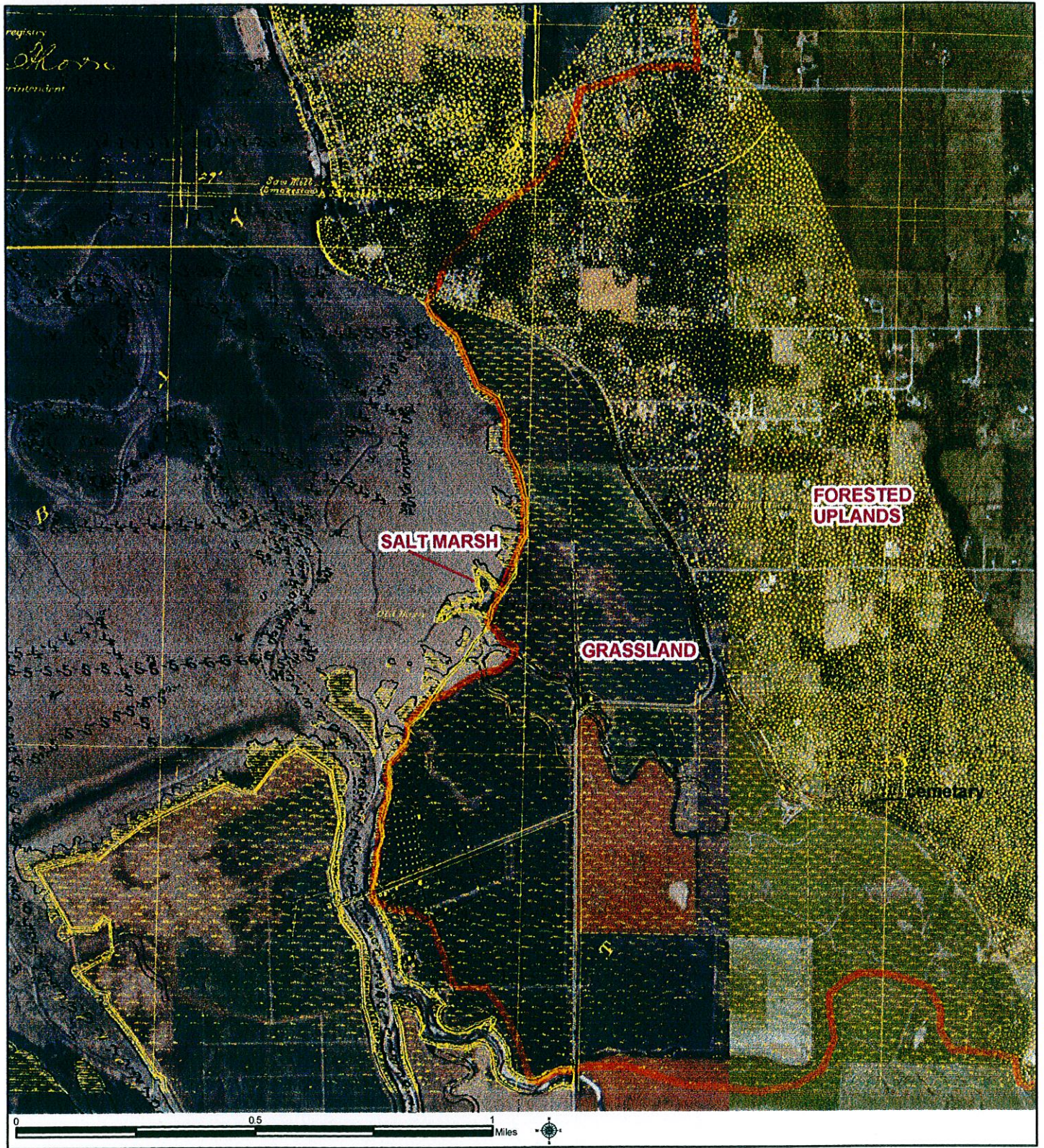




Figure 2.1 No Name Slough watershed in Padilla Bay watershed in Skagit County in Washington State.



Figure 2.2 Watershed boundaries, roads, streams, and 10' topographic contours.



— No Name Watershed Boundary  
 Black overlay - 1885 Nautical Chart (U.S. Coast & Geodetic Survey Chart #1815)  
 Yellow overlay - 1886 T-sheets (U.S. Coast & Geodetic Survey Topo-Sheet #1746 and #1747)  
 (Image mosaic from Padilla Bay Reserve  
 July 2000 and Skagit Co. April 02, 2002)

Figure 3.1 Composite map of an 1885 nautical chart and 1886 topographic sheet.

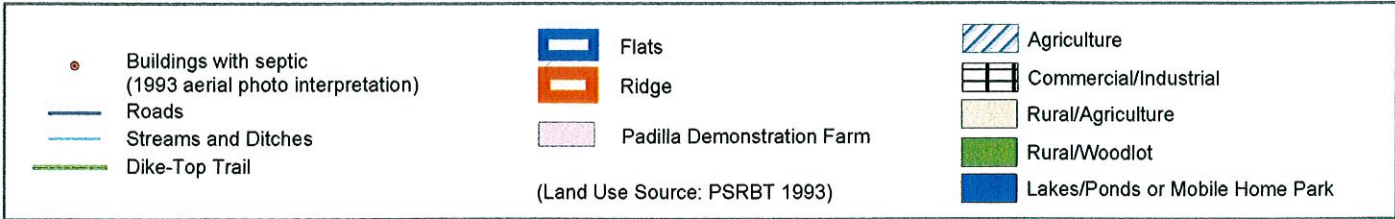
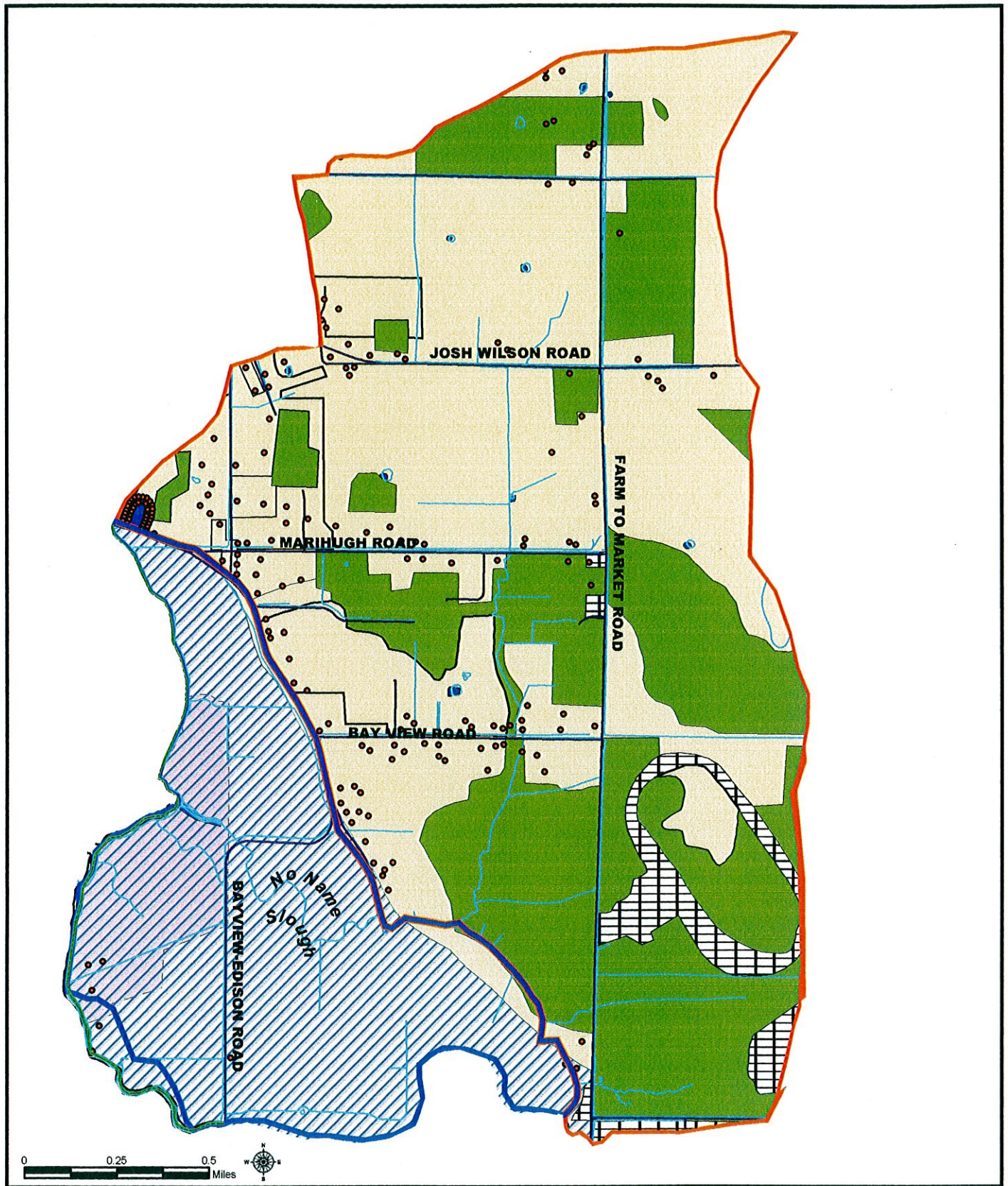


Figure 3.2 Landuse on the ridge and on the flats showing Dike-top trail, roads, streams, subbasin boundaries, and septic sites.

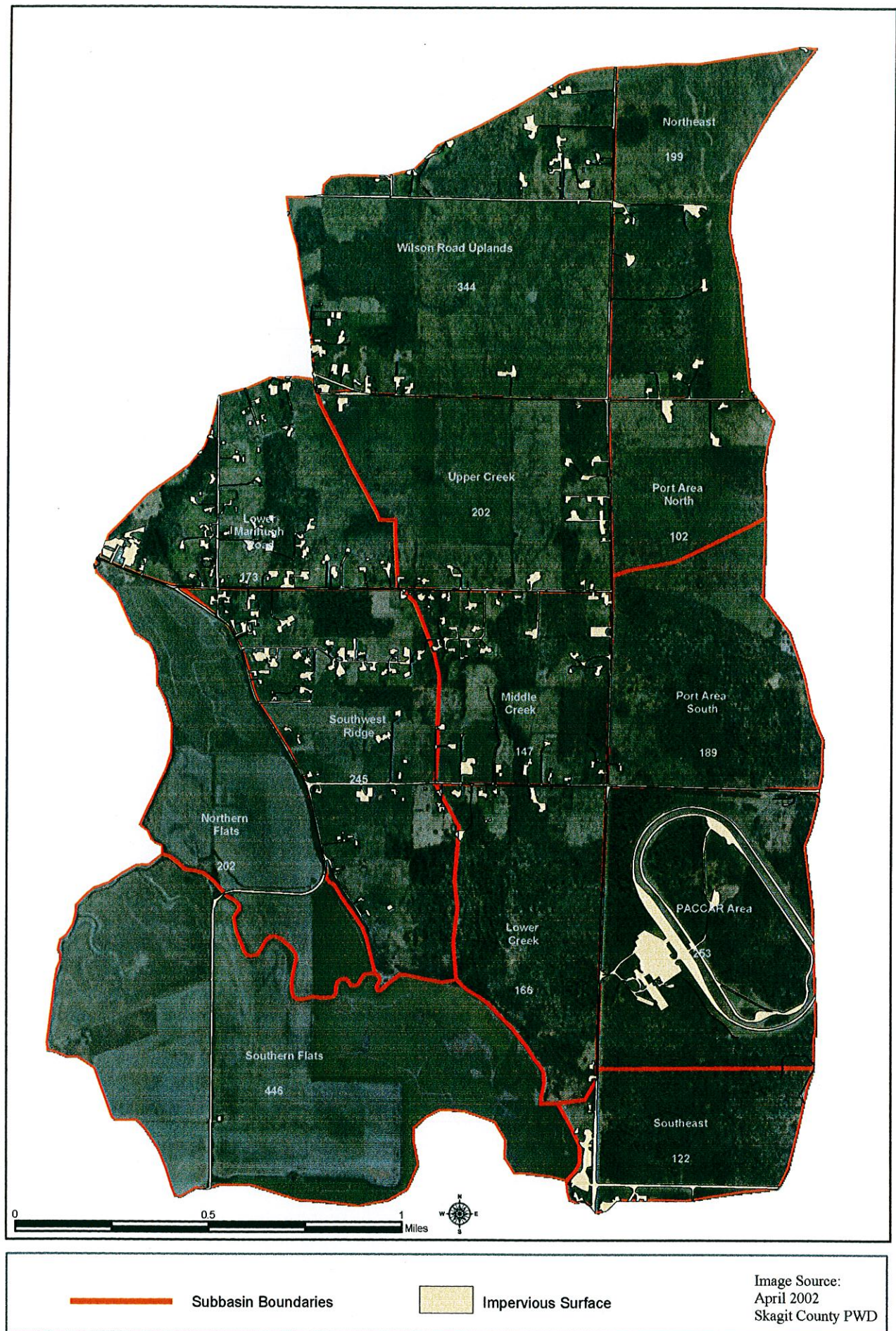


Figure 3.3 Impervious surfaces in the No Name Watershed with subbasin boundaries and areas in acres.

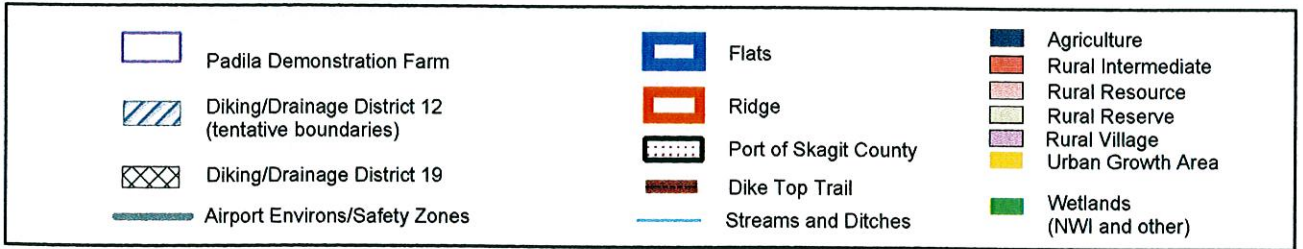
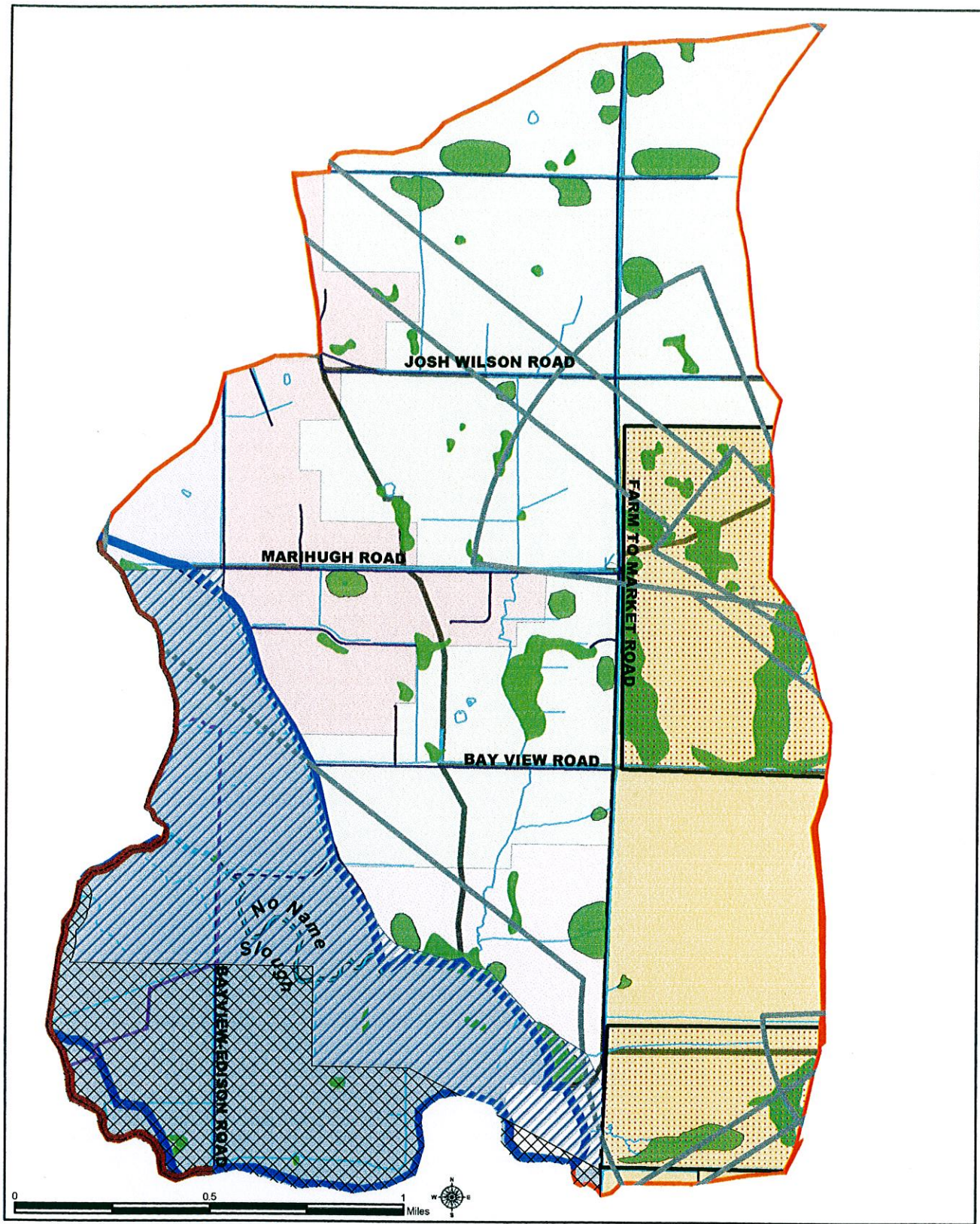


Figure 3.4 Jurisdictional boundaries and Comprehensive Plan zoning.

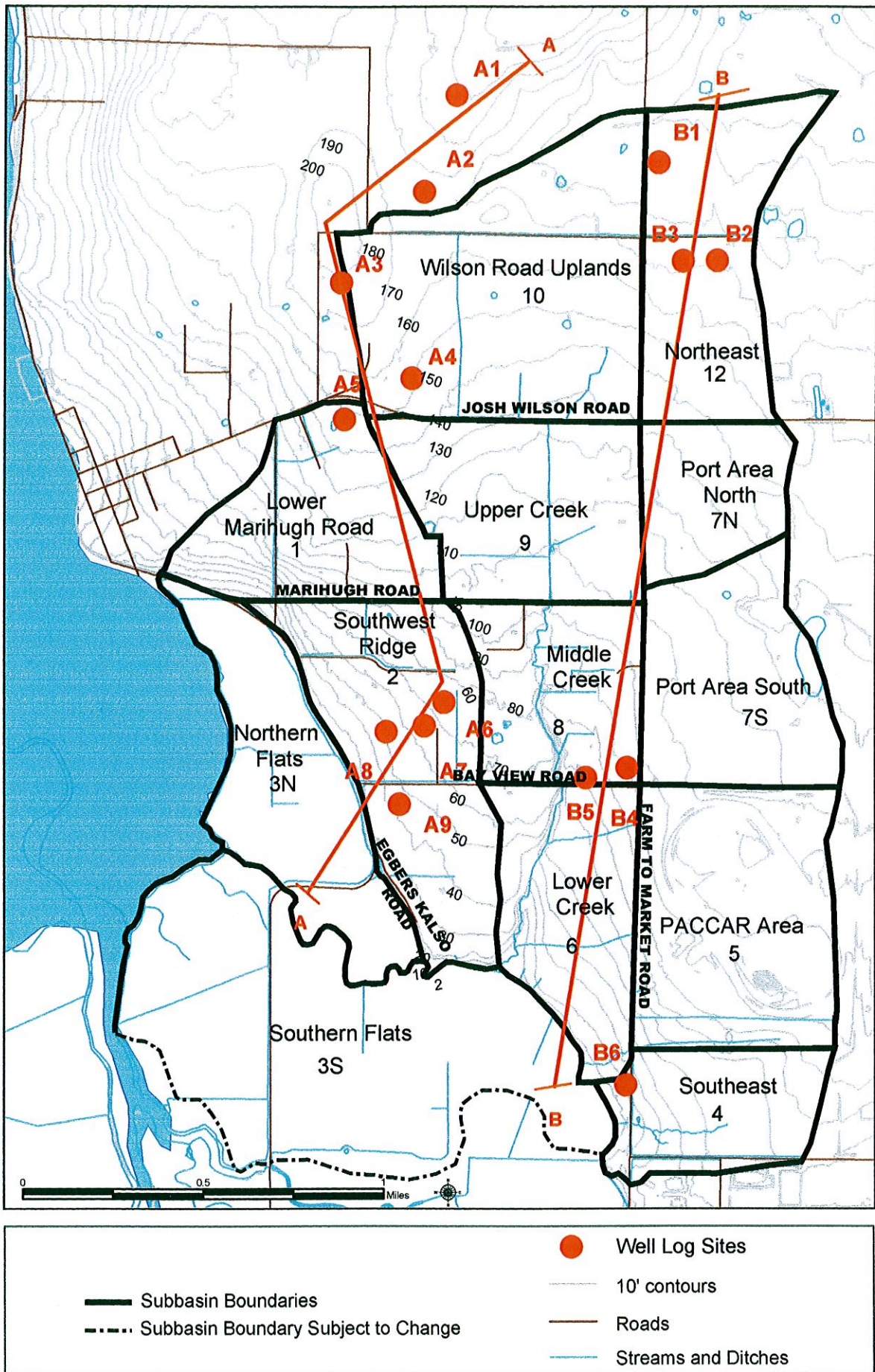
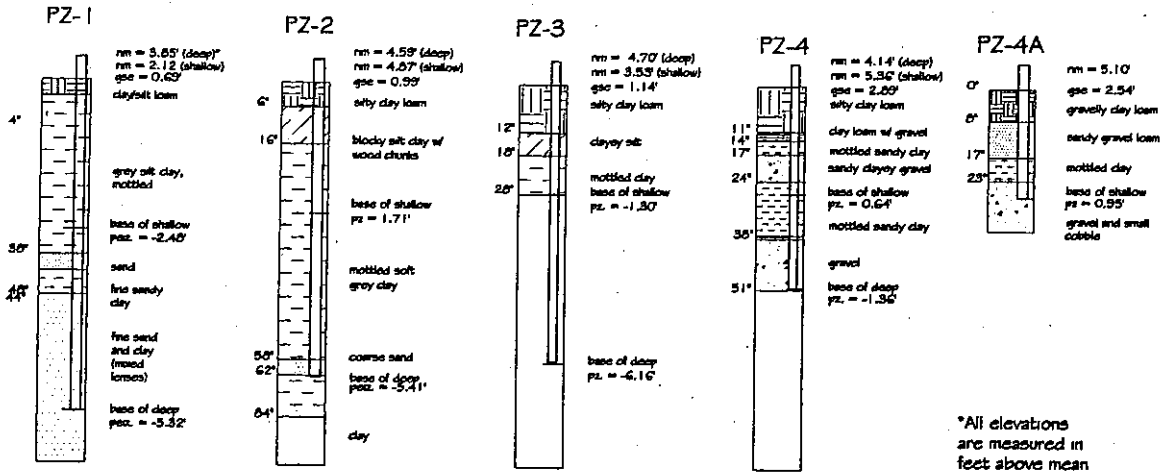


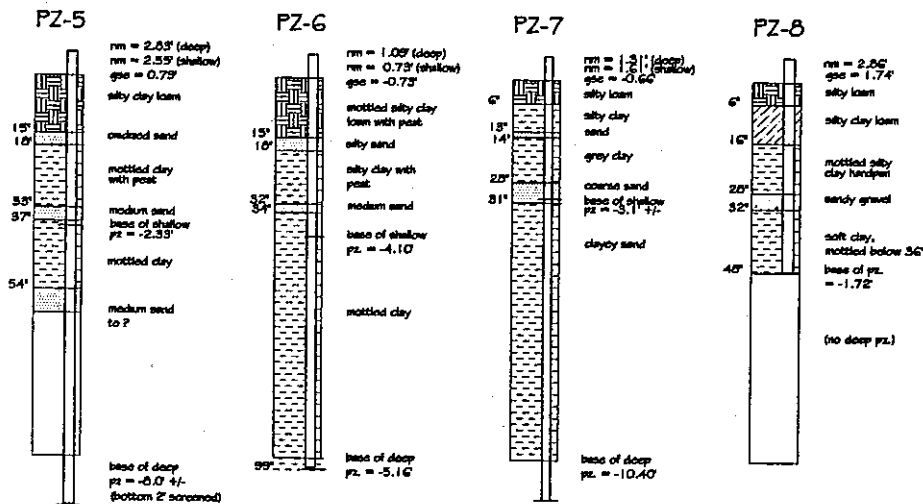
Figure 5.1 Well Log sites in No Name Watershed.

## Lowland Transect



\*All elevations are measured in feet above mean sea level, relative to BM #80-70-B (gsc at top of dike)

## Slough Transect



## Upland Transect

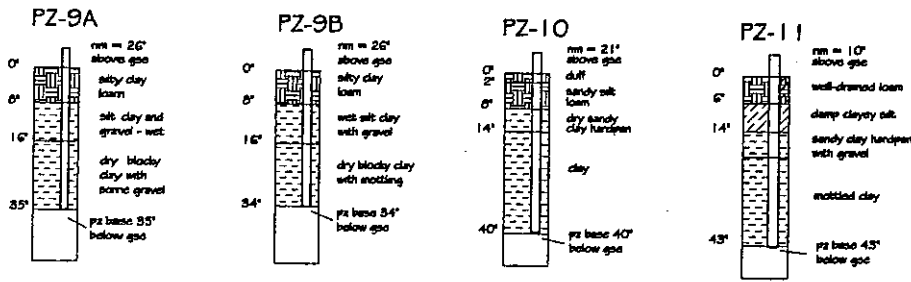


Figure 4.2. Soil Boring Logs

Date 1-23-03 No. 1	Prepared by: <b>Skagit Conservation District</b> 2021 E. College Way, Suite 203 Mount Vernon, WA 98275 (509) 428-43 13	<b>No Name Slough Watershed Characterization          Piezometer / Soil Boring Logs</b>	Engineer 	Data Address Tax Account No.
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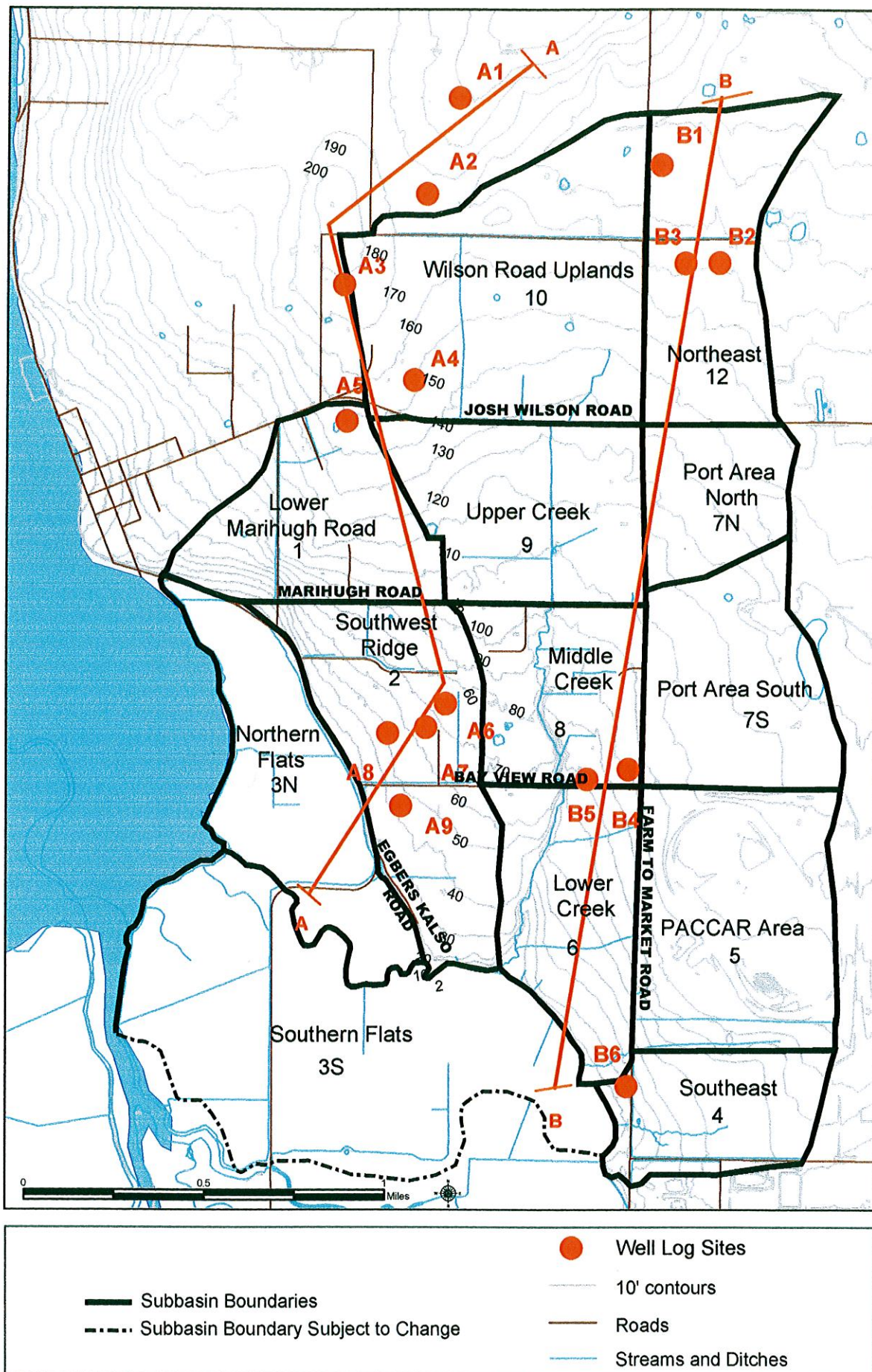


Figure 5.1 Well Log sites in No Name Watershed.

No Name Slough Watershed Characterization  
 Geology Cross Sections

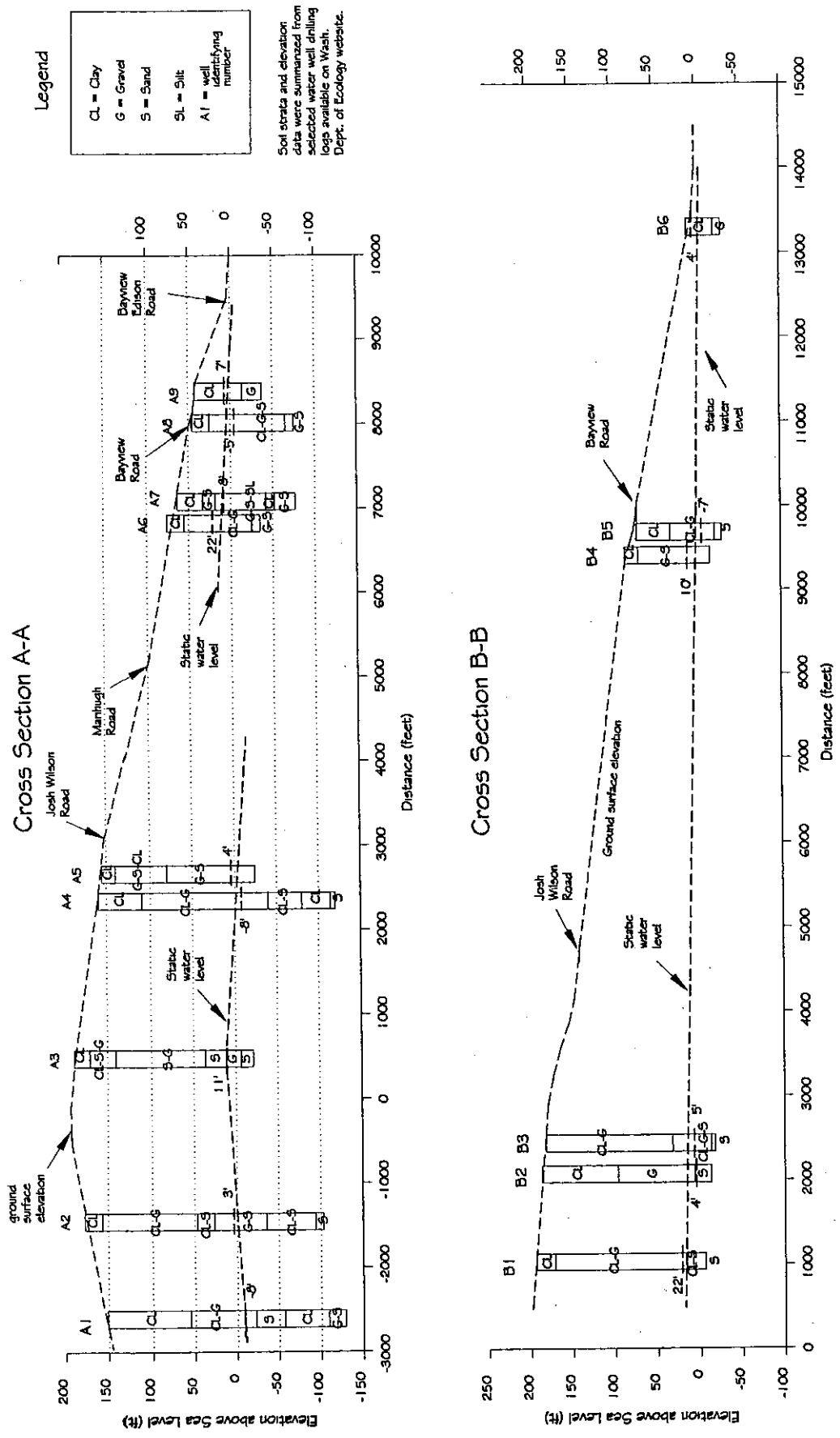


Figure 5.2. Water Well Log Profiles

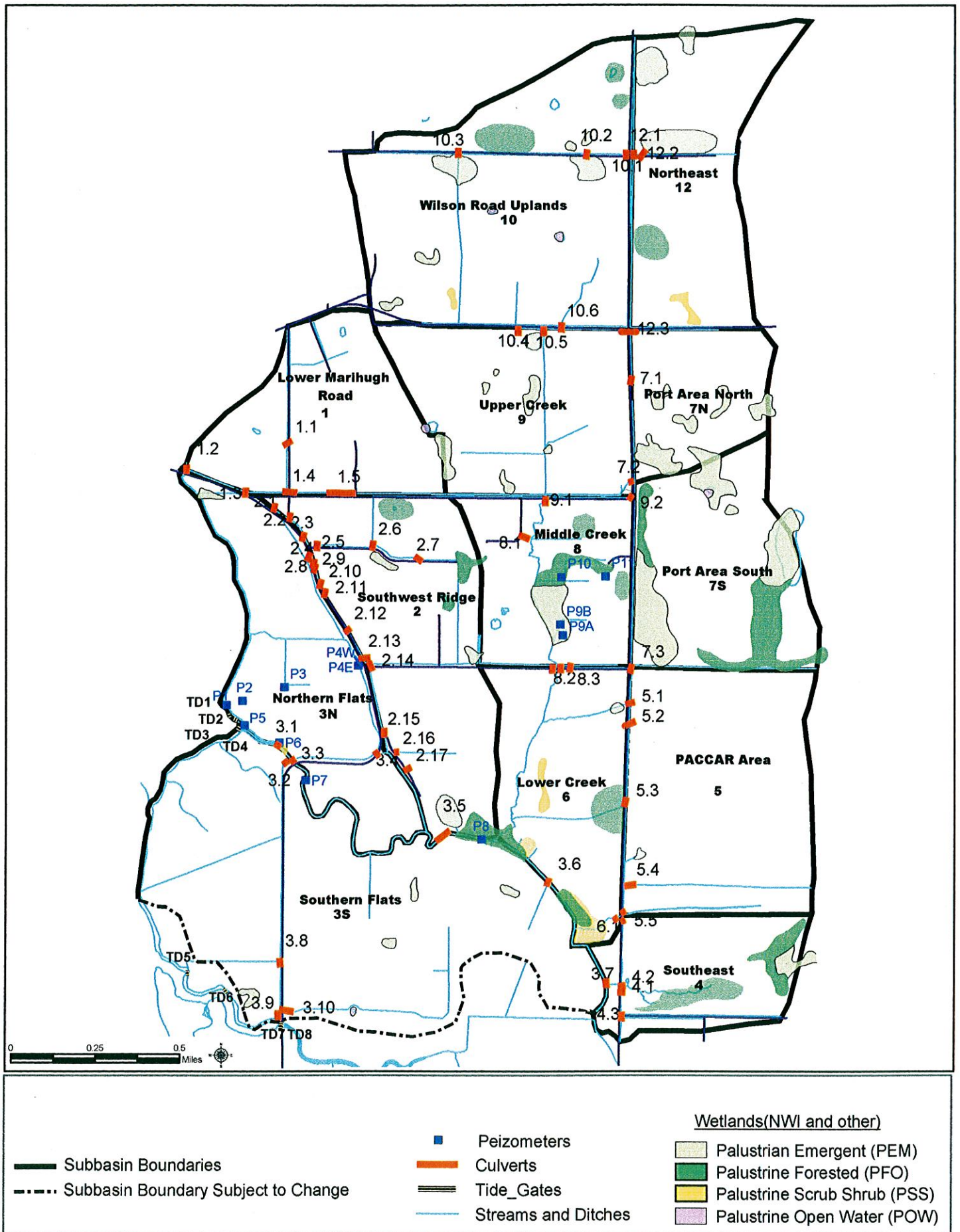


Figure 5.3 Locations of Peizometers/Monitoring Transects in No Name Slough Watershed.

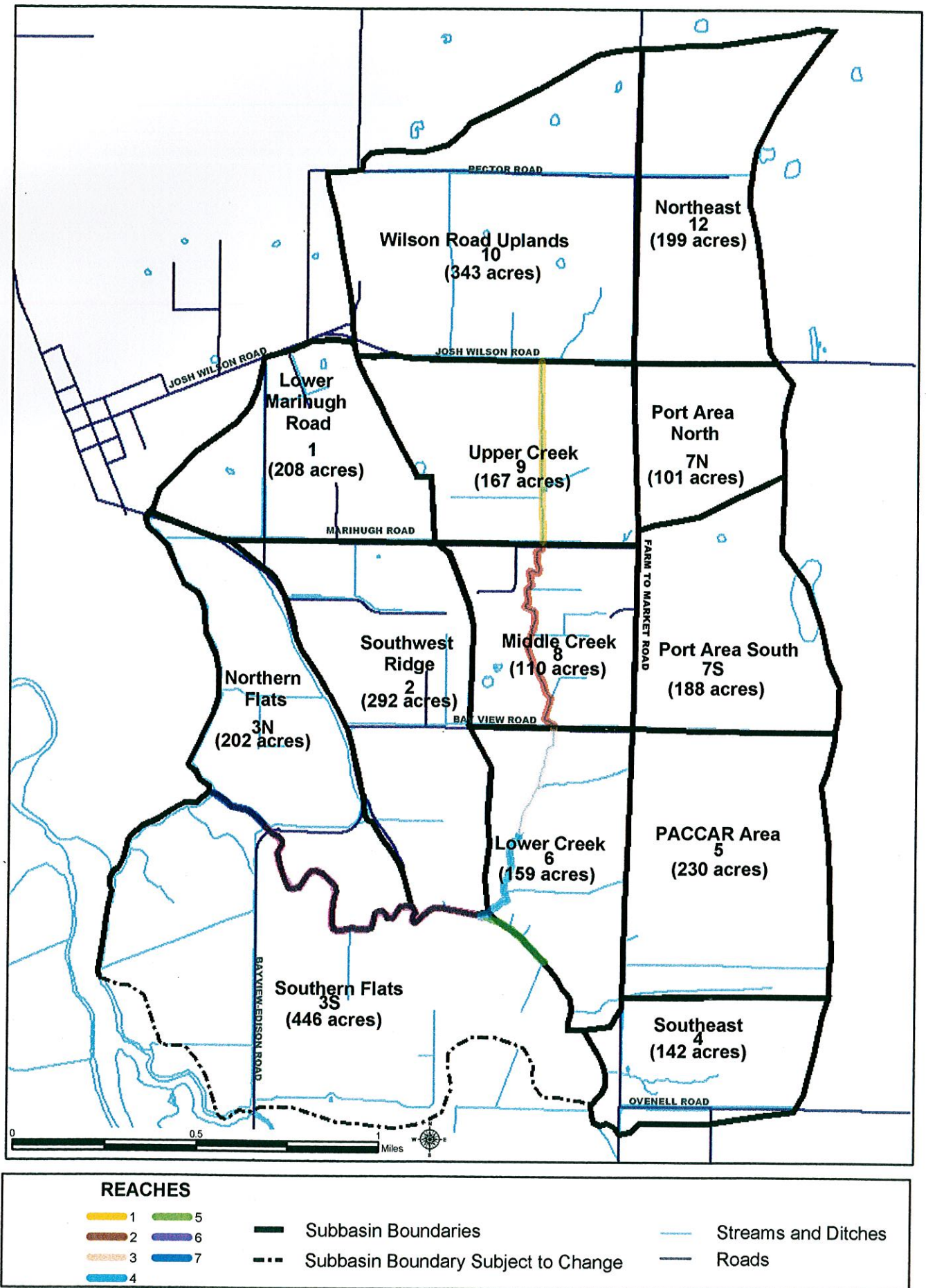


Figure 6.1 Sub-basin Delineation and Reaches of the No Name Watershed.

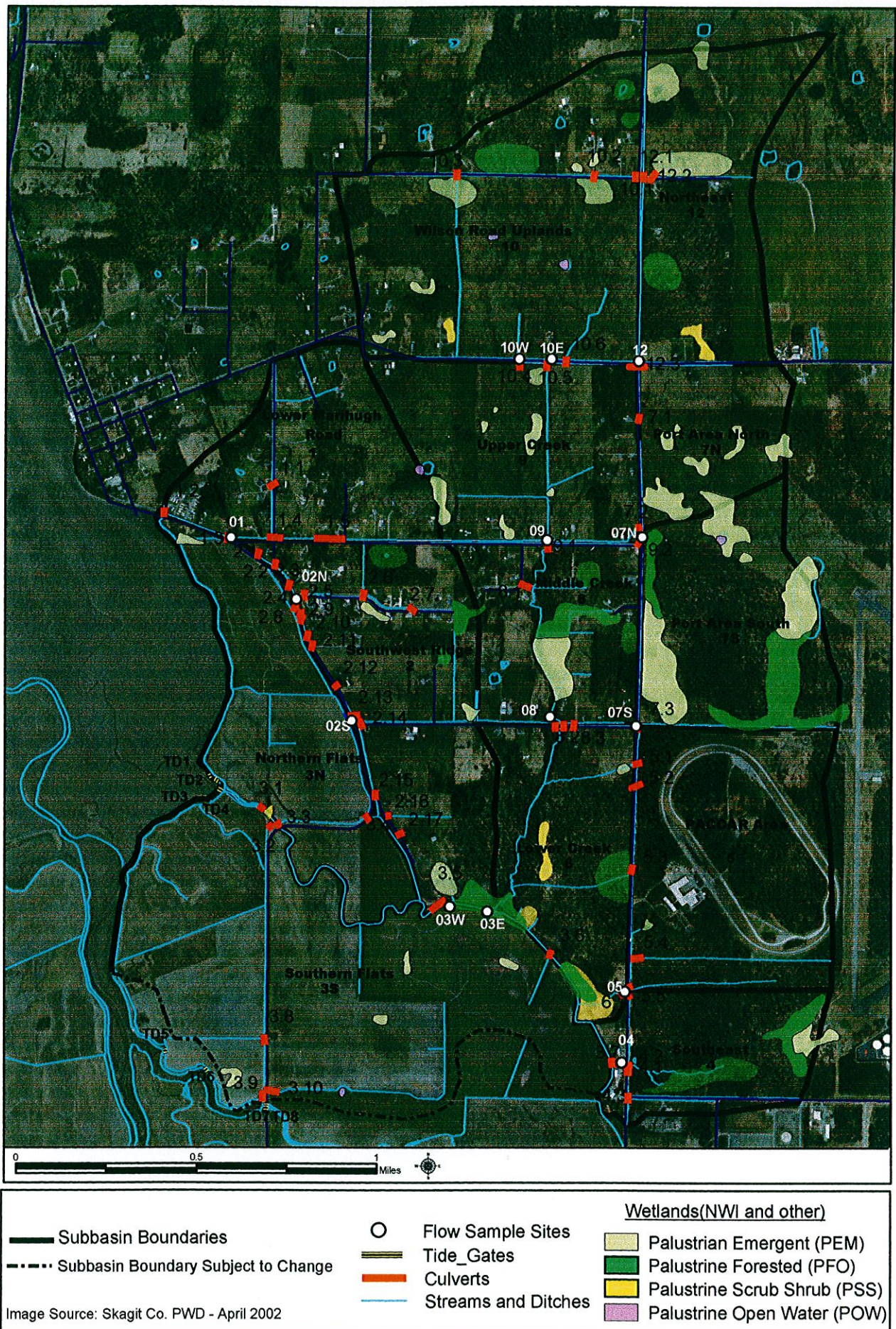


Figure 6.2 Surface water hydrology features of the No Name Slough Watershed.

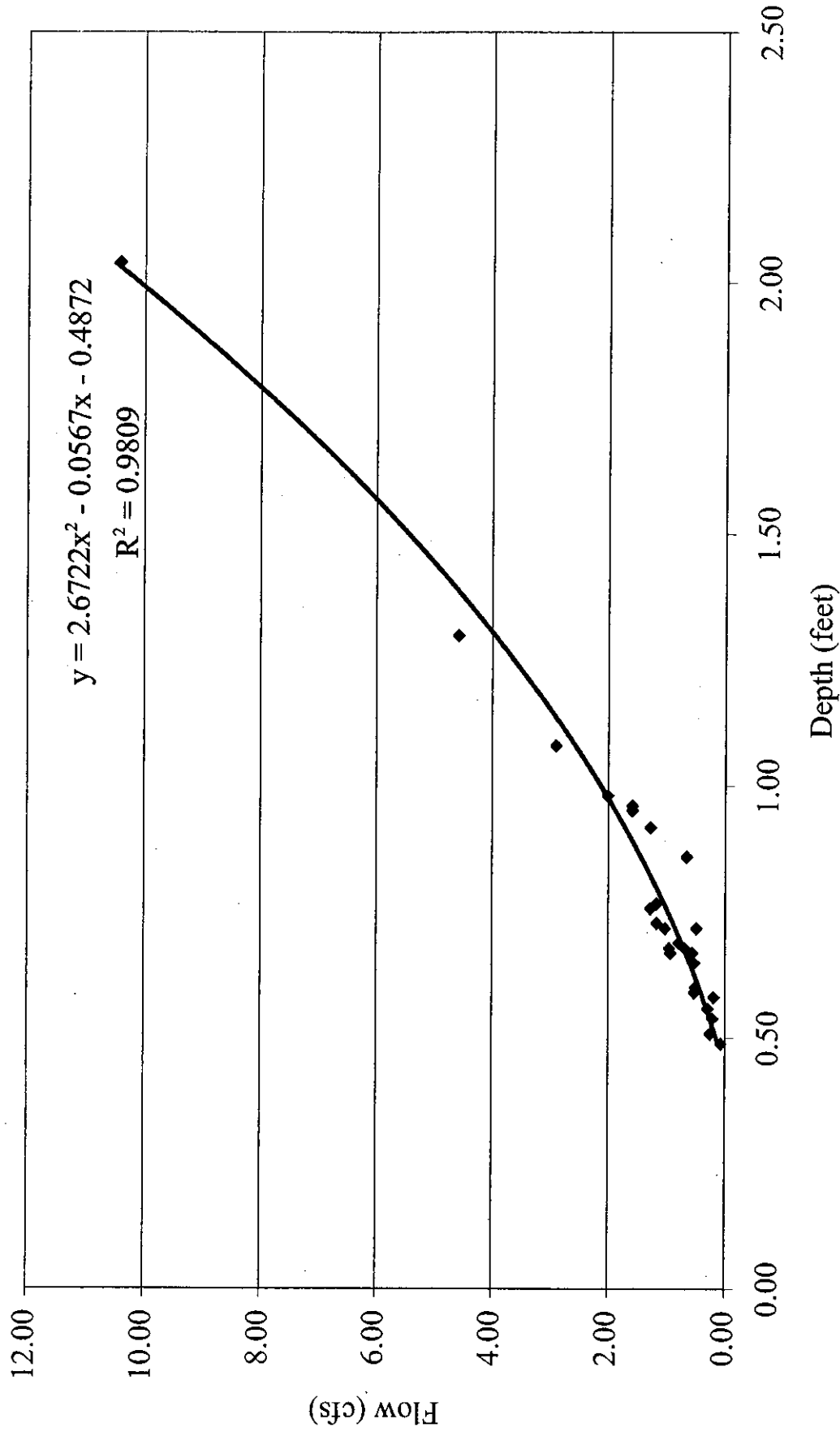


Figure 6.3. Unity hydrograph for lower Marihugh road sub-basin during 2003. See Figure 7.3 for site of measurements (Starlogger #MH).

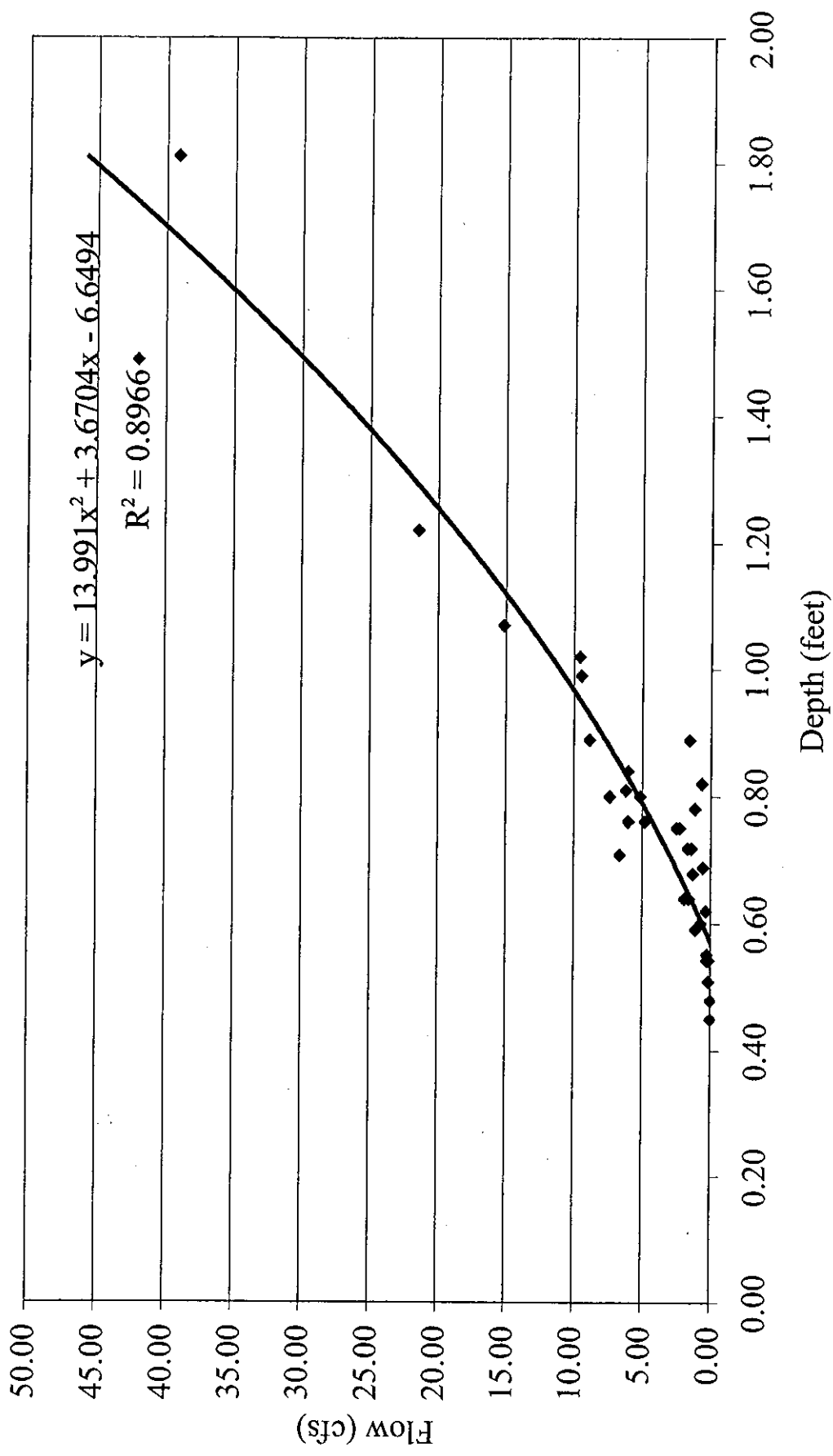


Figure 6.4. Unit hydrograph for lower creek sub-basin (Bayview road) during 2003. See Figure 7.3 for site of measurements (Starlogger site #BV).

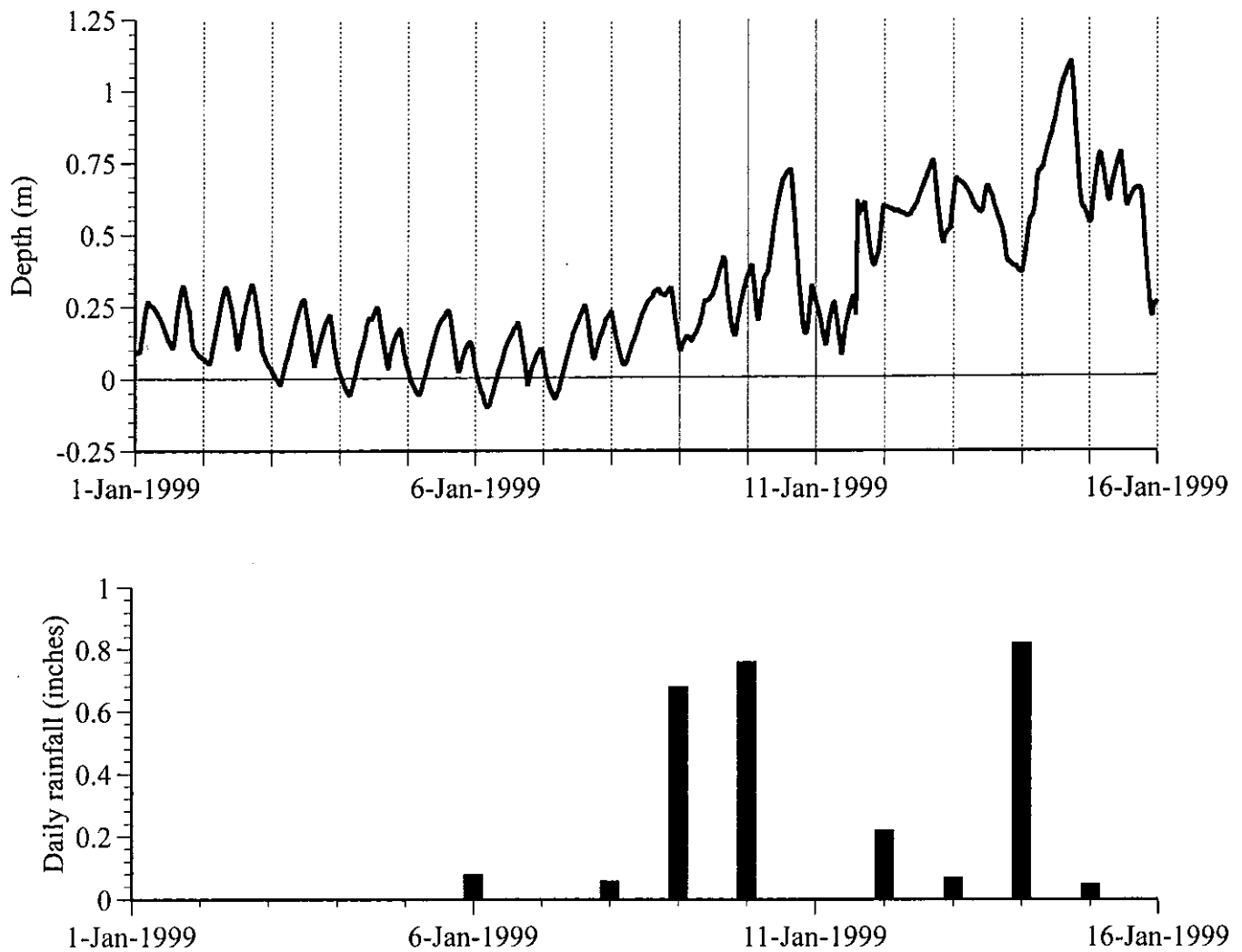


Figure 6.5 Water depth (above arbitrary datum, in meters) in No Name Slough measured every 30 minutes at the pumphouse on the "freshwater" side of the tide gates during the first half of January 1999. See Figure 7.3 (Starlogger Site # FG) for location of depth measurements. (From Bulhuis and Cottrell unpublished data) Daily rainfall measured at the WSU Mount Vernon Agricultural Experiment Station, about 5 km southeast of the No Name Slough watershed.



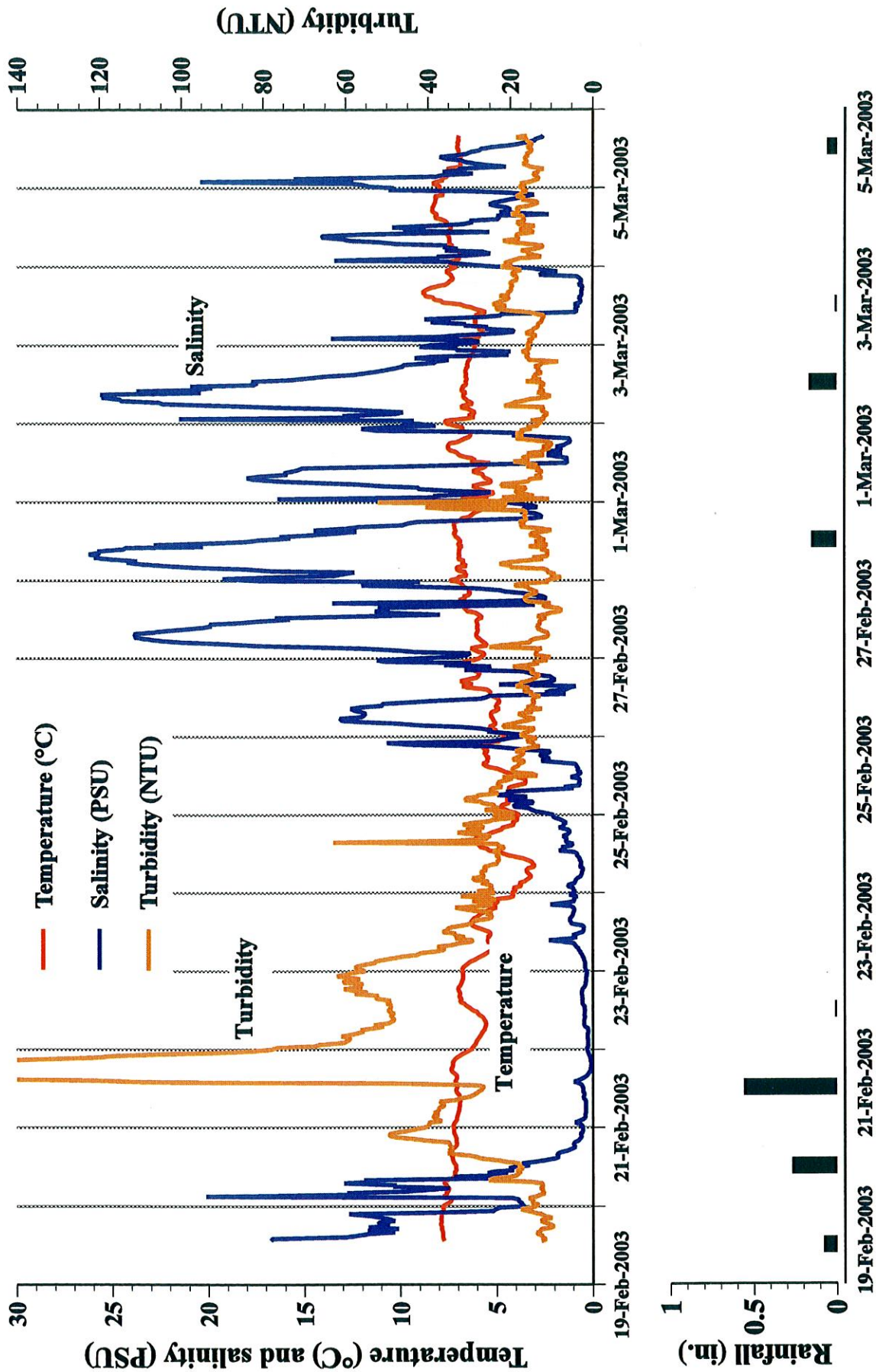


Figure 7.1 Water temperature, salinity and turbidity measured every 30 minutes from February 19 to March 5, 2003 in No Name Slough at the Padilla Demonstration Farm culvert (see figure 7.3 for location) at 10 cm (4 inches) depth with YSI datasonde. Daily rainfall (inches) at the Padilla Demonstration Farm. (From Bulthuis and Cottrell unpublished data)

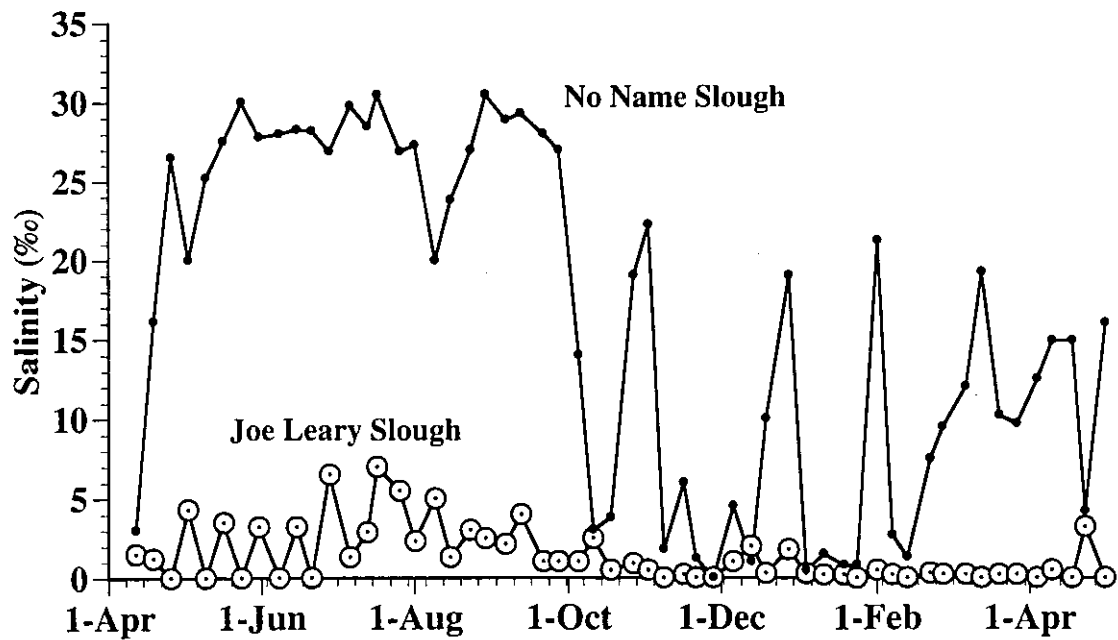


Figure 7.2. Salinity in No Name Slough (closed dots) and Joe Leary Slough (open circles) from April 1995 through April 1996. Samples were taken on the "freshwater" side of the tidegates at each slough weekly near the time of low tide when flow out of the tide gates would be expected to be-near the daily daylight maximum. (From Bulthuis 1996b)



Figure 7.3. Sample sites for water quality monitoring studies in No Name Slough: weekly water quality (Dugger & Bulthuis unpublished data), Stream Team (Henry, 2003), water height and temperature with starloggers (Weinman et al., 2004), and water quality datasonde (Bulthuis and Cottrell unpublished data).

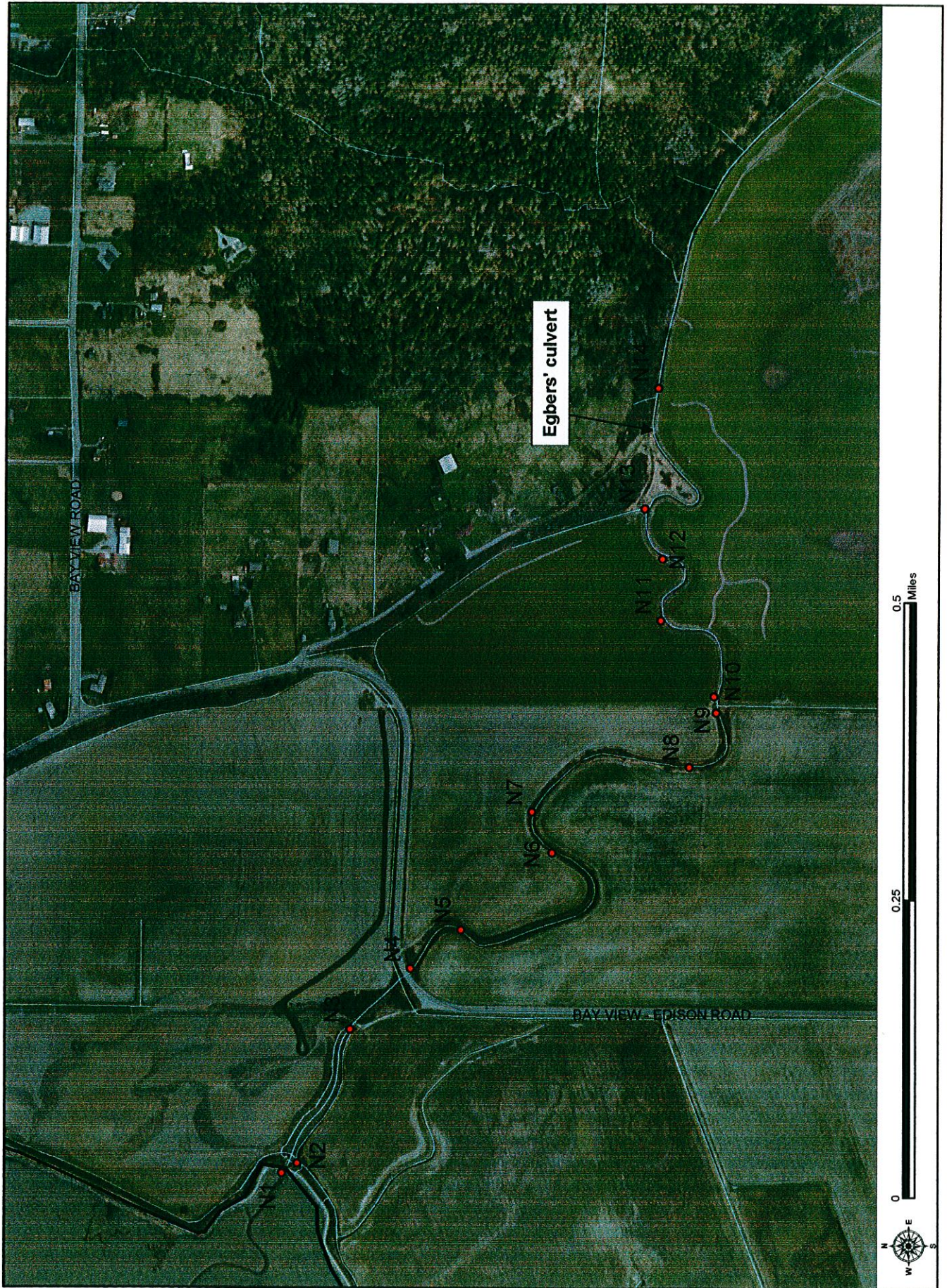


Figure 7.4. Sample sites of longitudinal salinity survey in September 2003.

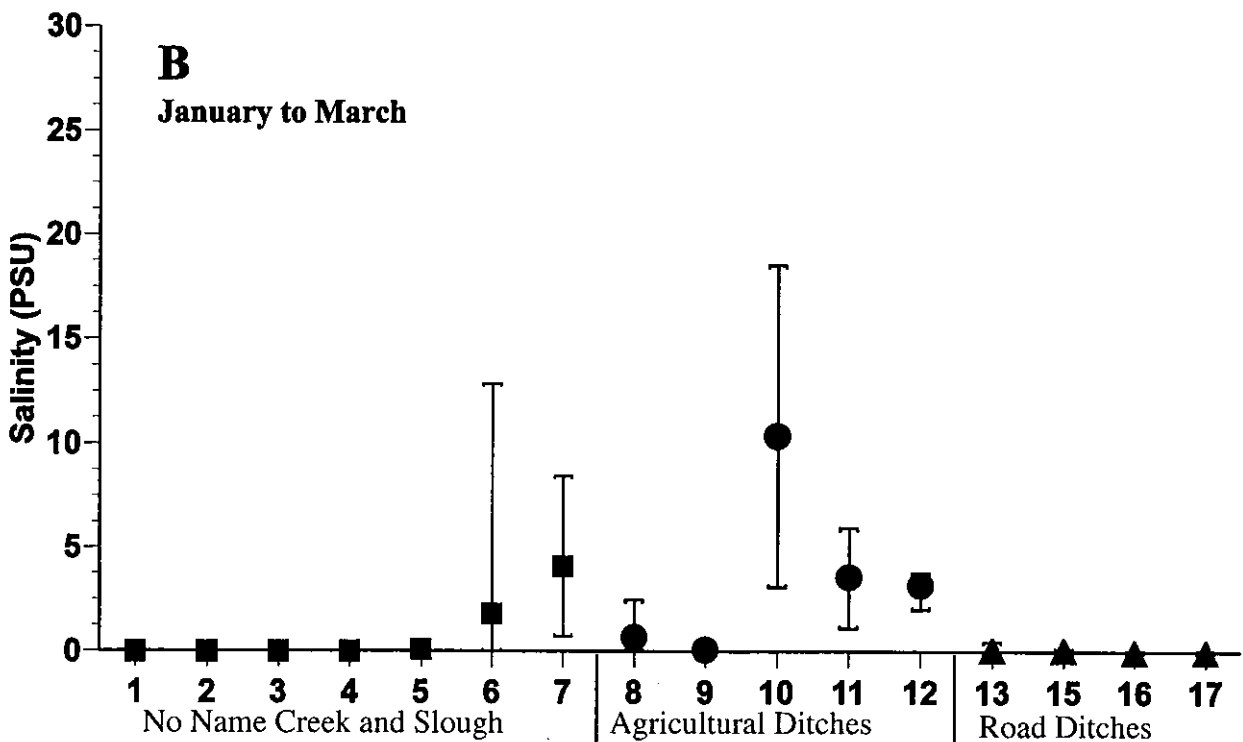
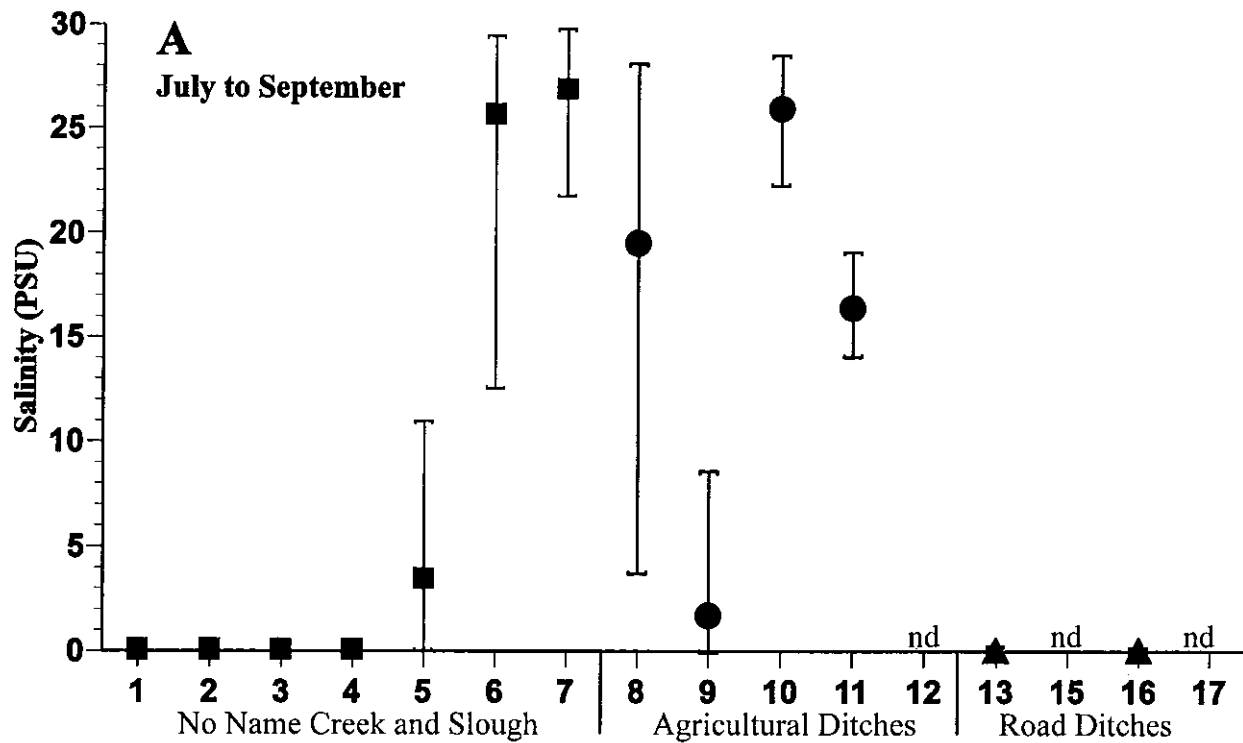


Figure 7.5. Minimum, maximum, and mean salinity (PSU) at 0.1 meters water depth for 14-16 sites in No Name Slough from weekly sampling. A: July, August and September 1999. B: January, February, and March, 1999. ("nd" = no data because of lack of water.) See Figure 7.3 for locations of sample sites. (From Dugger and Bulthuis unpublished data)

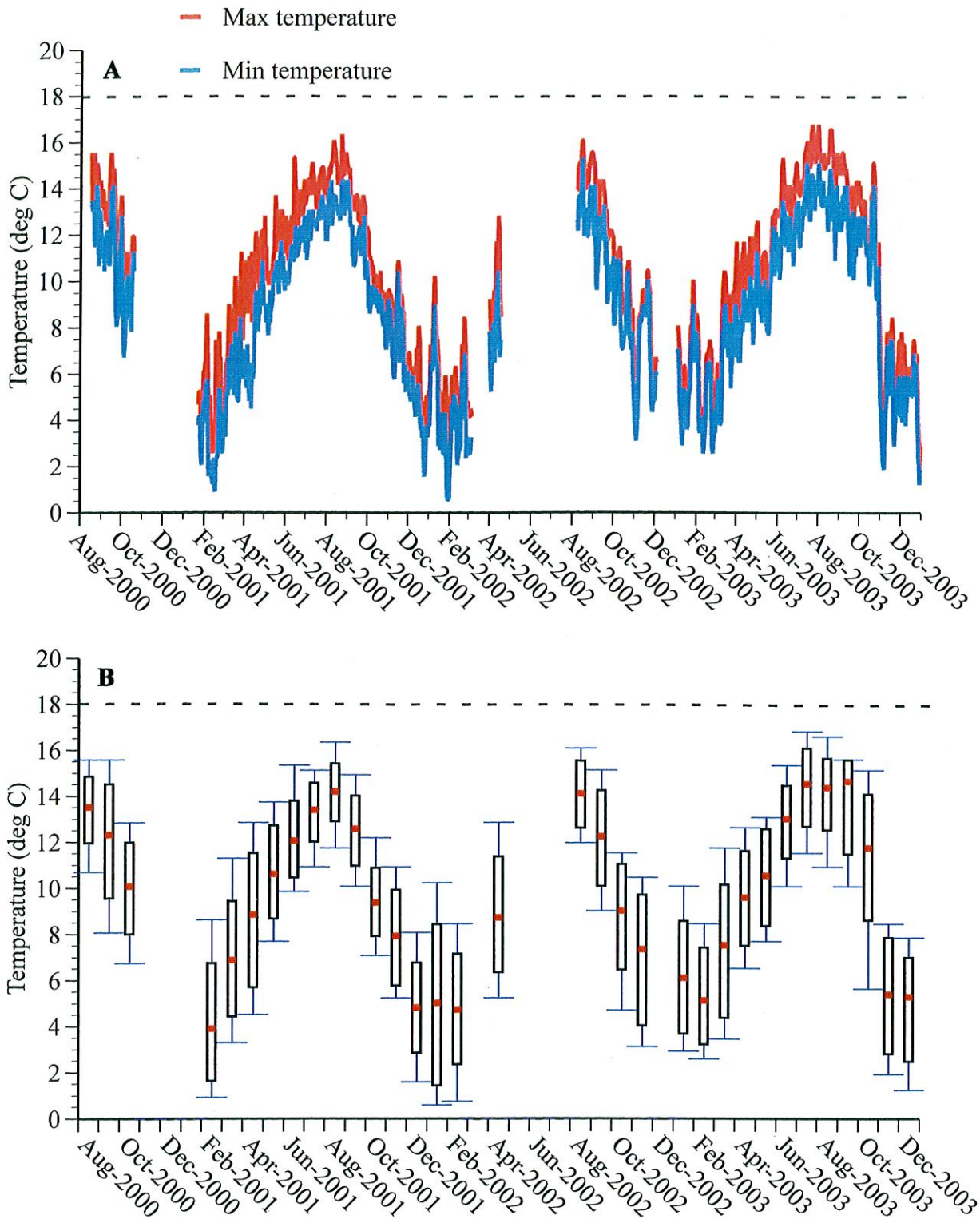


Figure 7.6. Water temperature ( $^{\circ}\text{C}$ ) at Bayview starlogger site (#BV, fig. 7.3) from August 2000 to December 2003. A: Daily maximum and minimum temperature. B: Monthly average, maximum, minimum, 10th percentile, and 90th percentile temperatures. Dashed lines indicate water quality criteria for class A freshwater ( $18^{\circ}\text{C}$ ). (From Weinman et al. 2004)

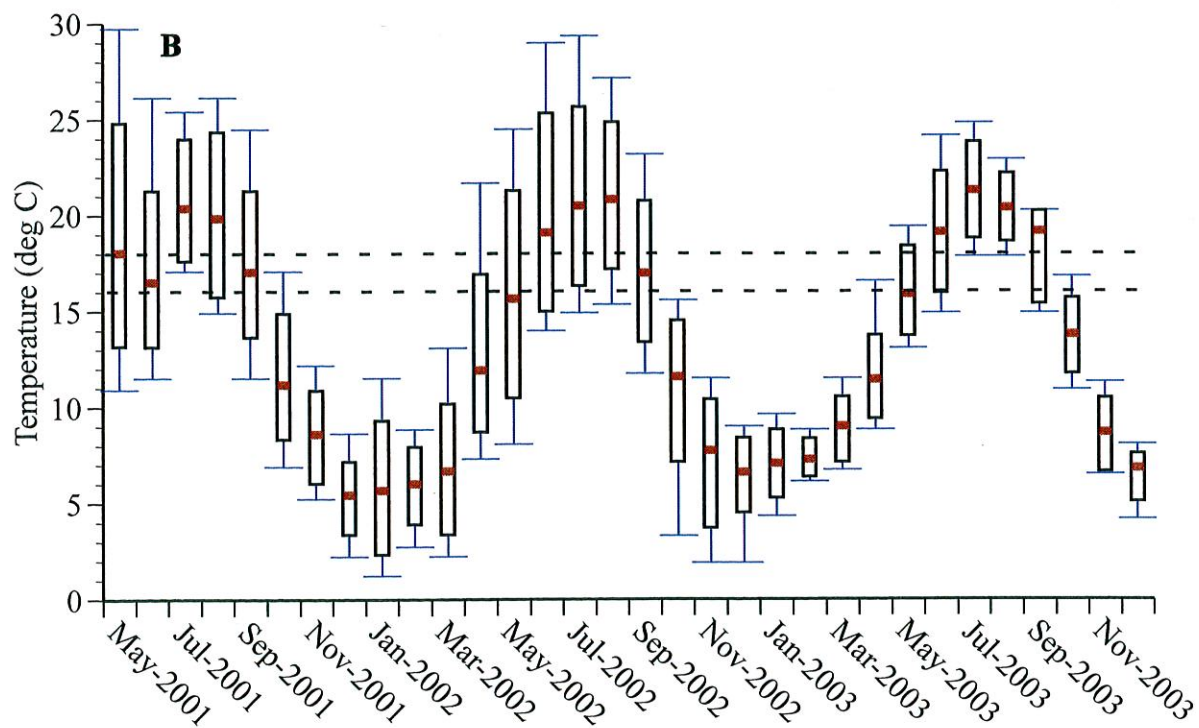
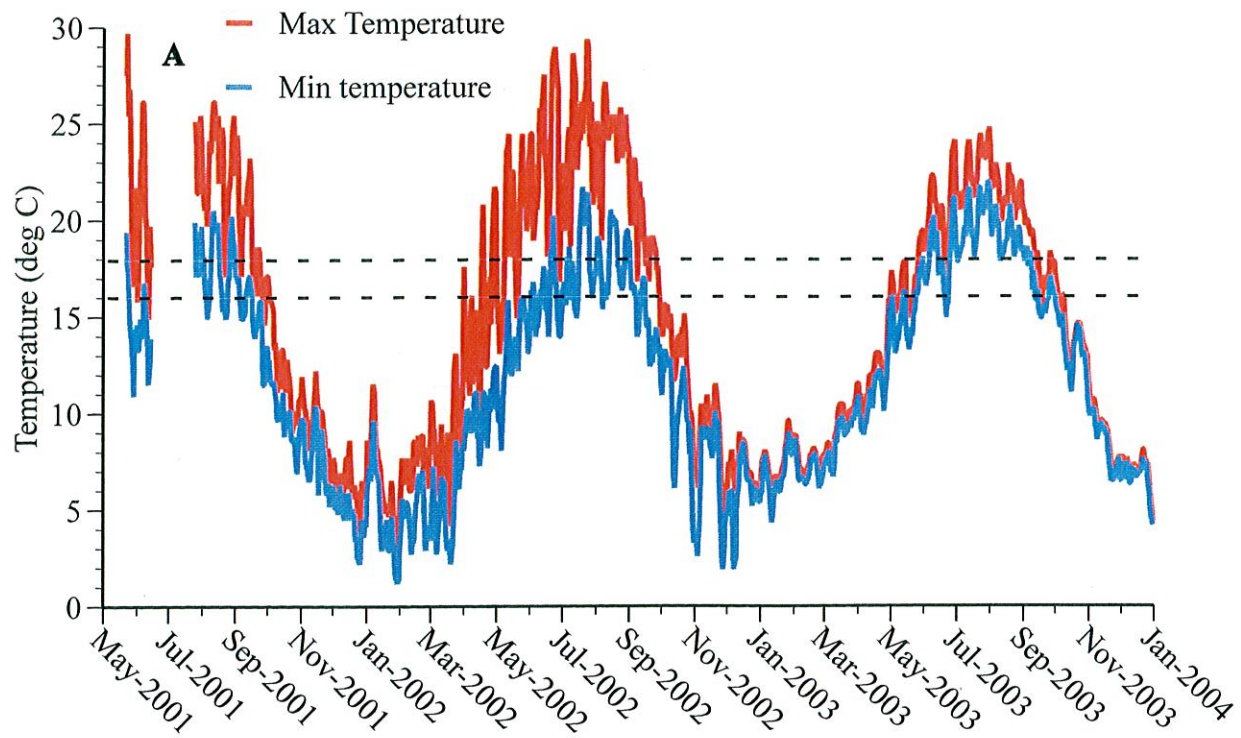


Figure 7.7. Water temperature ( $^{\circ}\text{C}$ ) at Freshgate starlogger site (#FG, Fig. 7.3) from May 2001 to December 2003. A: Daily maximum and minimum temperature. B: Monthly average, maximum, minimum, 10th percentile, and 90th percentile temperature. Dashed lines indicate water quality criteria for class A freshwater ( $18^{\circ}\text{C}$ ) and marine water ( $16^{\circ}\text{C}$ ). (From Weinman et al. 2004)

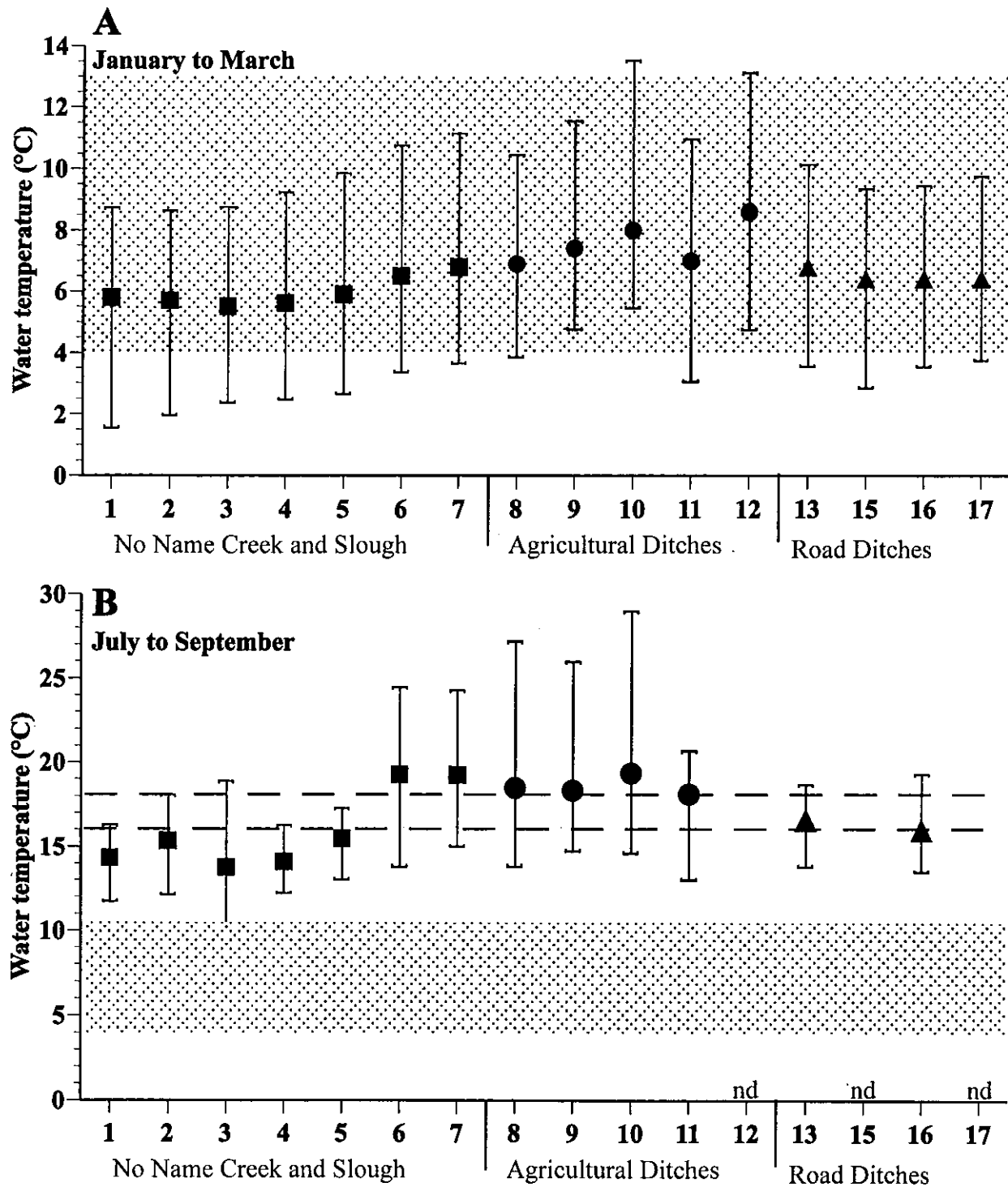


Figure 7.8. Minimum, maximum, and mean water temperatures at 0.1 meters depth for 16 sites in No Name Creek and Slough from weekly sampling. (See Figure 7.3 for location of sample sites.) A: January to March 1999. The shaded area indicates the preferred temperature requirements for the incubation of Coho salmon eggs by Reiser and Bjornn 1979. B: July to September 1999. The dashed lines indicate the water quality criteria for temperature for Class A freshwater (18°) and marine water (16°). The shaded area indicates the preferred mean temperature range for the rearing of Coho salmon fry according to Reiser and Bjornn 1979. (From Dugger and Bulthuis unpublished data)



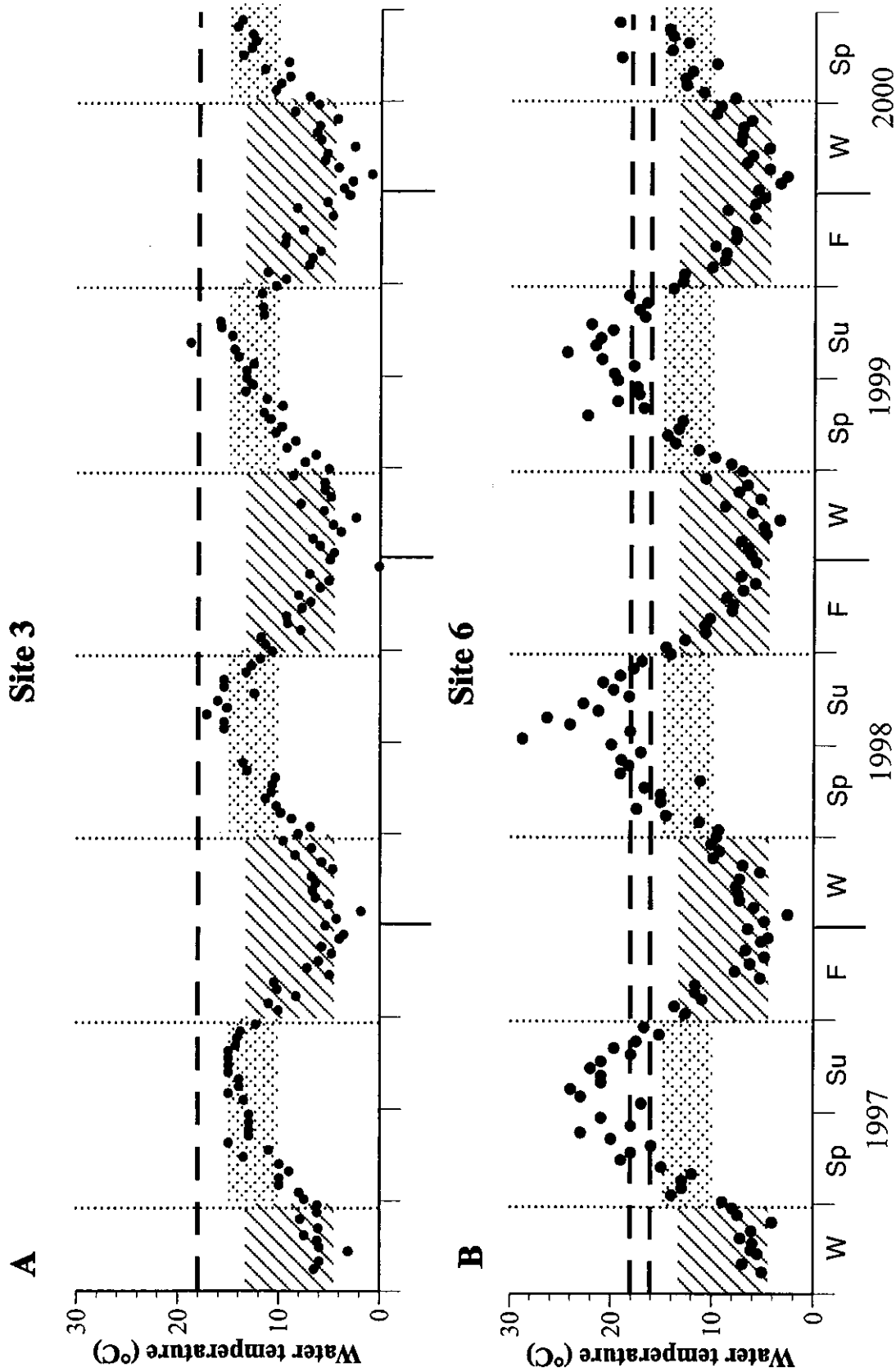


Figure 7.9. Weekly water temperatures at 0.1 meters at (A) site 3 on BayView Ridge and (B) site 6 on the flats in No Name Slough from January 1997 to June 2000. (See Figure 7.3 for sample sites.) The dashed lines indicate the Washington Water Quality Criteria for Class A freshwater (18°) and marine water (16°). The striped lines indicate temperatures within the preferred habitat requirements for the incubation of coho salmon eggs and the stippled areas indicate temperatures within the optimal mean summer temperature range according to Reiser and Bjornn (1979). (From Dugger 2000)

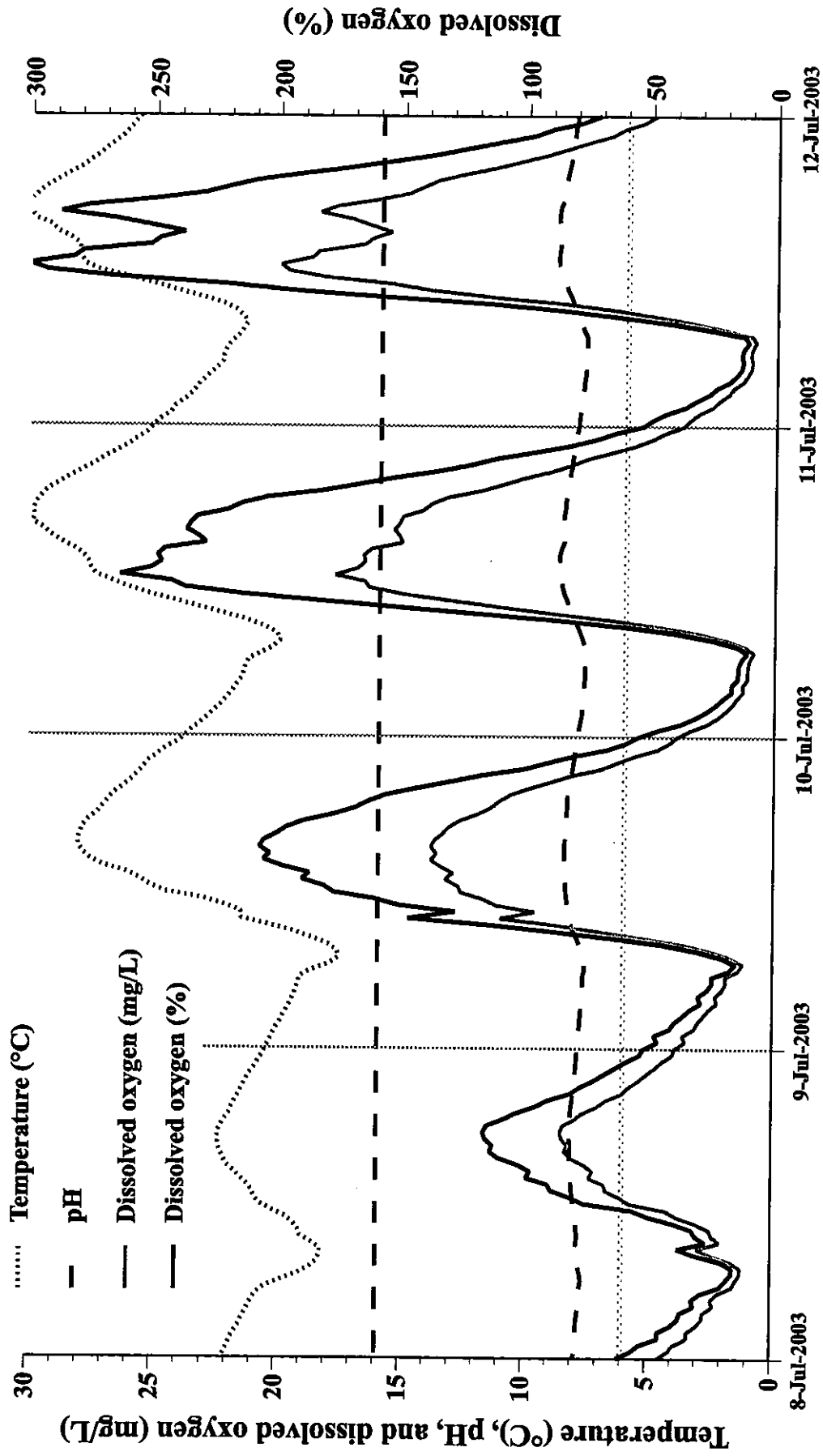


Figure 7.10 Water temperature (dotted line), pH (dashed line), and dissolved oxygen [both as mg/L (gray solid line) and percent saturation (black solid line)] measured every 30 minutes from July 8 to 11, 2003 in No Name Slough at the Padilla Demonstration Farm culvert (see Figure 7.3 for location) at 10 cm (4 inches) depth with a multiparameter datasonde. Straight lines indicate Class A marine water quality criteria for temperature (16°, dashed line) and for dissolved oxygen (6 mg/L, dotted line). (From Bulthuis and Cottrell unpublished data)

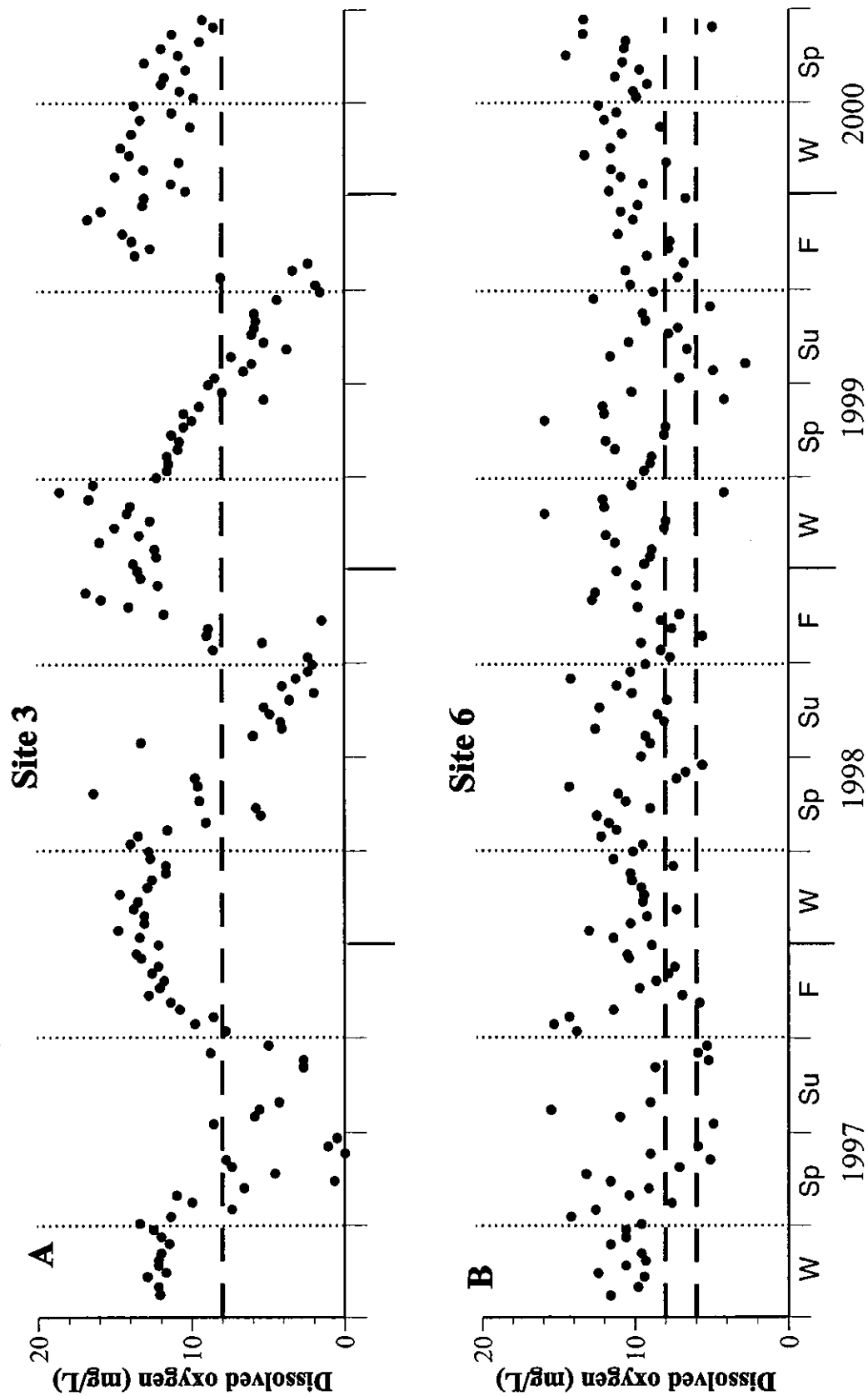


Figure 7.11. Weekly measurements of daytime dissolved oxygen in the water at 0.1 meters at (A) site 3 on the uplands and (B) site 6 on the flats in No Name Slough from January 1997 to June 2000. (See Figure 7.3 for sample sites.) The dashed lines indicate the Washington Water Quality Criteria for Class A freshwater (8 mg/L) and marine water (6 mg/L). (From Dugger 2000)

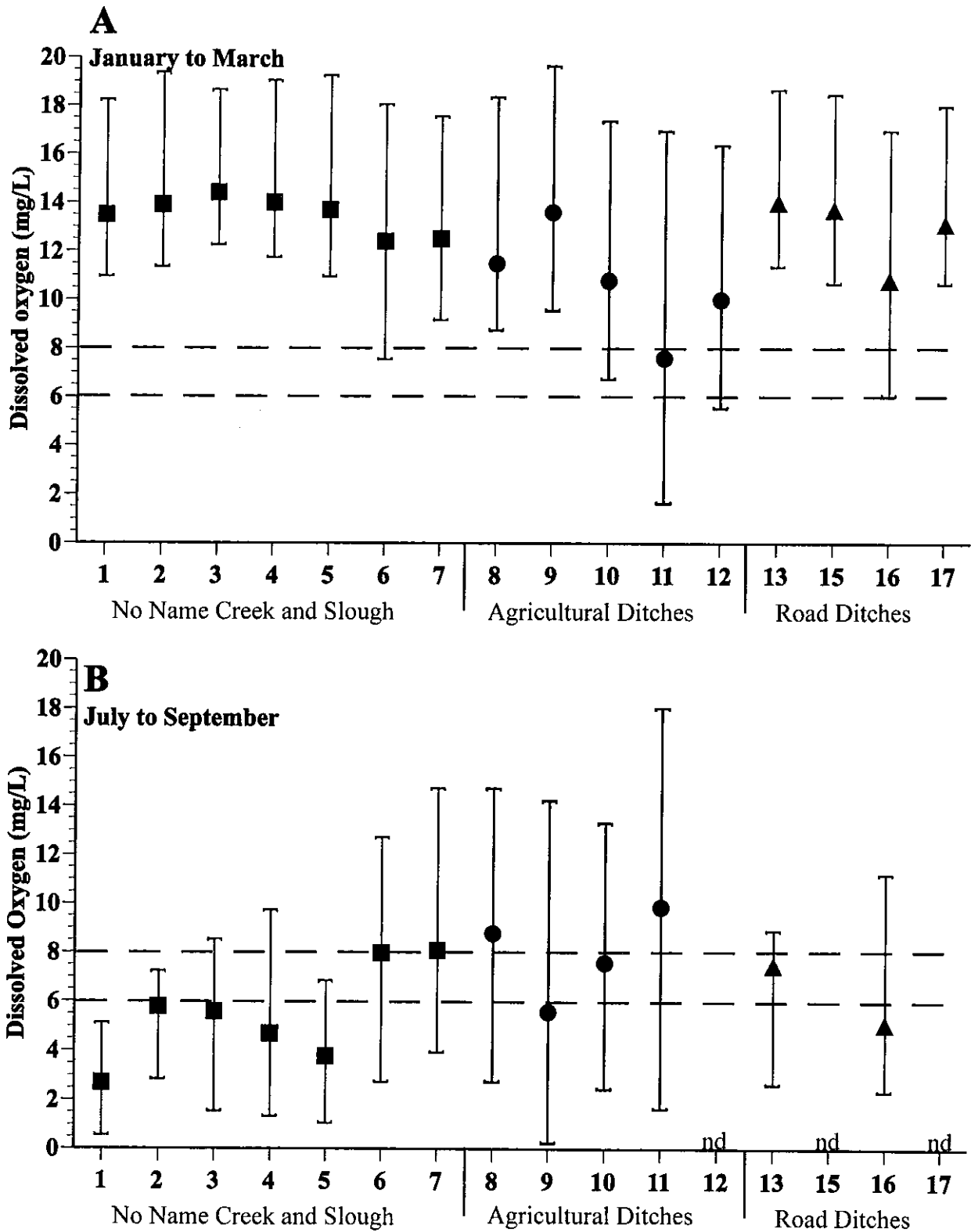


Figure 7.12. Minimum, maximum, and mean dissolved oxygen concentrations at 0.1 meters depth at 16 sites in No Name Creek and Slough from weekly sampling. (See Figure 7.3 for location of sample sites.) A: January, February, and March 1999. B: July, August, and September 1999. The dashed lines indicate the water quality standard for Class A freshwater (8 mg/L) and marine water (6 mg/L). (From Dugger and Buthuis unpublished data)

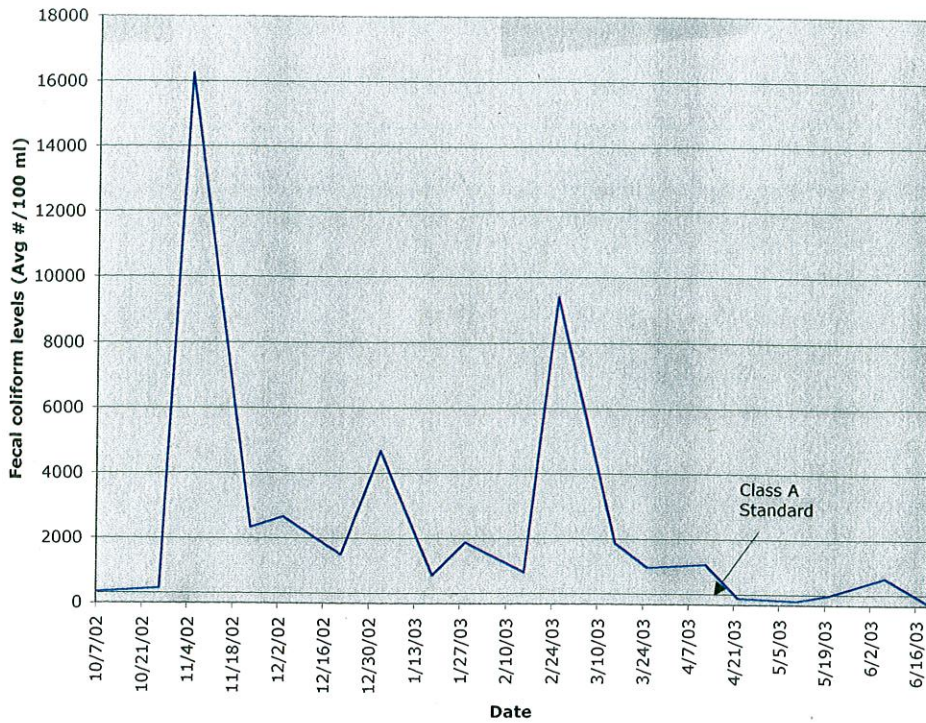


Figure 7.13  
Fecal coliform levels (colonies/100 ml) at Bay View Rd. as recorded by Skagit Stream Team volunteers 2002-2003.

### No Name Slough

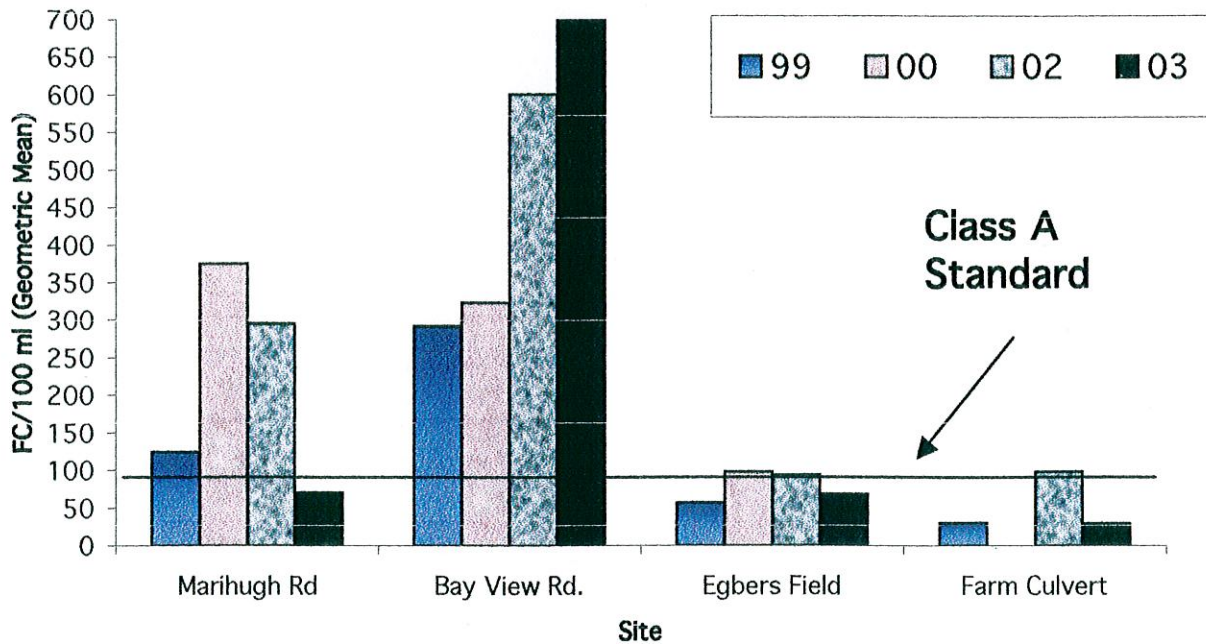


Figure 7.14  
Geometric mean of fecal coliform (colonies/100 ml) at four sites in No Name Slough as collected by Skagit stream Team volunteers 1999-2003 (2001 removed).

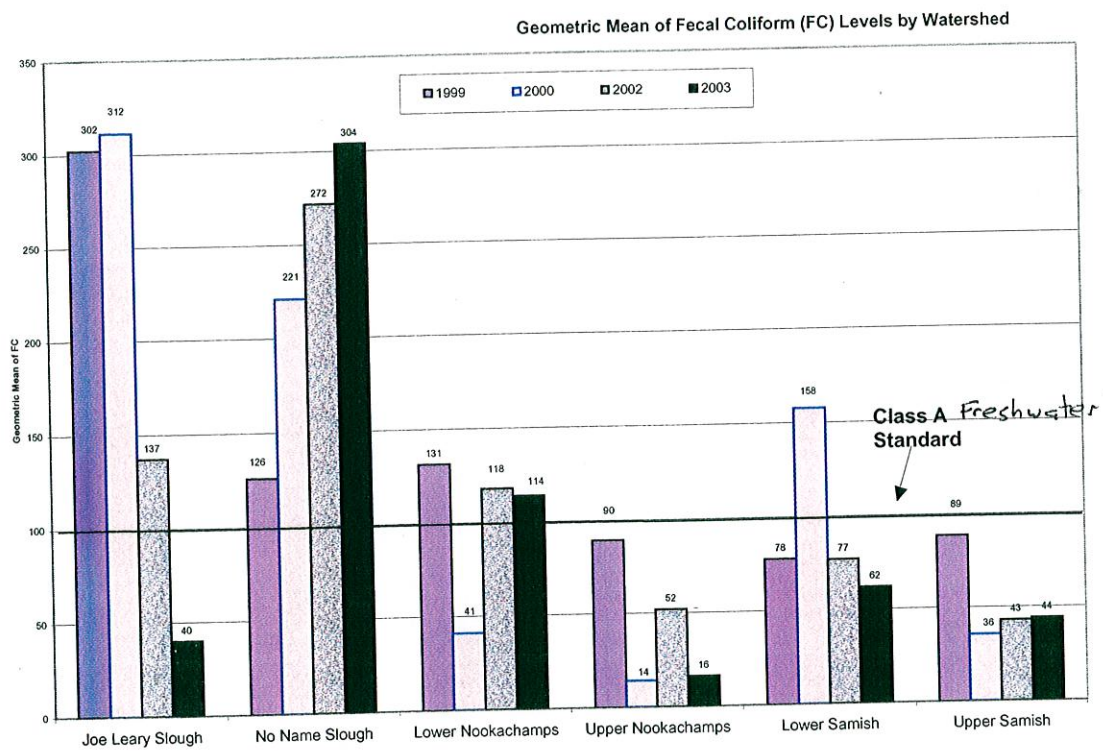


Figure 7.15  
 Annual geometric mean of fecal coliform levels (colonies/100 ml) by watershed as recorded by Skagit Stream Team volunteers 199-2003 (2001 removed).

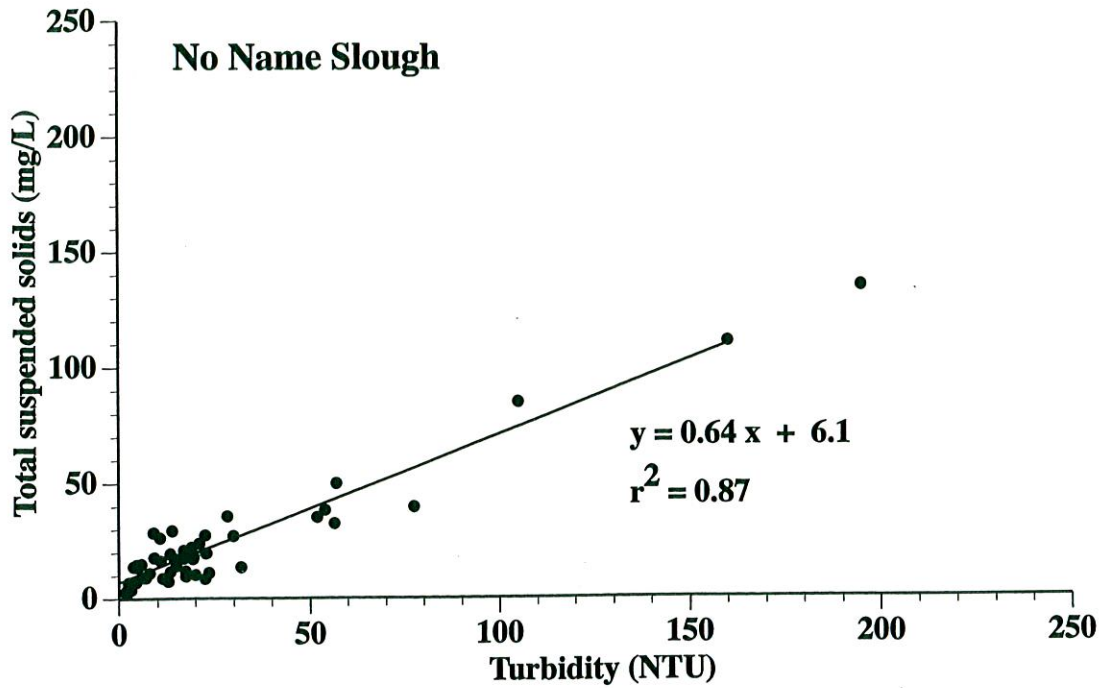


Figure 7.16. Total suspended solids vs turbidity in No Name Slough in samples collected weekly from April 1995 through April 1996 at weekly water quality site #6 (see Figure 7.3 for sample location). Lines and equations are least squares linear regression of sample data excluding the highest data point which was collected on November 28, 1995 during a large storm event. (From Bulthuis 1996b)

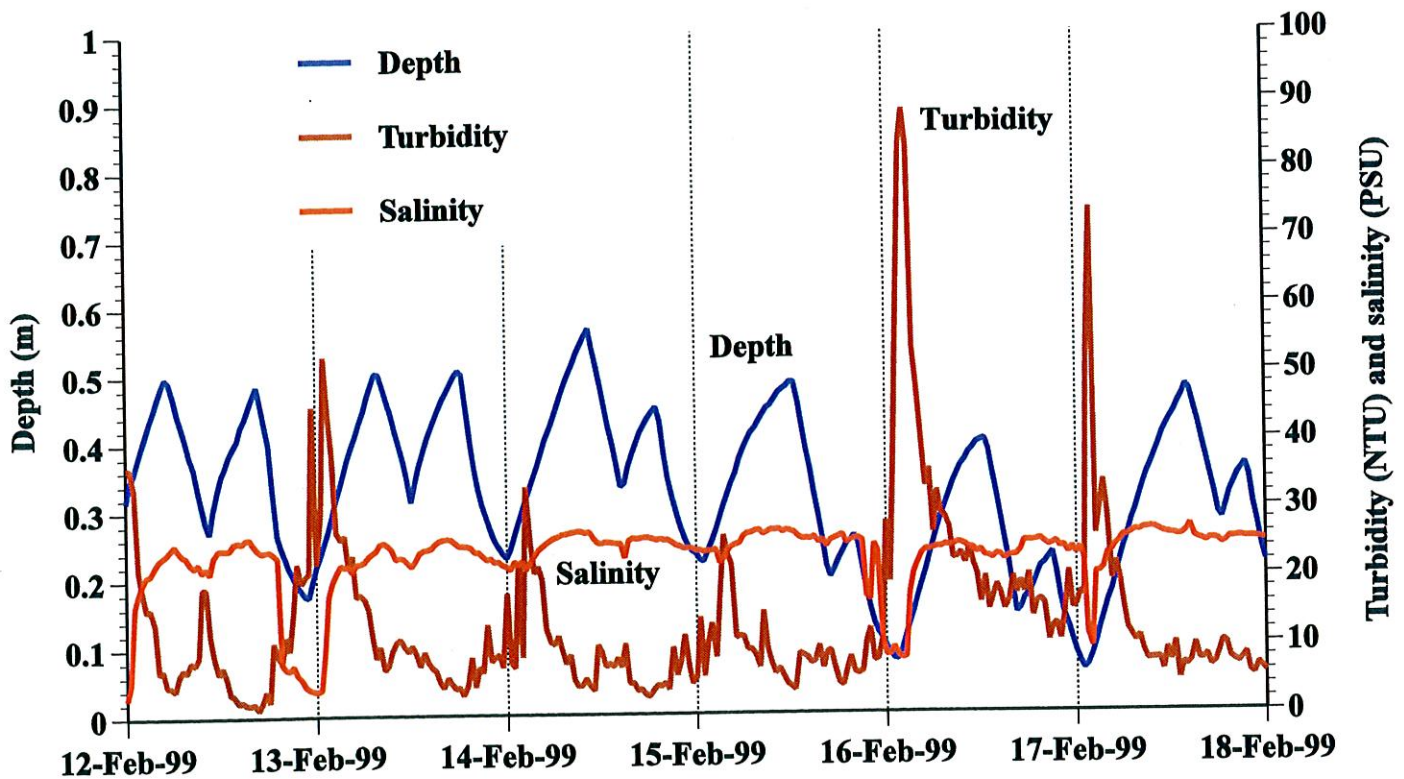


Figure 7.17 Water depth, turbidity (NTU) and salinity (PSU) measured every 30 minutes from February 12 to 17, 1999 in No Name Slough on the freshwater side of the tidegates (site #FG in Figure 7.3) with a YSI multiparameter datasonde. (From Bulthuis and Cottrell unpublished data)

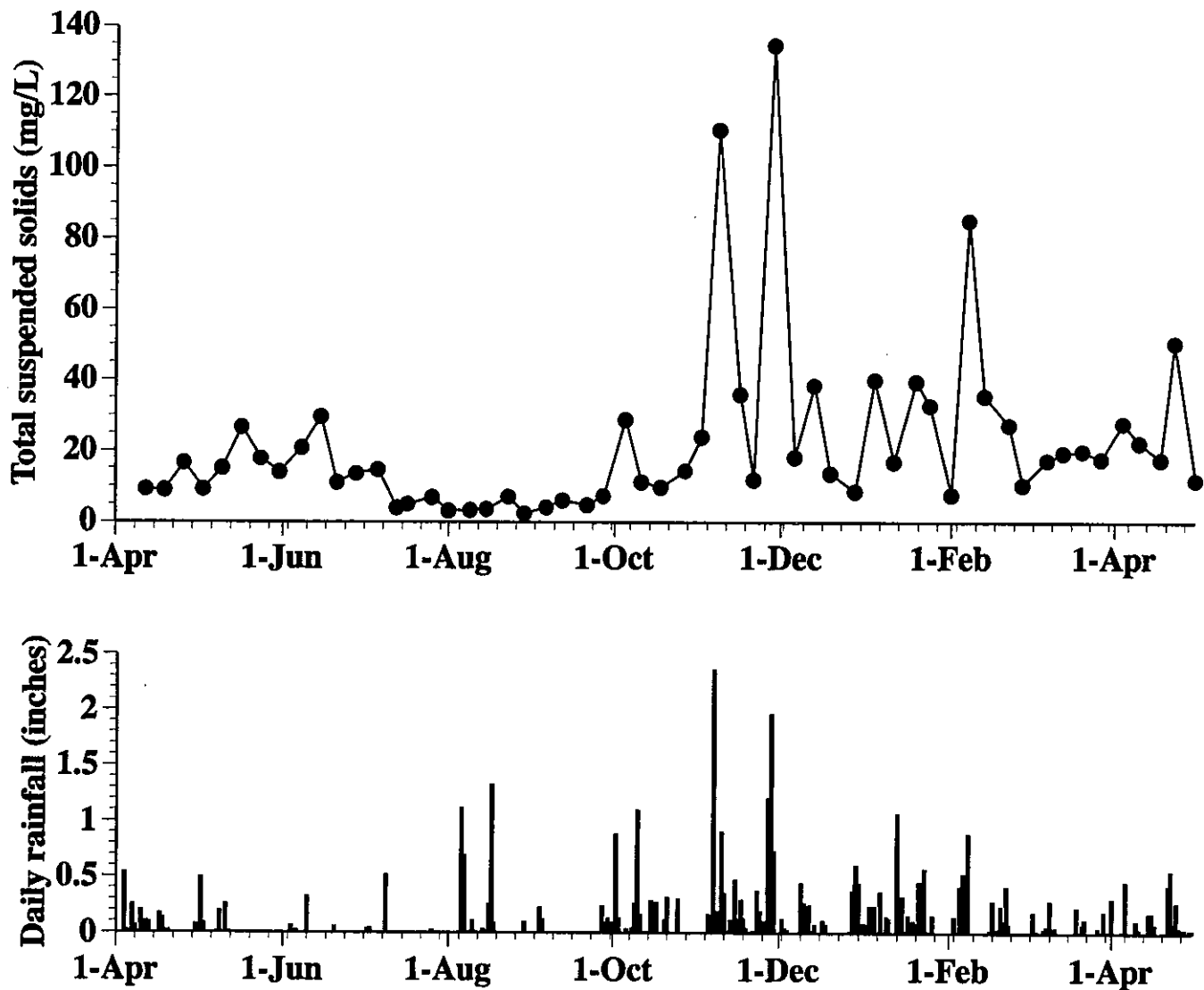


Figure 7.18. Total suspended solids in No Name Slough sampled weekly at the Padilla Demonstration Farm culvert (see weekly WQ site #6 in Figure 7.3) during ebbing tide; and rainfall measured at WSU-Mount Vernon Experiment Station just outside the No Name watershed from April 1995 through April 1996. (From Bulthuis 1996b)



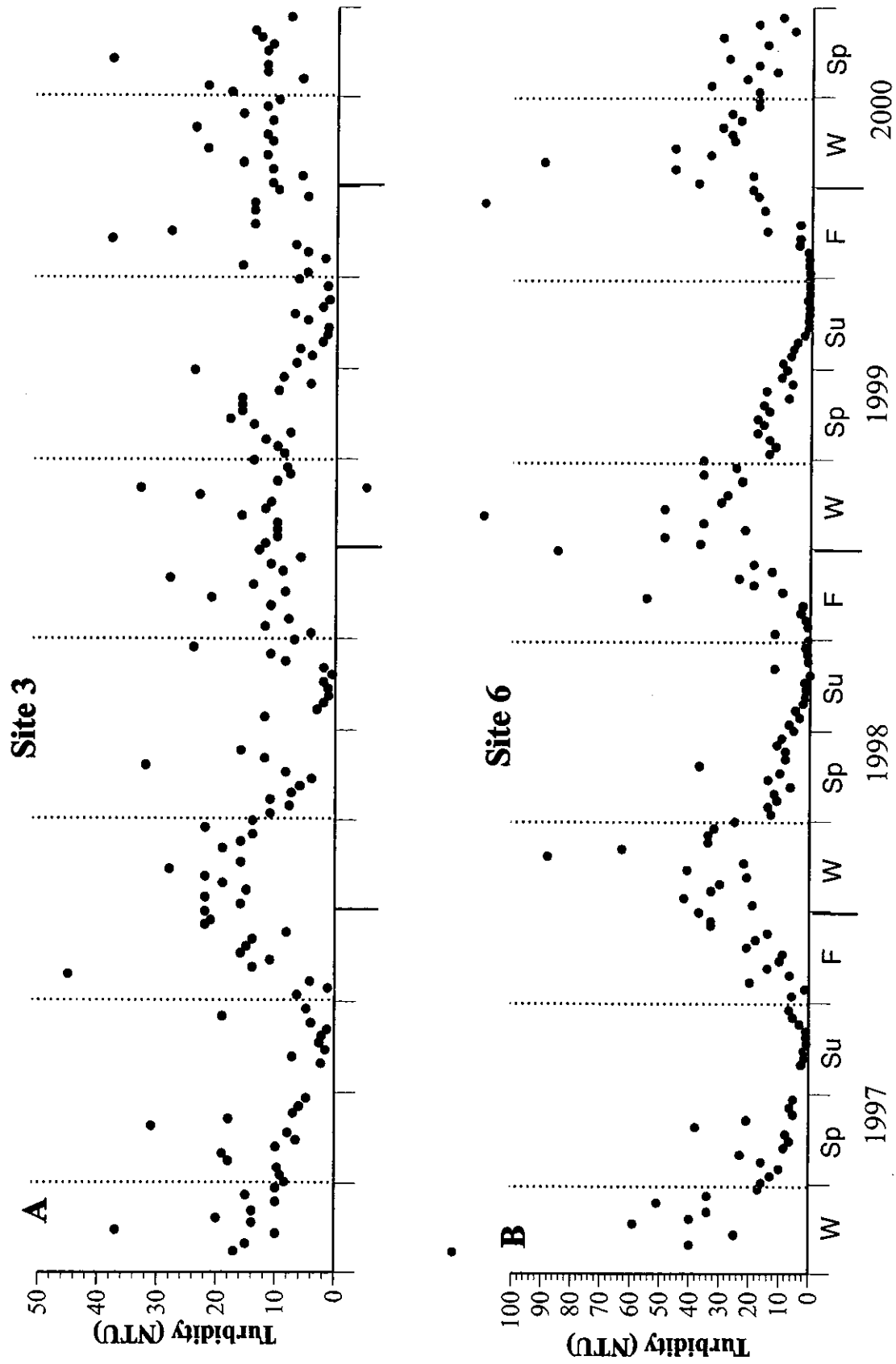


Figure 7.19. Weekly measurements of turbidity of the water at 0.1 meters at (A) site 3 on the uplands and (B) site 6 on the flats in No Name Creek and Slough from January 1997 to June 2000. (See Figure 7.3 for sample sites.) Note different scales used at the two sites. In addition, two values at site 3 were greater than 50 NTU, and five values at site 6 were greater than 100. (From Dugger 2000)

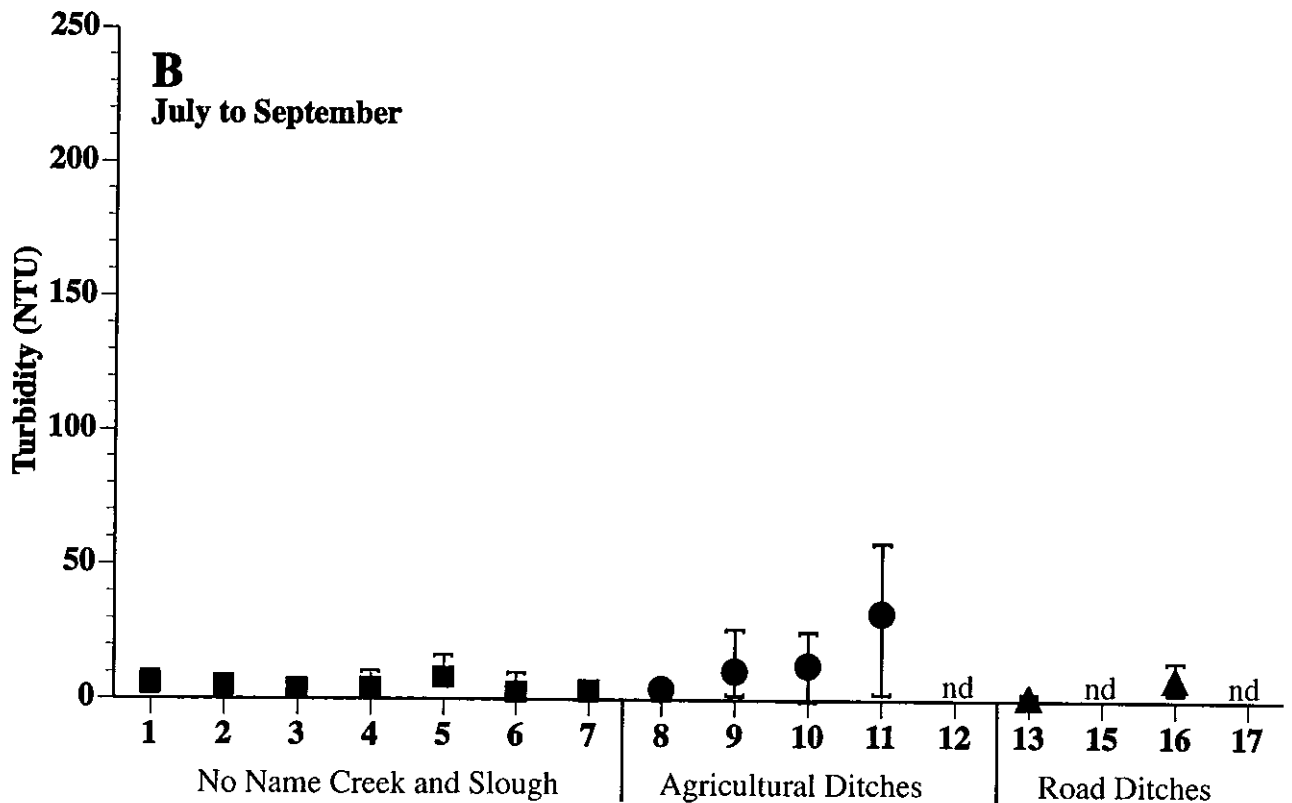
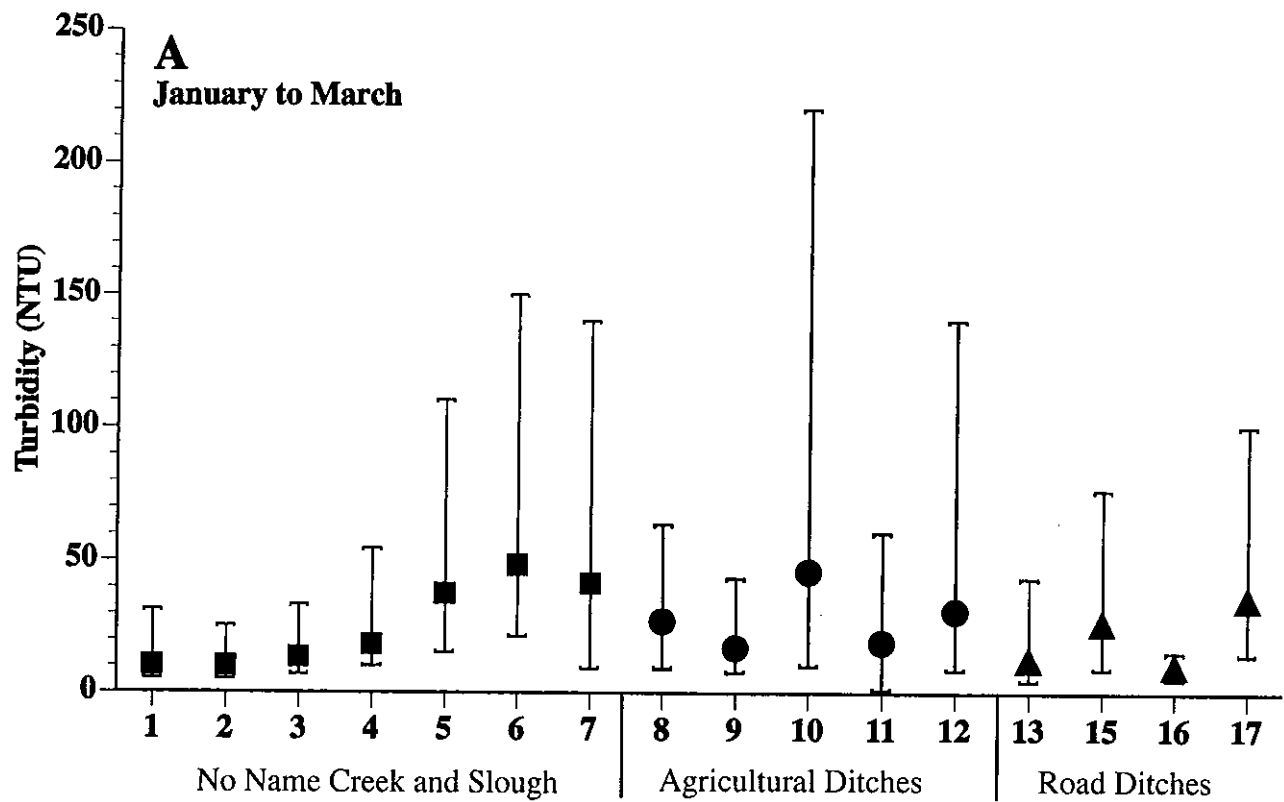


Figure 7.20. Minimum, maximum, and mean turbidity (NTU) concentrations at 0.1 meters water depth for sites 1-17 in No Name Creek and Slough from weekly sampling. A: January to March 1999. B: July to September 1999. ("nd" = no data because of lack of water.) See Figure 7.3 for locations of sample sites. (From Dugger and Bulthuis unpublished data)

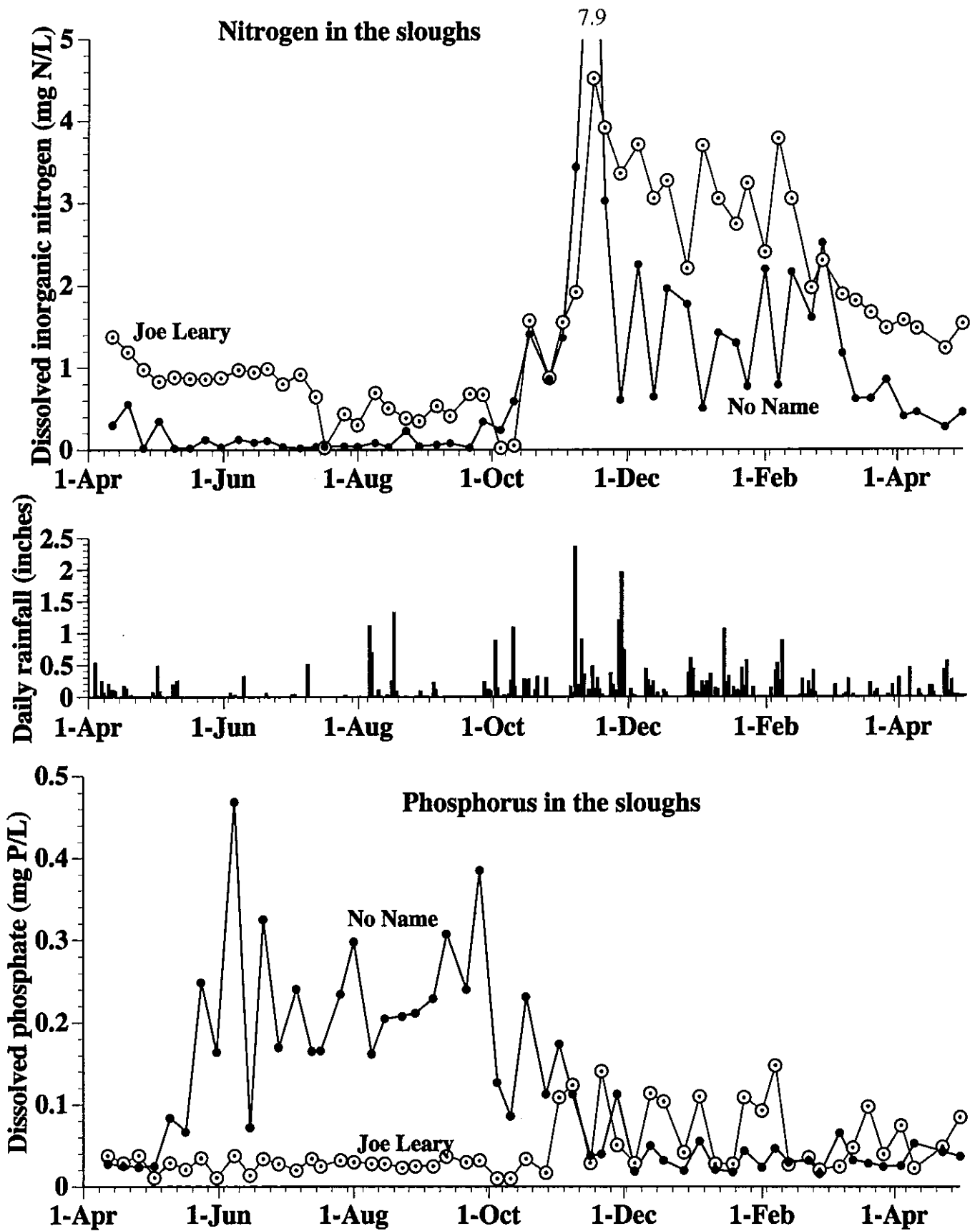


Figure 7.21. Dissolved inorganic nitrogen (nitrate, nitrite, plus ammonium) and dissolved phosphate in samples taken weekly at the mouths of No Name Slough (closed dots) and Joe Leary Slough (open circles) from April 1995 through April 1996 and daily rainfall at WSU Mt Vernon Experiment Station located just outside the No Name Slough watershed. See Figure 7.3 (site Weekly WQ #6) for location

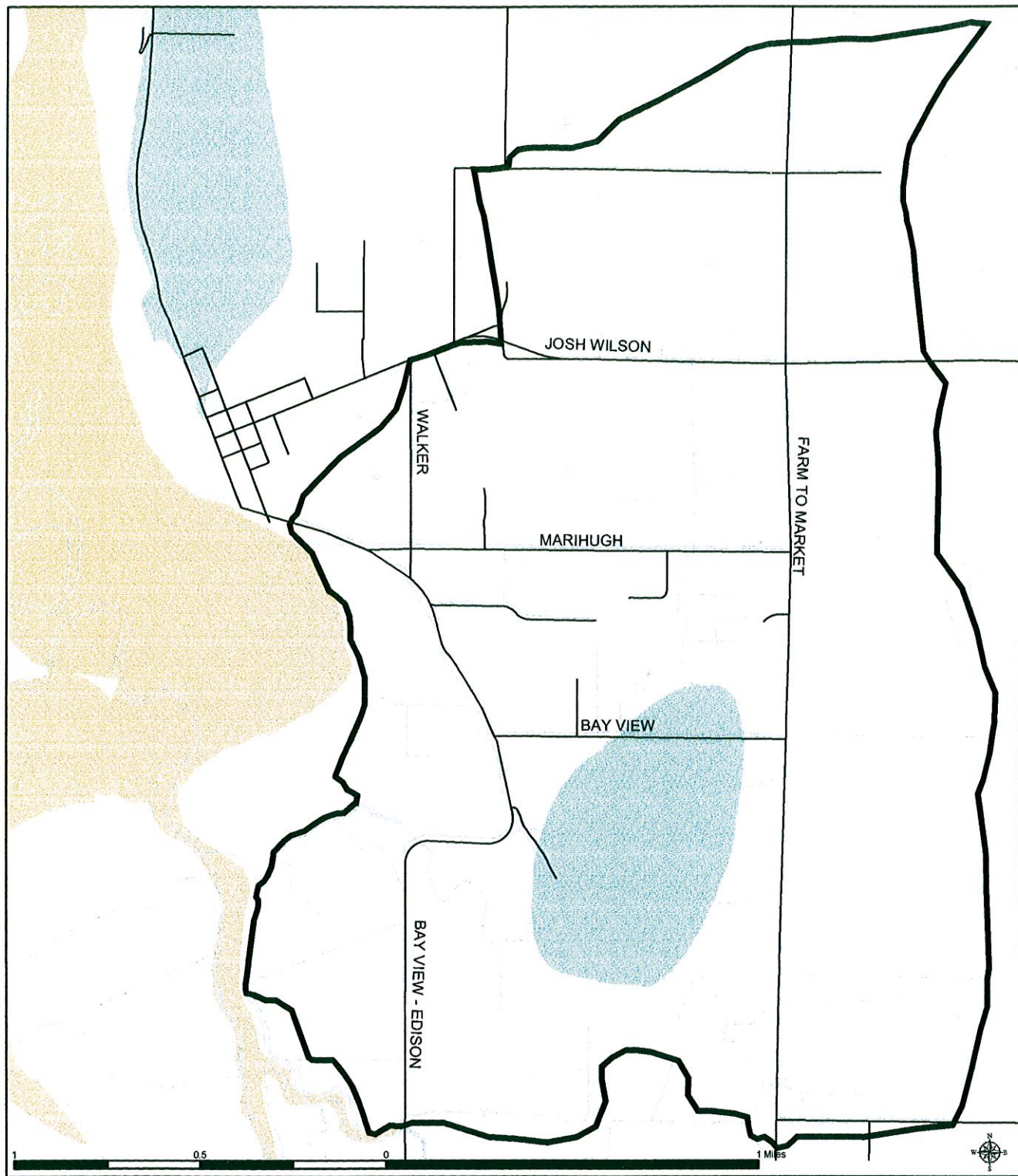


Figure 8.1. No Name Slough Protected Habitat and Species Data (WDFW).