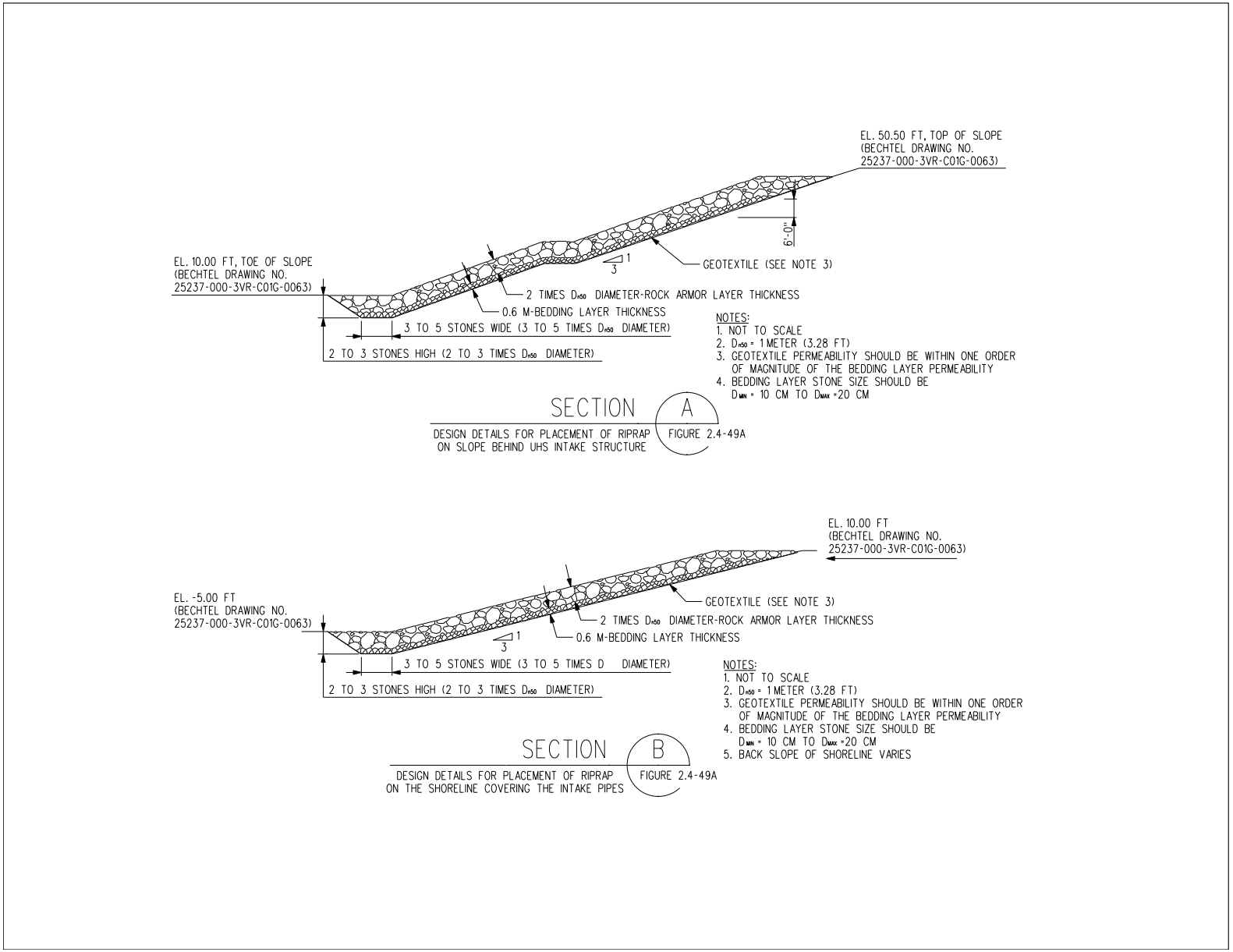


Figure 2.4-59 — {Unit 3 Forebay Cover}

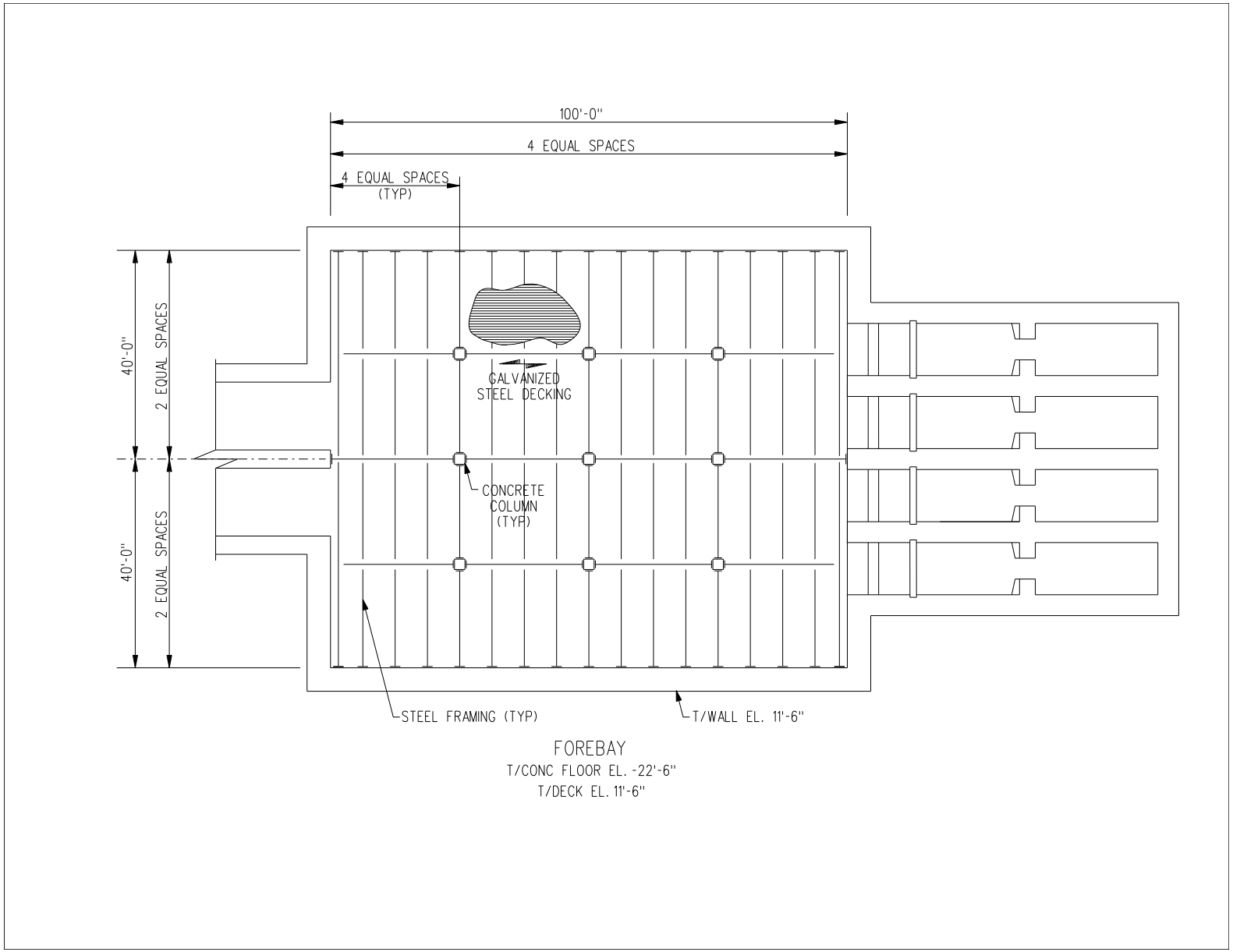


Figure 2.4-60 — {Track Of The Probable Maximum Hurricane}