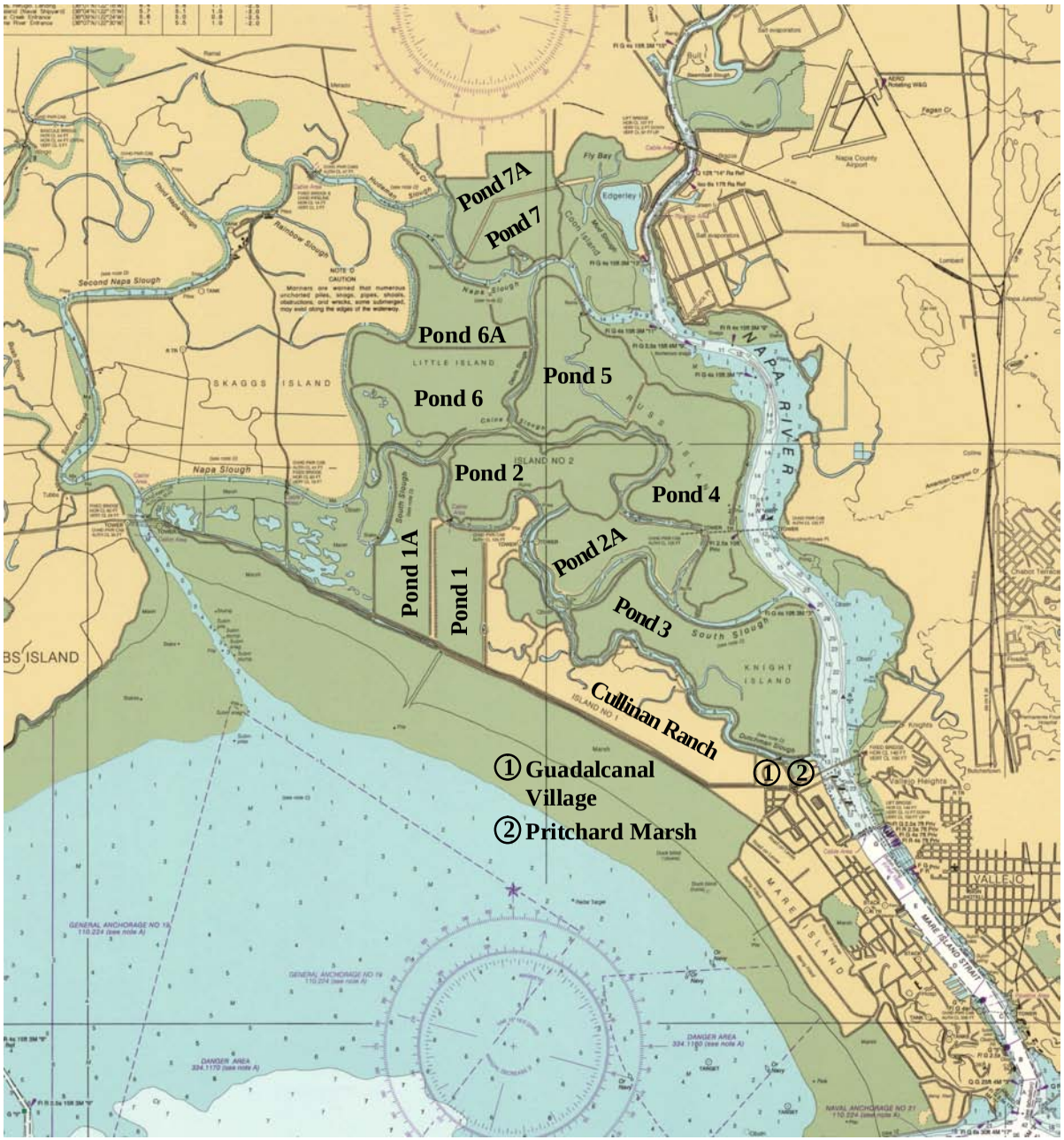

Location Map

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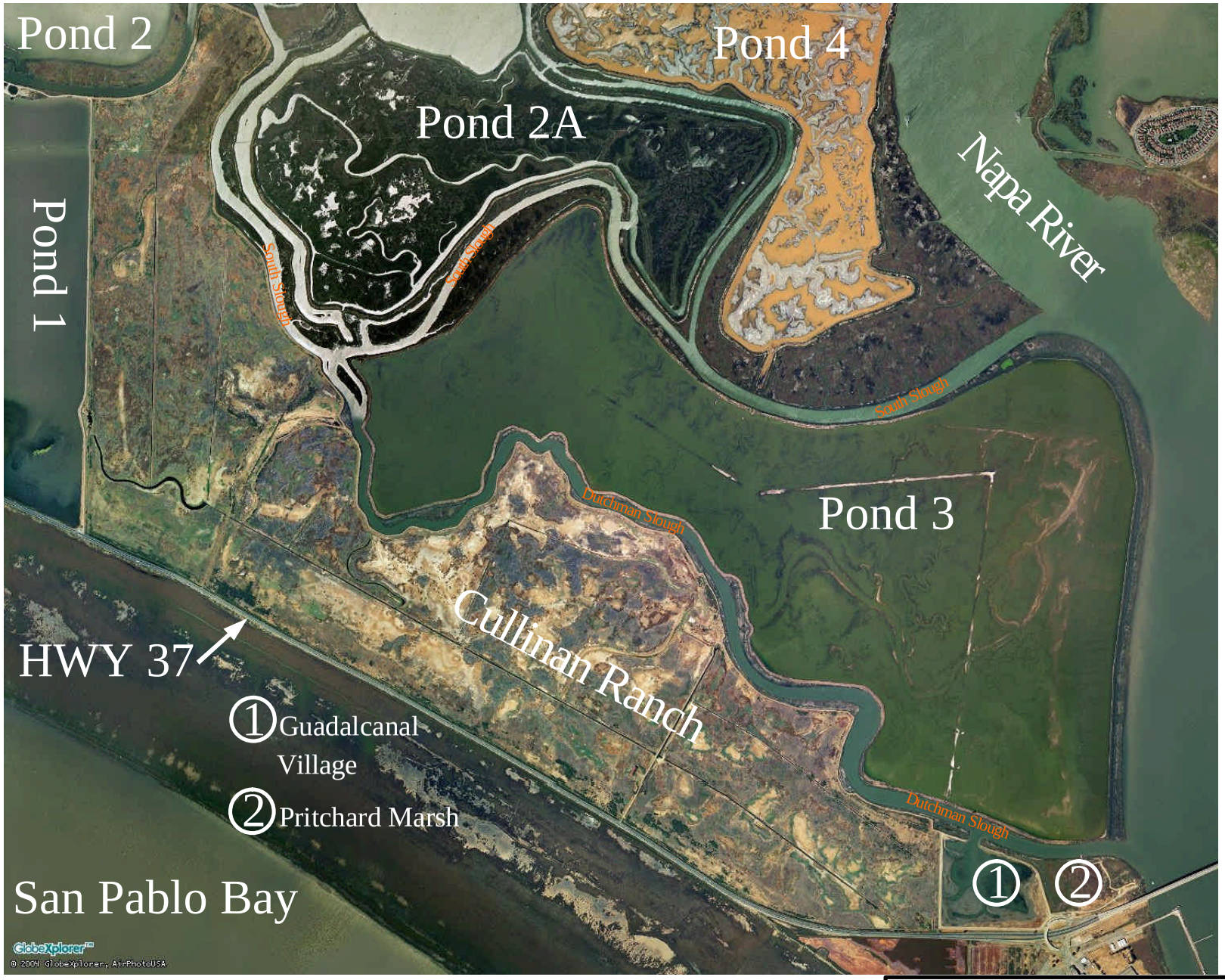
Figure 2.1-1



Vicinity Map

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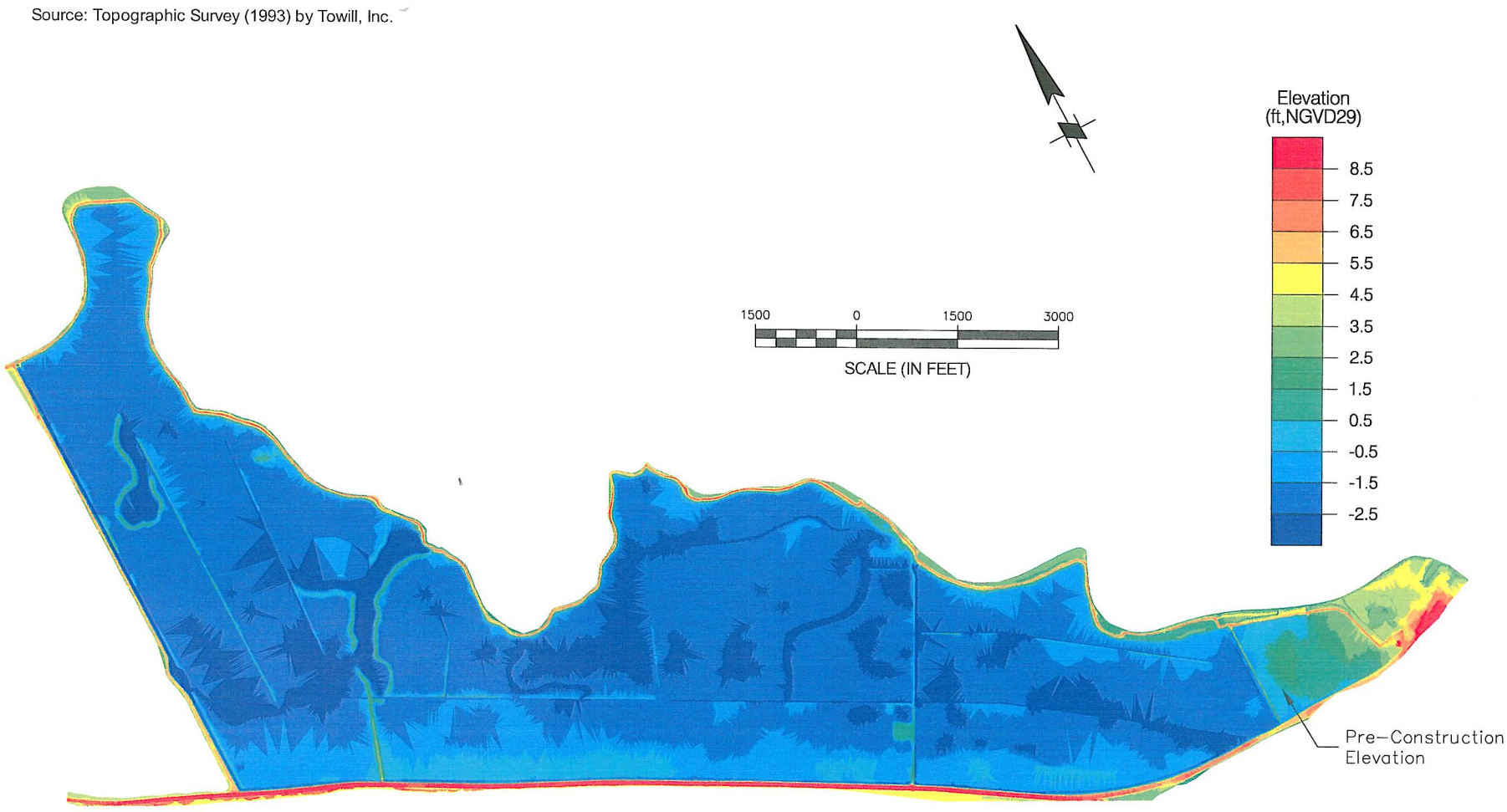
Figure 2.1-2



Site Elevations (feet, NGVD29)

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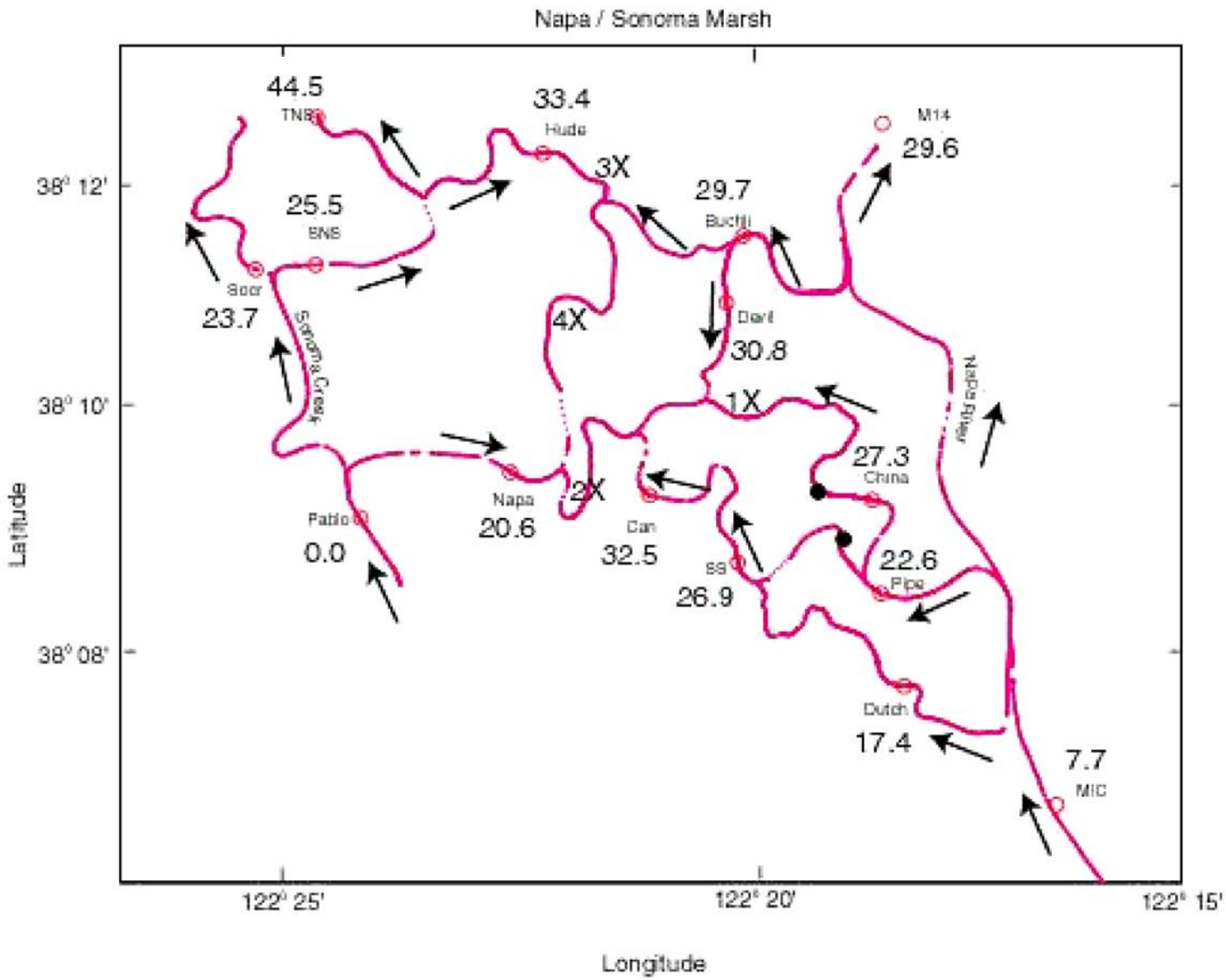
Figure 2.1 - 3



Source: John C. Warner and David H. Schoellhamer, January 25, 1999
Summary and Analysis, Hydrodynamic and Water-Quality Data for the Napa/Sonoma Marsh Complex, Final Report

Existing Tidal Phase

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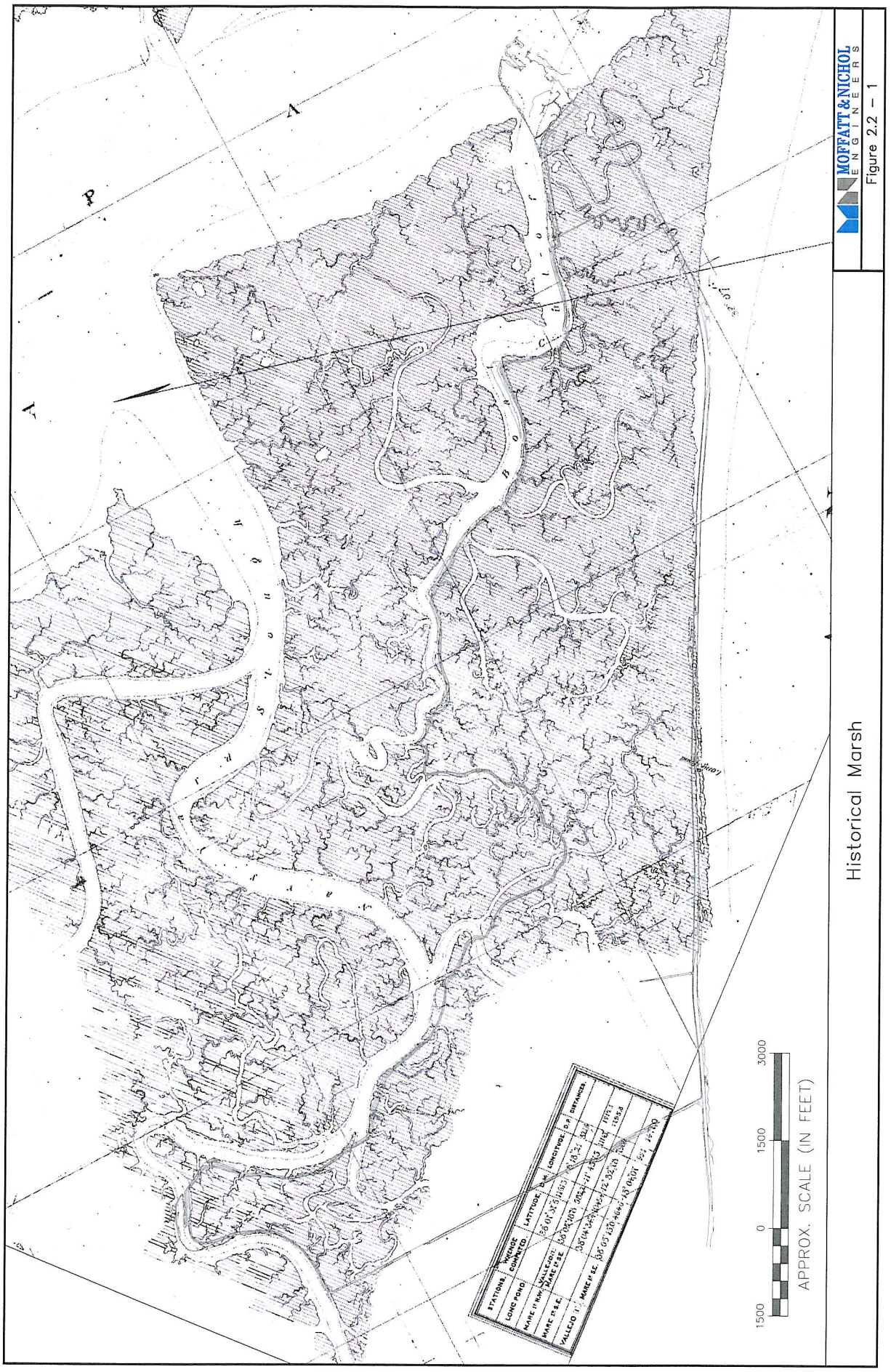
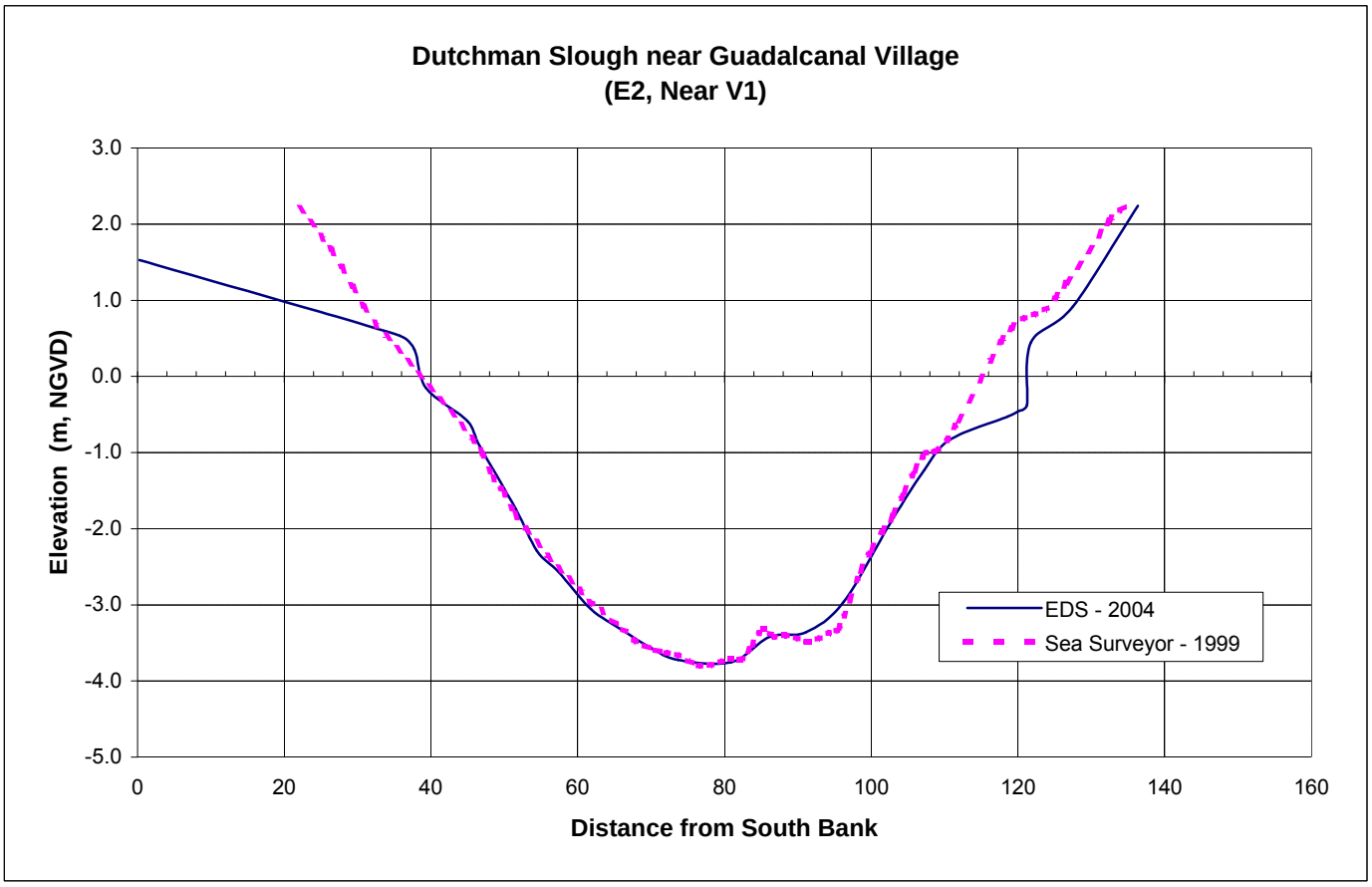
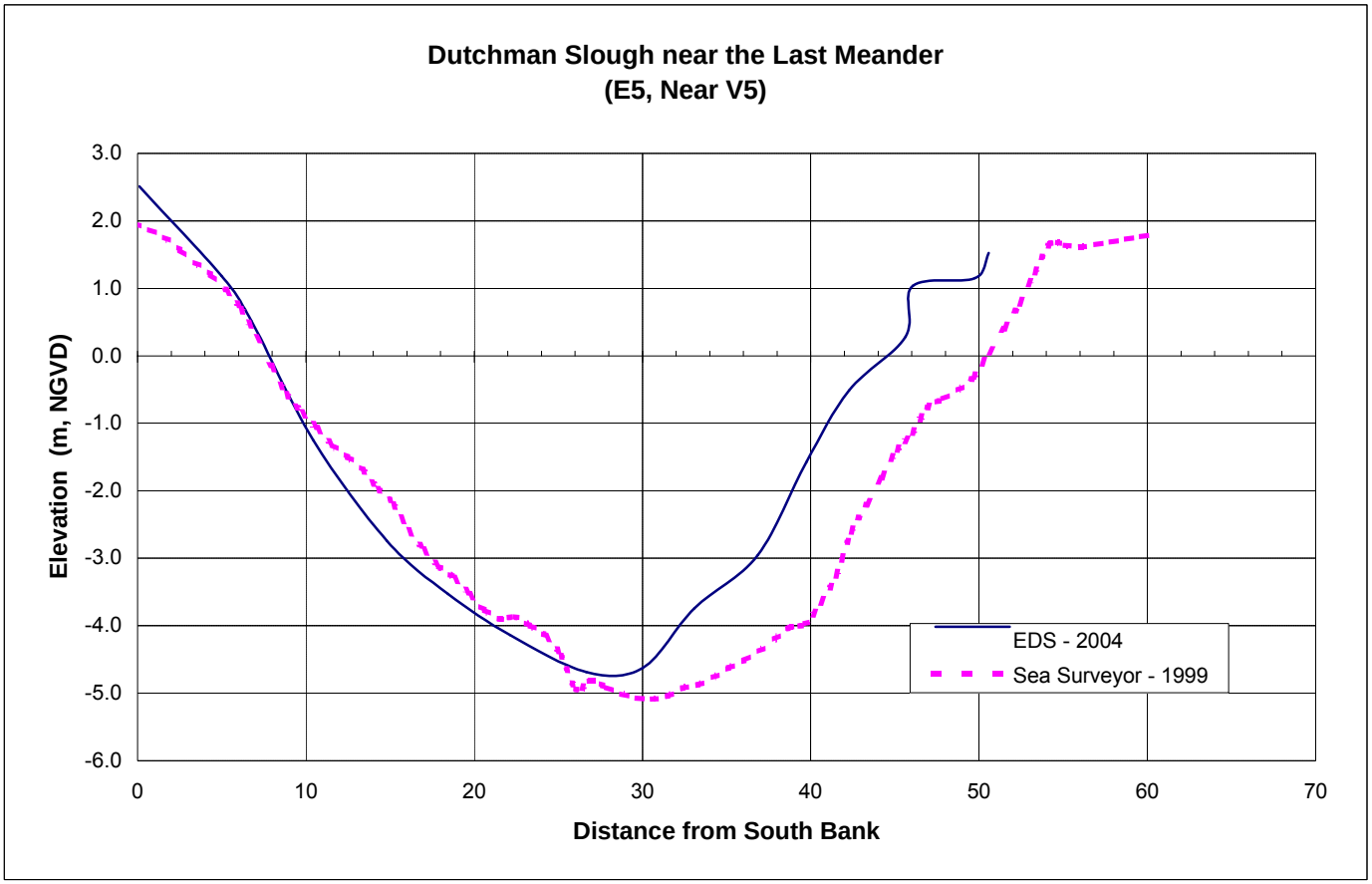
Figure 2.1 - 4


MOFFATT & NICHOL
ENGINEERS
Figure 2.2 – 1
Historical Marsh
APPROX. SCALE (IN FEET)
1500
0
1500
3000





Dutchman Slough Cross Sections
(See Figure 4.1-1 for Locations)

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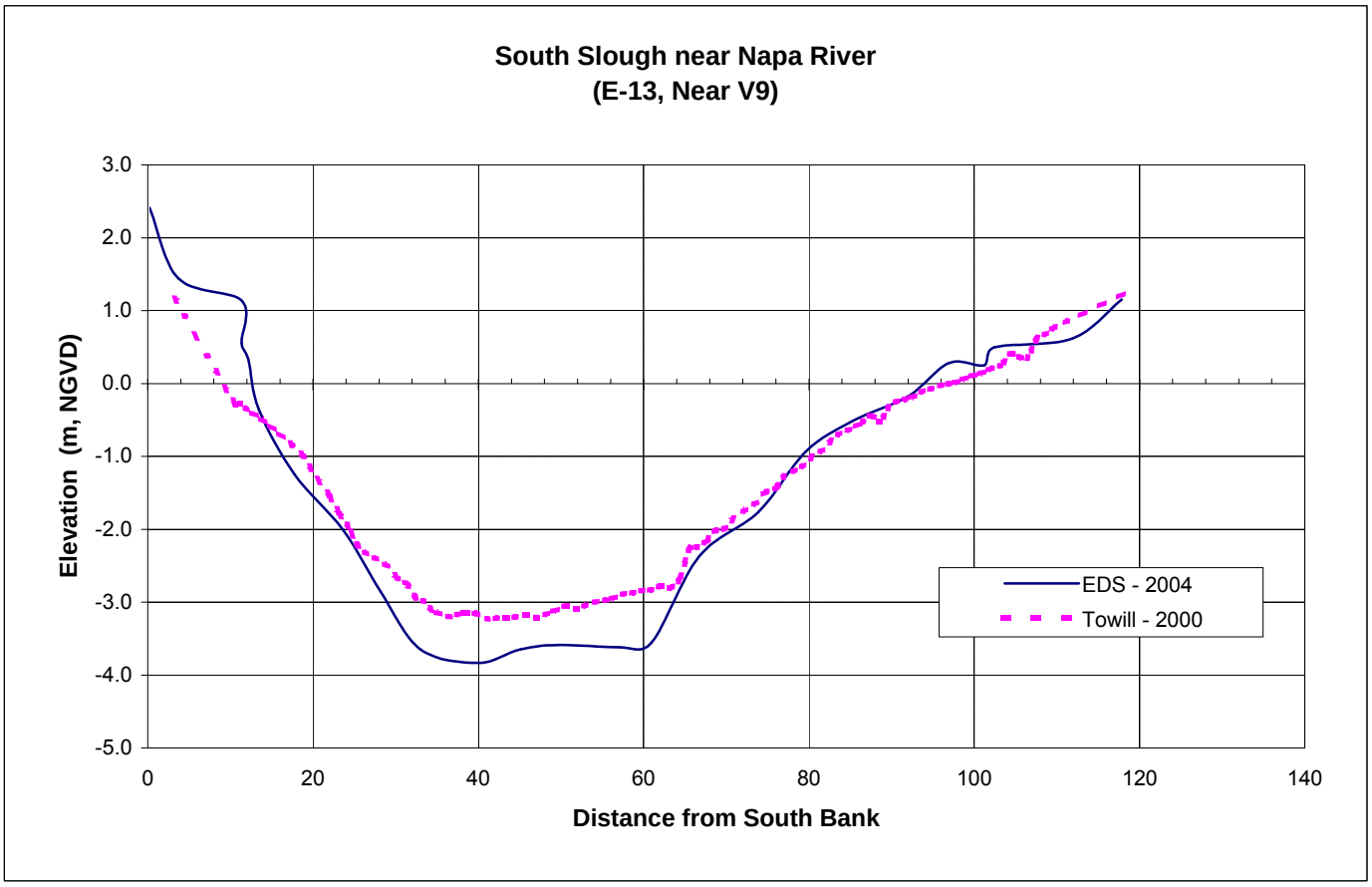
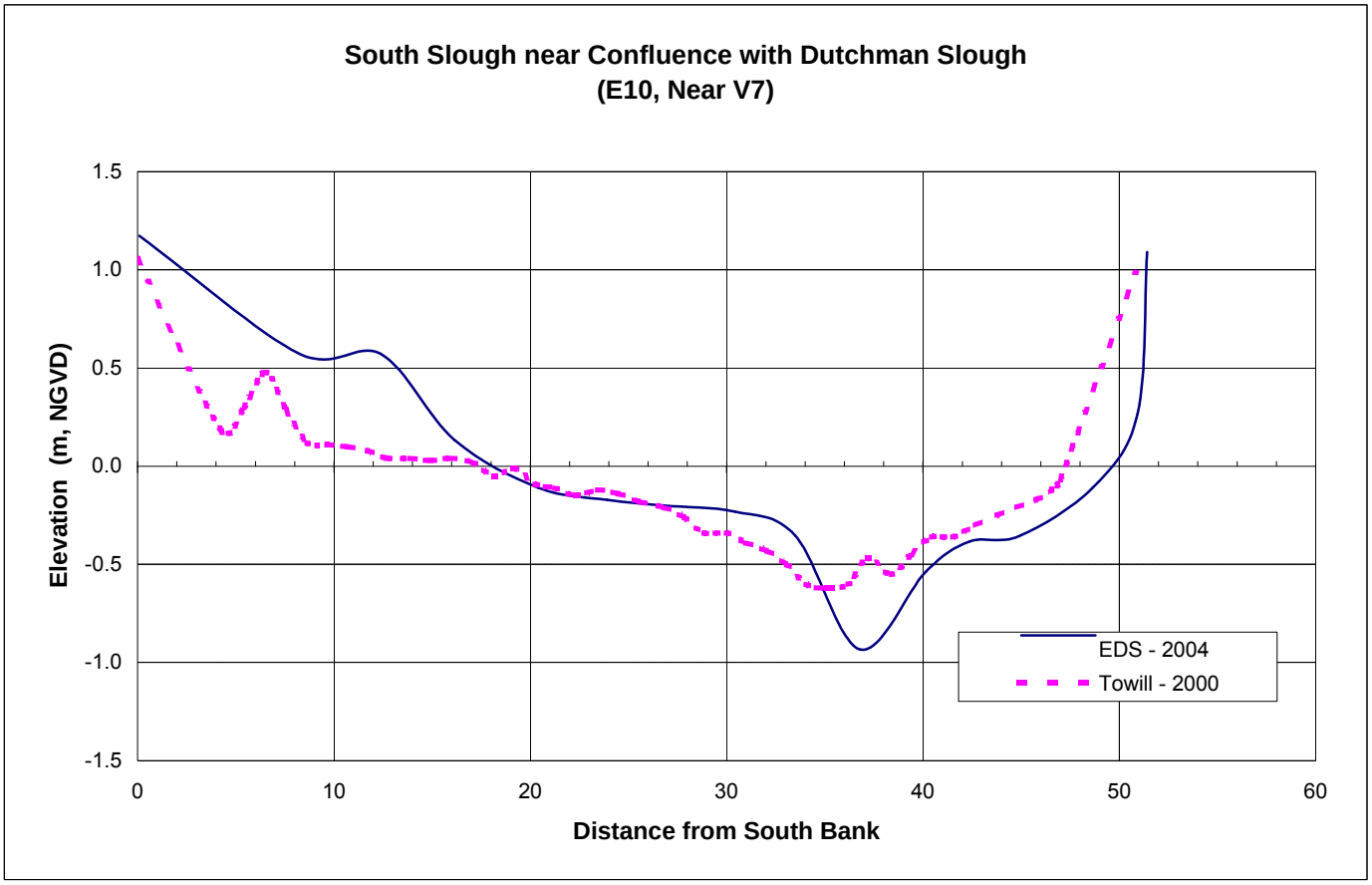
Figure 2.2 - 2





South Slough Cross Sections
(See Figure 4.1-1 for Locations)

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Figure 2.2 - 3

Case 2: Full Restoration – Five Breaches
(Pre-Pond 3 Construction)

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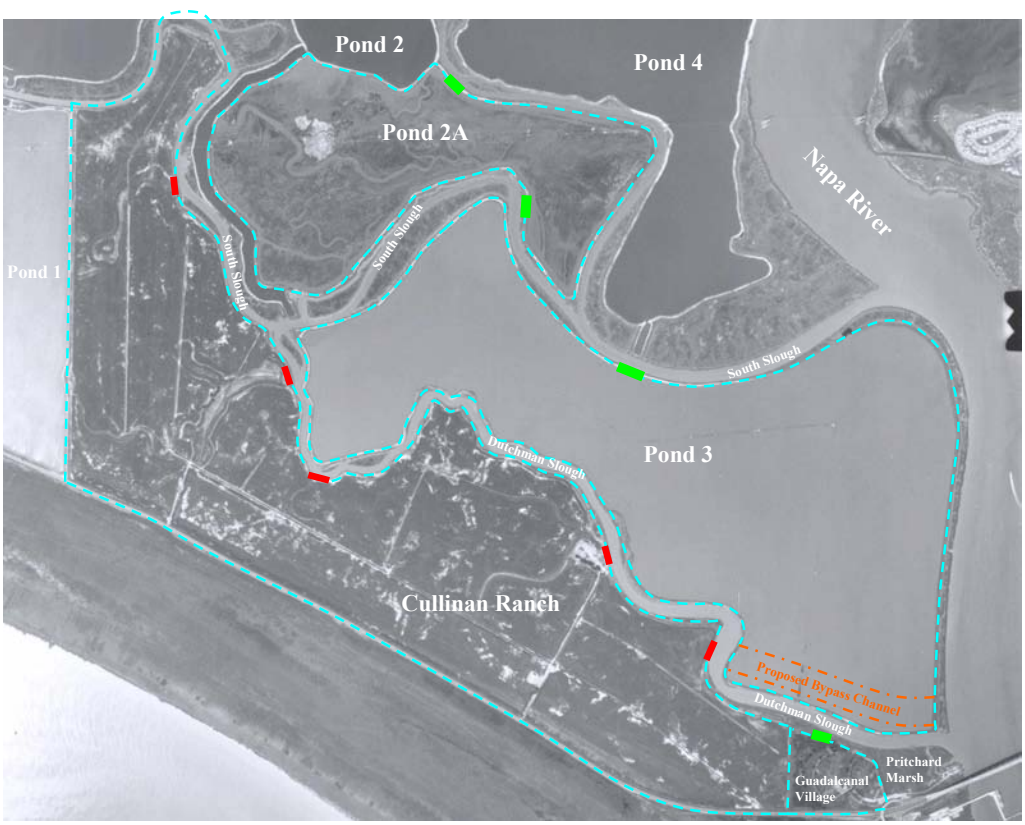
Figure 3.3 - 1



Case 2 Variant: Full Restoration – Five Breaches, Dutchman Slough Mouth Widened/Deepened
(Pre-Pond 3 Construction)

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Figure 3.3 - 2

Case 3: Full Restoration – Two Breaches on West Side
(Pre-Pond 3 Construction)

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Figure 3.3 - 3

Case 4: Partial Restoration – 300 Acres, East (4a) or West (4b)
(Pre-Pond 3 Construction)

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Figure 3.3 - 4

Case 5: No Action
(Post-Pond 3 Construction)

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Figure 3.3 - 5

Case 6: Partial Restoration – 300 Acres, West
(Post-Pond 3 Construction)

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Figure 3.3 - 6

Case 7: Full Restoration – Two Breaches on West Side
(Post-Pond 3 Construction)

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Figure 3.3 - 7

Case 8: Full Restoration – Four Breaches
(Post-Pond 3 Construction)

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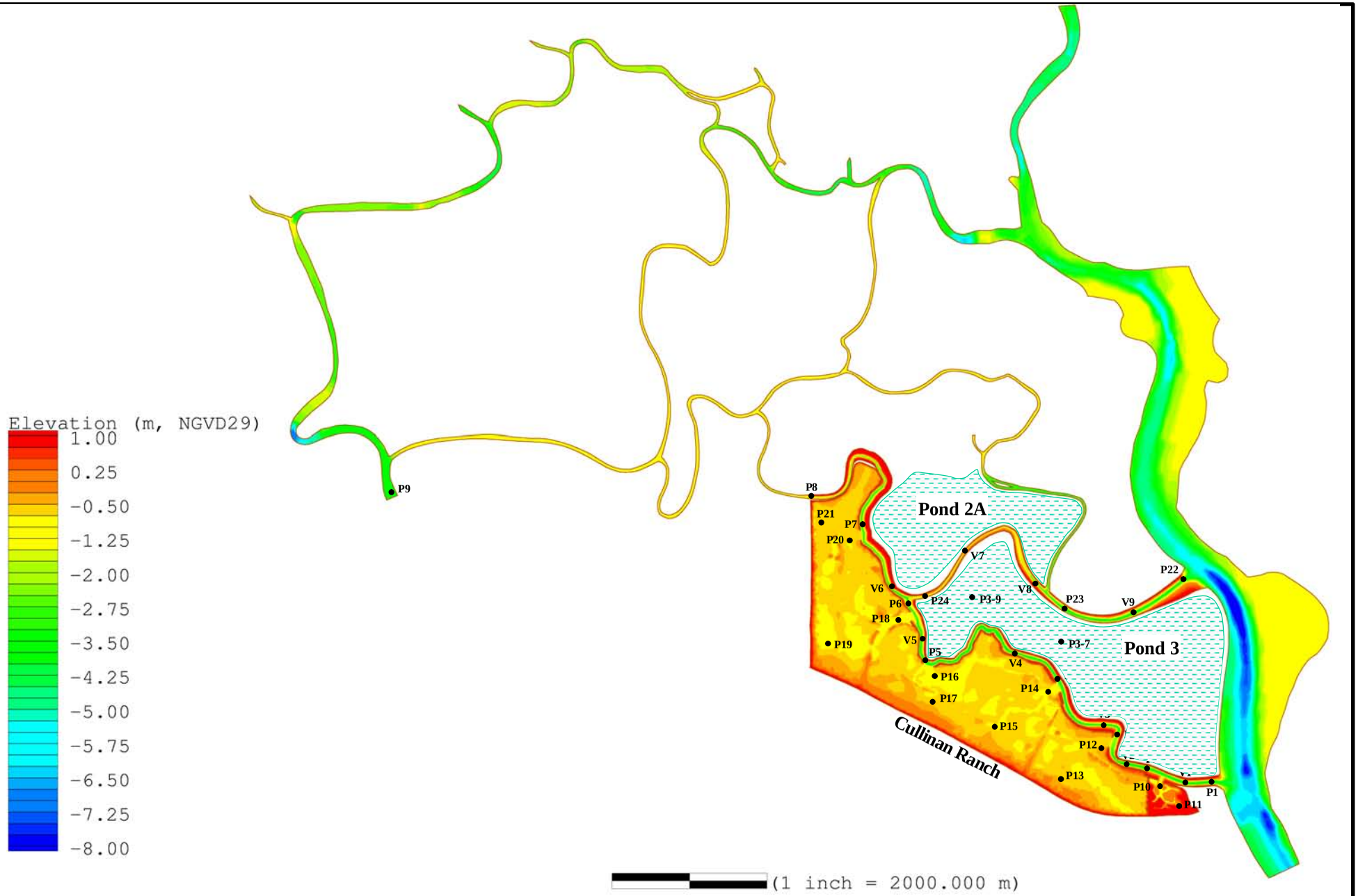
Figure 3.3 - 8



Model Domain and Bathymetry

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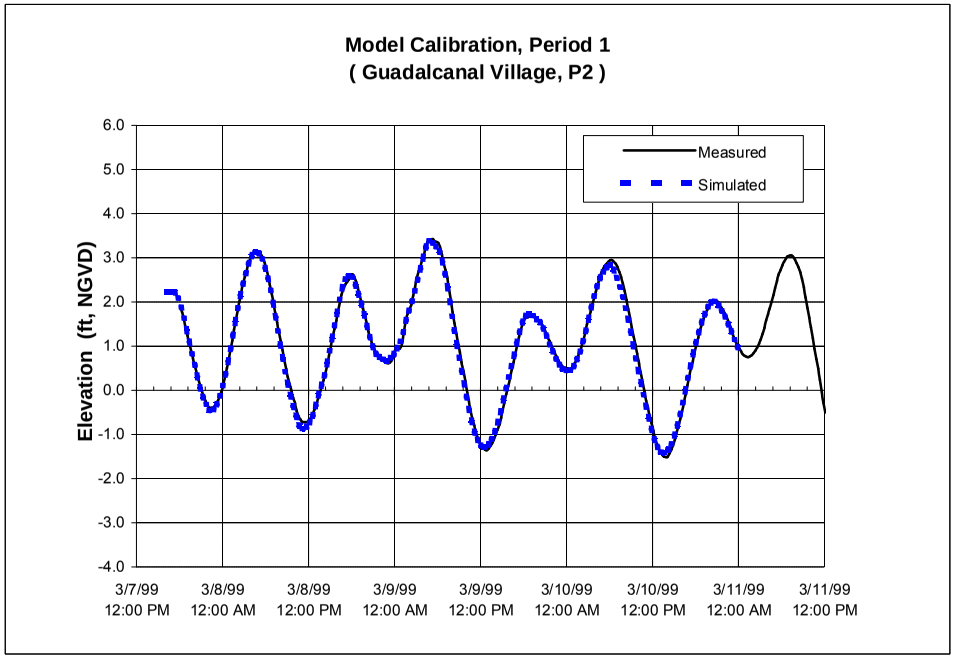
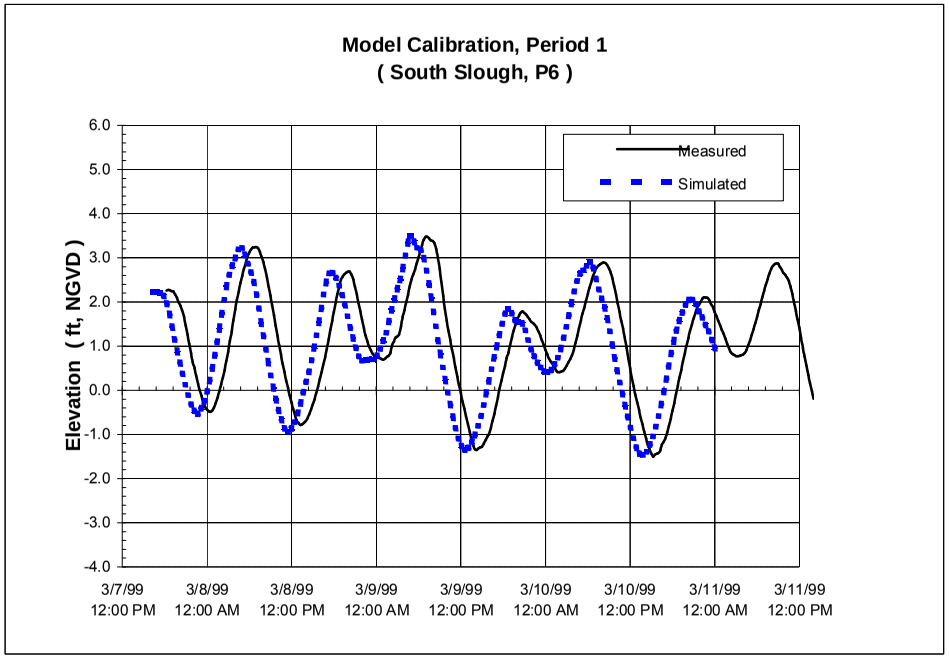
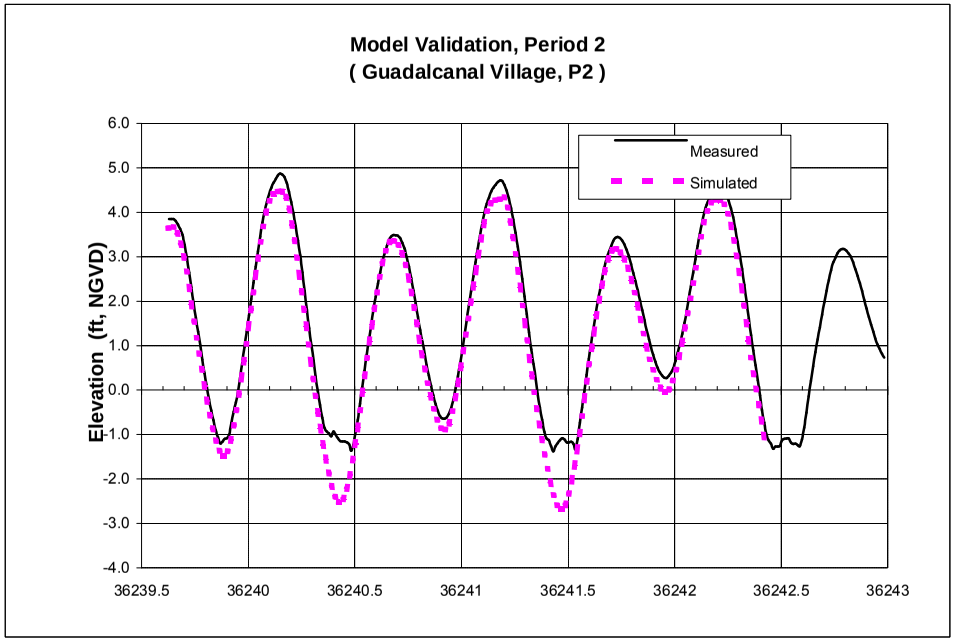
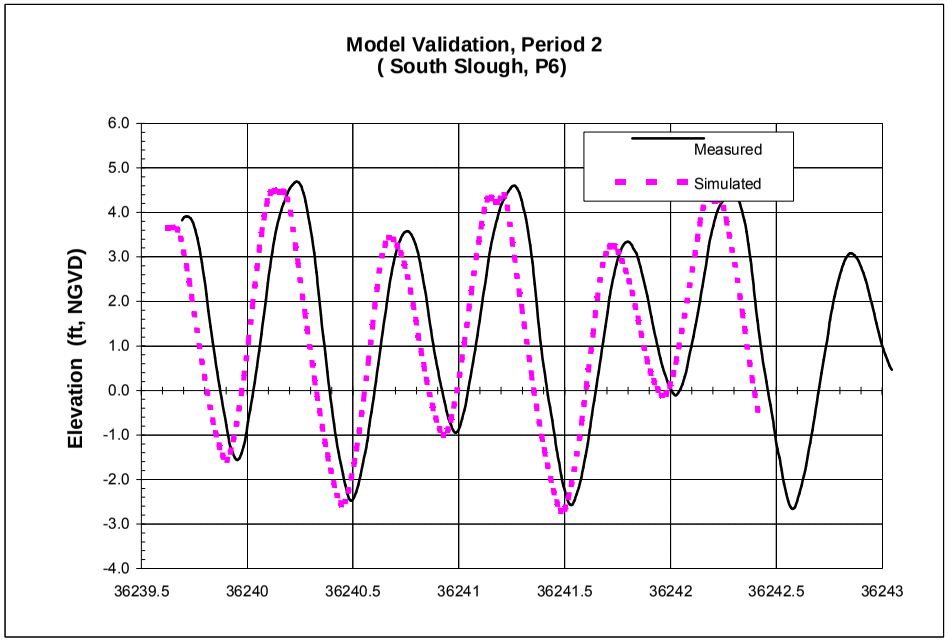
Figure 4.1 - 1









Model Calibration & Validation

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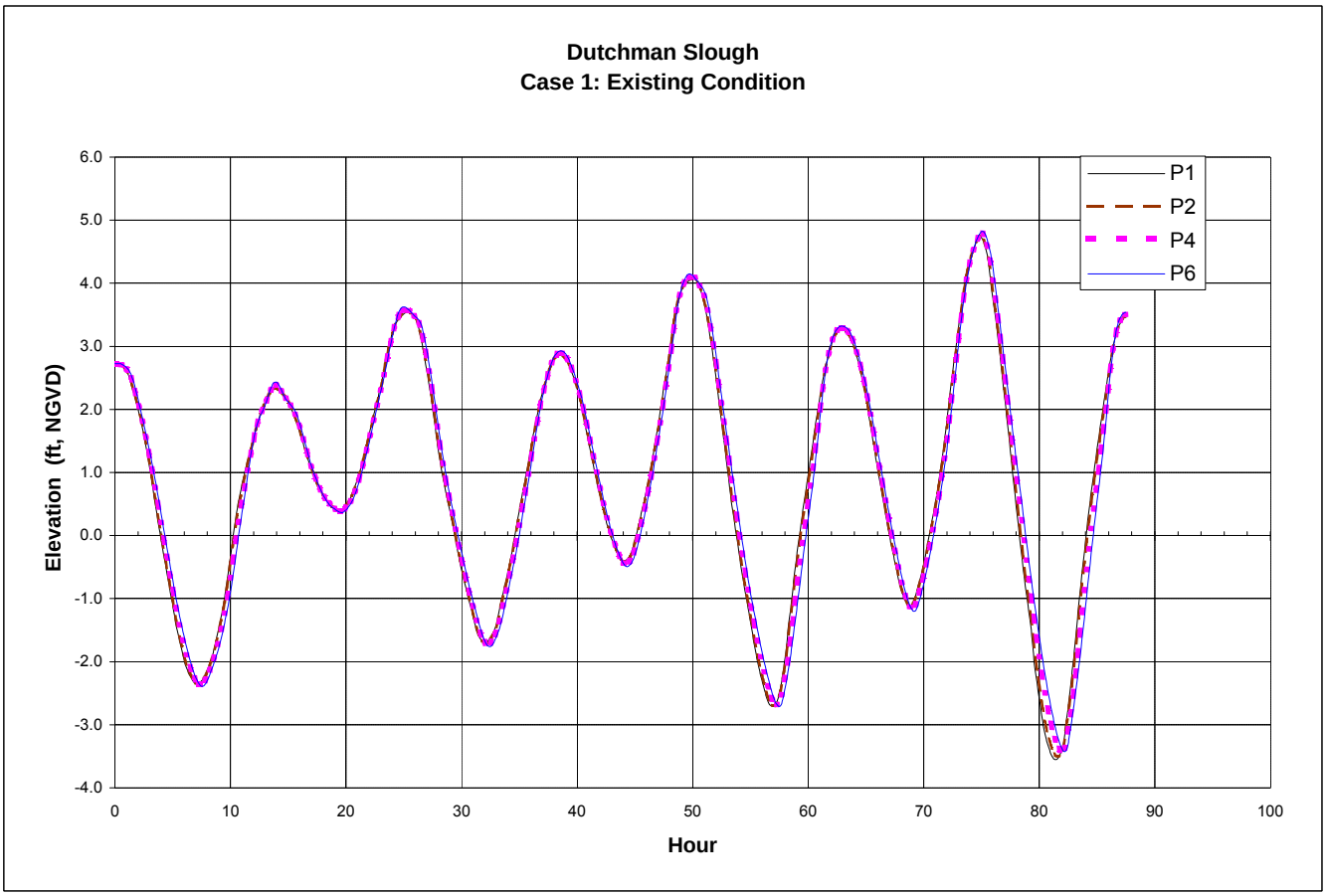
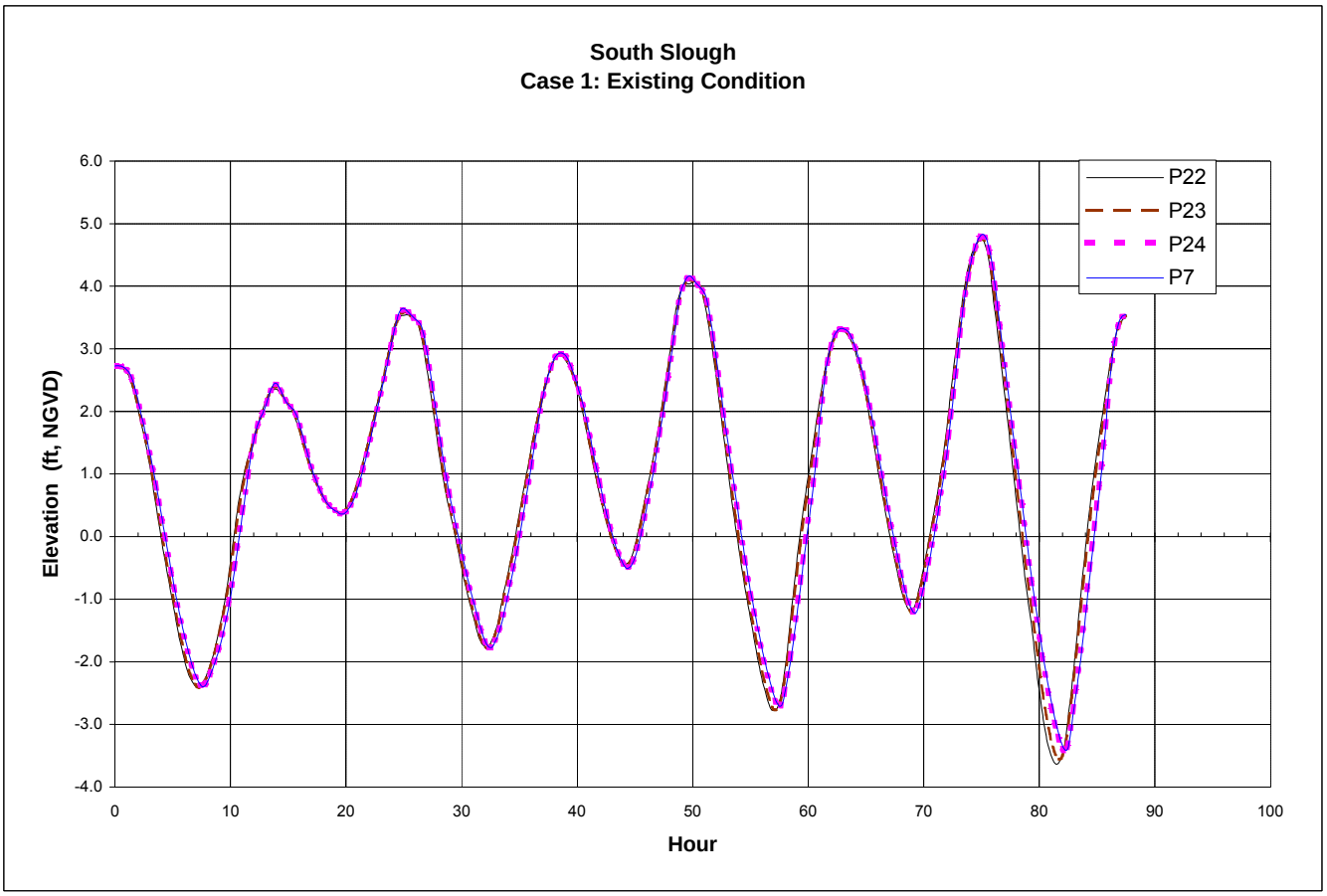
Figure 4.1-2





Simulated Water Levels
Case 1: Existing Condition

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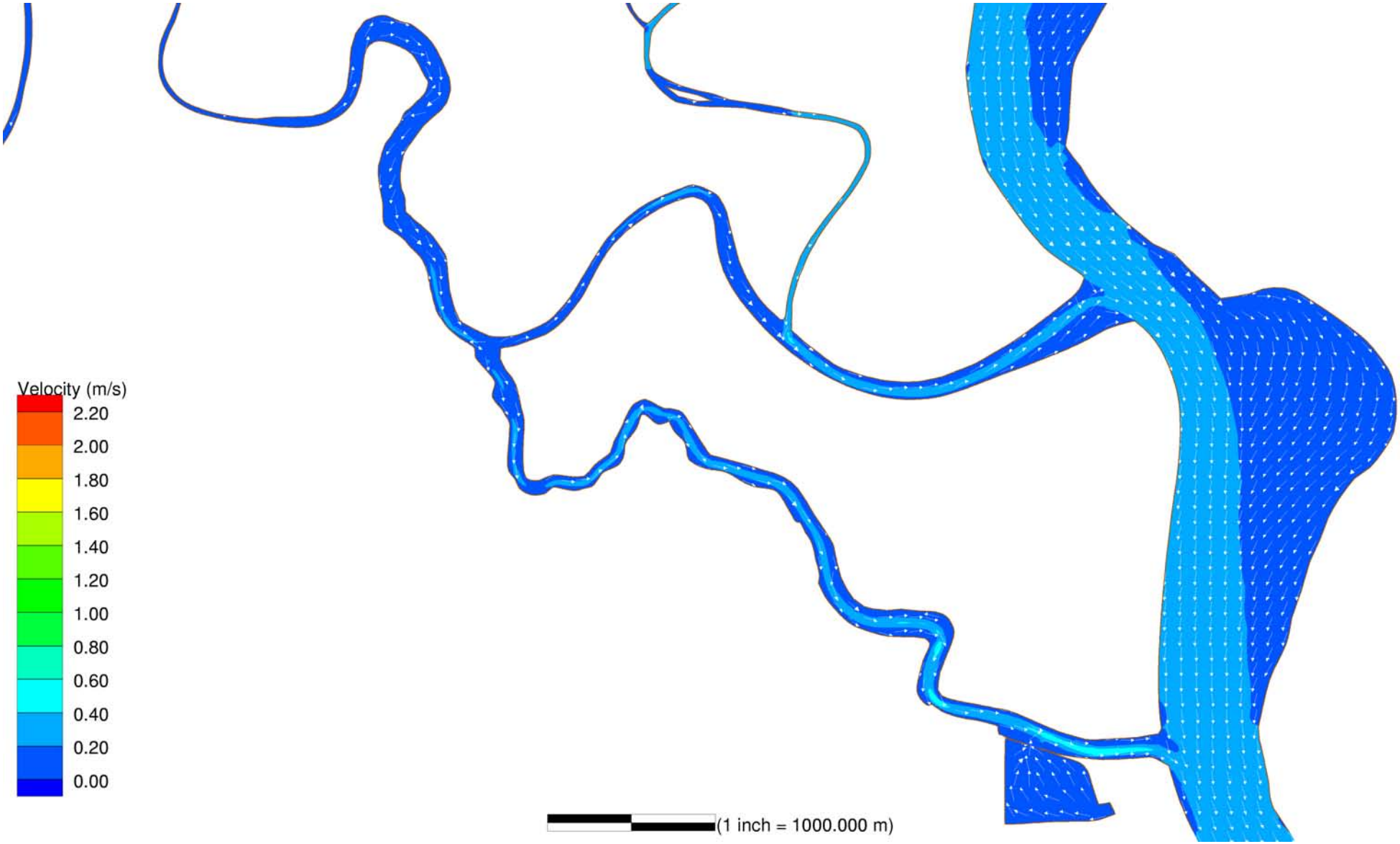
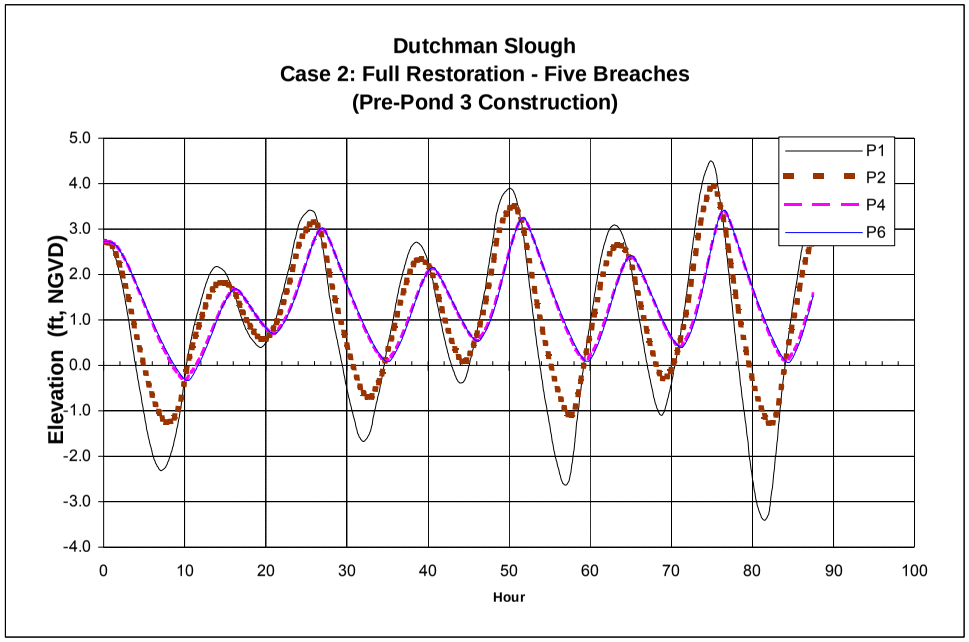
Figure 5.1 - 1

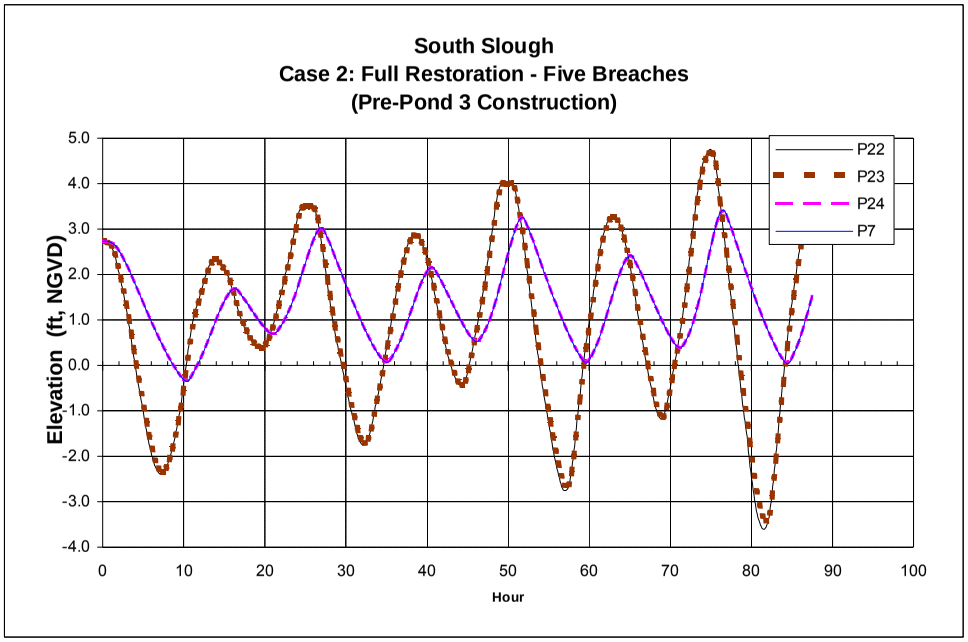


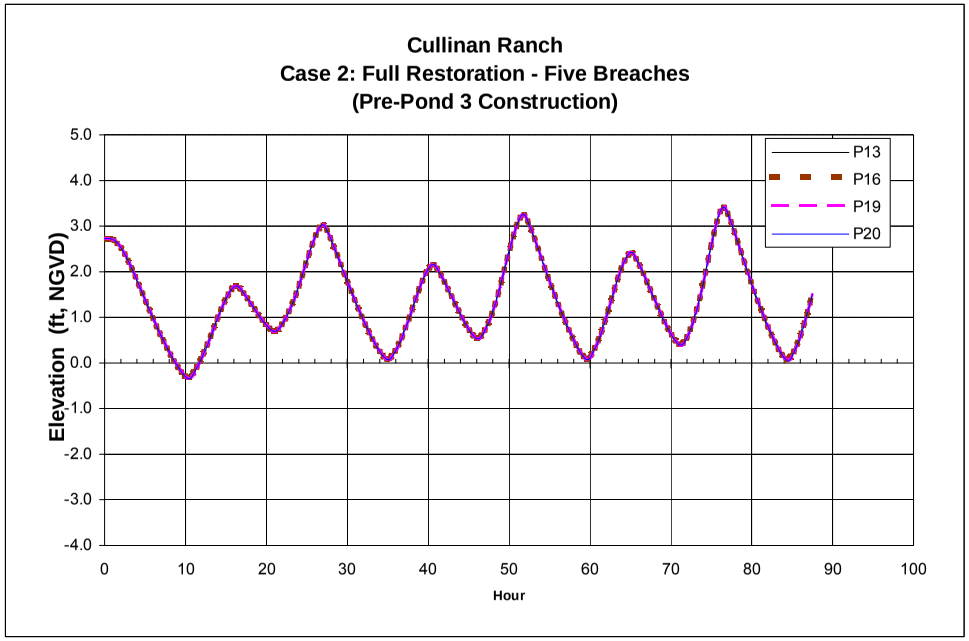
Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 1: Existing Condition

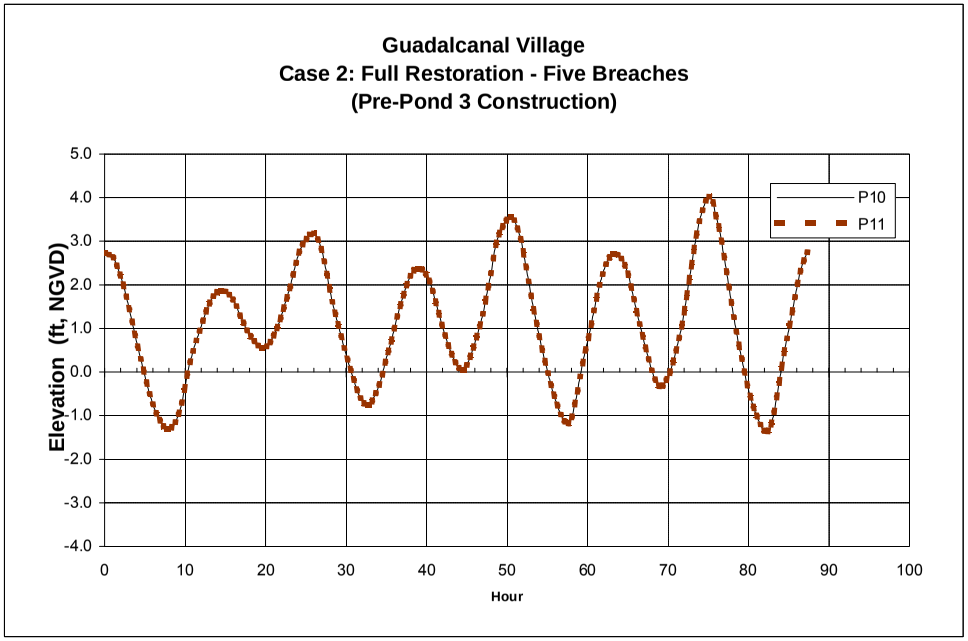
MOFFATT & NICHOL ENGINEERS

Figure 5.1 - 2









Simulated Water Levels
Case 2: Full Restoration - Five Breaches
Pre-Pond 3 Construction

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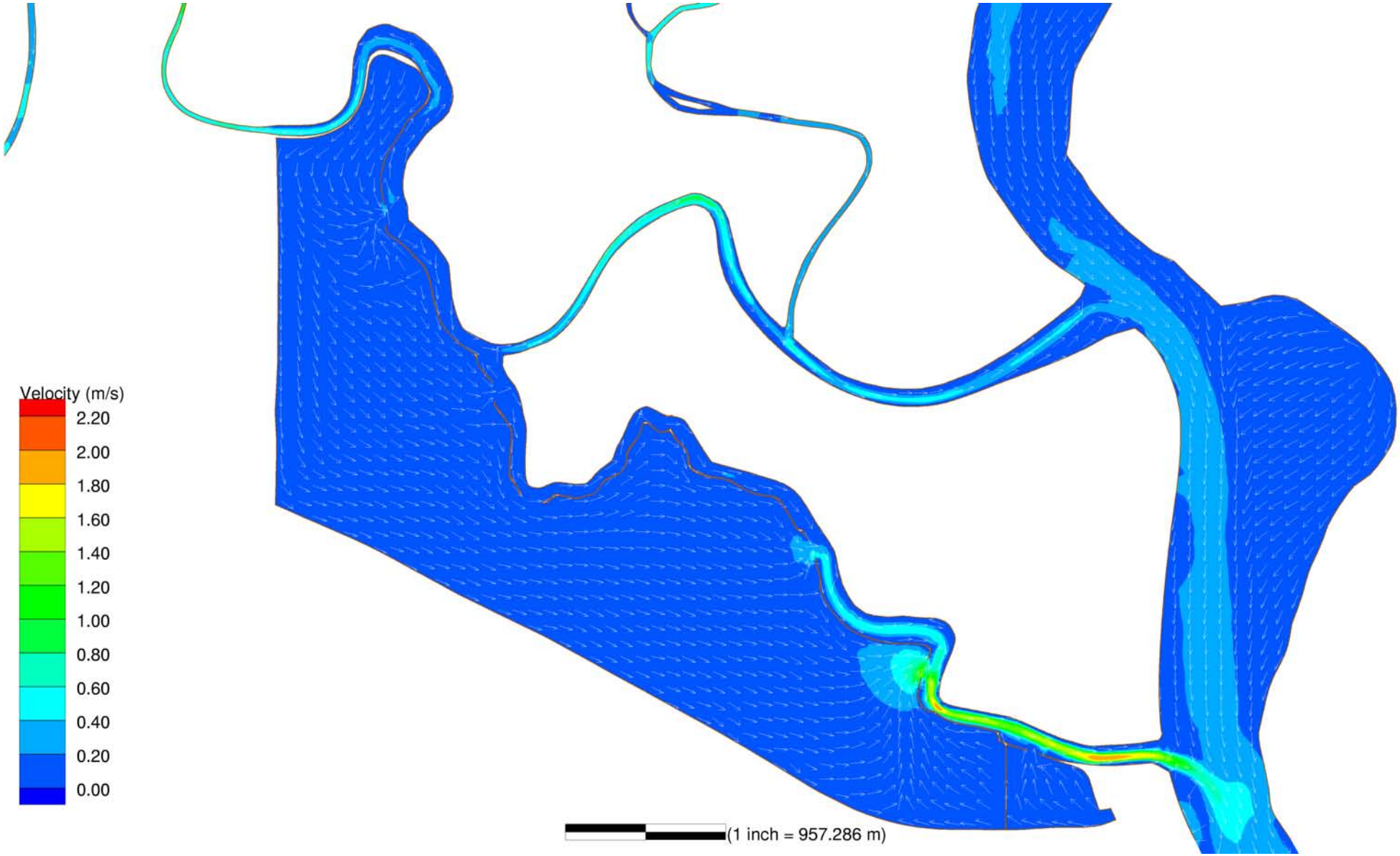
Figure 5.1 - 3



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 2: Full Restoration – Five Breaches
(Pre-Pond 3 Construction)

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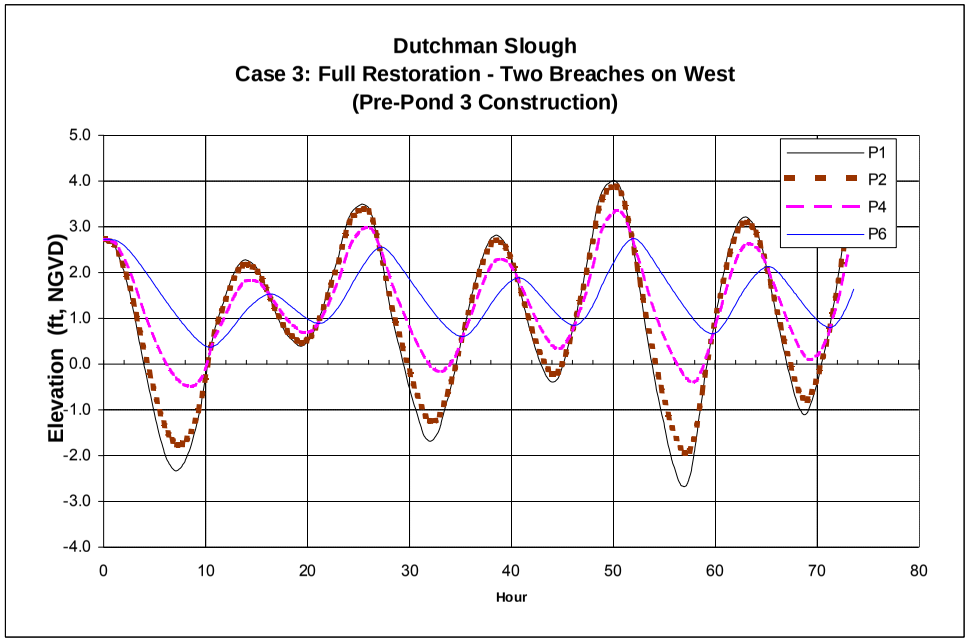
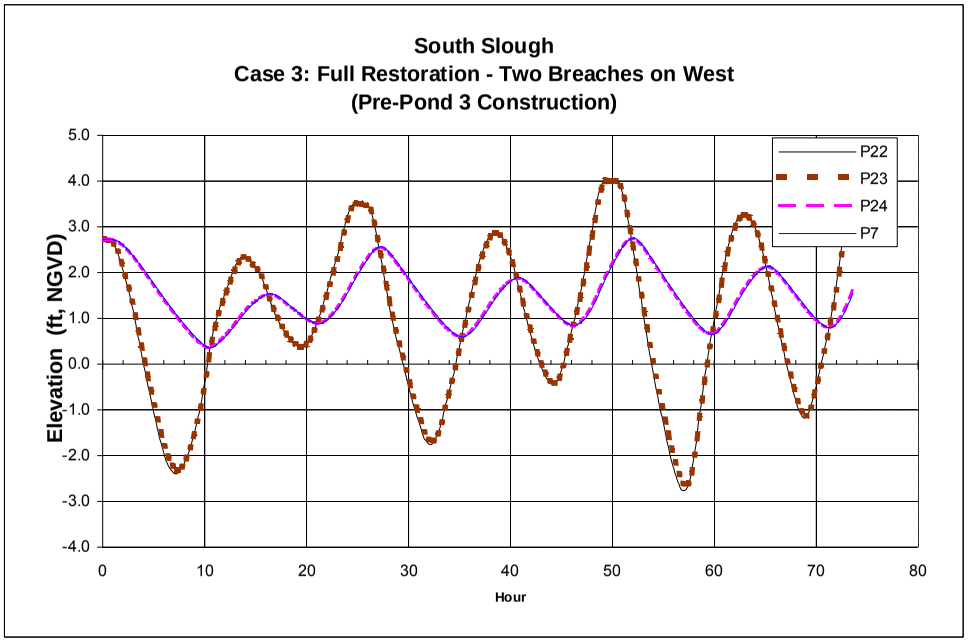
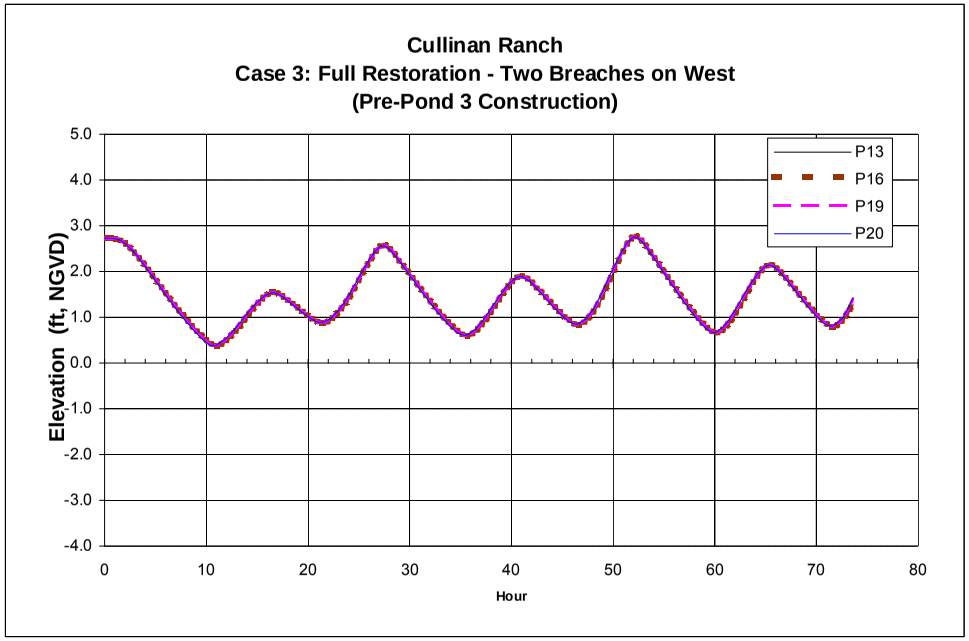
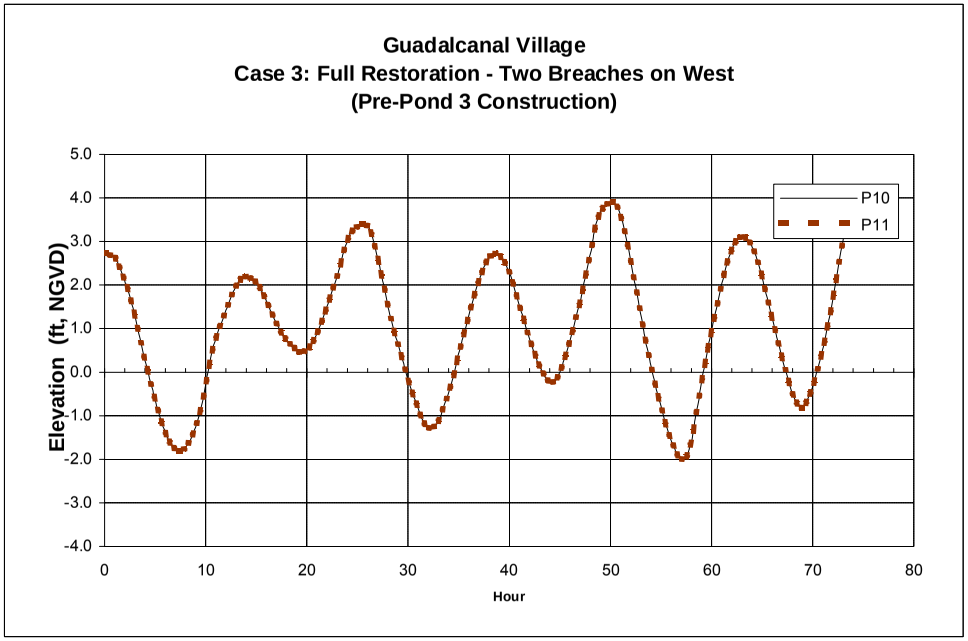
Figure 5.1 - 4









Simulated Water Levels
Case 3: Full Restoration - Two Breaches on West
(Pre-Pond 3 Construction)

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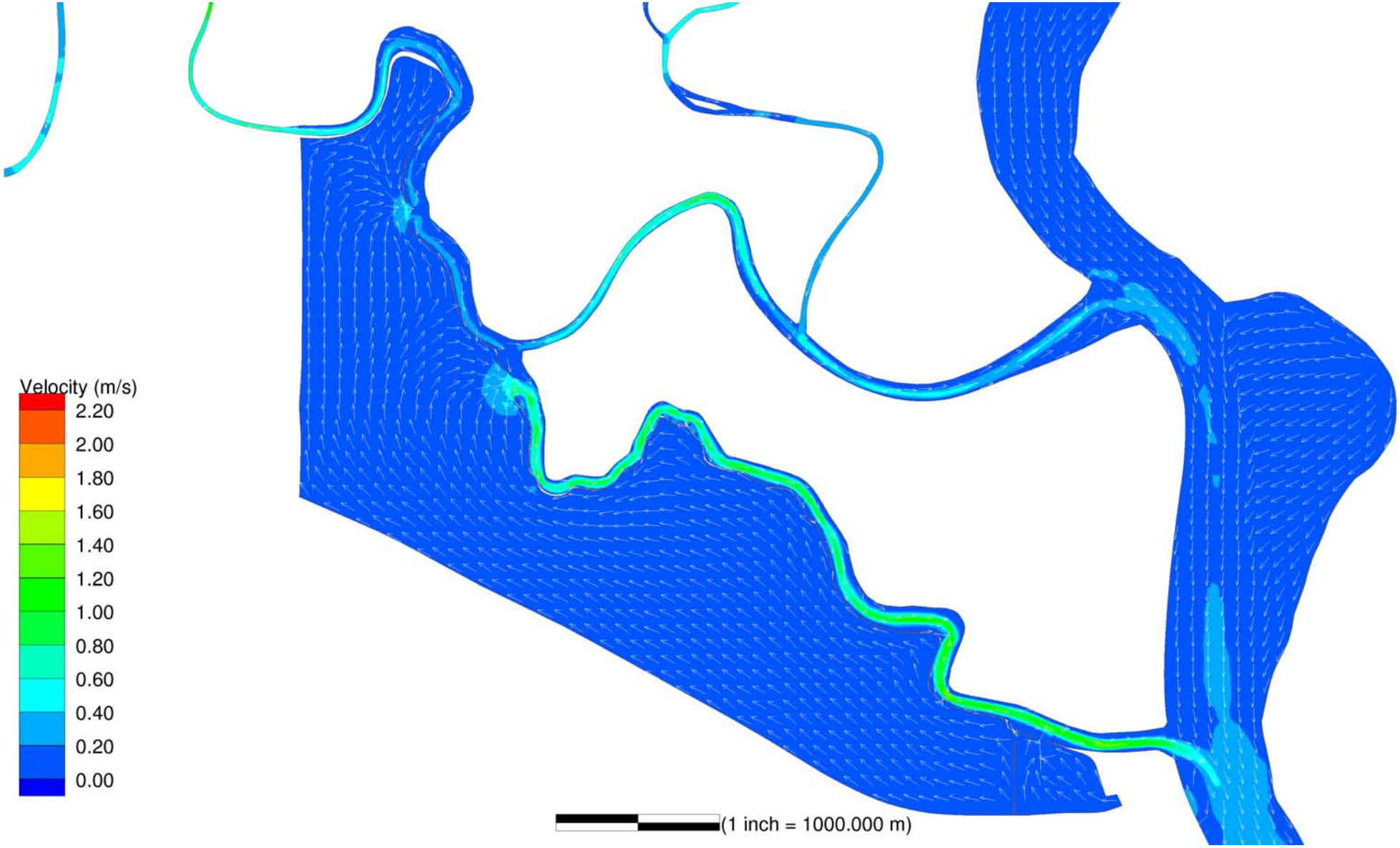
Figure 5.1 - 5



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 3: Full Restoration – Two Breaches on West Side
(Pre-Pond 3 Construction)

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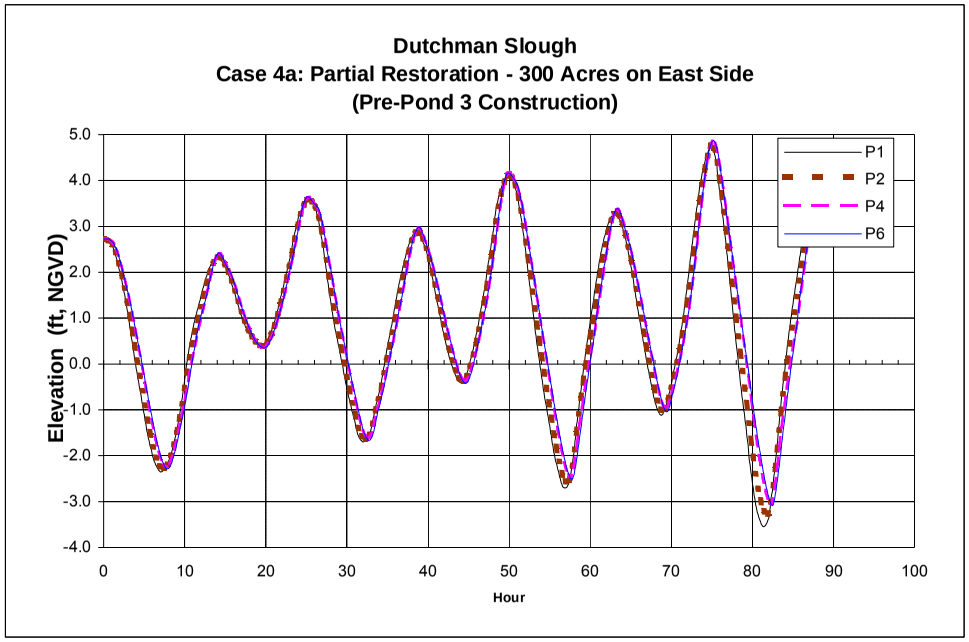
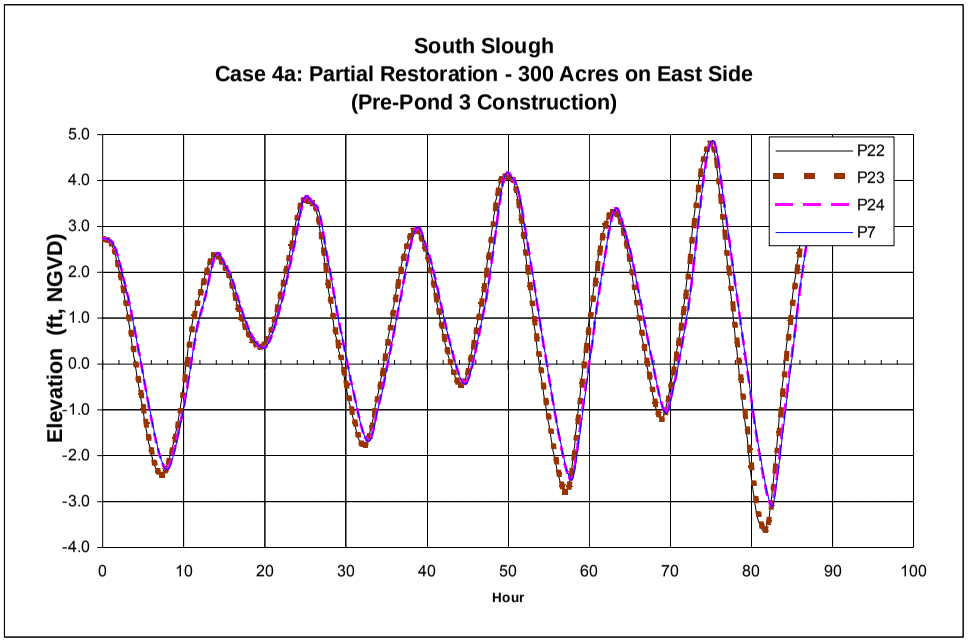
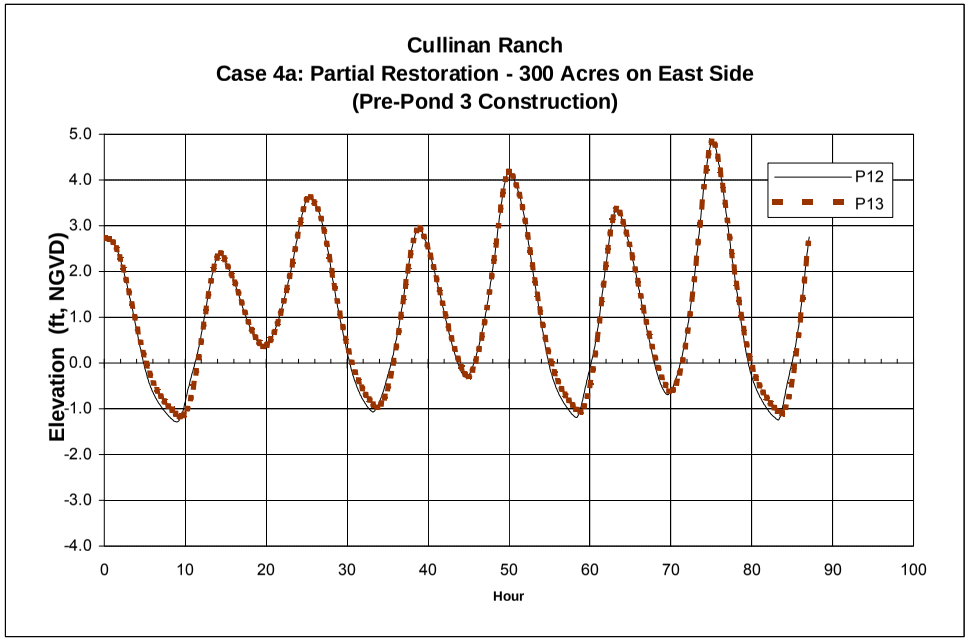
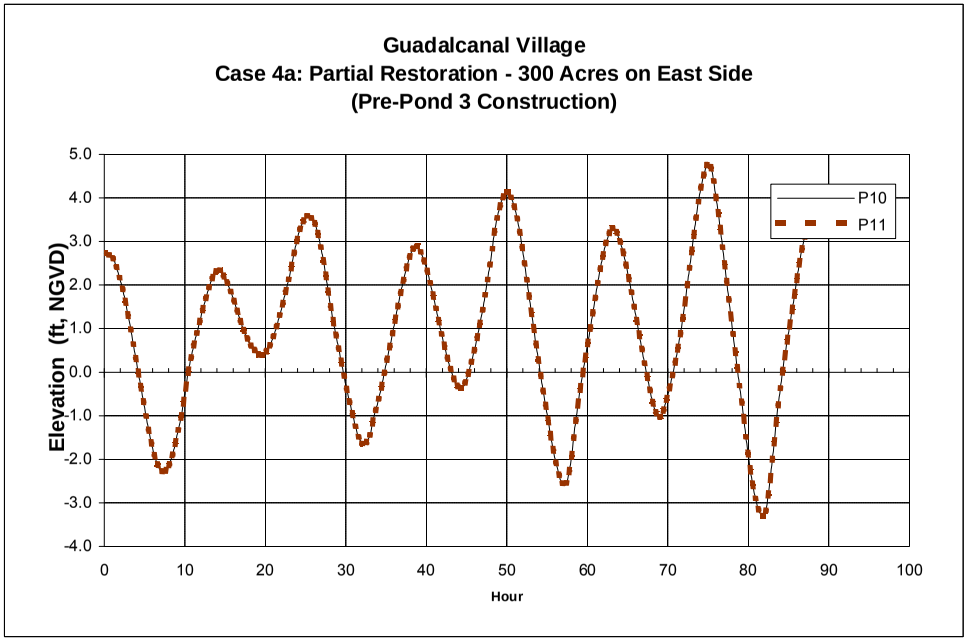
Figure 5.1 - 6









Simulated Water Levels
Case 4a: Partial Restoration - 300 Acres on East Side
(Pre-Pond 3 Construction)

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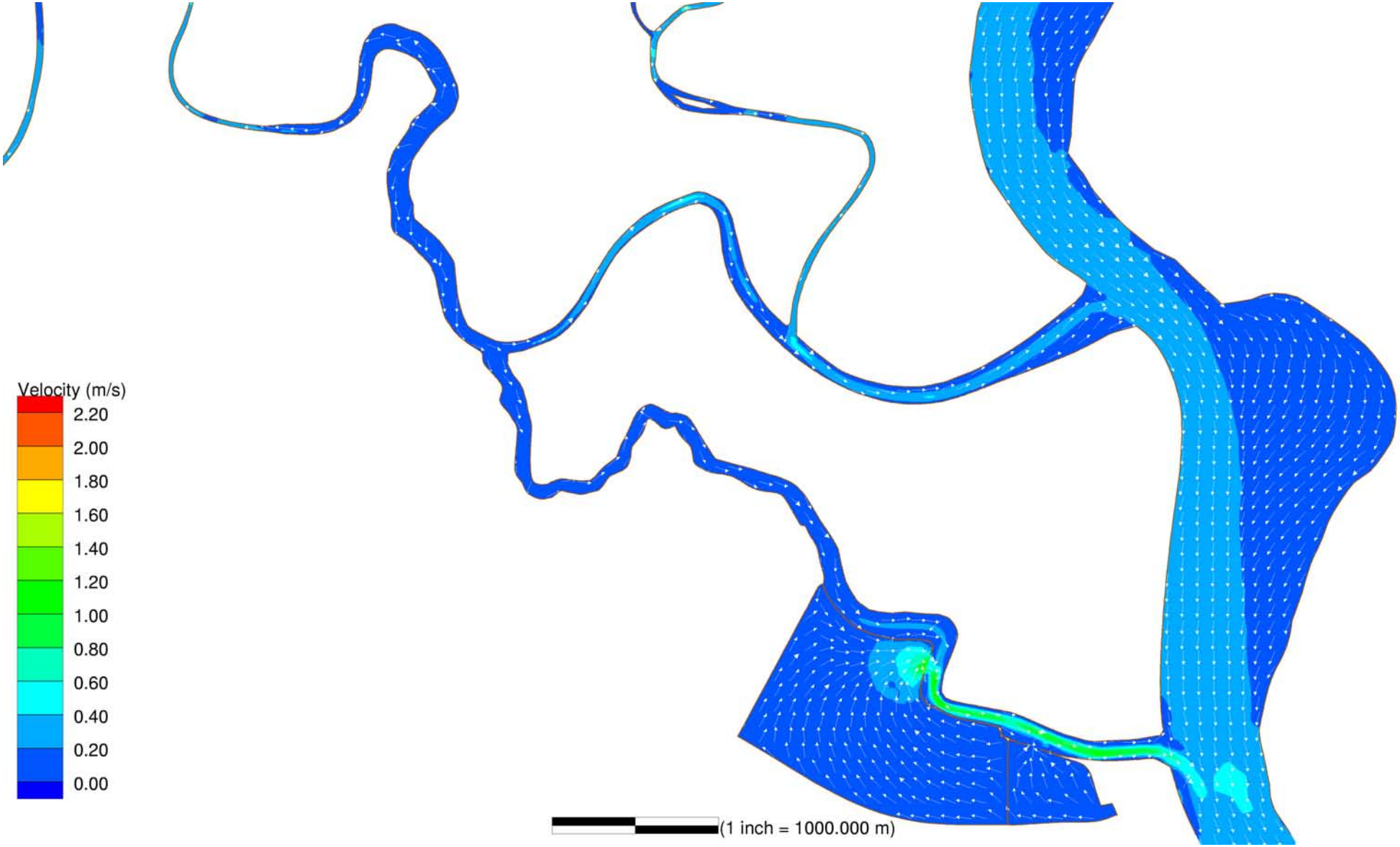
Figure 5.1 - 7



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 4a: Partial Restoration – 300 Acres on East Side
(Pre-Pond 3 Construction)

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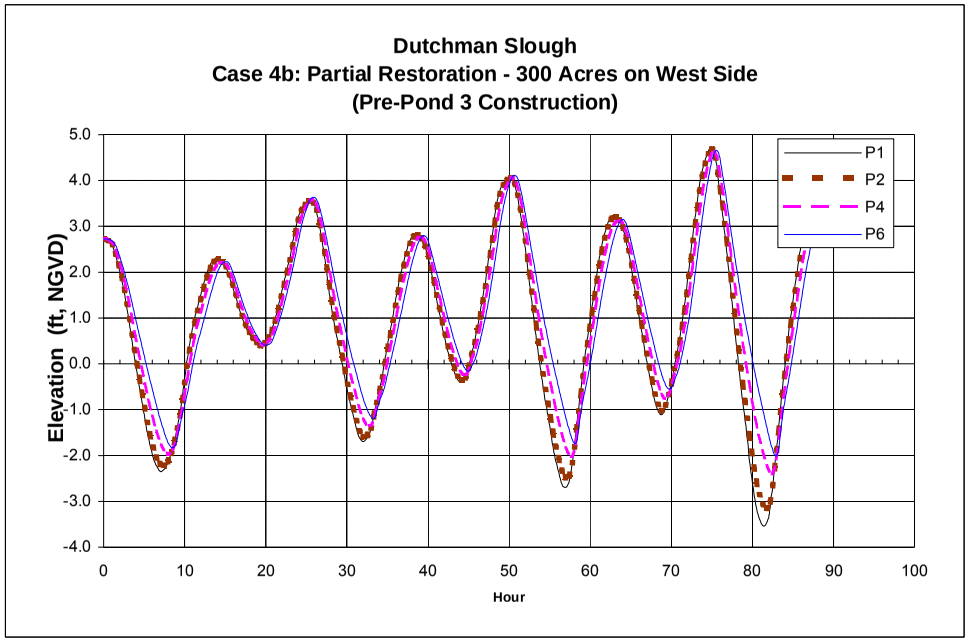
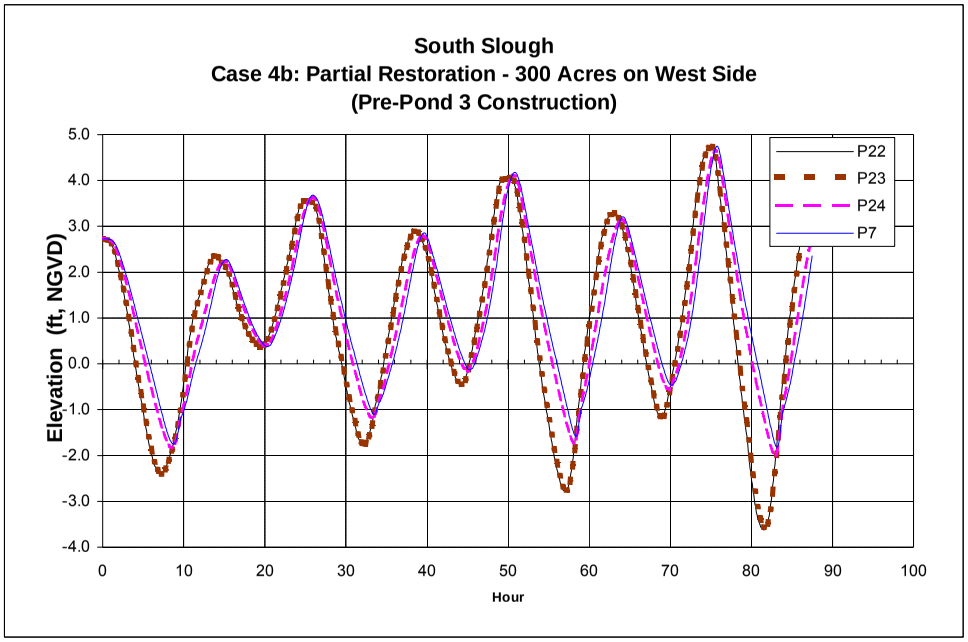
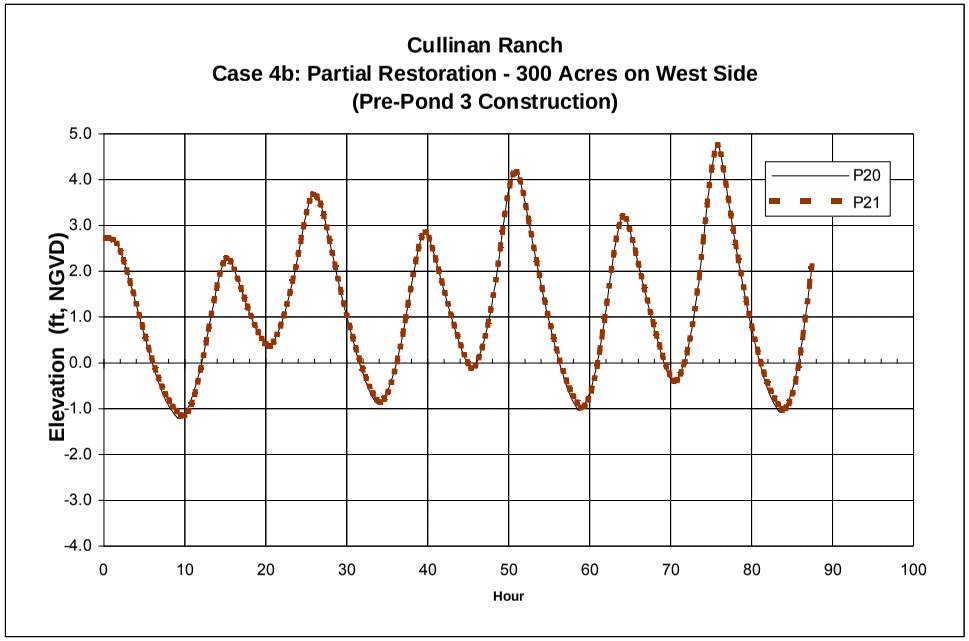
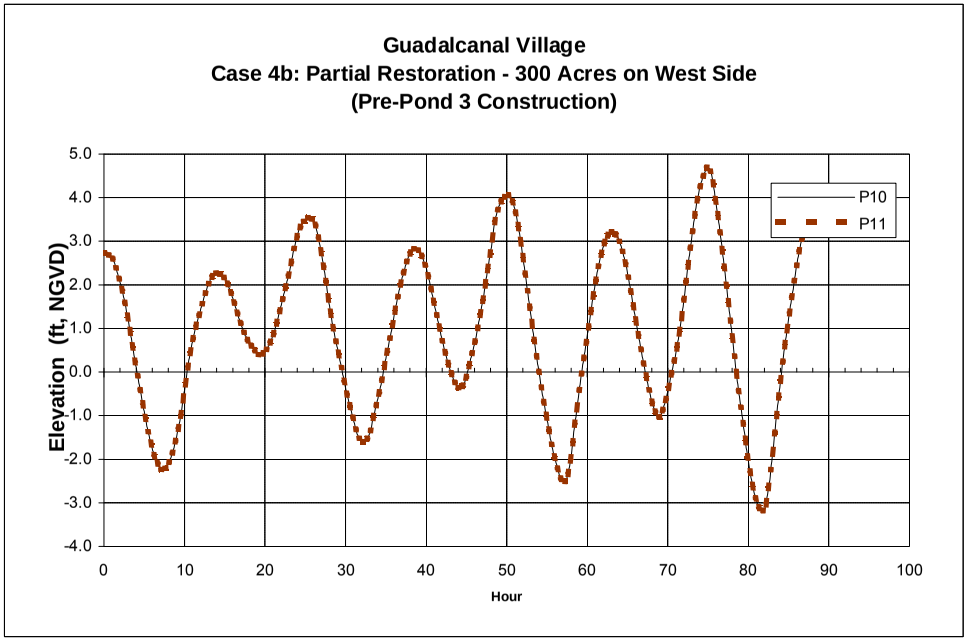
Figure 5.1 - 8









Simulated Water Levels
Case 4b: Partial Restoration - 300 Acres on West Side
(Pre-Pond 3 Construction)

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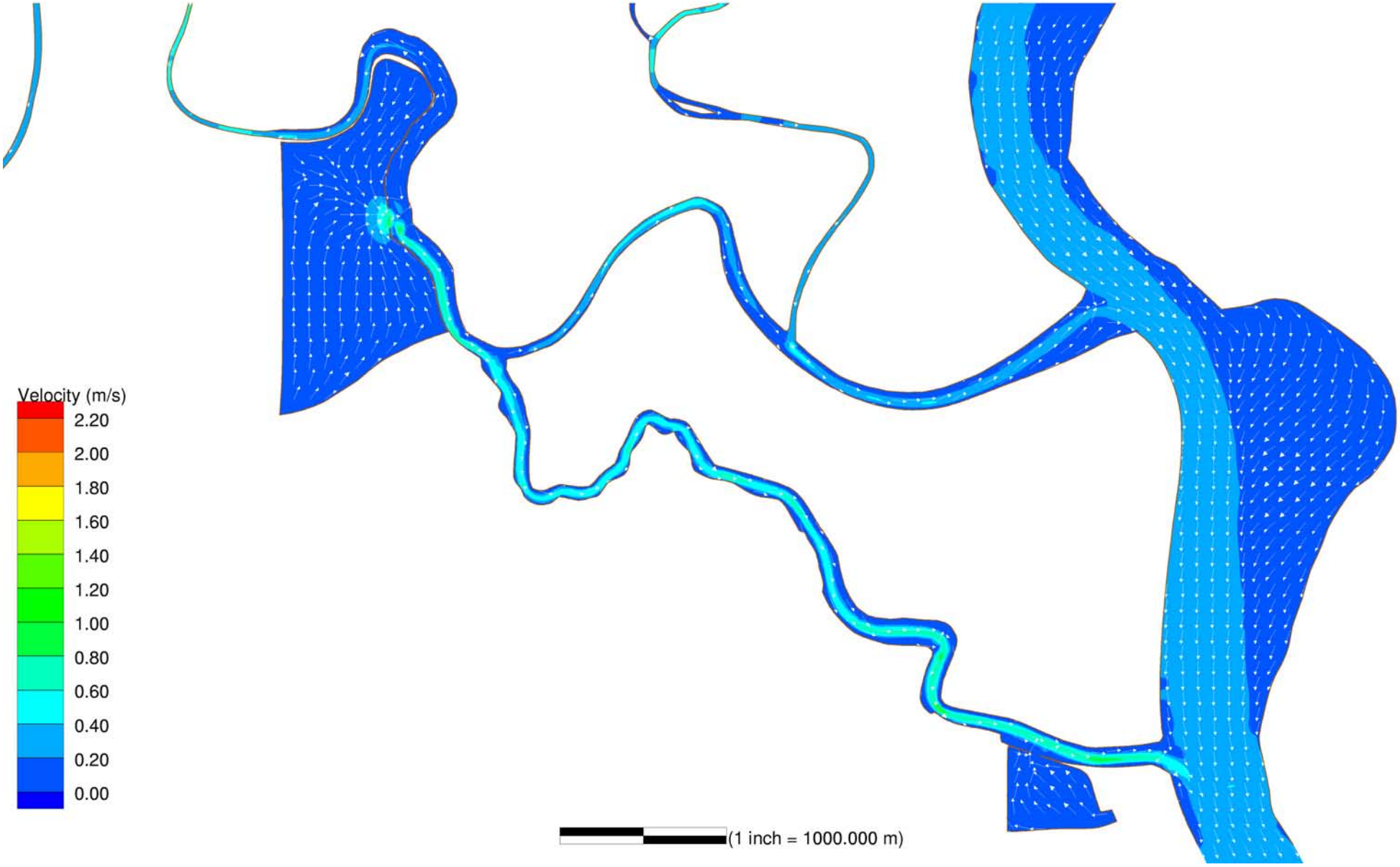
Figure 5.1 - 9



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 4b: Partial Restoration – 300 Acres on West Side
(Pre-Pond 3 Construction)

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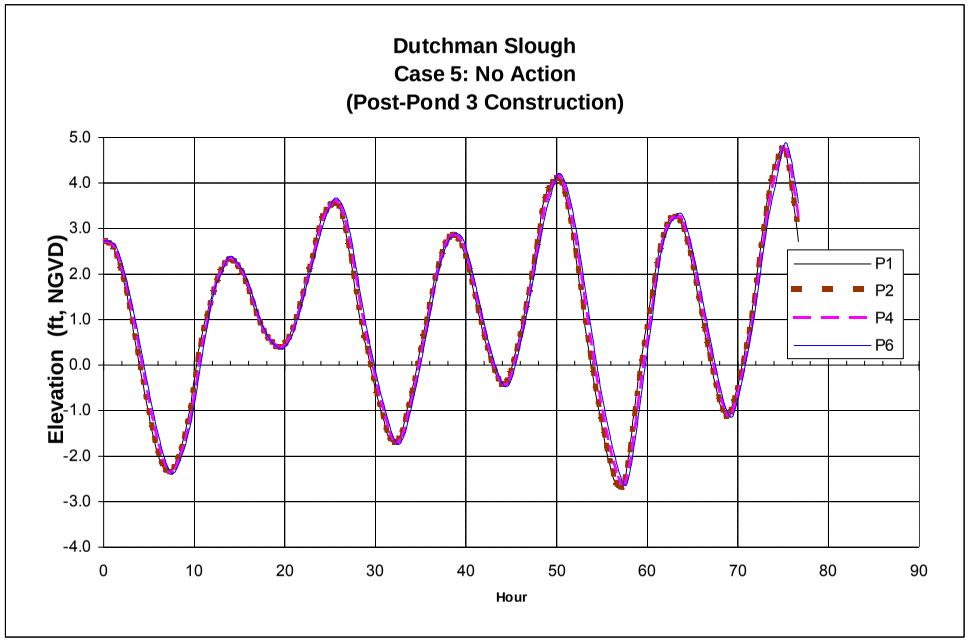
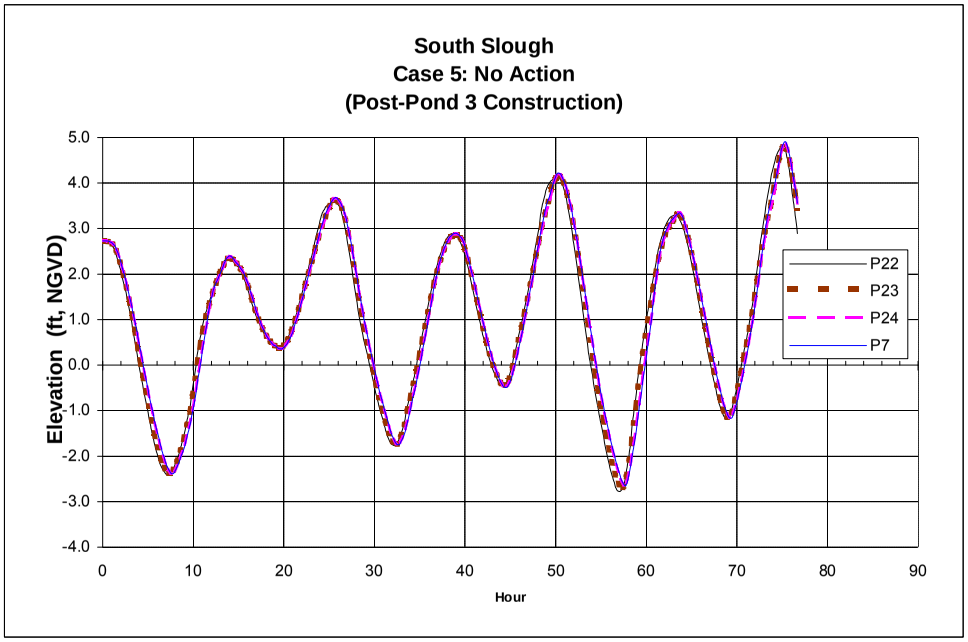
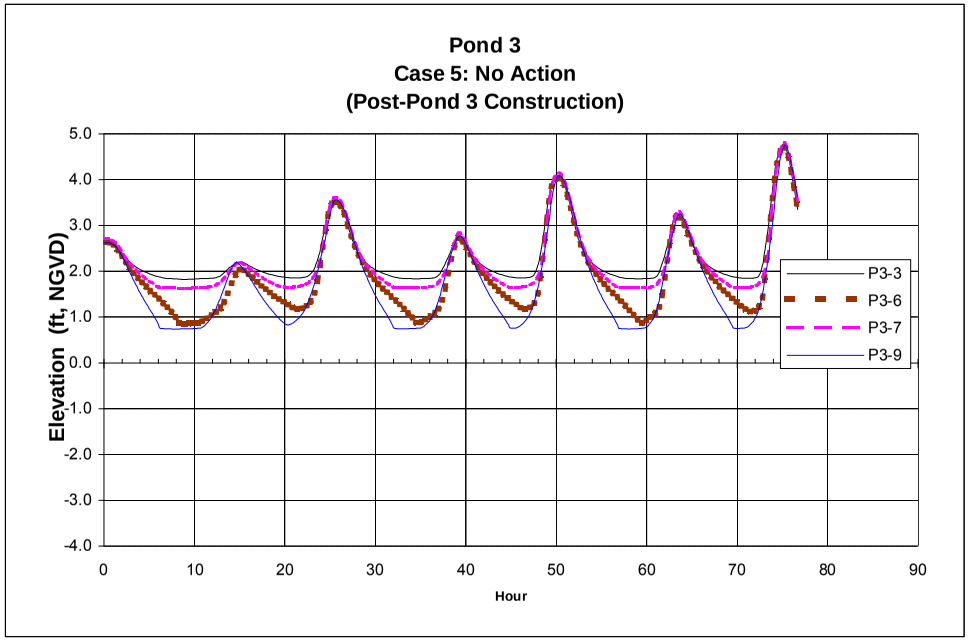
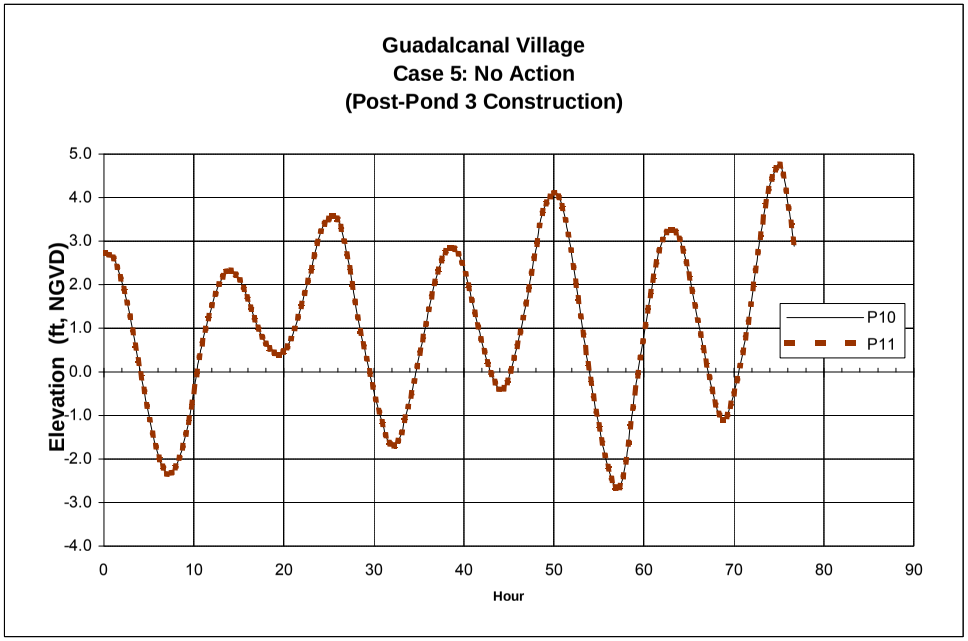
Figure 5.1 - 10









Simulated Water Levels
Case 5: No Action
(Post-Pond 3 Construction)

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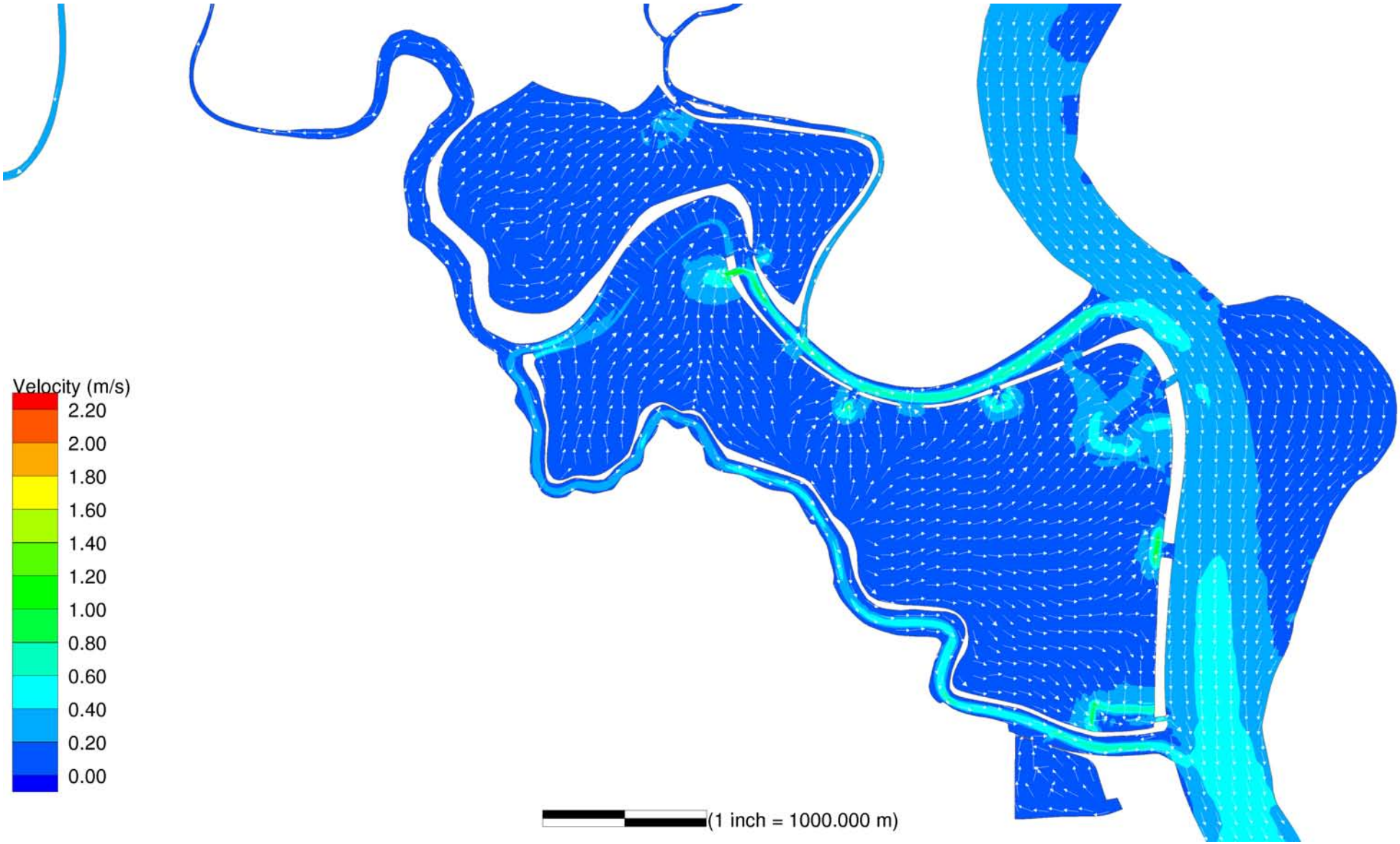
Figure 5.1 - 11



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 5: No Action
(Post-Pond 3 Construction)

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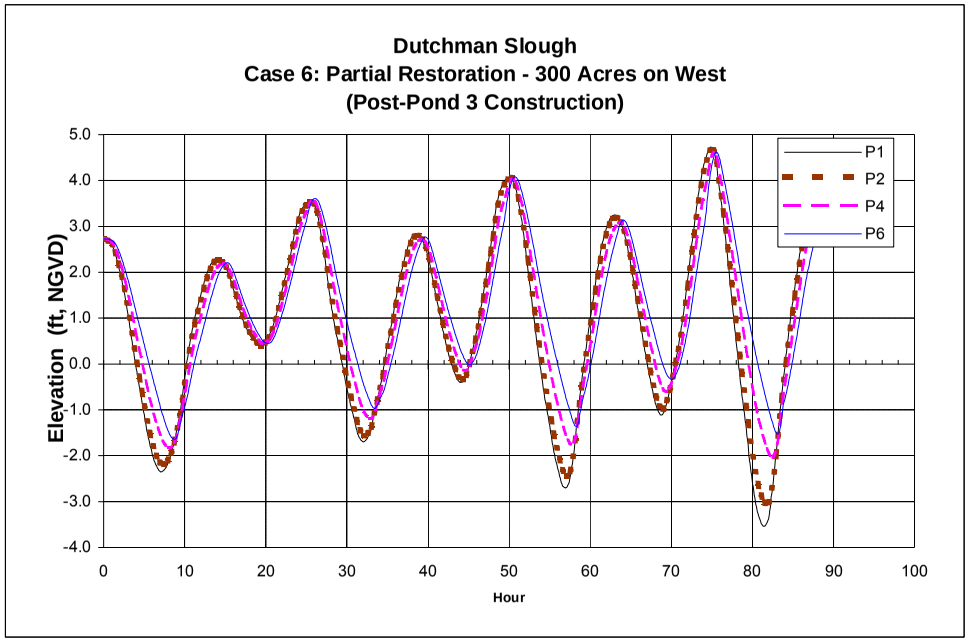
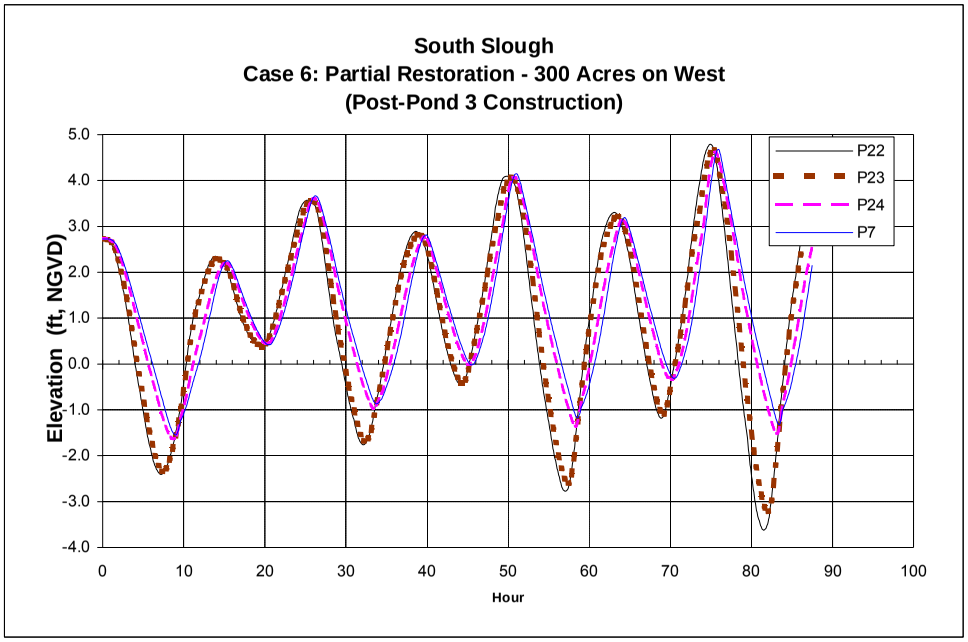
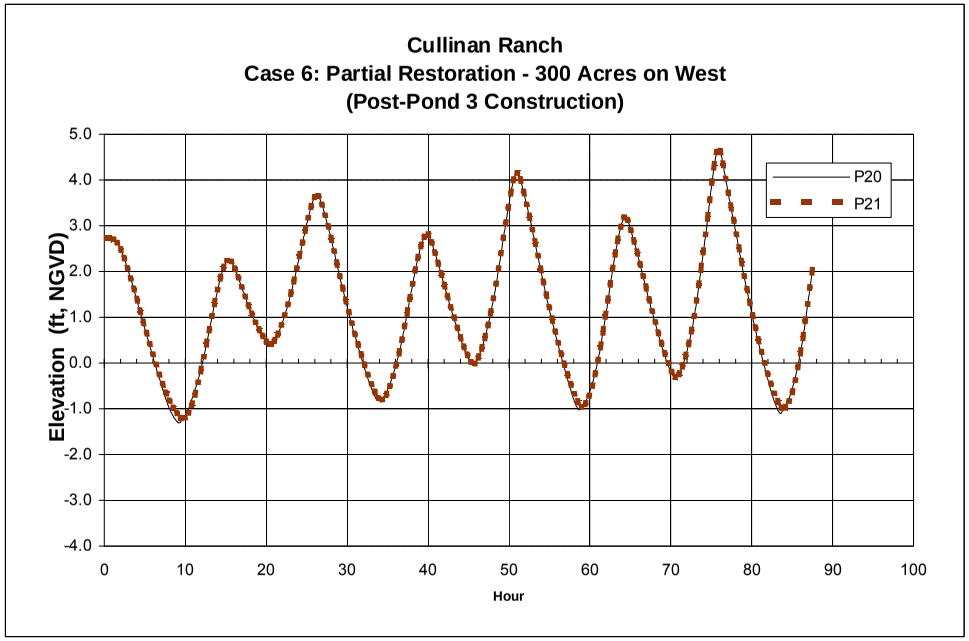
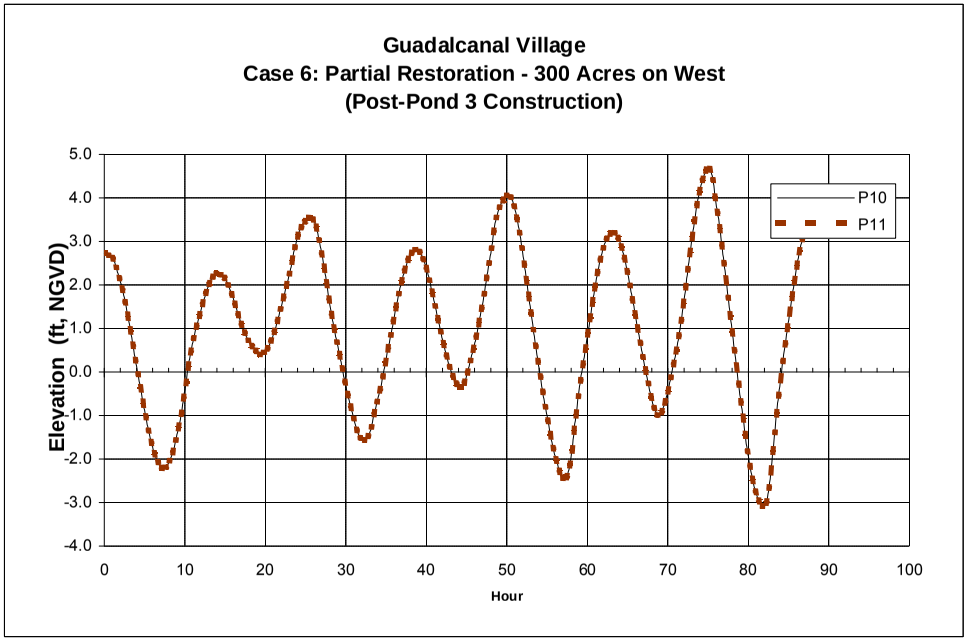
Figure 5.1 - 12









Simulated Water Levels
Case 6: Partial Restoration - 300 Acres on West Side
(Post-Pond 3 Construction)

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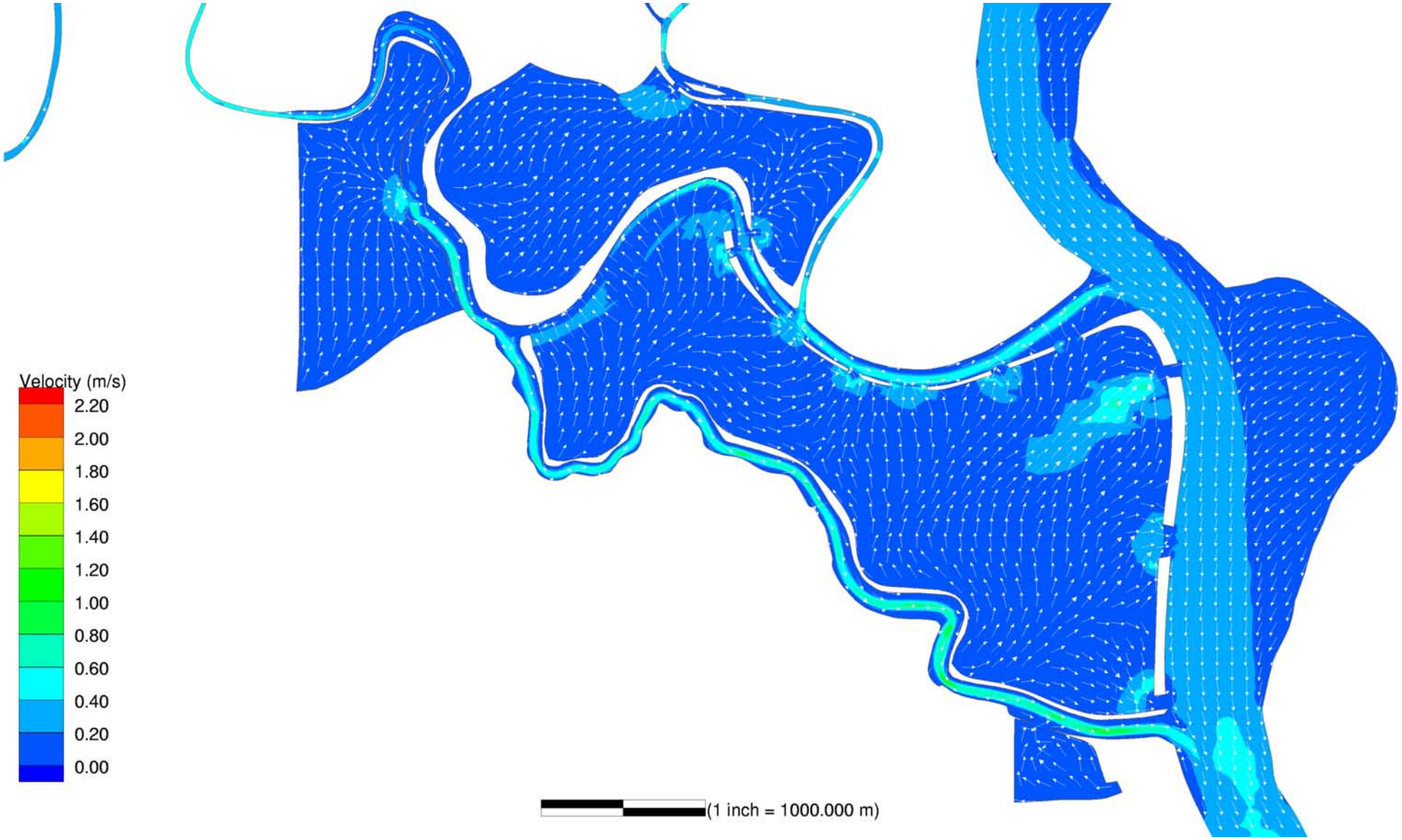
Figure 5.1 - 13



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 6: Partial Restoration – 300 Acres on West Side
(Post-Pond 3 Construction)

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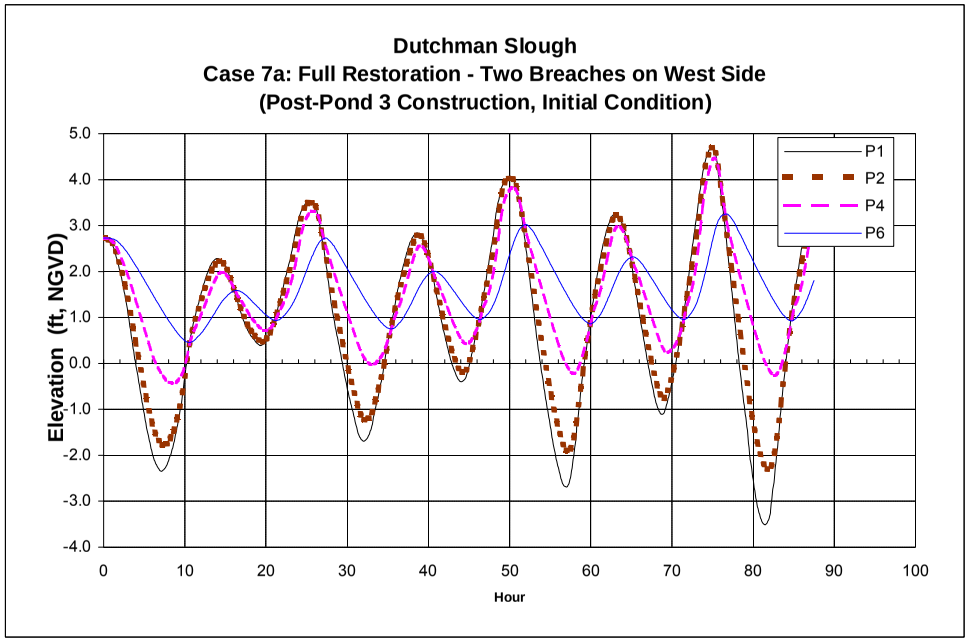
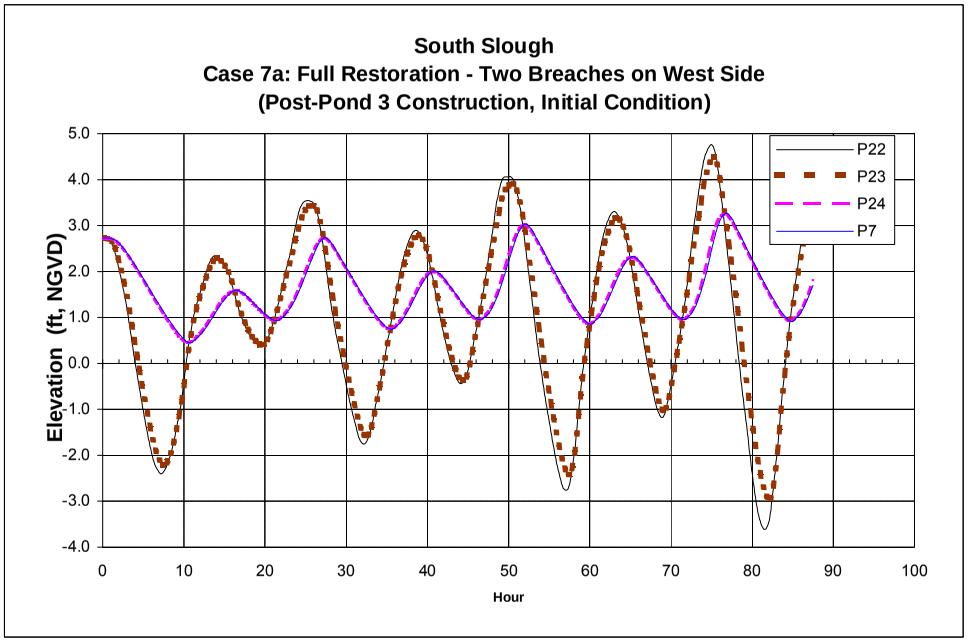
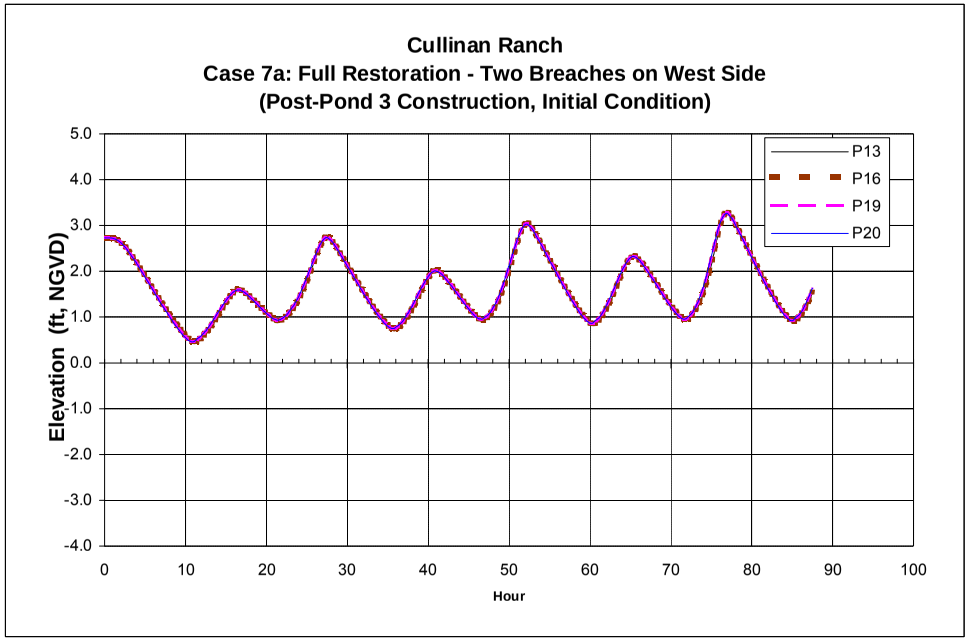
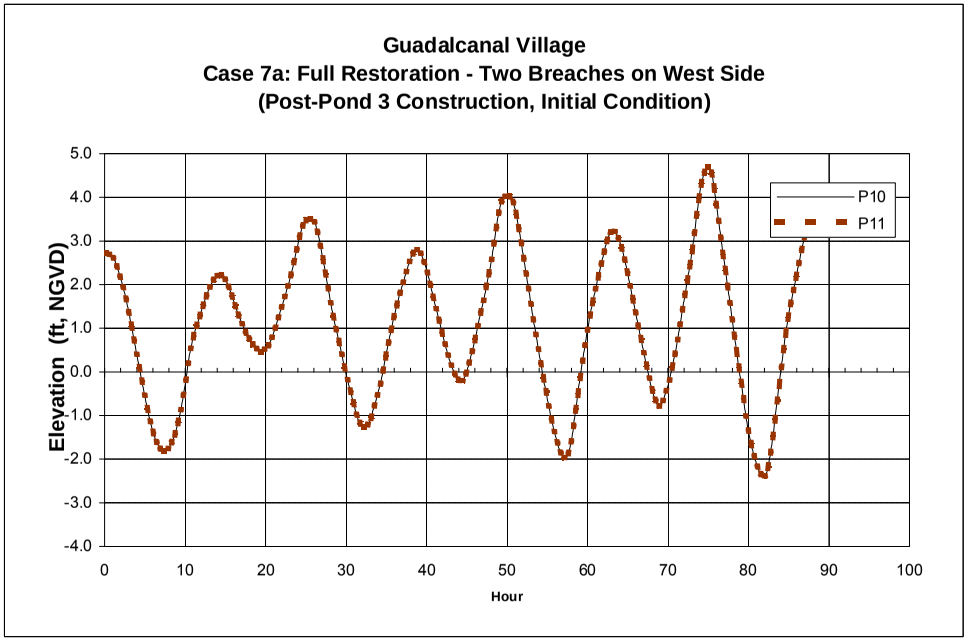
Figure 5.1 - 14









Simulated Water Levels
Case 7a: Full Restoration - Two Breaches on West Side
(Post-Pond 3 Construction, Initial Condition)

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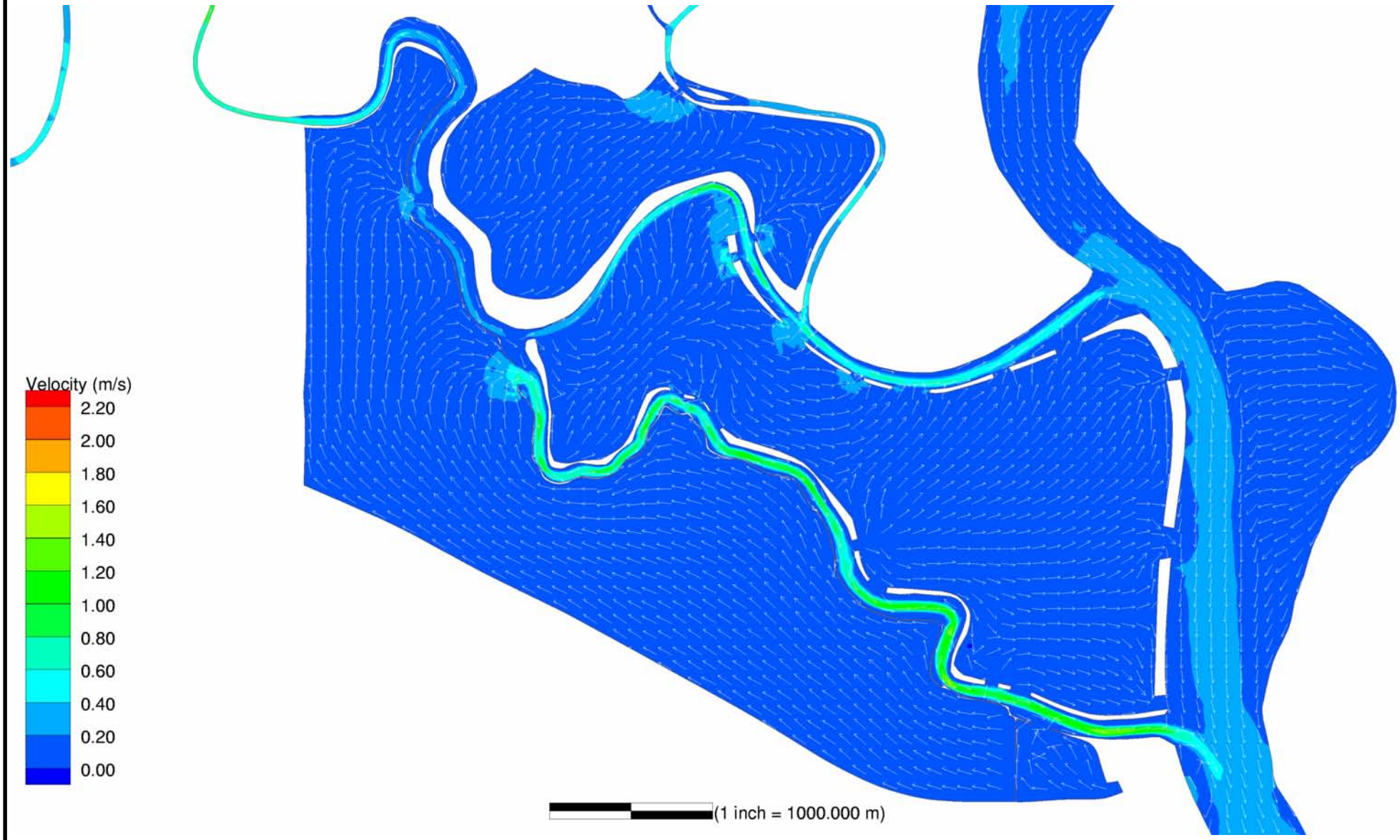
Figure 5.1 - 15



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 7a: Full Restoration - Two Breaches on West Side
(Post-Pond 3 Construction, Initial Condition)

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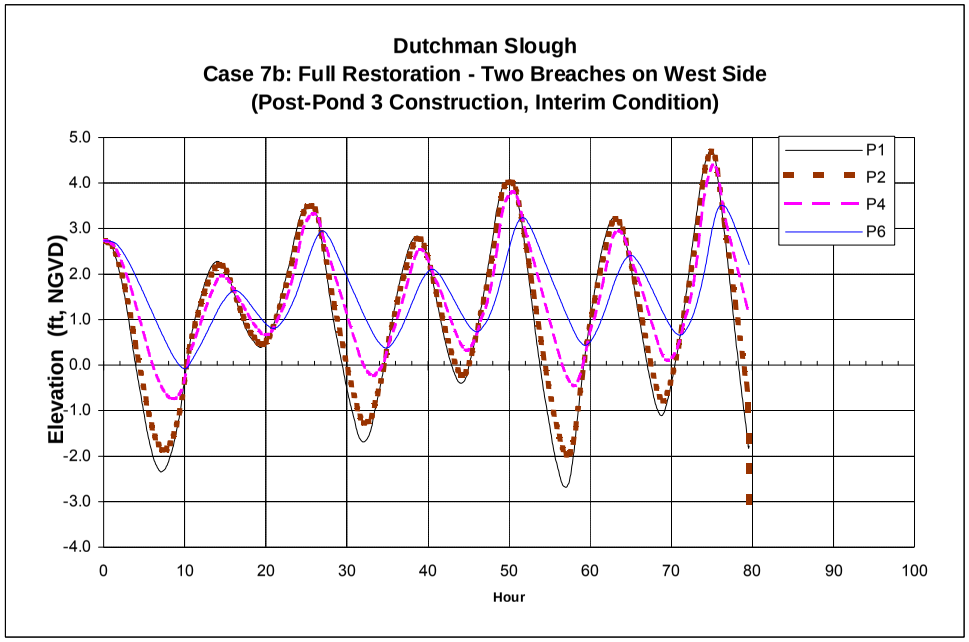
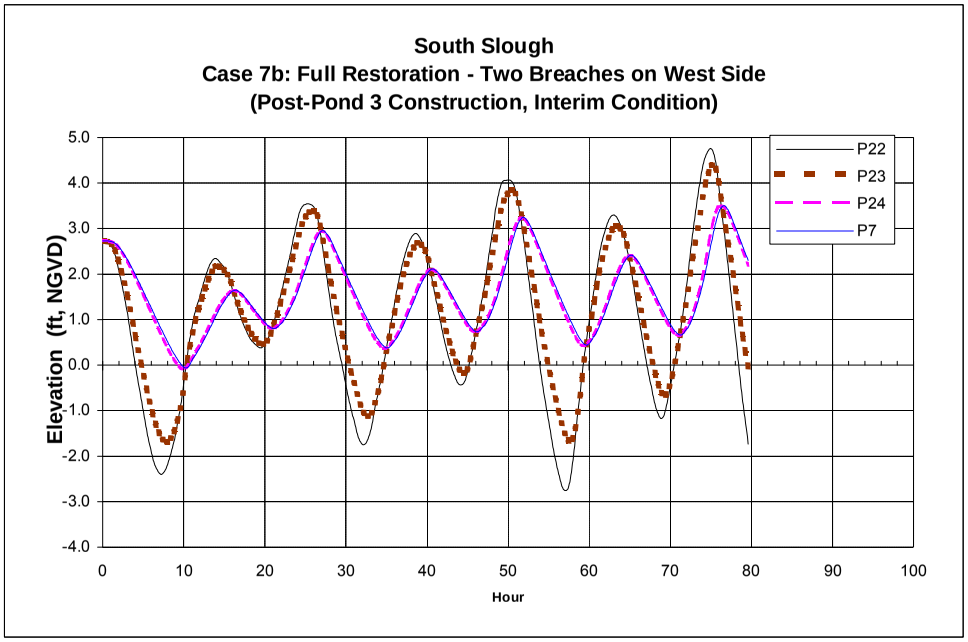
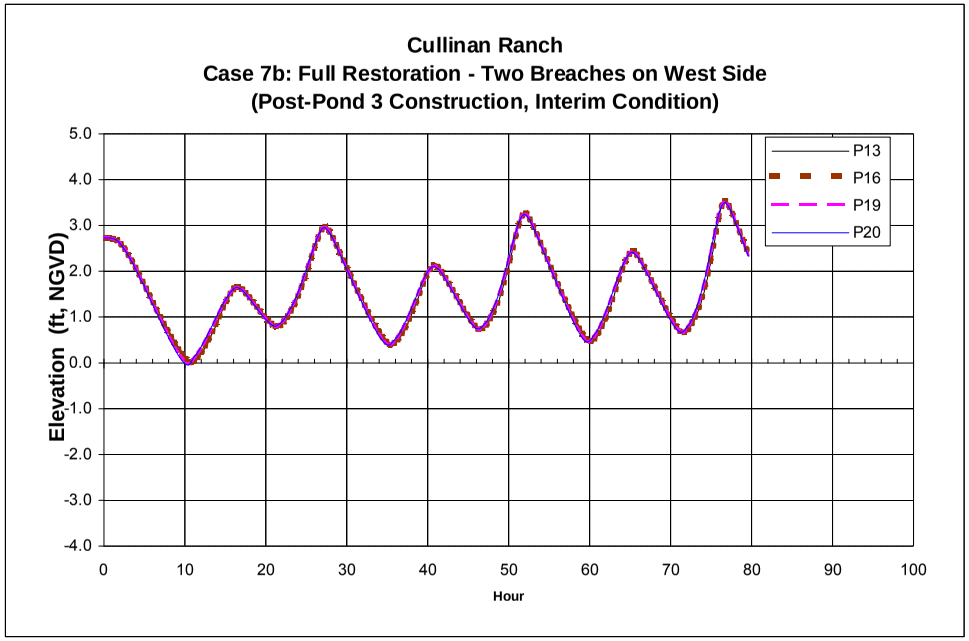
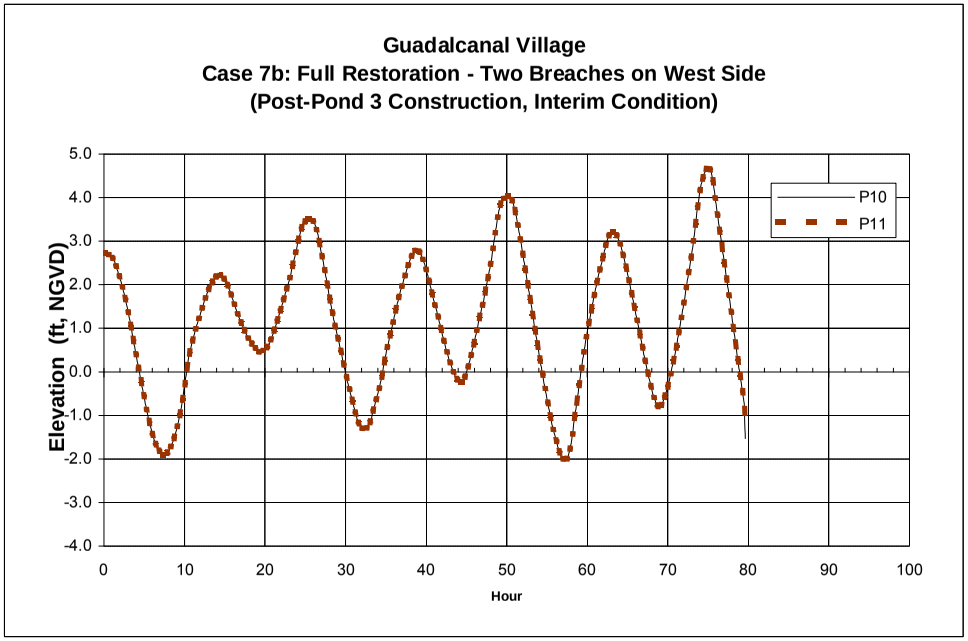
Figure 5.1 - 16









Simulated Water Levels
Case 7b: Full Restoration - Two Breaches on West Side
(Post-Pond 3 Construction, Interim Condition)

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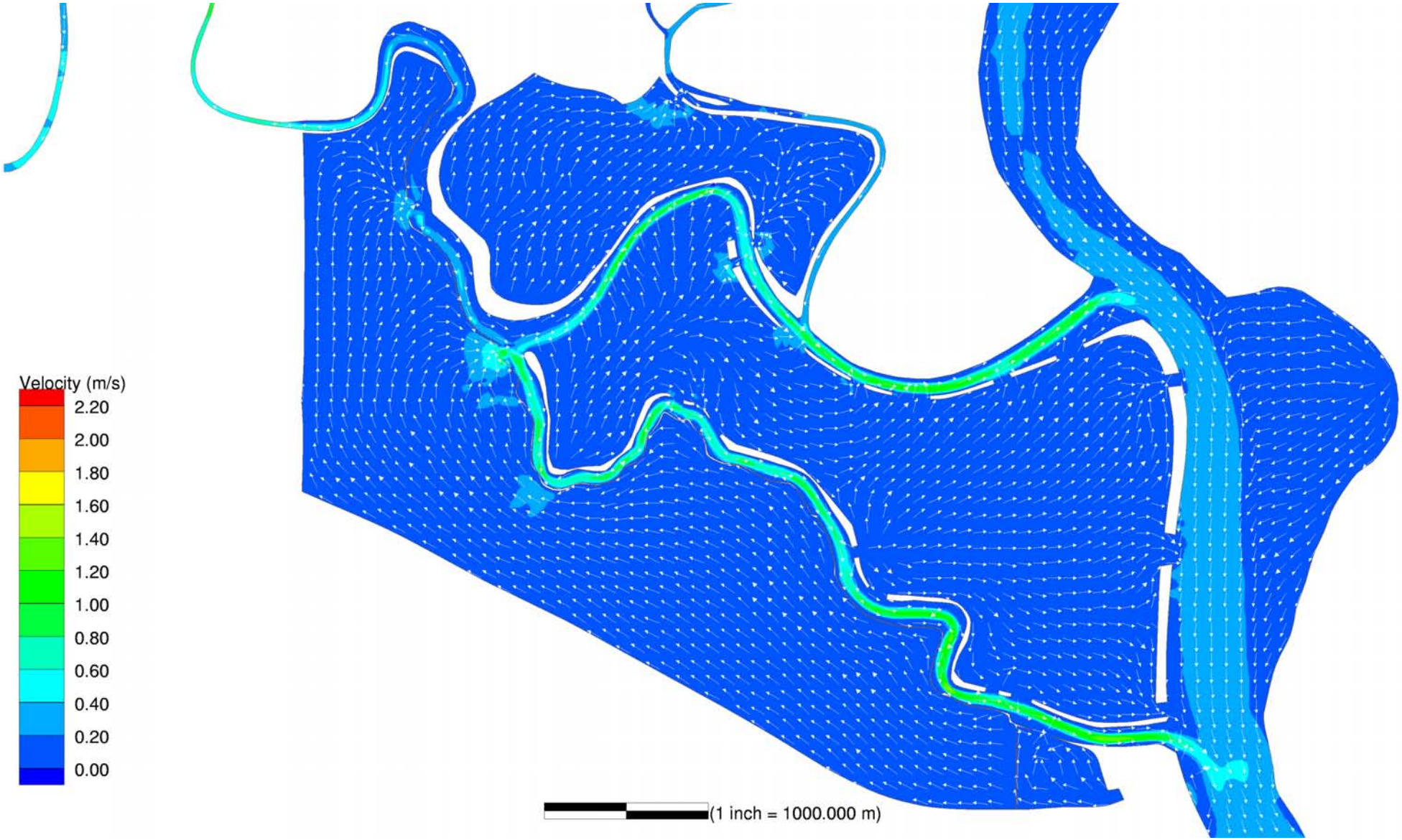
Figure 5.1 - 17



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 7b: Full Restoration - Two Breaches on West Side
(Post-Pond 3 Construction, Interim Condition)

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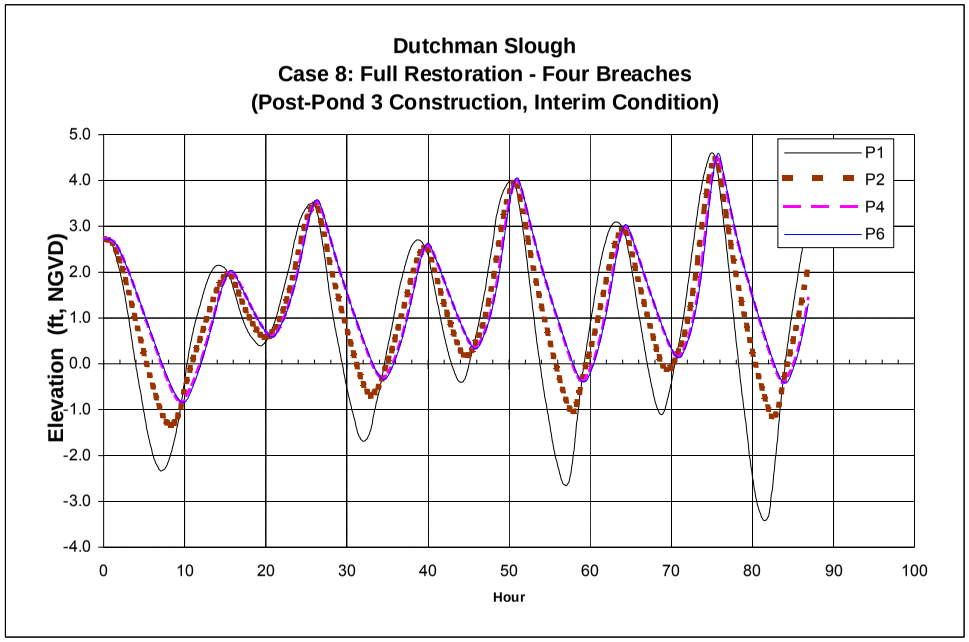
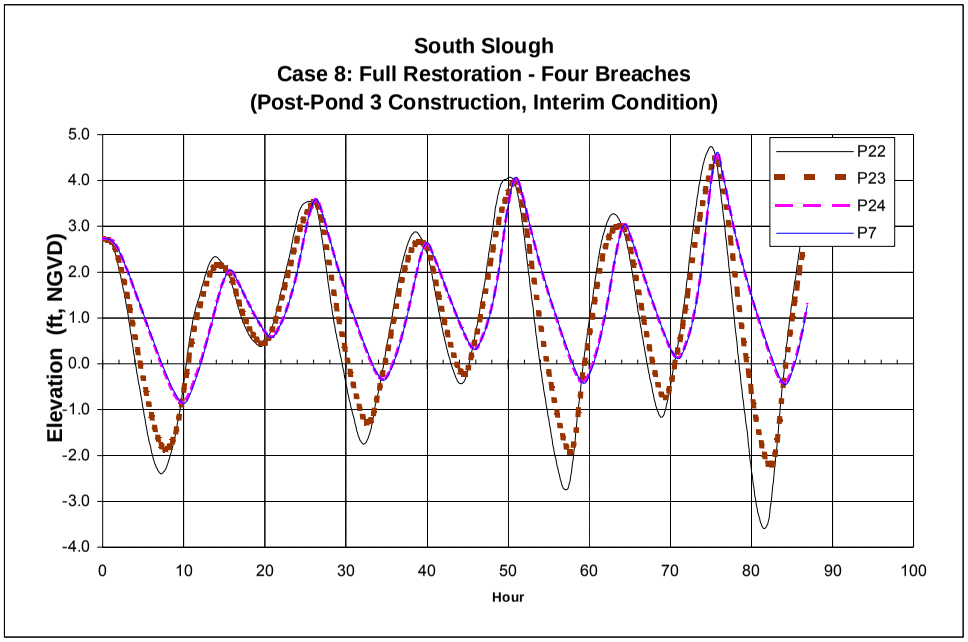
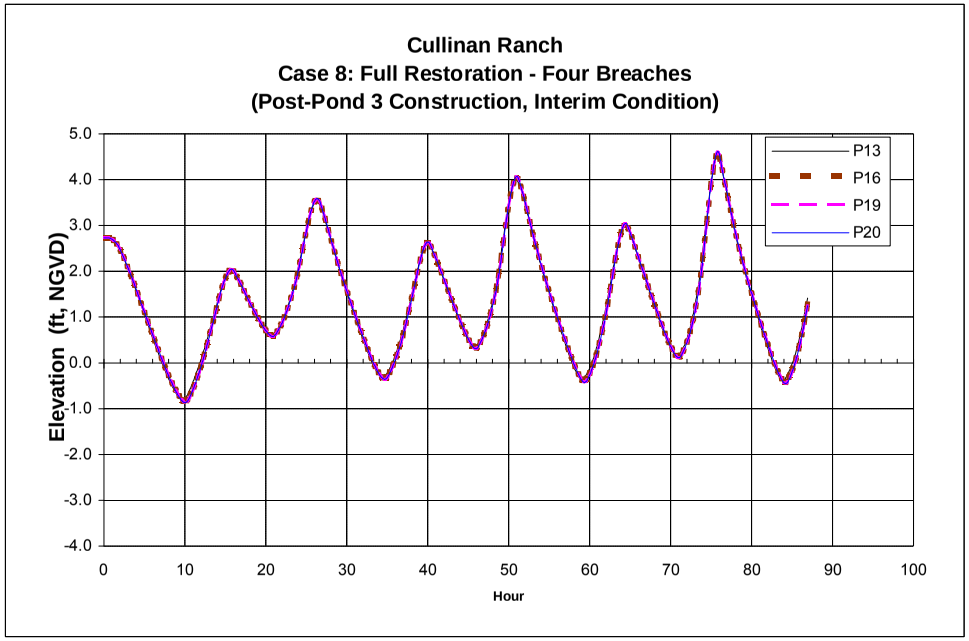
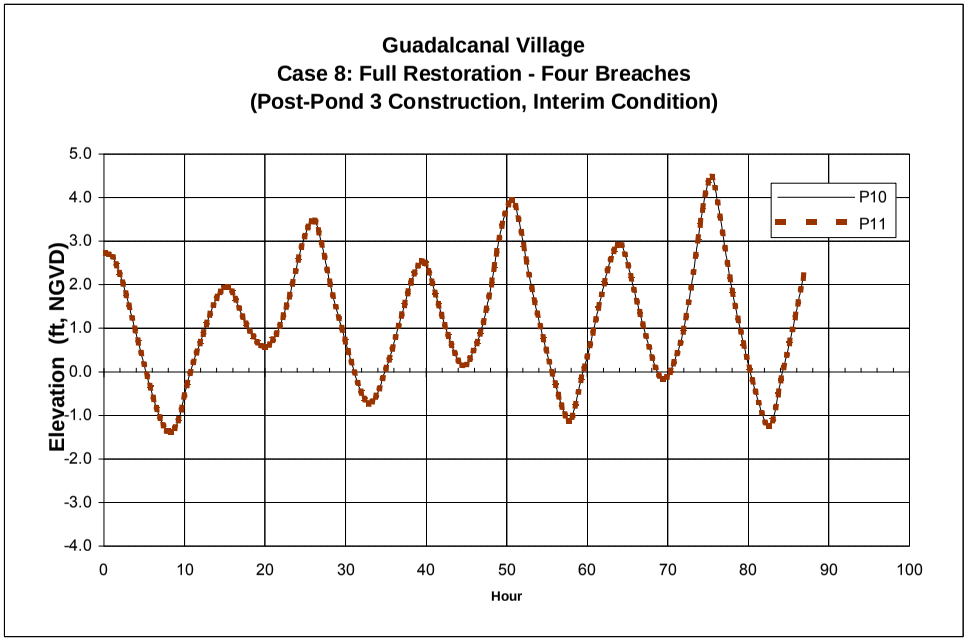
Figure 5.1 – 18









Simulated Water Levels
Case 8: Full Restoration - Four Breaches
(Post-Pond 3 Construction, Interim Condition)

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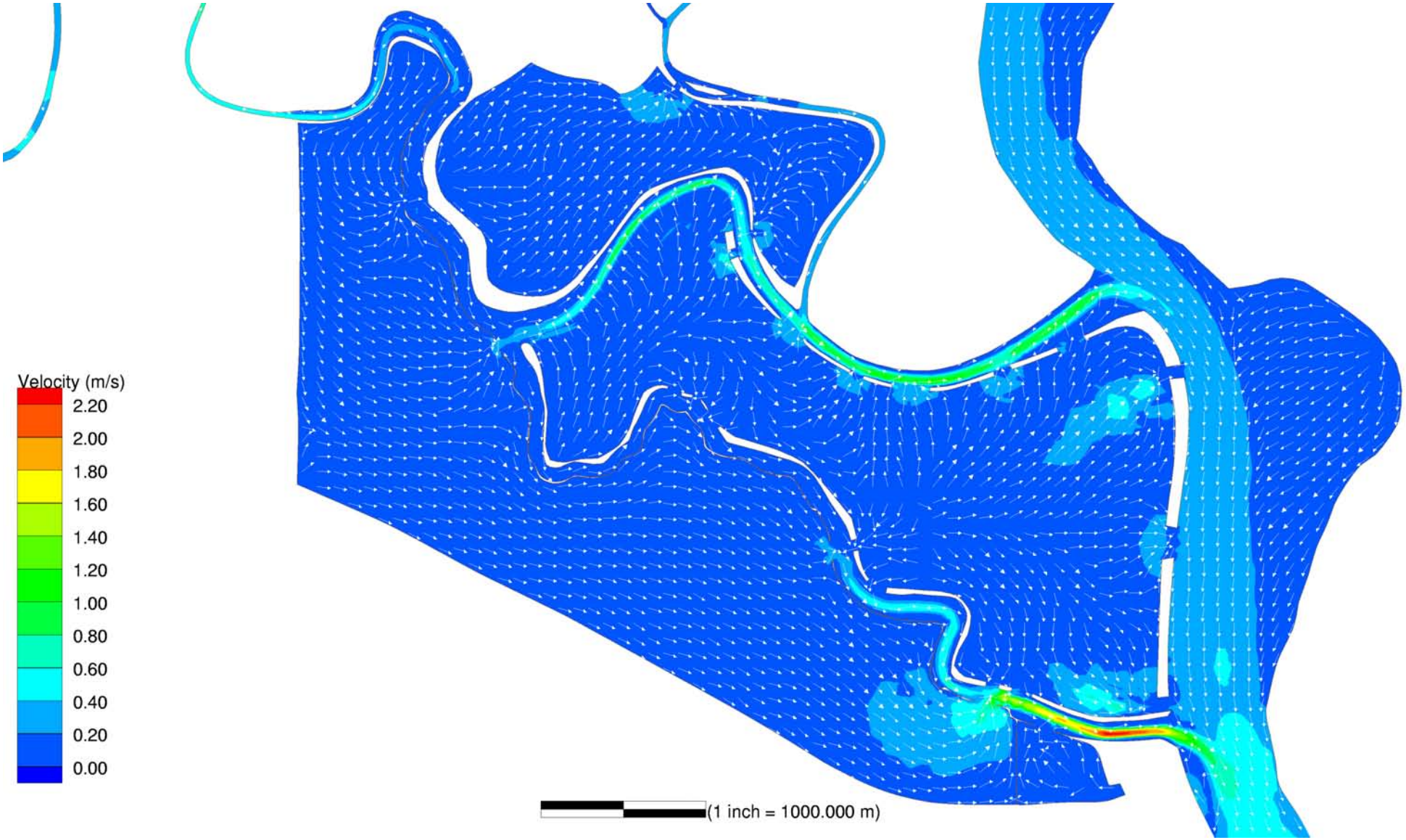
Figure 5.1 - 19



Simulated Flow Field - Peak Ebb at Mouths of Dutchman/South Sloughs
Case 8: Full Restoration - Four Breaches
(Post-Pond 3 Construction, Interim Condition)

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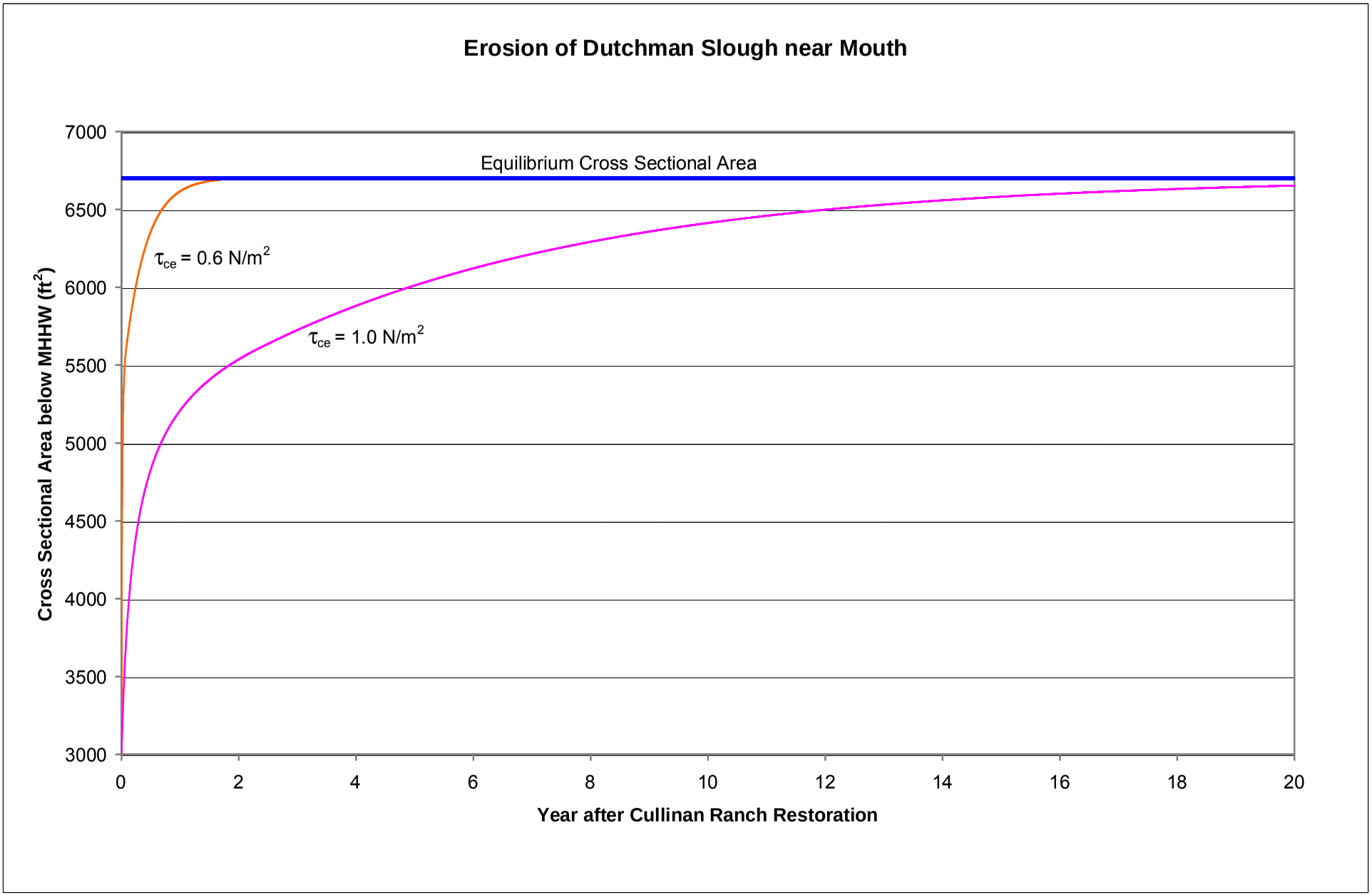
Figure 5.1 – 20



Erosion of Dutchman Slough near Mouth
Case 8: Full restoration - Four Breaches
(Post-Pond 3 Construction)

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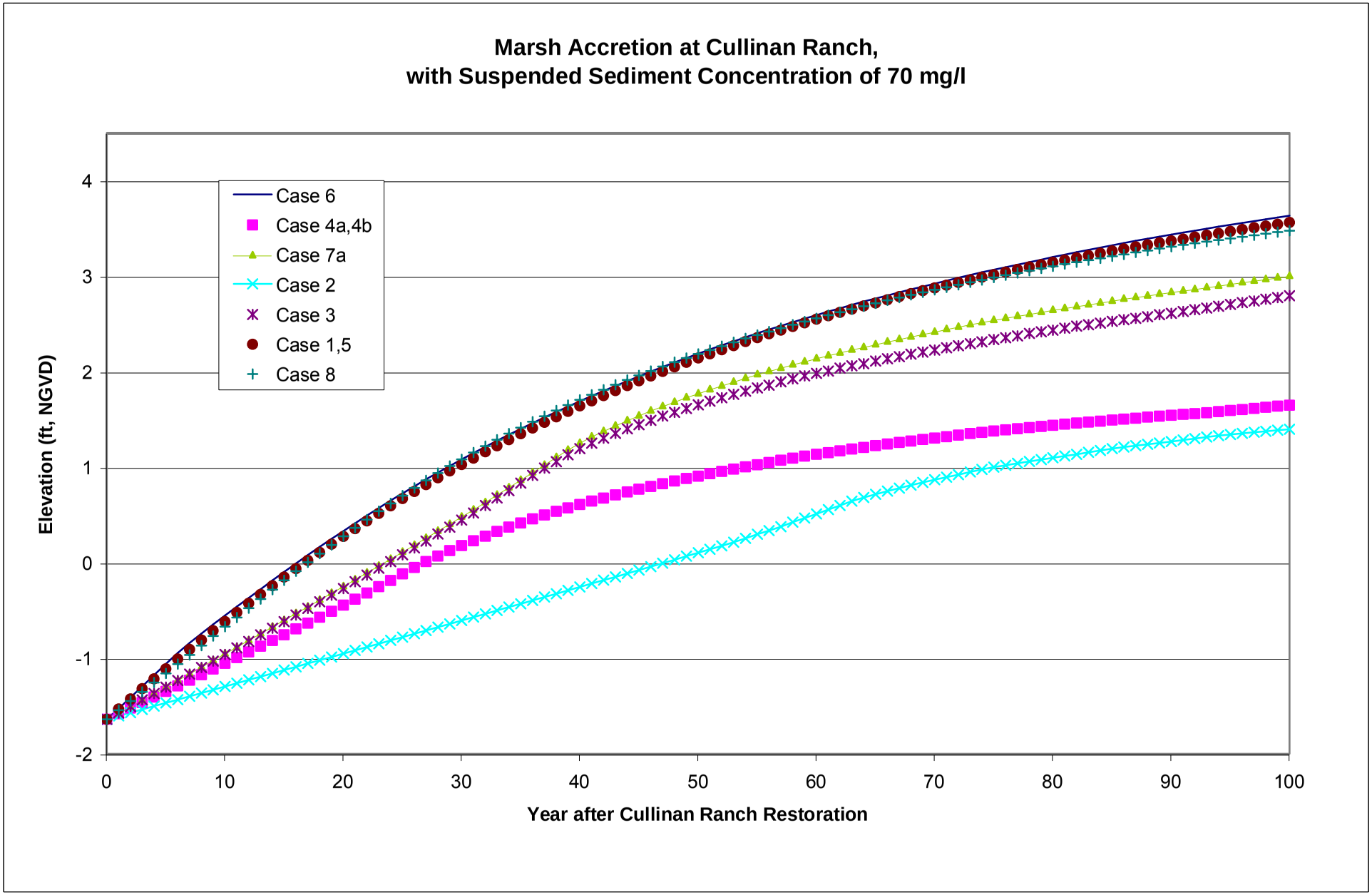
Figure 5.1 - 21



Marsh Accretion at Cullinan Ranch

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Figure 5.2- 1