FIGURES

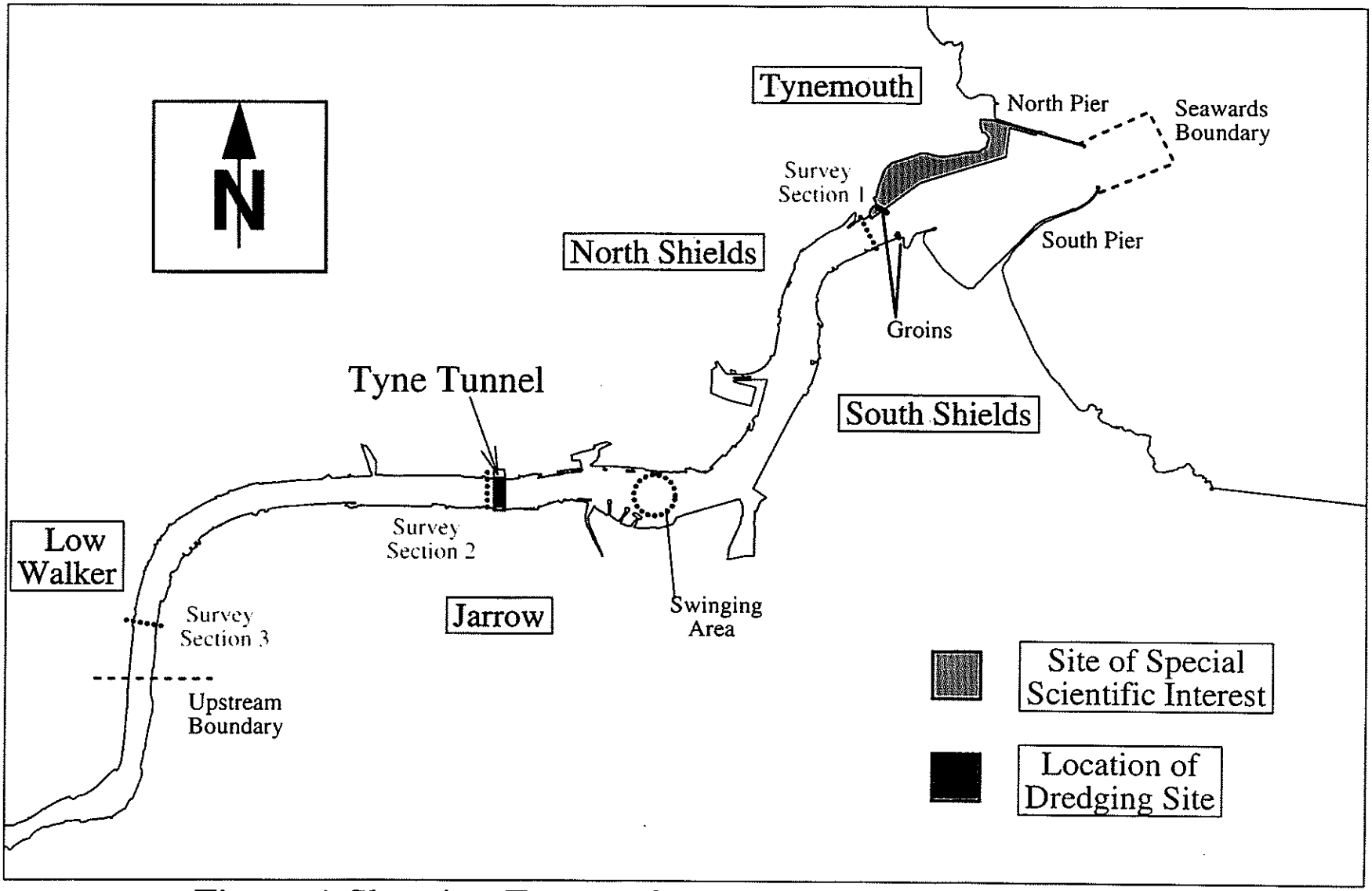


Figure 1 Showing Extent of The Hydrodynamic Model

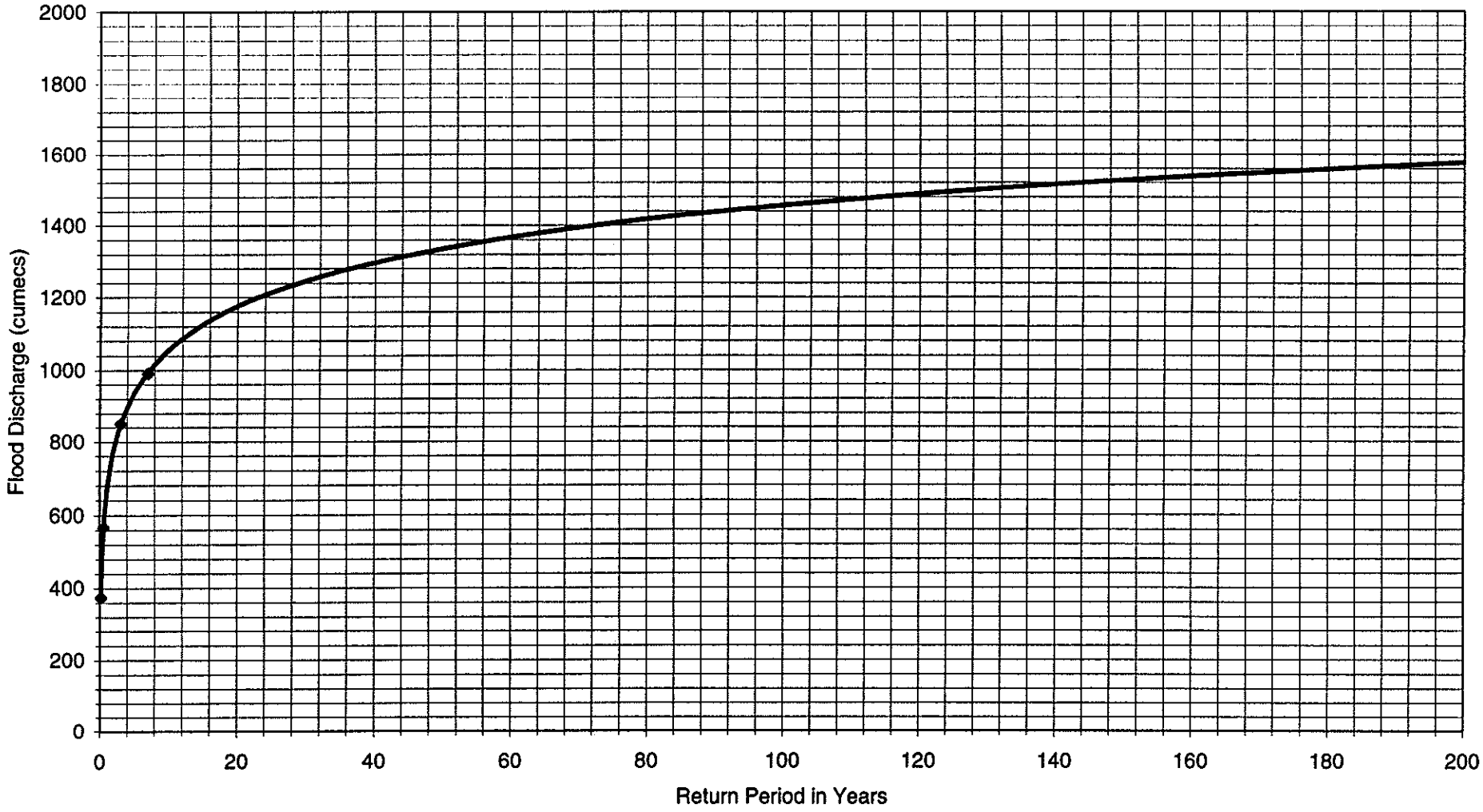


Figure 3 Return Period Curve of Daily Flow for the River Tyne

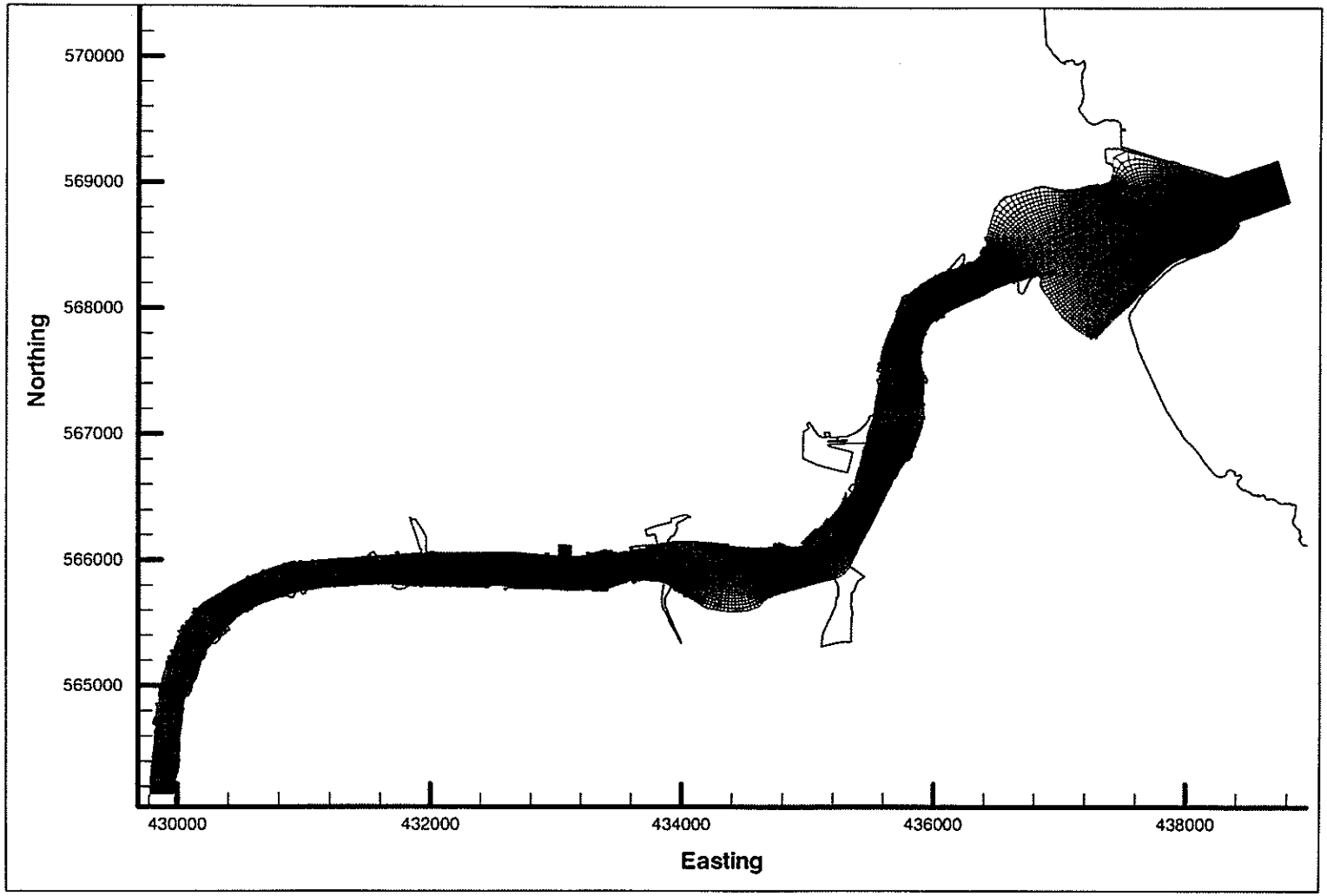


Figure 4 Computed Grid Covering the Whole Area of the Hydrodynamic Model

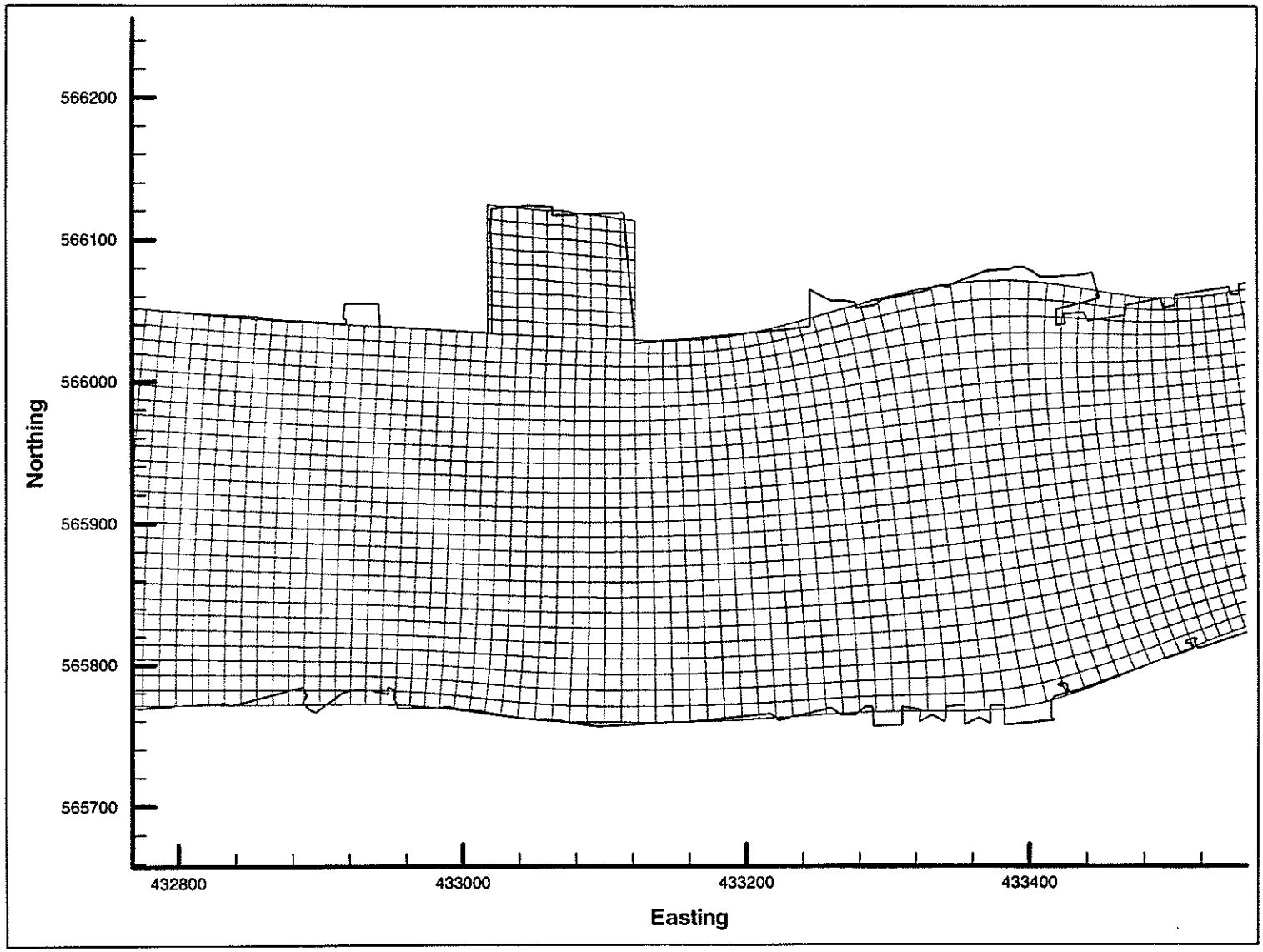
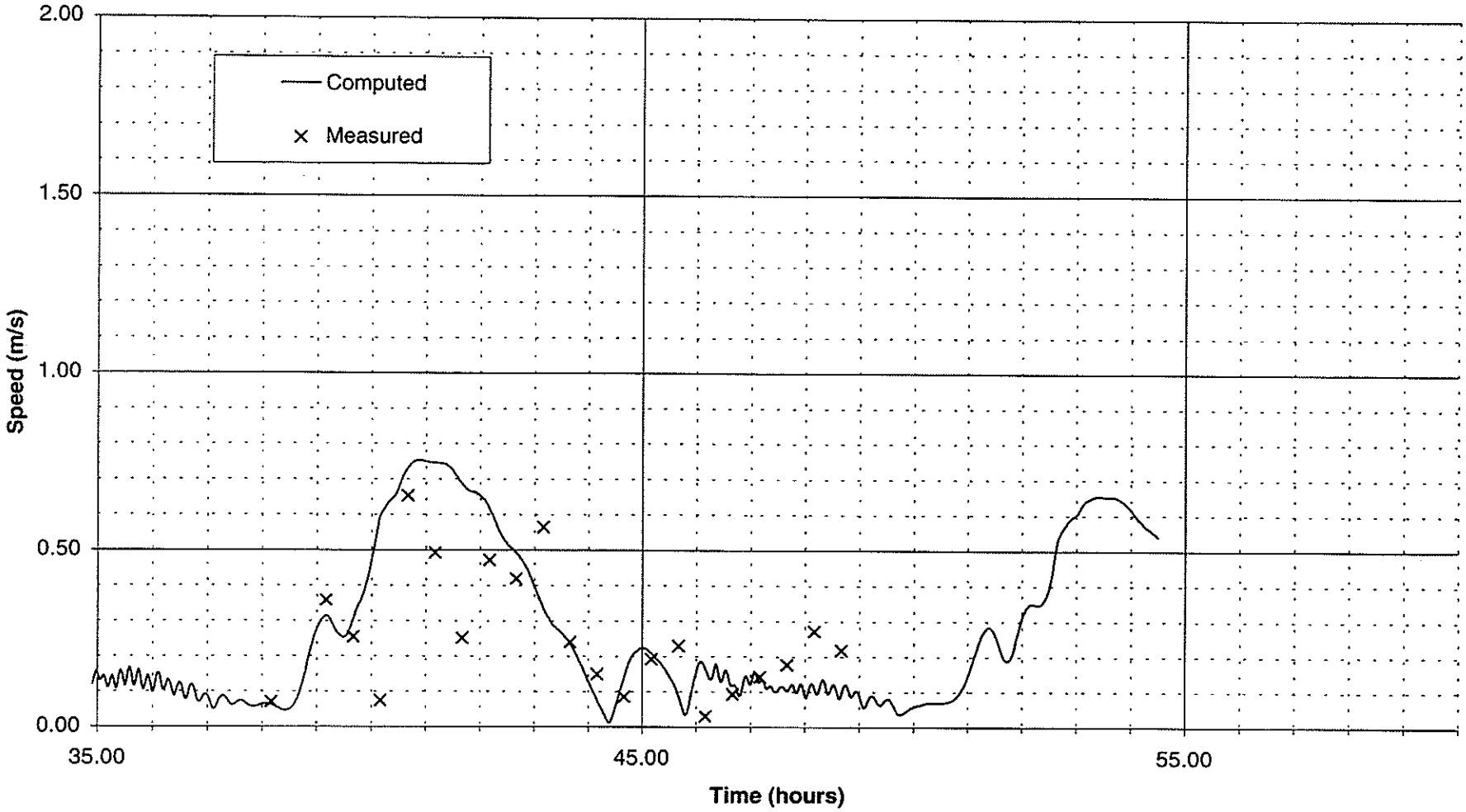
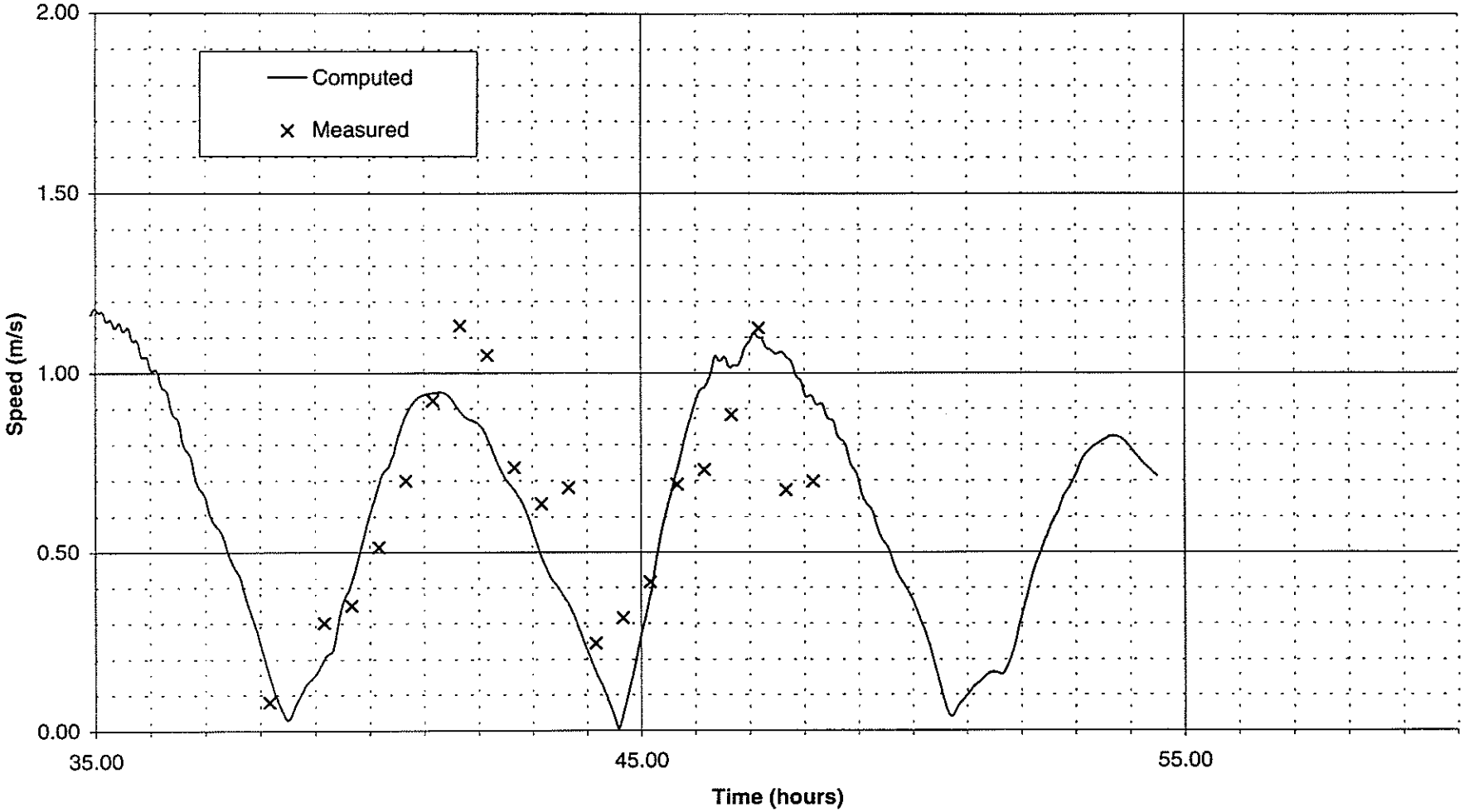


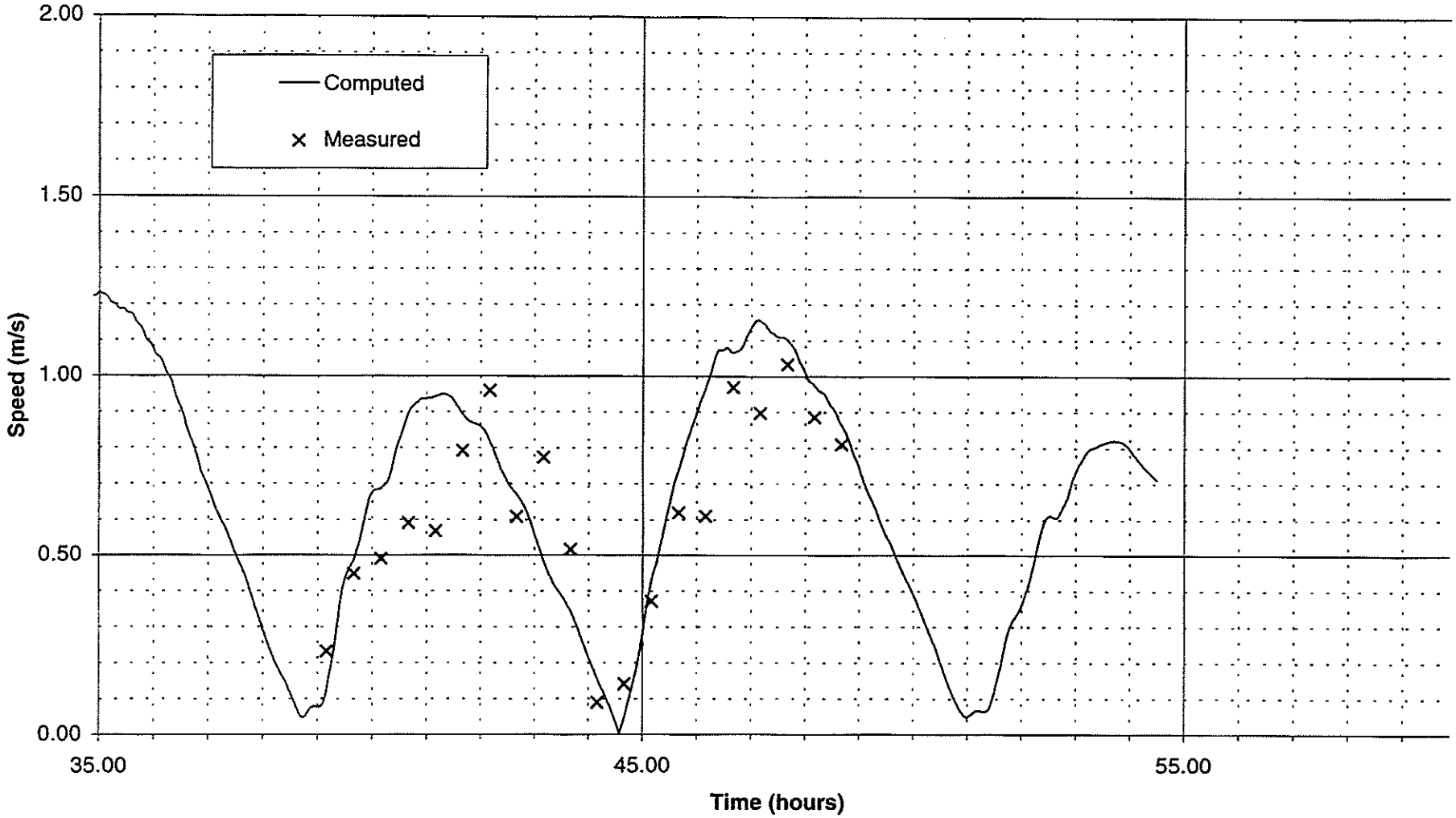
Figure 5 Computational Grid at the Tunnel Site



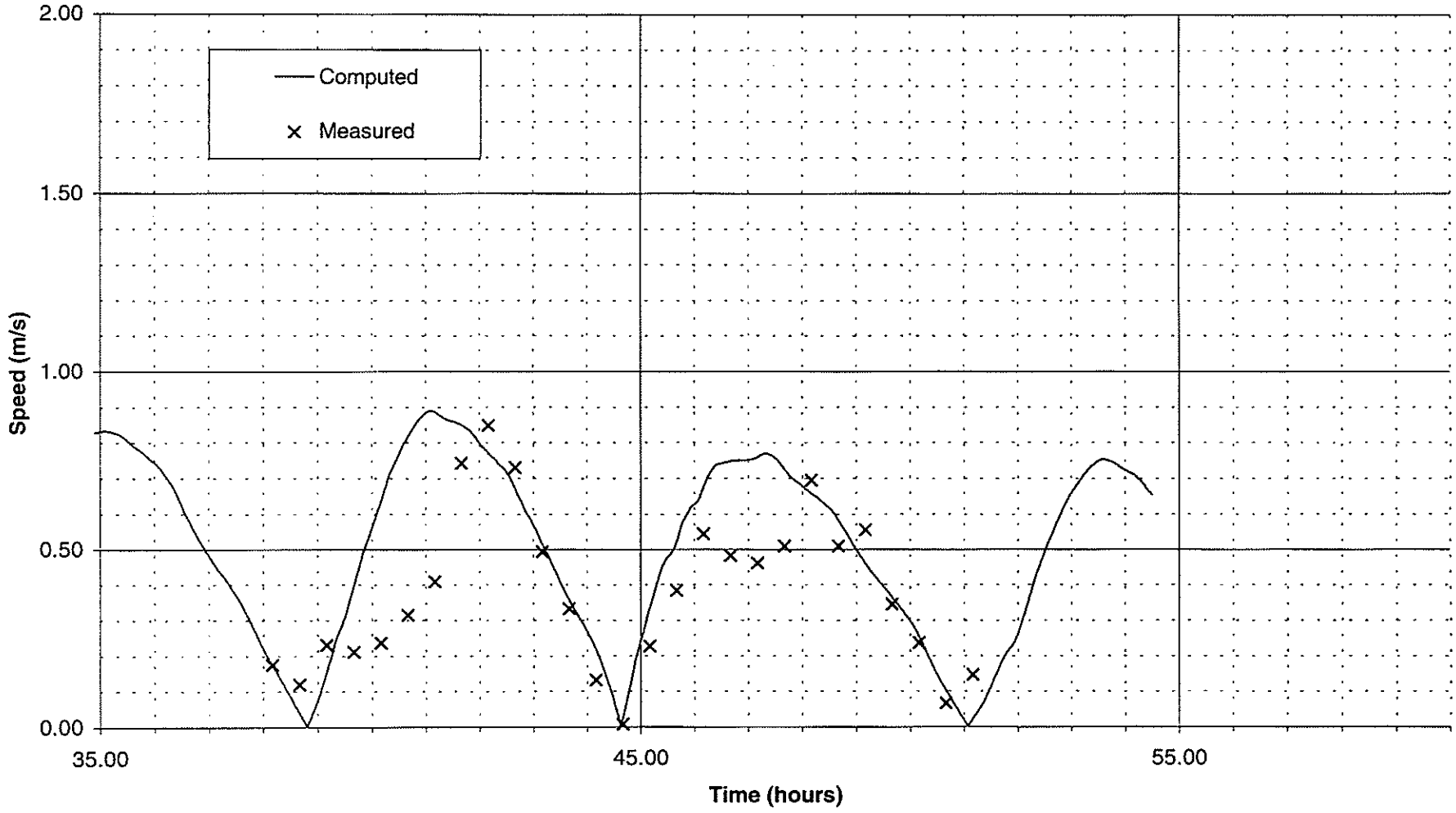
Figures 6a Computed Velocities vs those Measured at North Shields Fish Quay Section (A1)



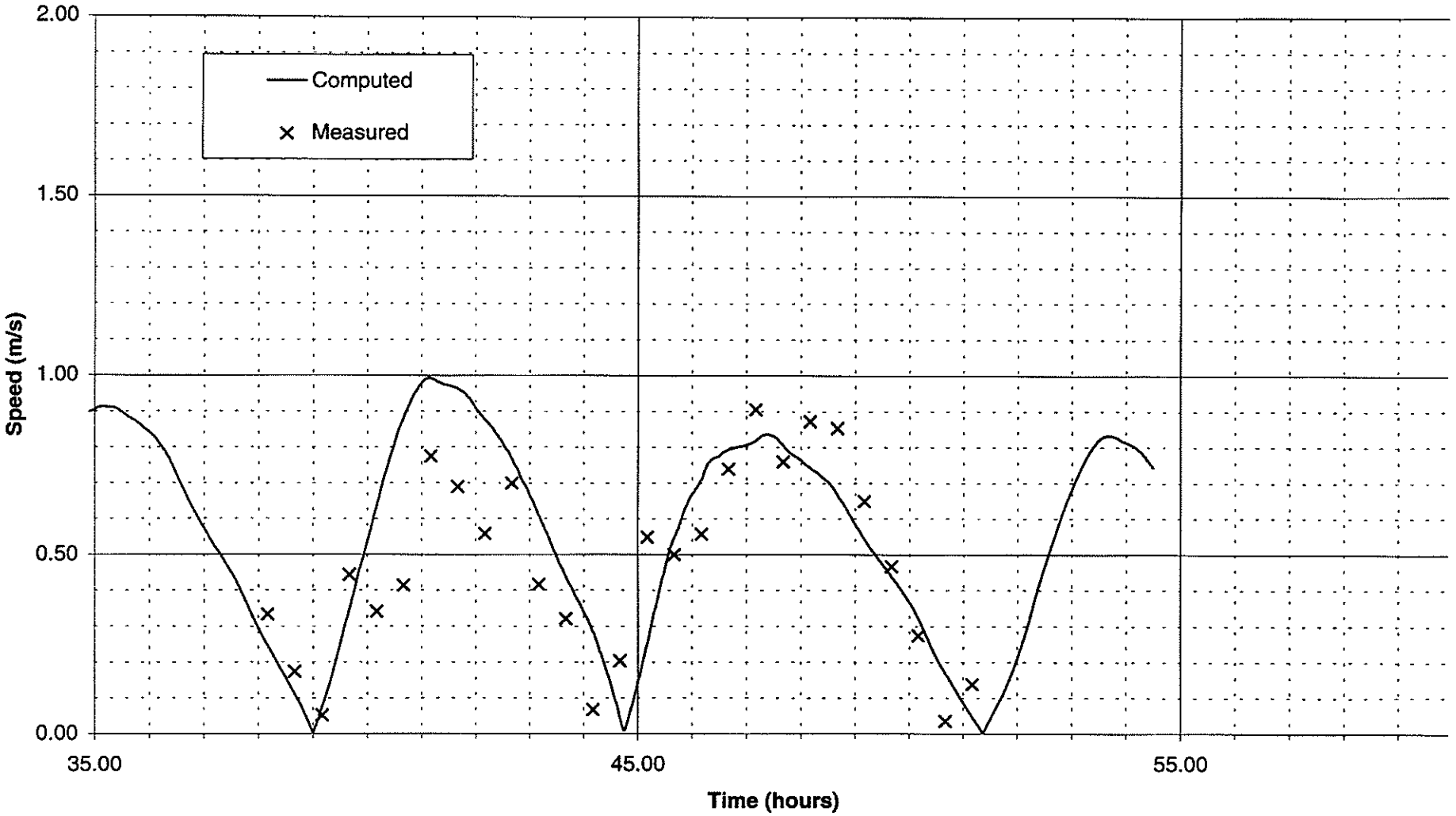
Figures 6b Computed Velocities vs those Measured at North Shields Fish Quay Section (A2)



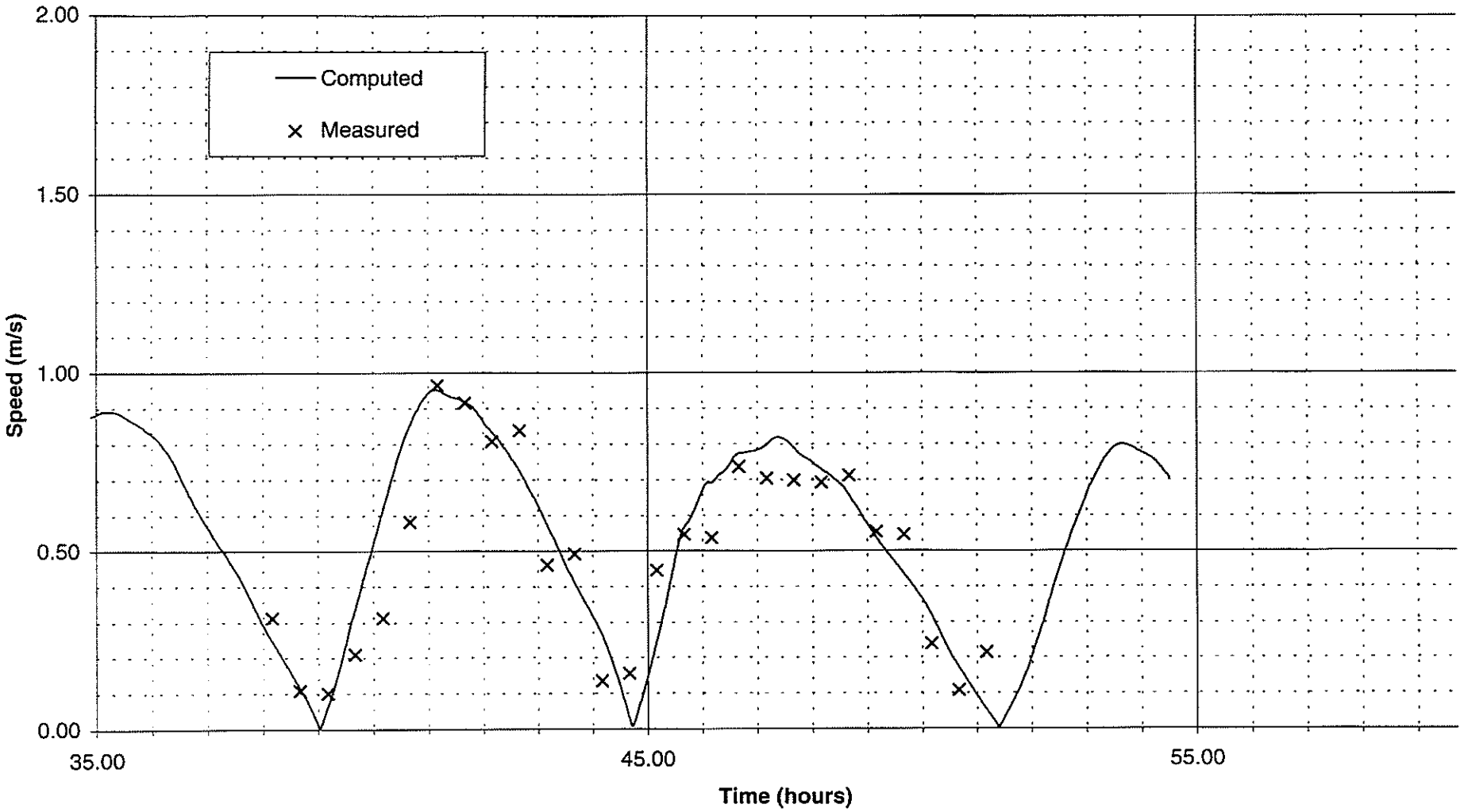
Figures 6c Computed Velocities vs those Measured at North Shields Fish Quay Section (A3)



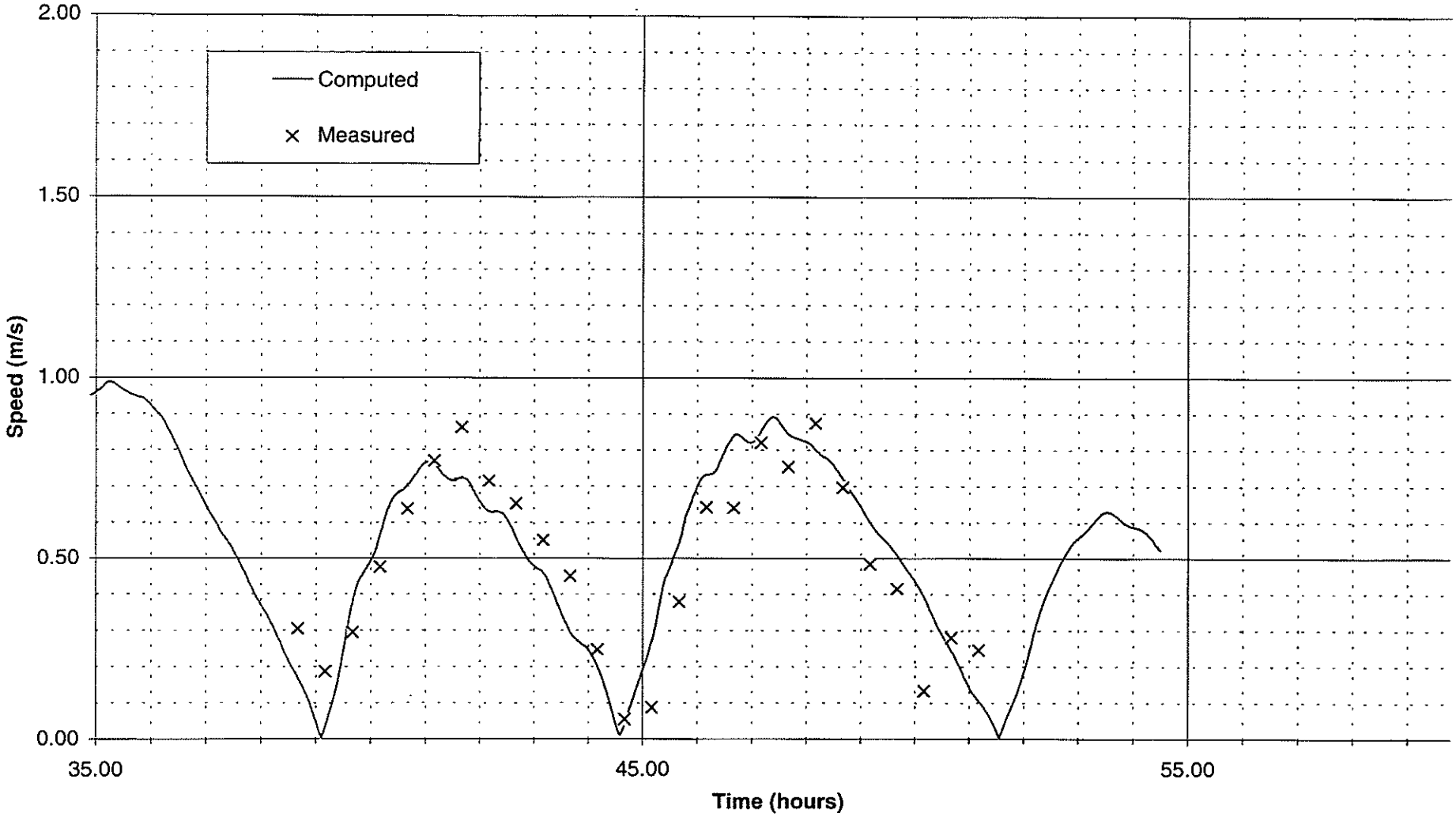
Figures 7a Computed Velocities vs those Measured at the Tunnel Section (B1)



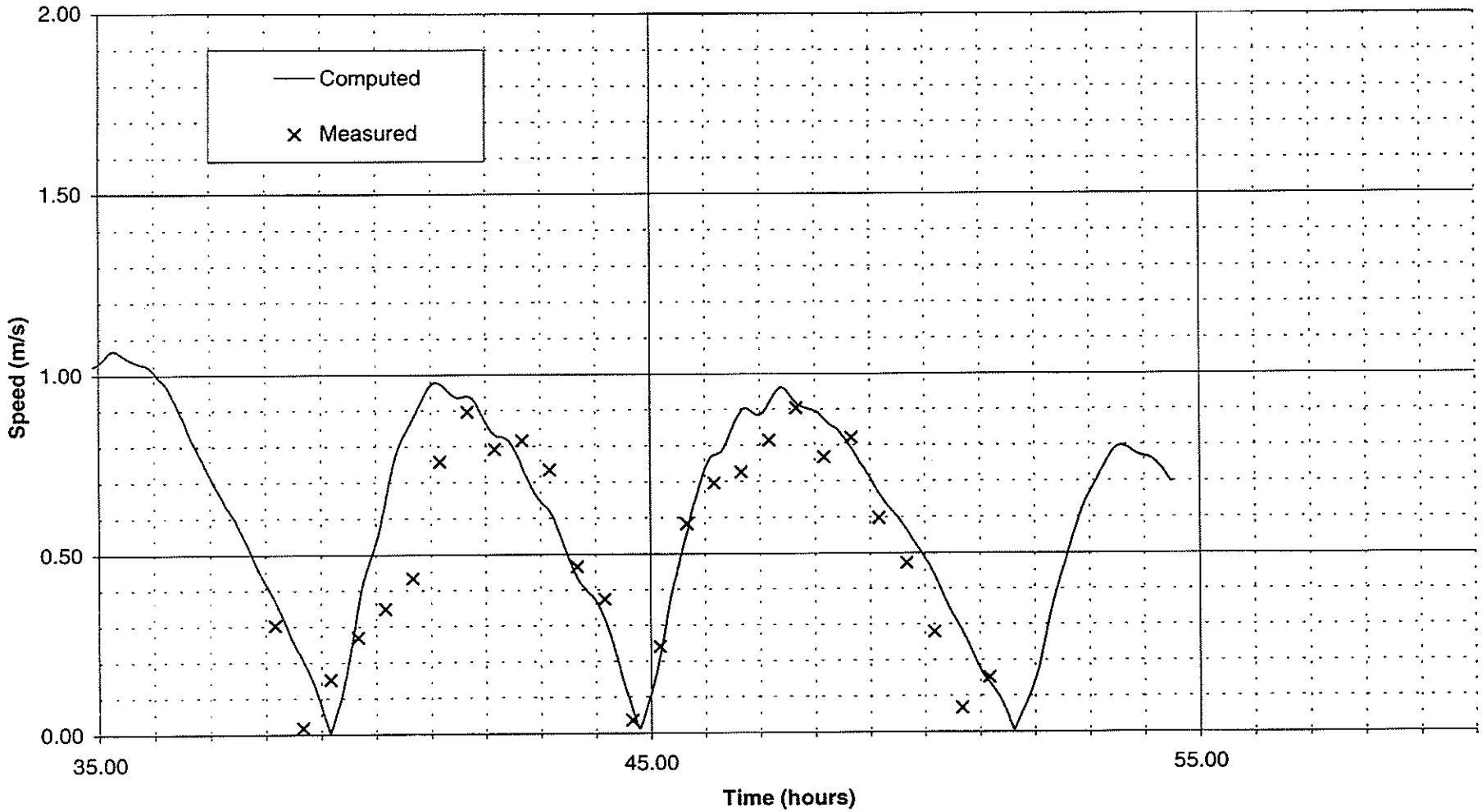
Figures 7b Computed Velocities vs those Measured at the Tunnel Section (B2)



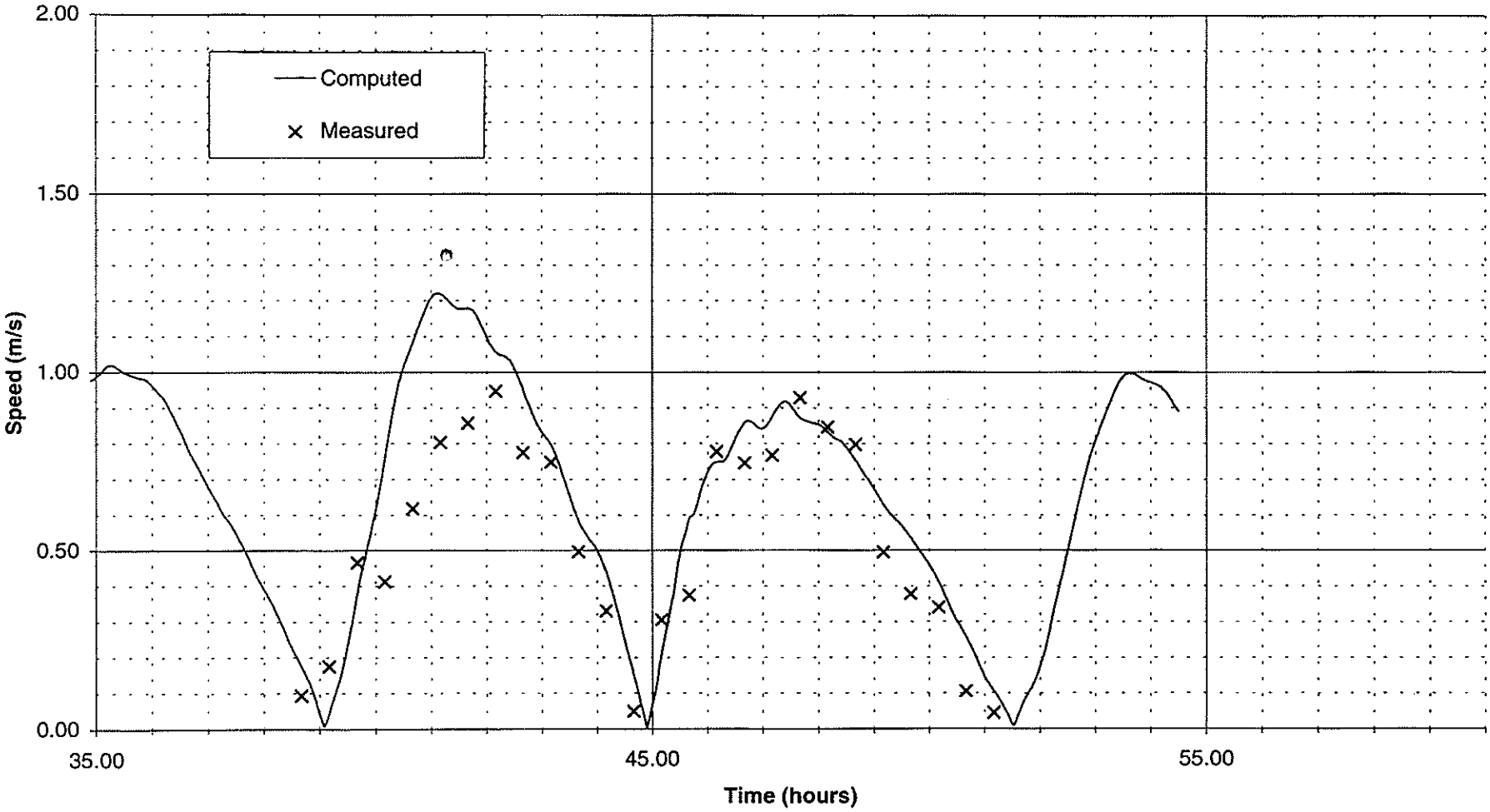
Figures 7c Computed Velocities vs those Measured at the Tunnel Section (B3)



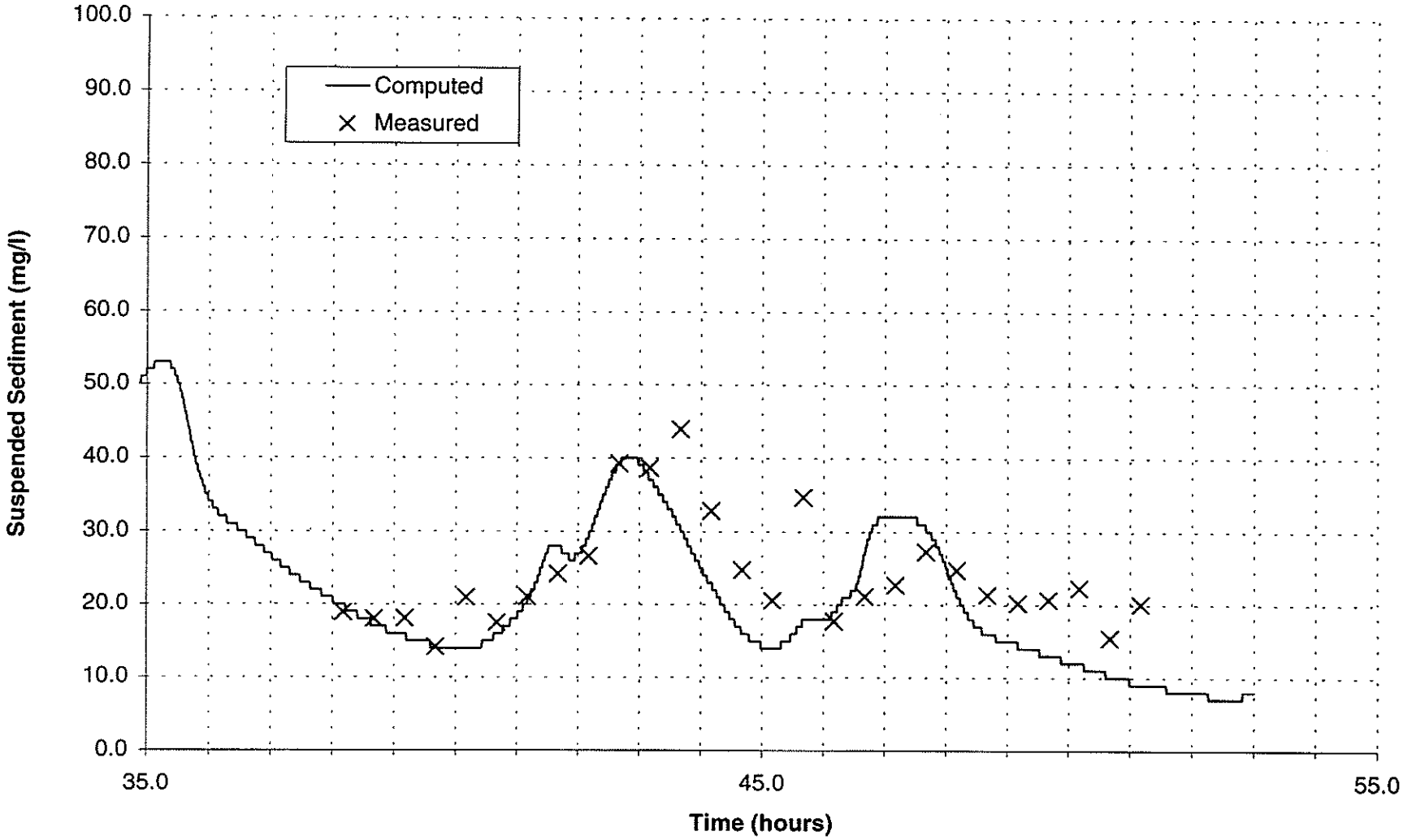
Figures 8a Computed Velocities vs those Measured at Low Walker Section (C1)



Figures 8b Computed Velocities vs those Measured at Low Walker Section (C2)



Figures 8c Computed Velocities vs those Measured at Low Walker Section (C3)



Figures 9 Computed Suspended Sediment Concentration vs that Measured at the Tunnel Section

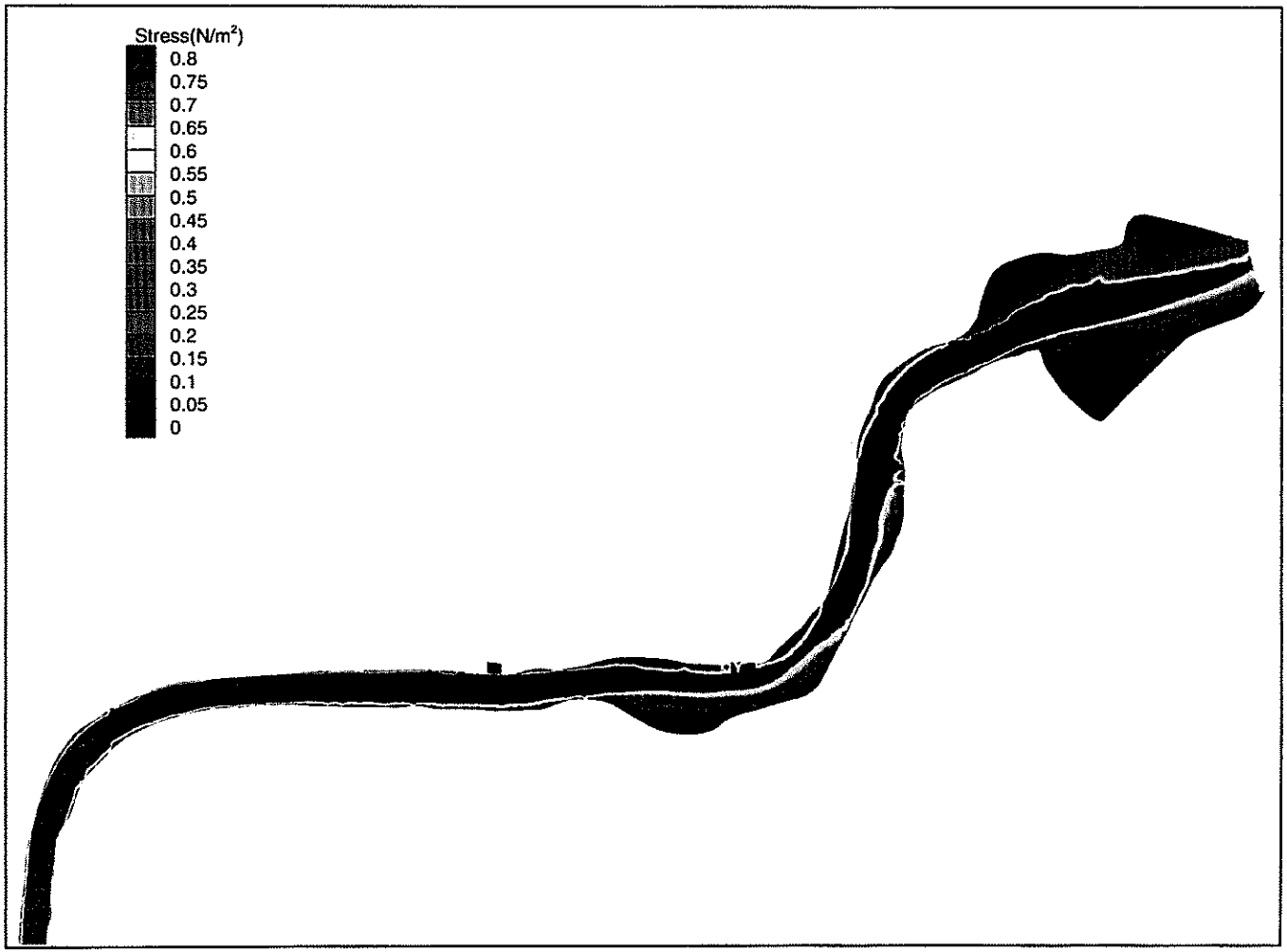


Figure 10a Computed Peak Bed Shear Stress for Existing Condition (the Whole Area)

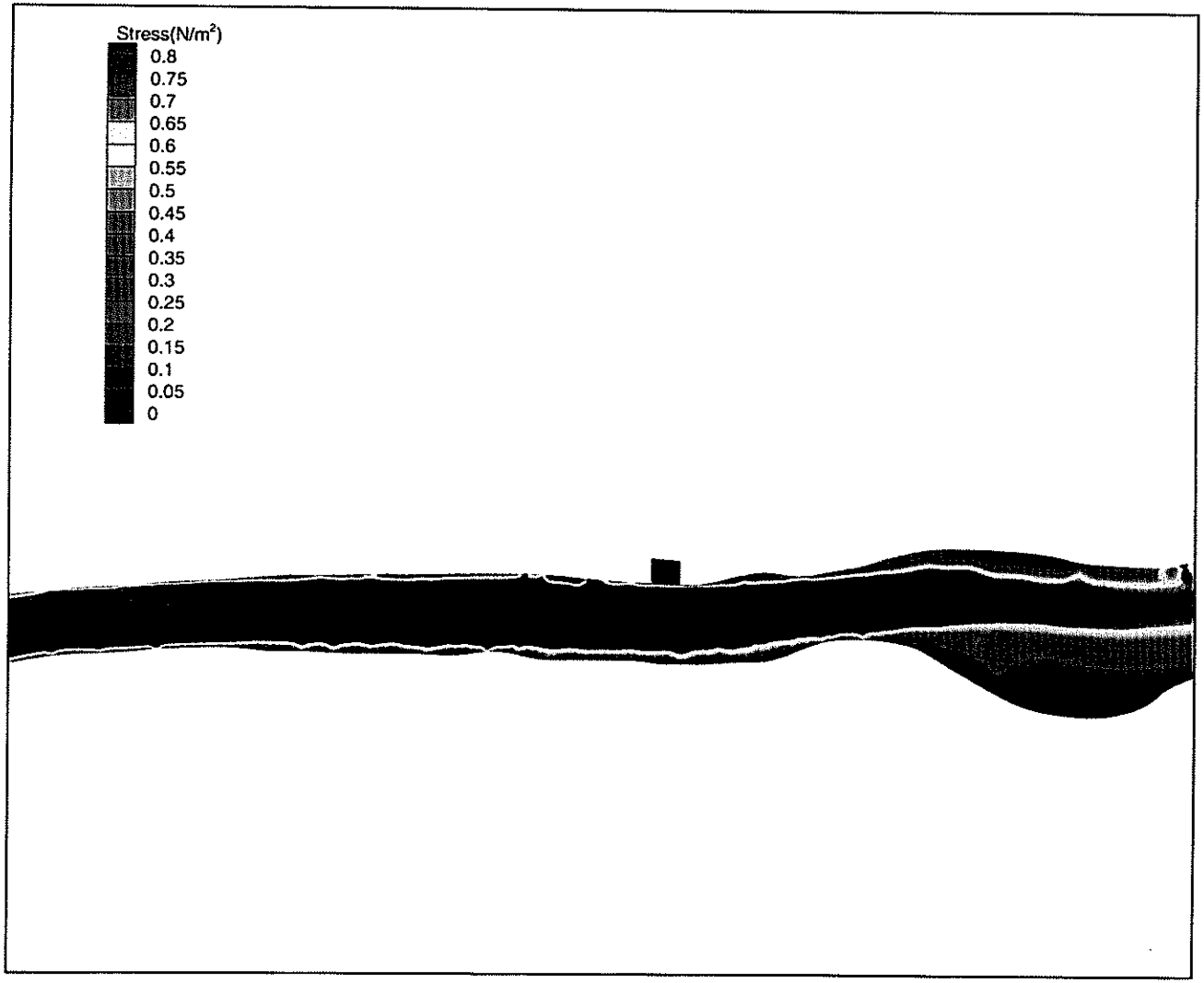


Figure 10b Computed Peak Bed Shear Stress for Existing River Regime (near Tunnel)

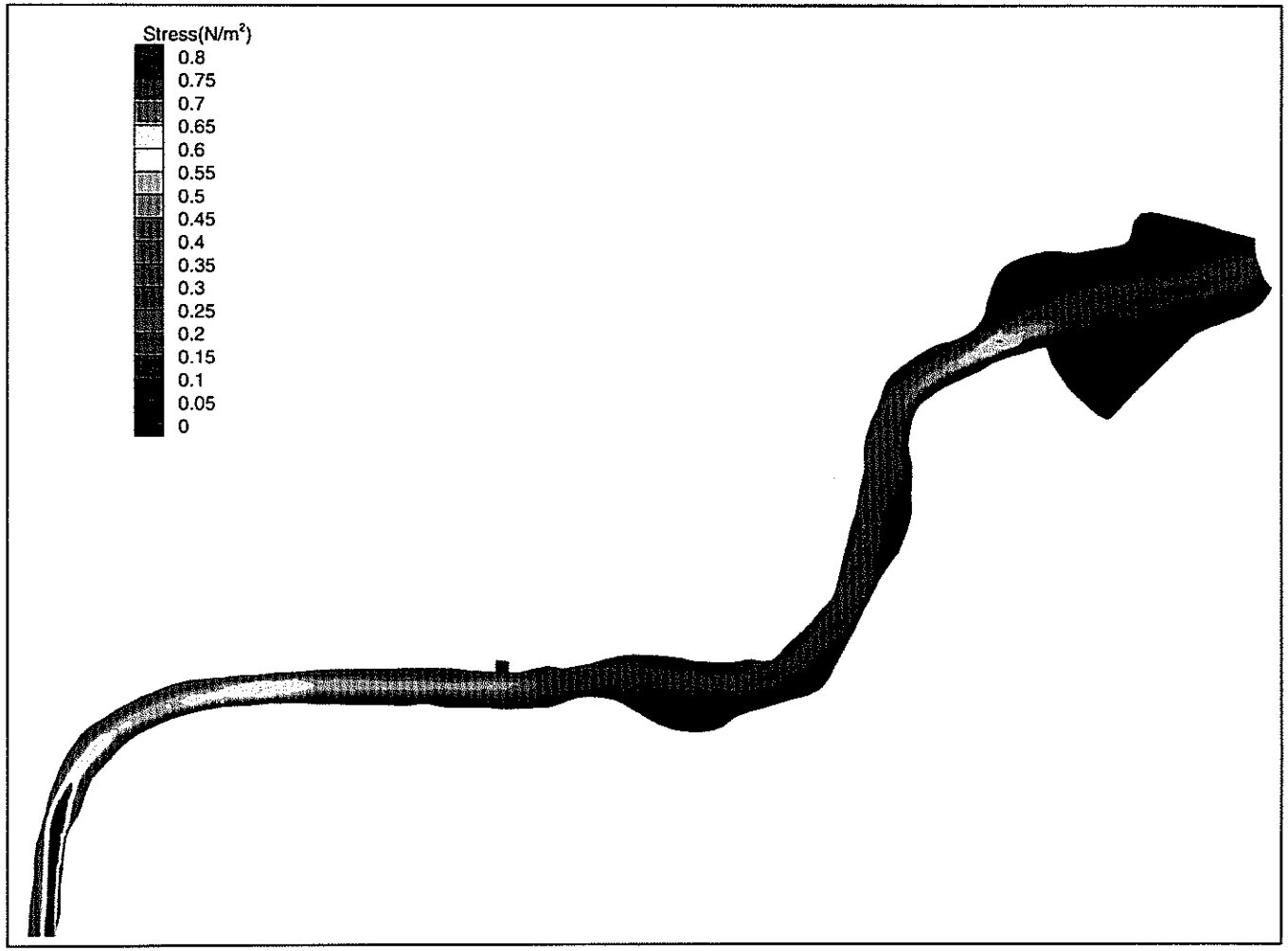


Figure 10c Computed Mean Bed Shear Stress for Existing Condition (the Whole Area)

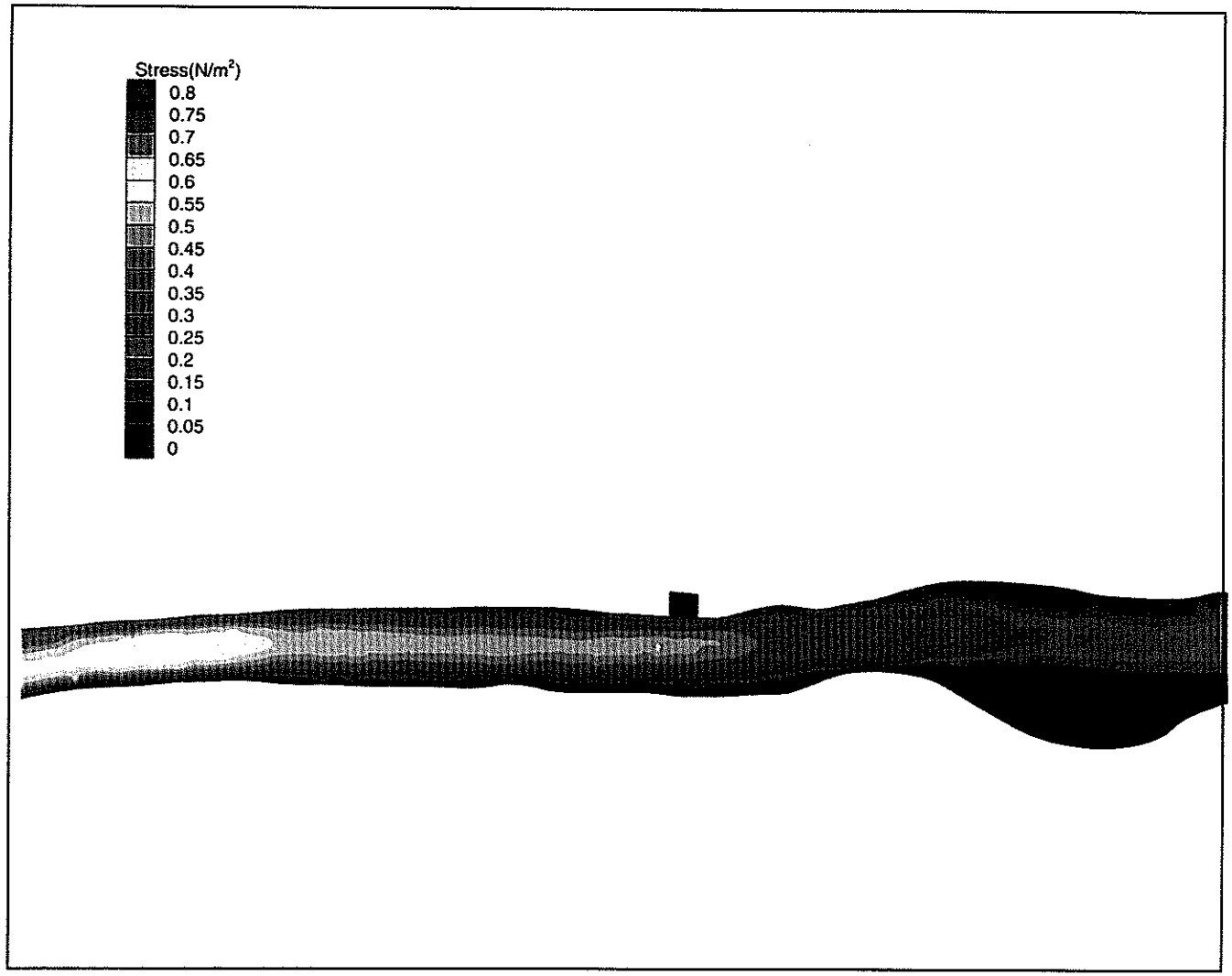


Figure 10d Computed Mean Bed Shear Stress for Existing Condition (near the Tunnel)

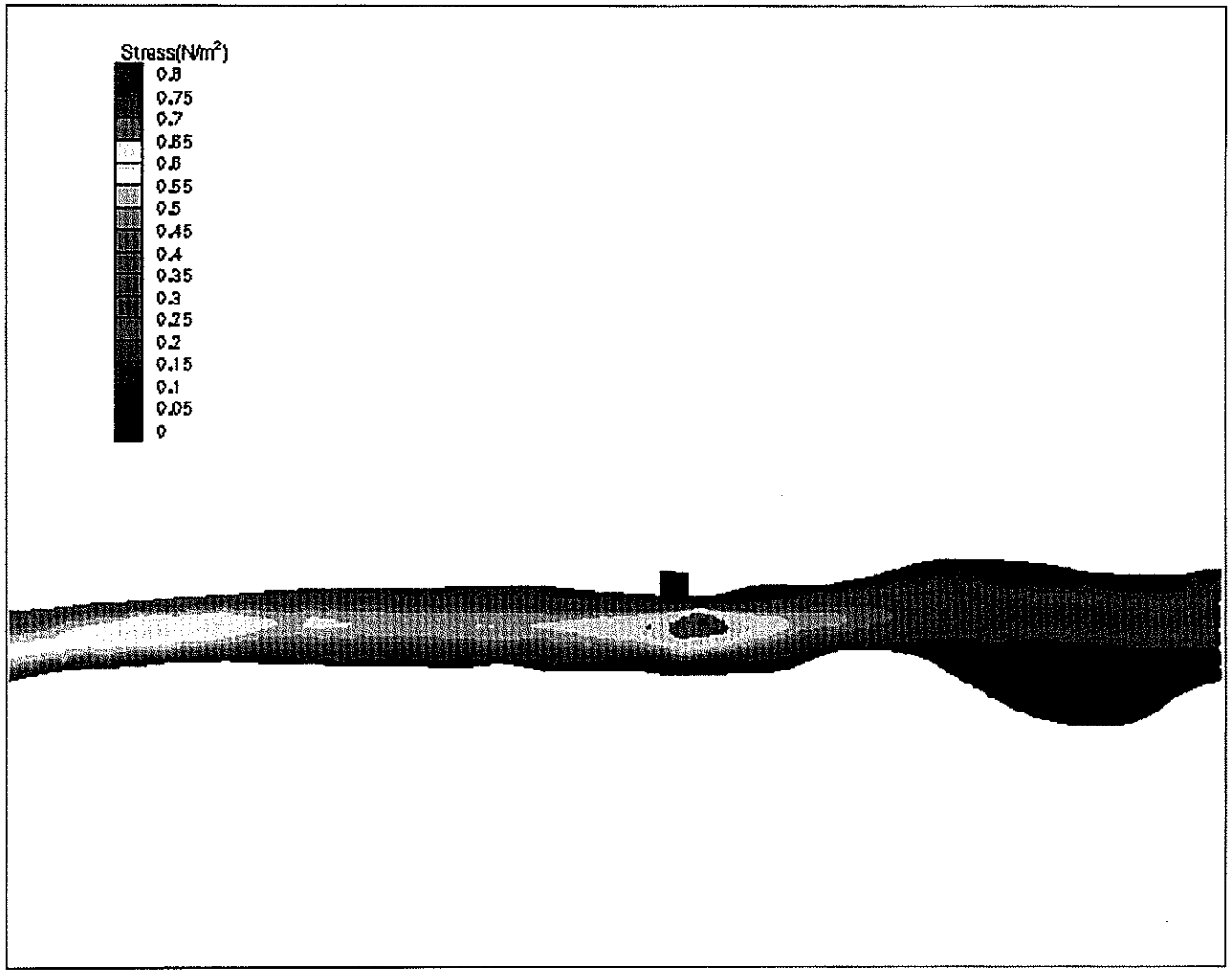


Figure 11 Computed Mean Bed Shear Stress for a Spring Tide with Proposed Temporary Structures (near the Tunnel)

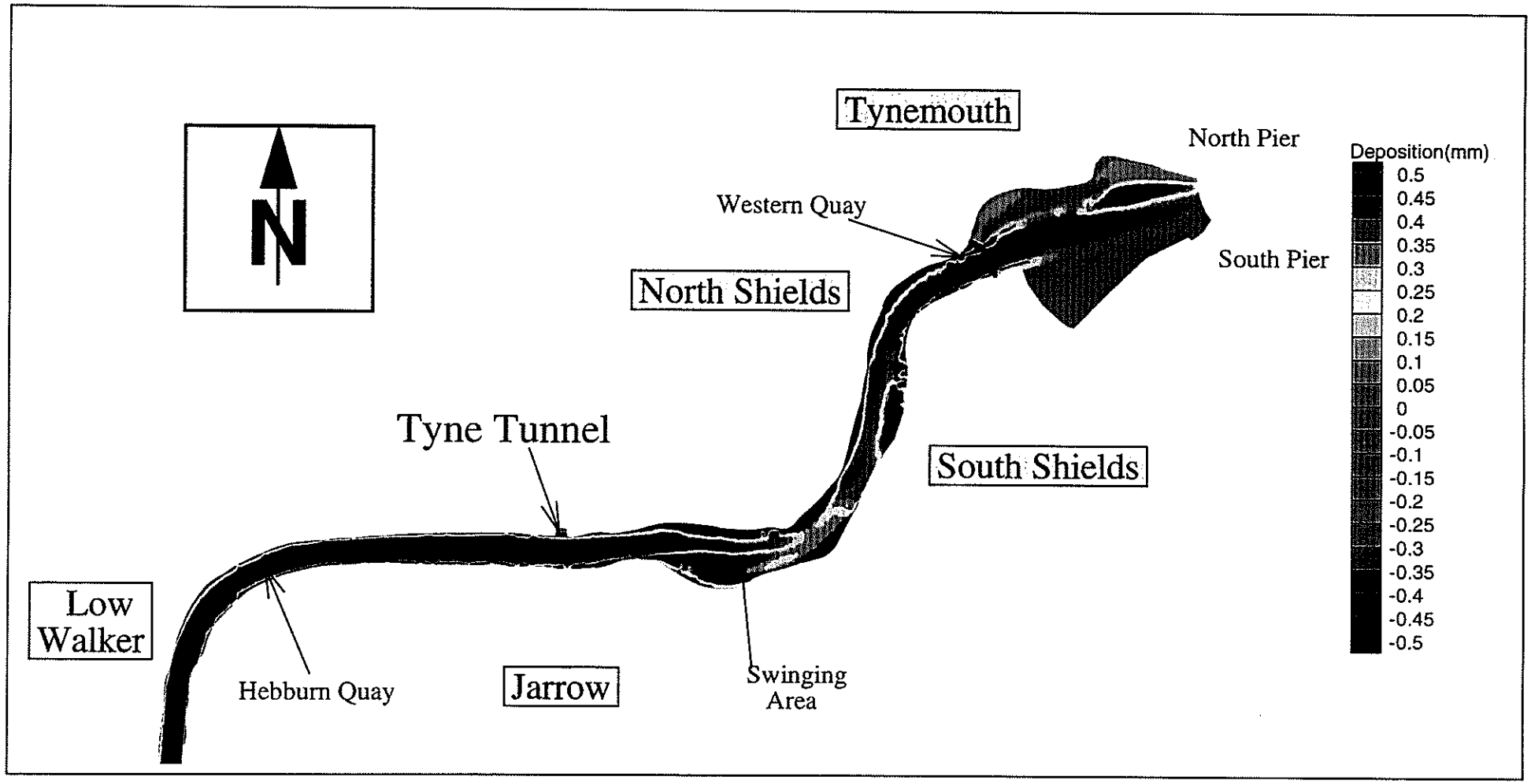


Figure 12 Computed Mean Bed Level Changes after Six Tidal Cycles

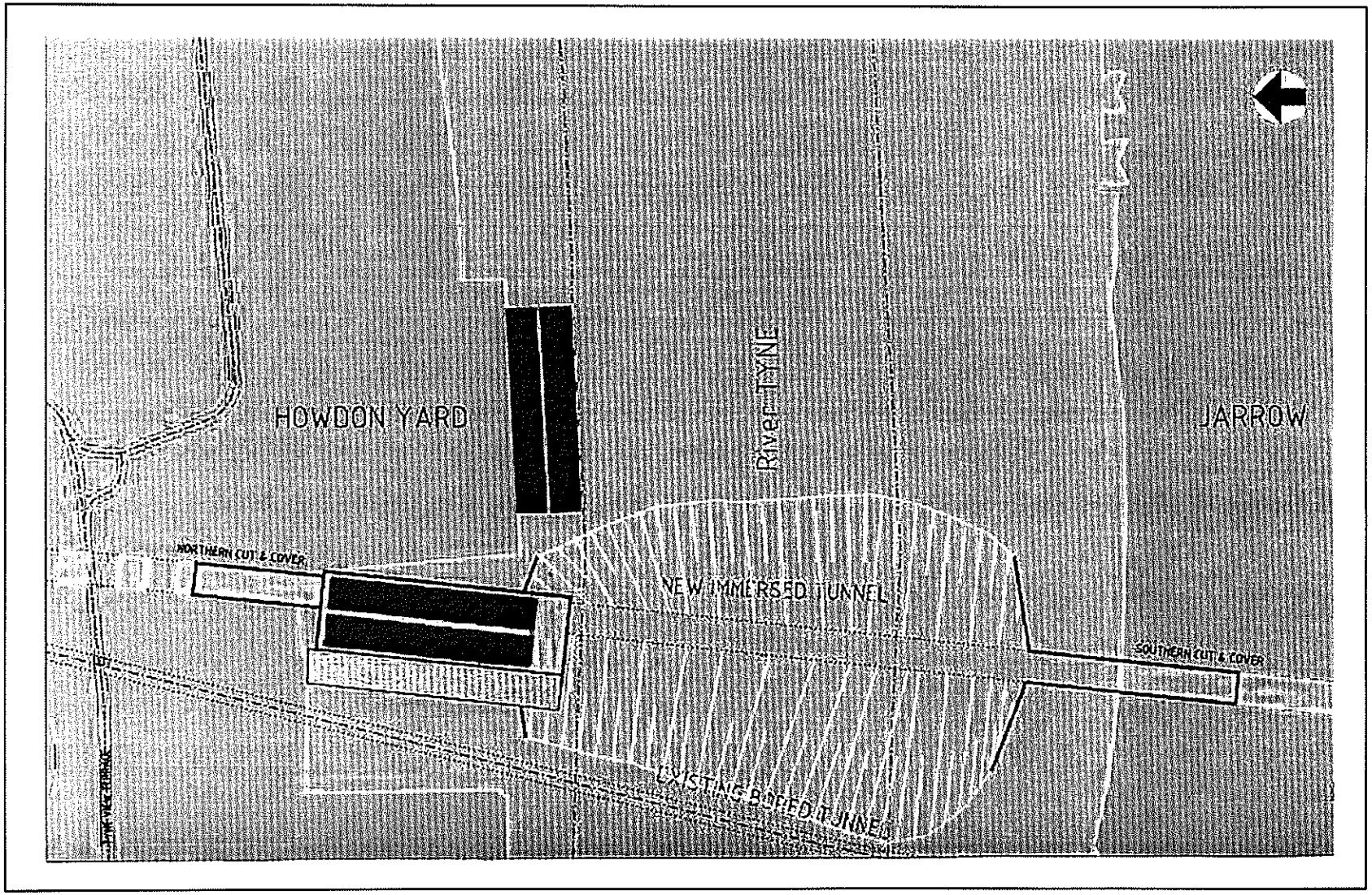


Figure 13 Showing Sketch of the Proposed Temporary Structure

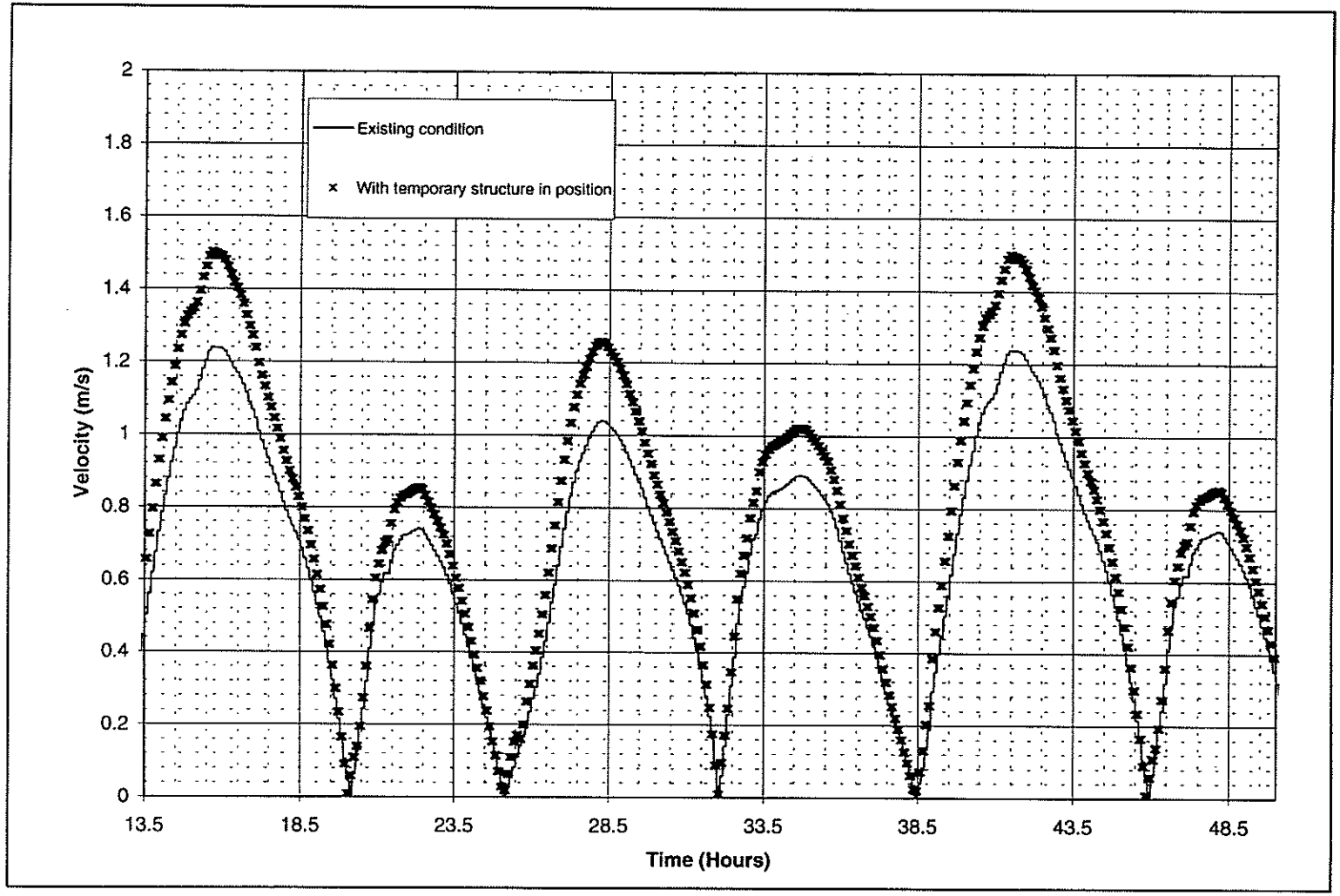


Figure 14 Comparison of Velocities at the Tunnel Site with and without the Proposed Temporary Structures

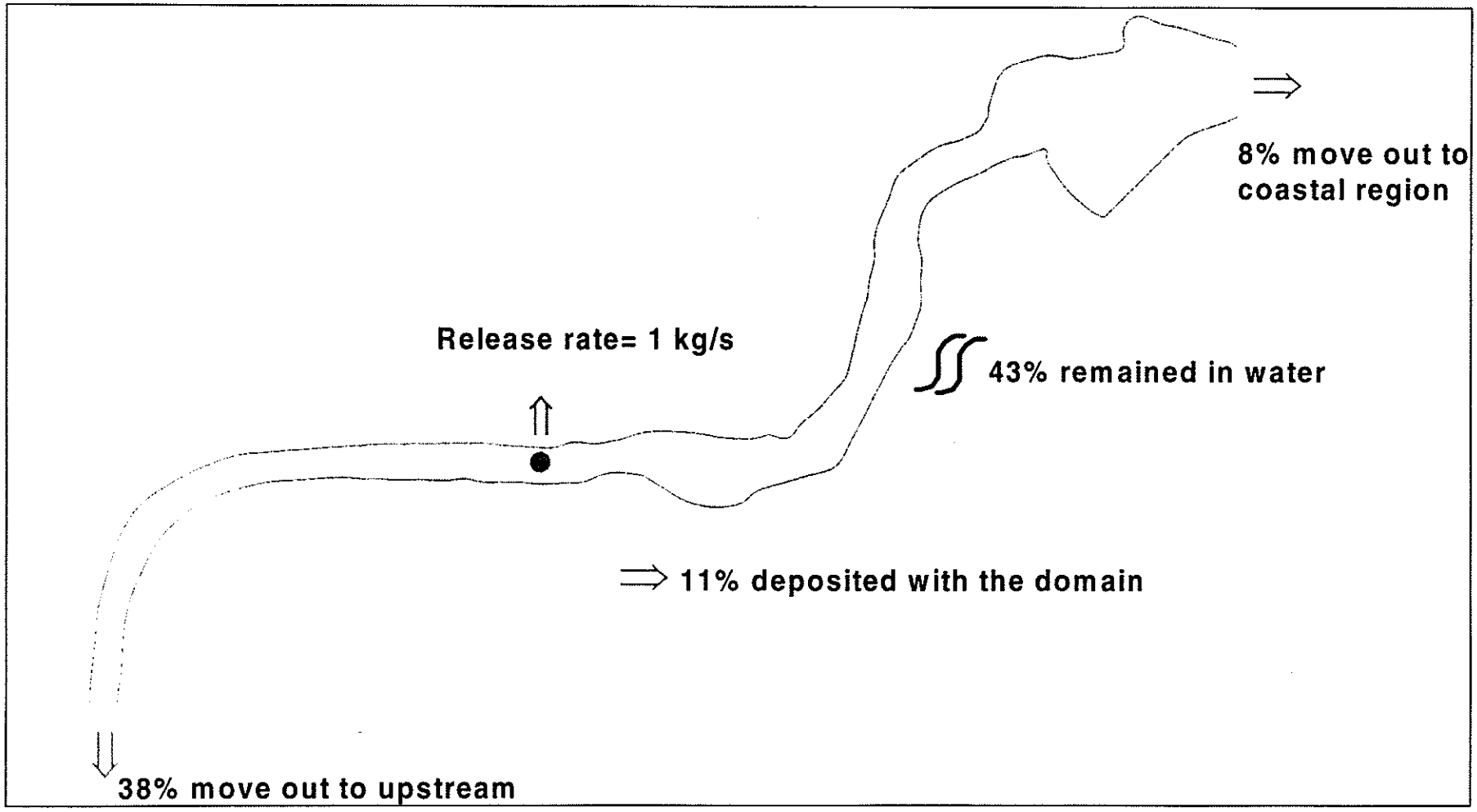


Figure 15 Distribution of Released fine Silt after Dredging Continuously over 6 tidal Cycles (assuming none of the sediments which cross the upstream and downstream boundaries return on the next tidal cycle).

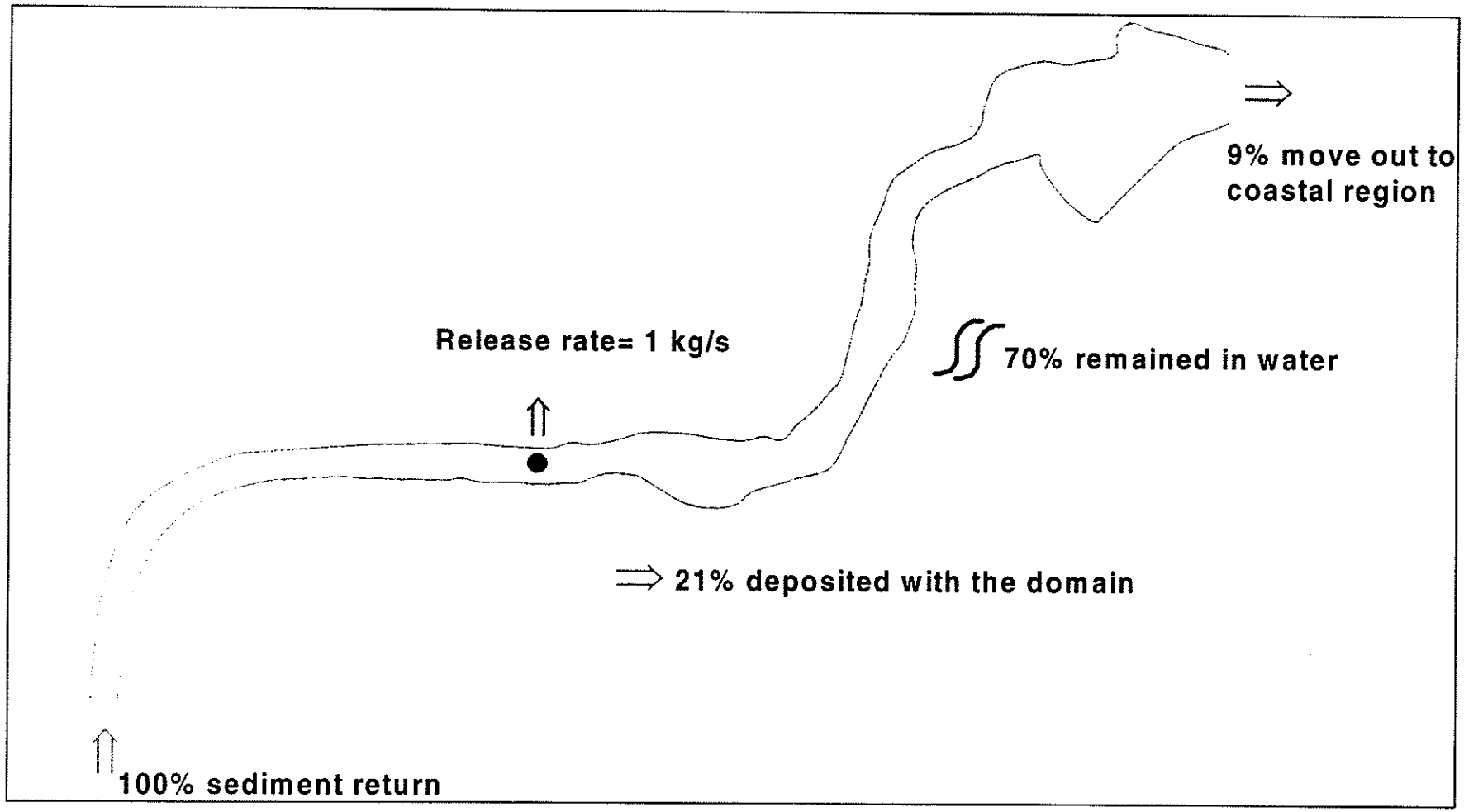


Figure 16 Distribution of Released fine Silt after Dredging Continuously over 6 tidal Cycles (assuming all of the sediments which cross the upstream boundary return on the next tidal cycle).

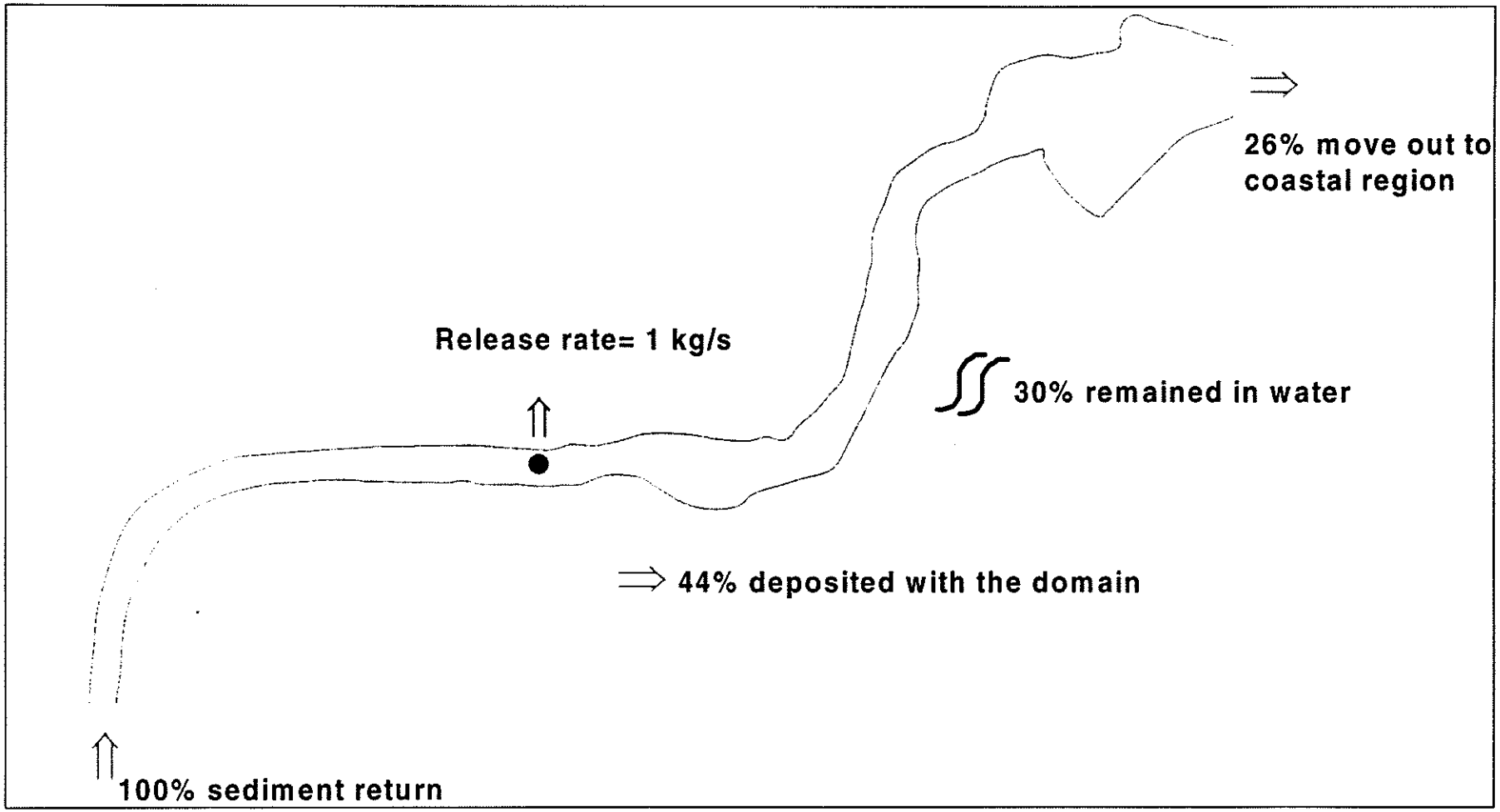


Figure 17 Distribution of Released fine Silt after Dredging Continuously over 42 tidal Cycles (assuming all of the sediments which cross the upstream boundary return on the next tidal cycle).