



Water Quality Status and Trends in Clearwater Harbor and St. Joseph Sound

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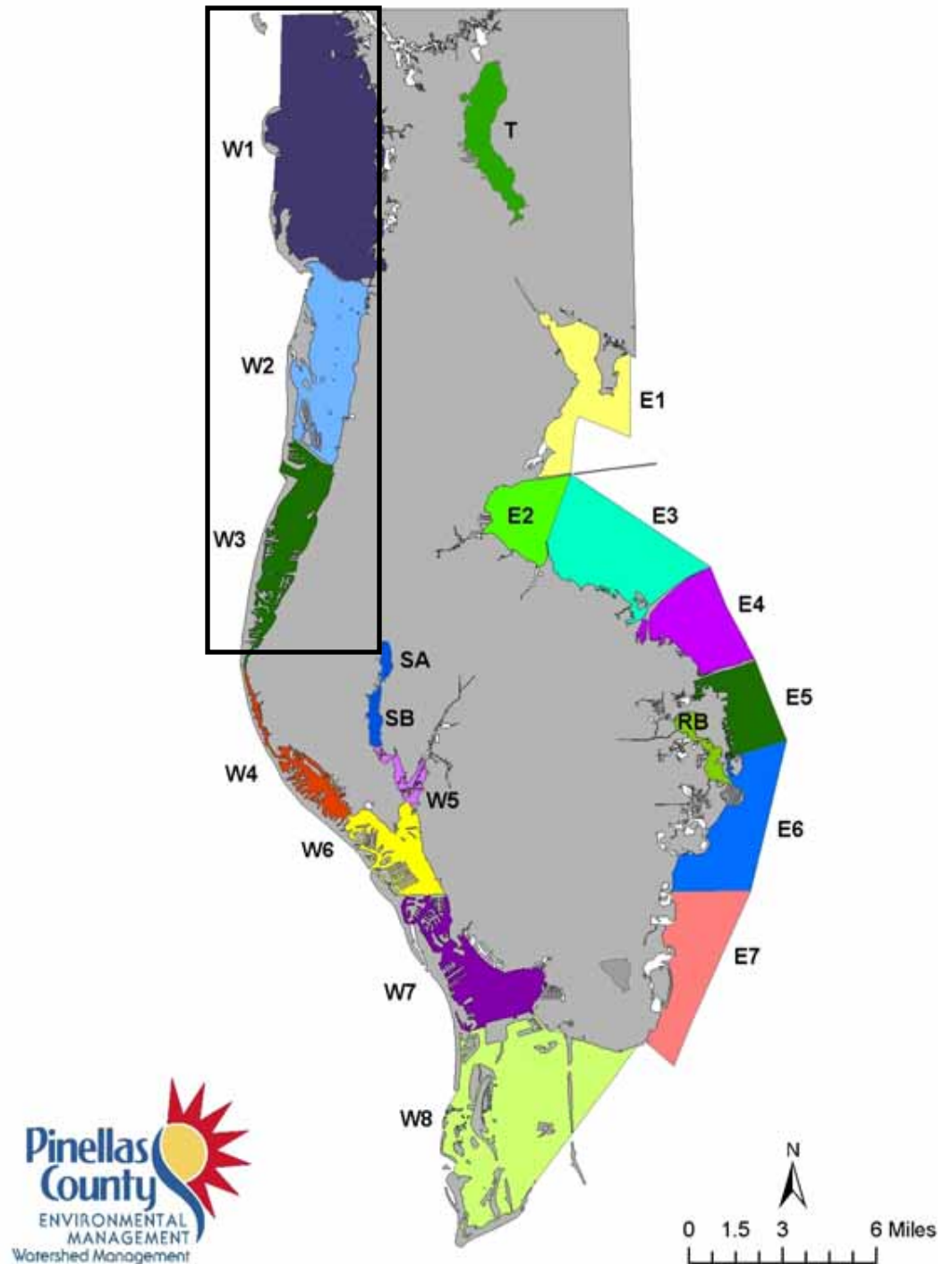
Overview

- Monitoring Area
- Monitoring Program
- WQ Status and Trends
- Pollutant Loading
- Summary



Open Water Monitoring Program

- Areas of Interest
- Coverage
- Frequency
- Parameters
- Reporting



Monitoring Coverage



When? How Often? What?

- 9X Per Year
- ~ 6 Weeks
- Parameters:
Nutrients,
Chlorophyll,
Water Clarity,
TSS, pH,
Temperature,
Conductivity,
Dissolved
Oxygen, Field
Conditions

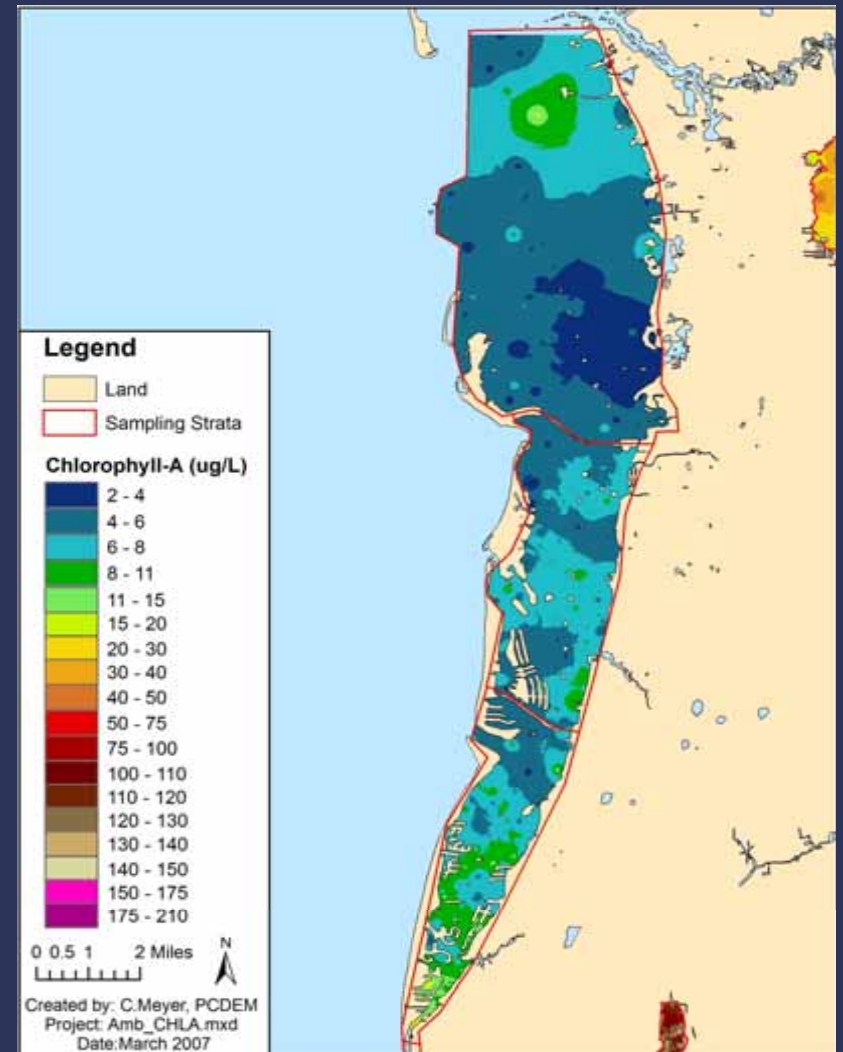
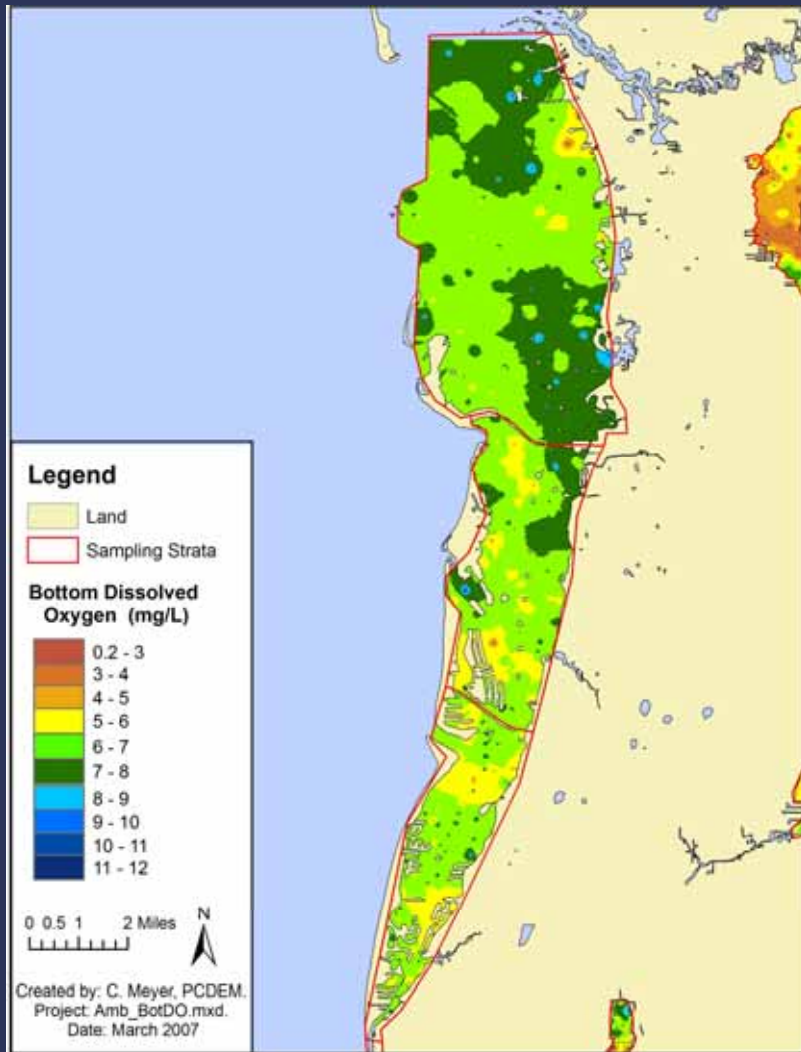


Reporting

- Annual Report
www.pinellascounty.org/environment
- Spatial Analysis
- Status and Trends
- Seasonal Variation
- Pollutant Loading



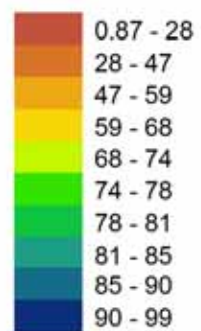
2003 - 2005 Results




Legend

-  Land
-  Sampling Strata

Transmissivity



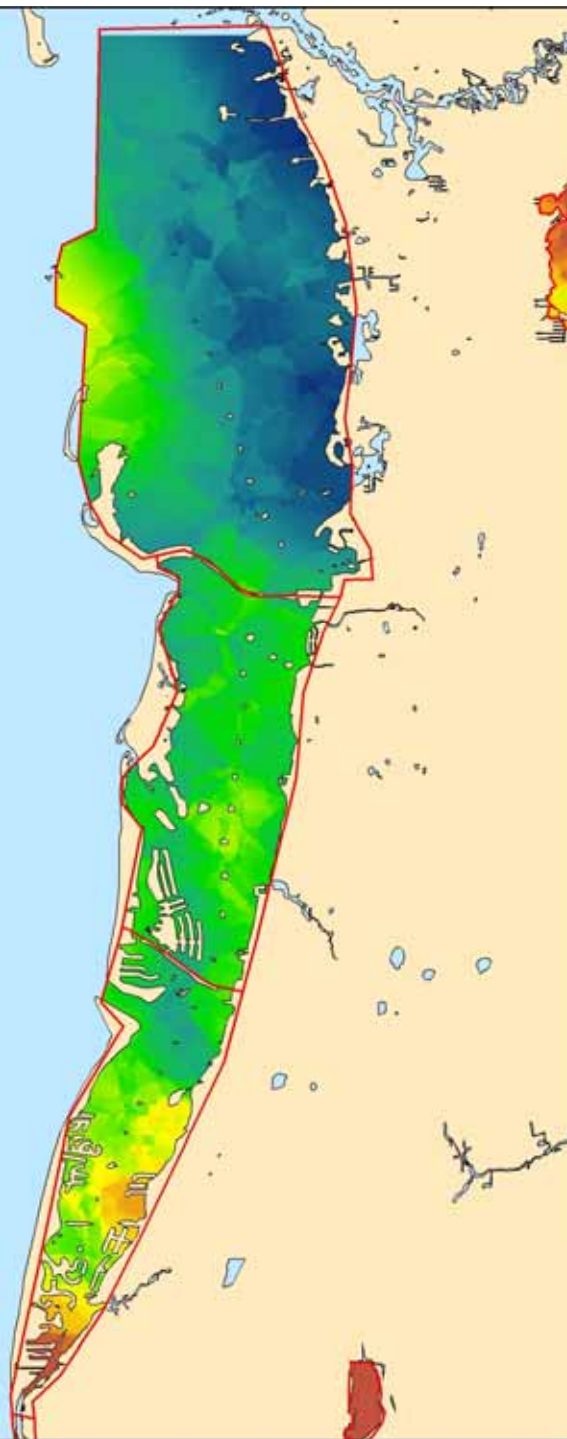
0 0.5 1 2 Miles

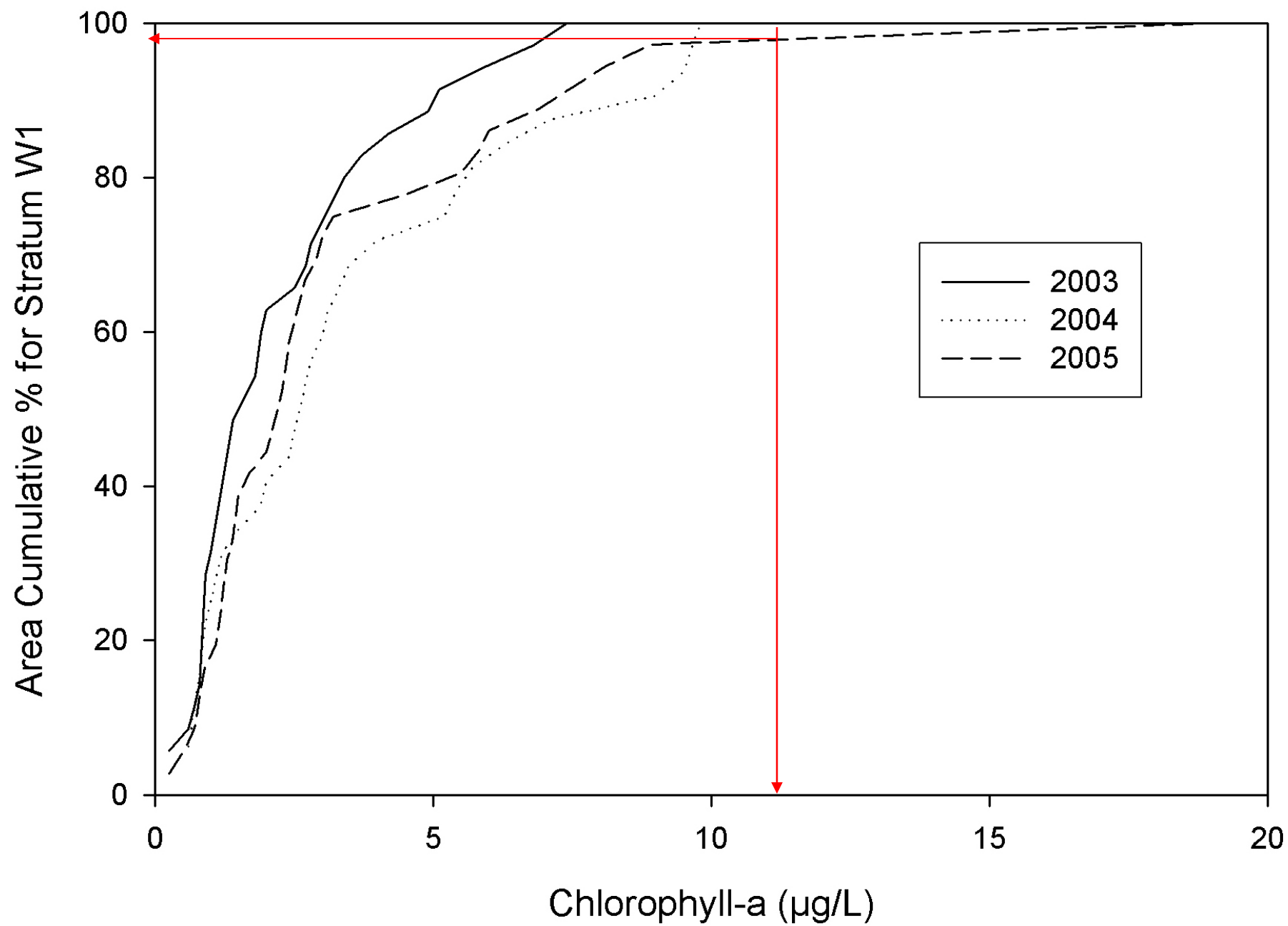


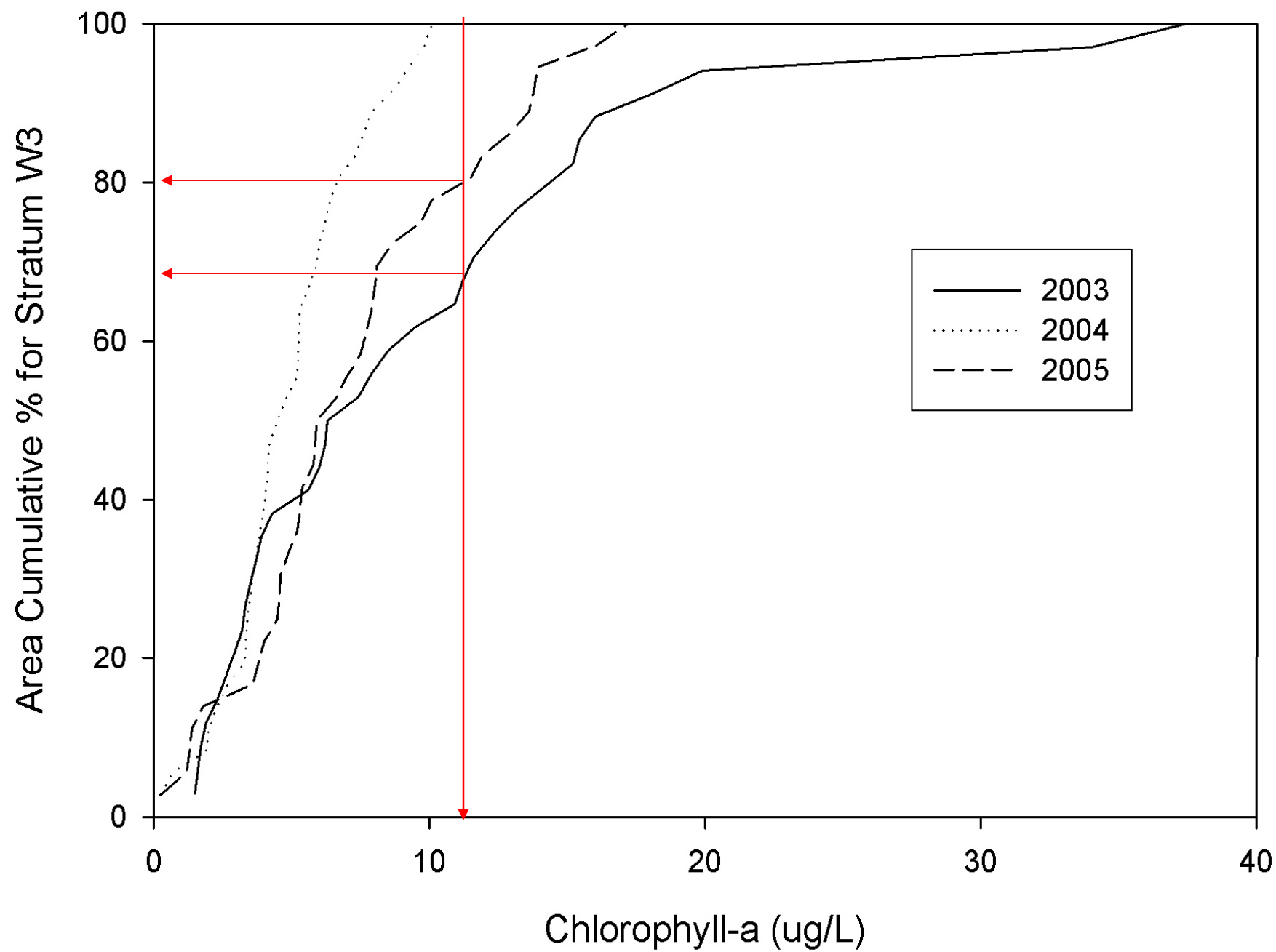
A horizontal scale bar with tick marks at 0, 0.5, 1, and 2 miles.

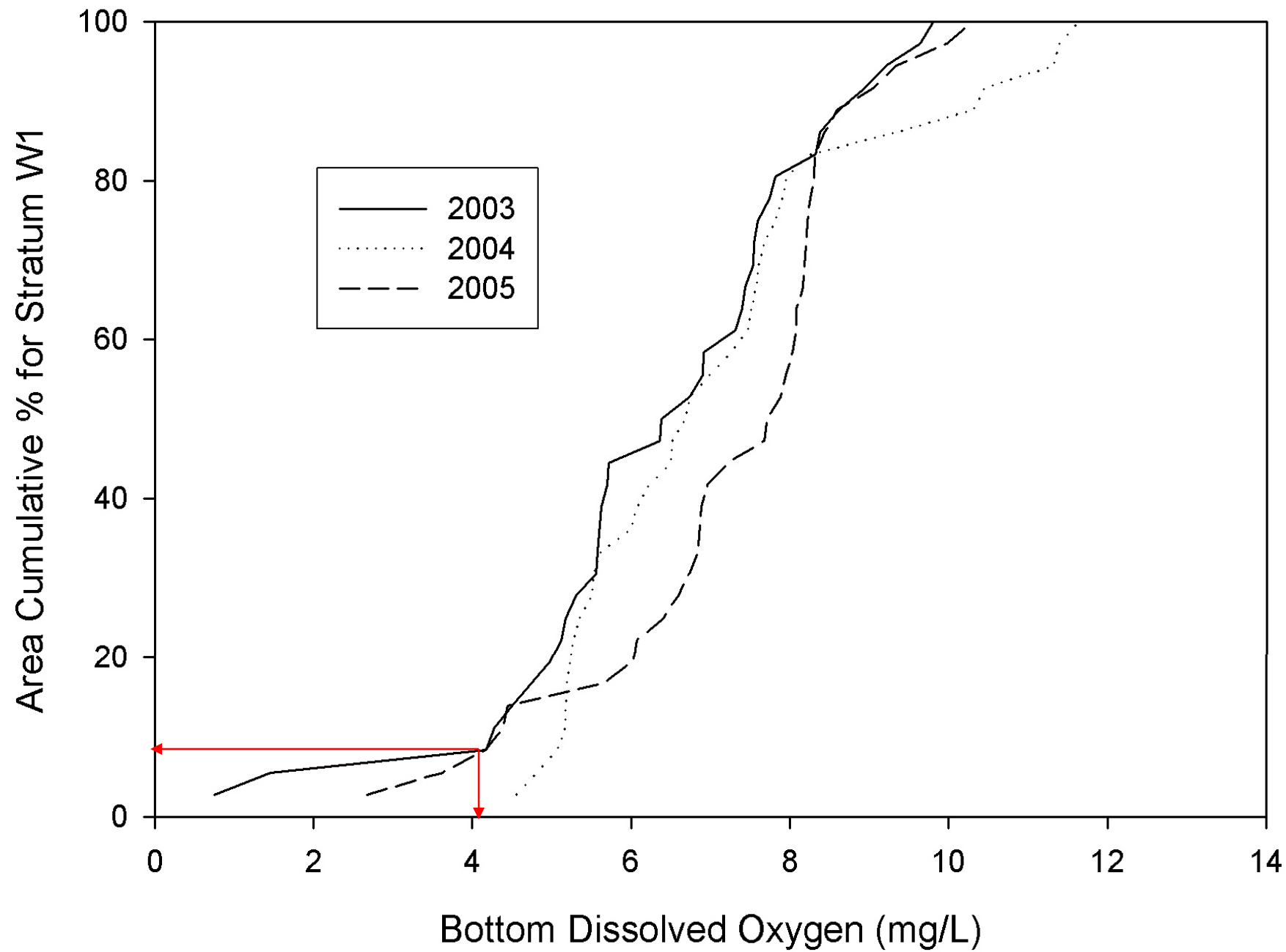


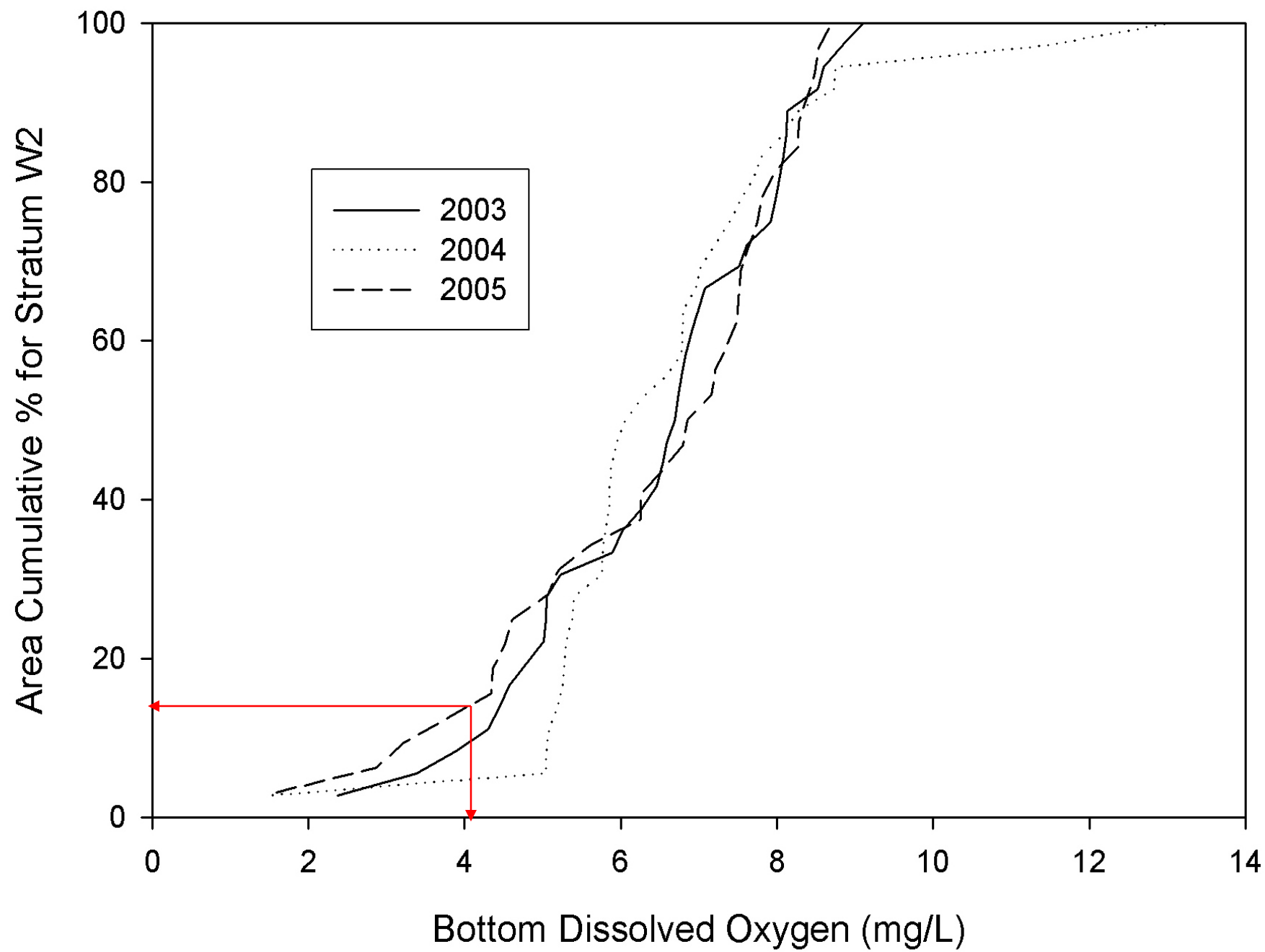
Created by: C.Meyer, PCDEM
Project: Amb_Trans.mxd
Date: March 2007

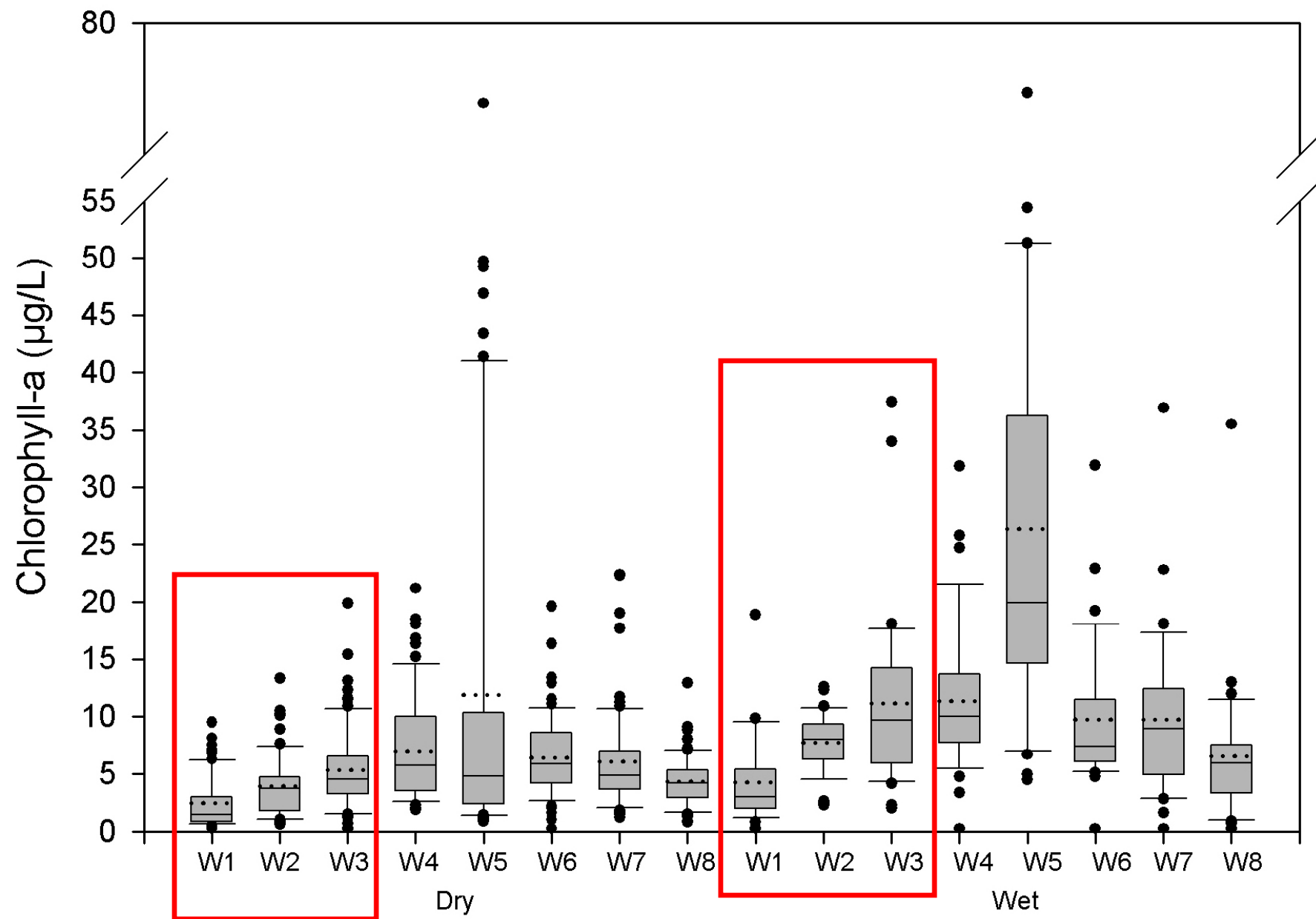


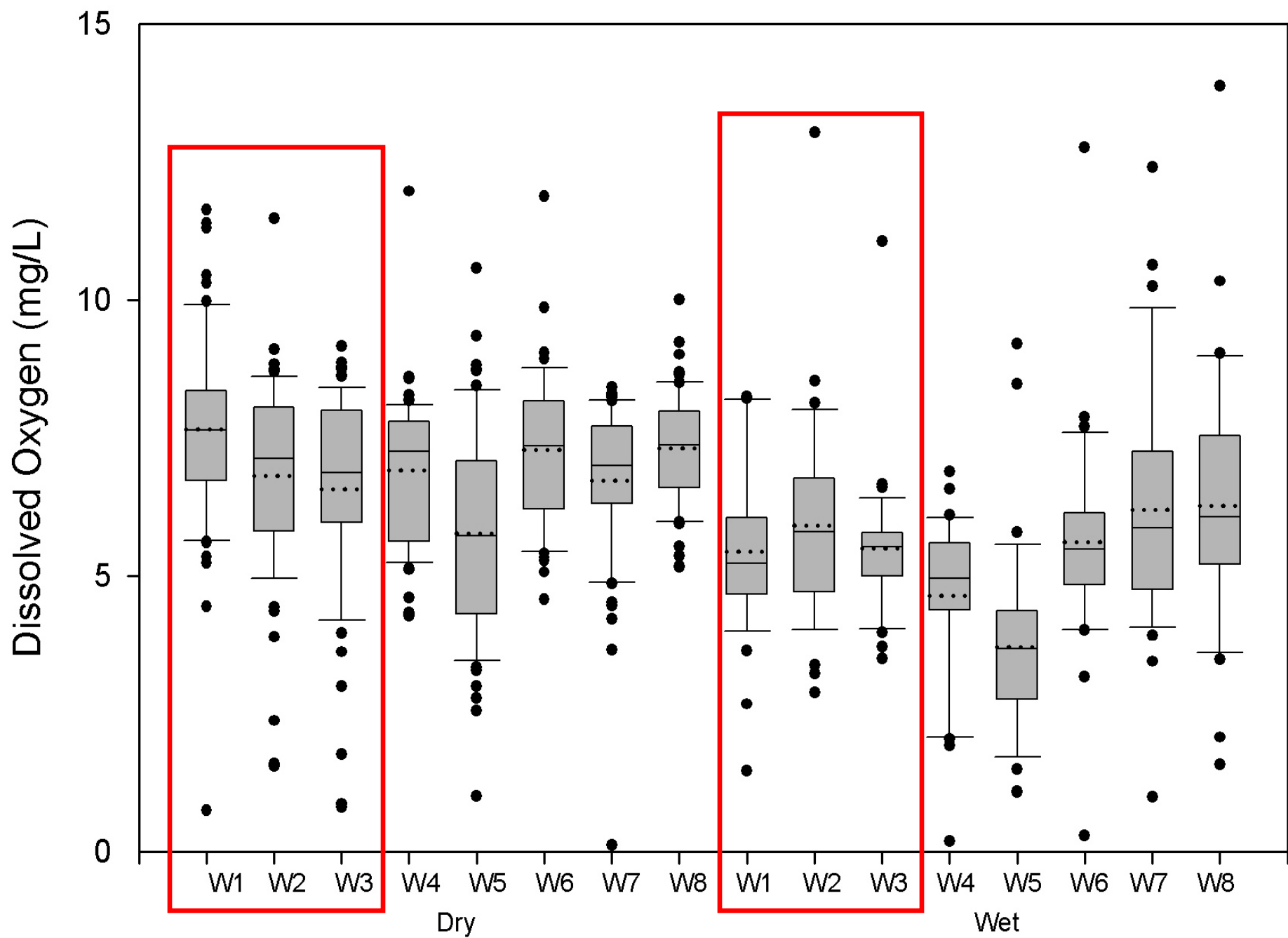












Overall

- St. Joseph Sound
 - Chl a 99-100%
 - Bottom DO ~90-95%
 - 80% of Area had % transmittance >80%
 - Low Turbidity
 - Wet and Dry Season Variability – Some



Overall

- Clearwater Harbor North
 - Chl a 95-100%
 - Bottom DO ~90%
 - 52% of Area had % transmittance >80%
 - Low Turbidity
 - Wet and Dry Season Variability – Not Much



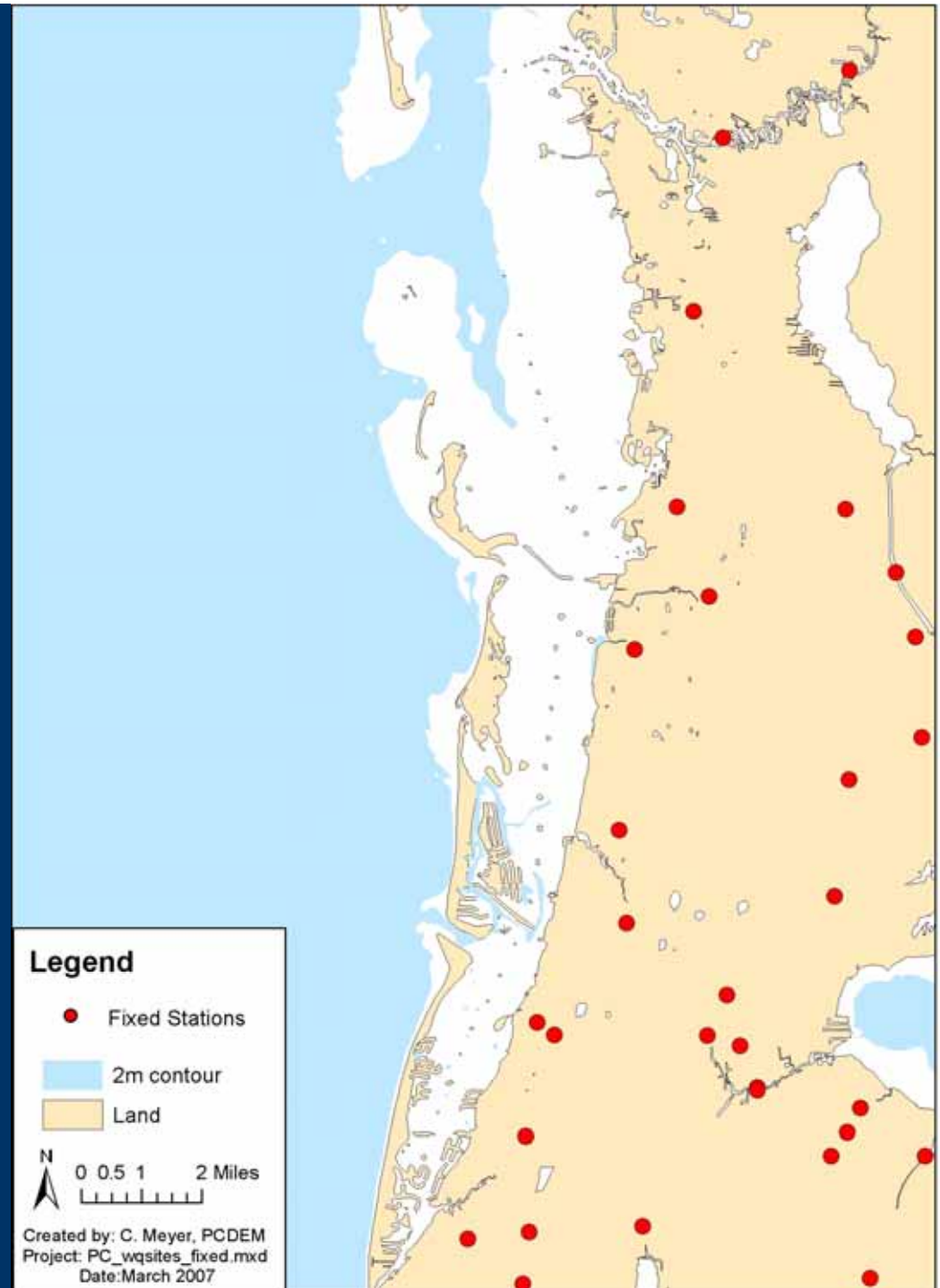
Overall

- Clearwater Harbor South
 - Chl a ~78%
 - Bottom DO ~85-90%
 - 23% of Area had % transmittance >80%
 - Low Turbidity
 - Wet and Dry Season Variability- Yes



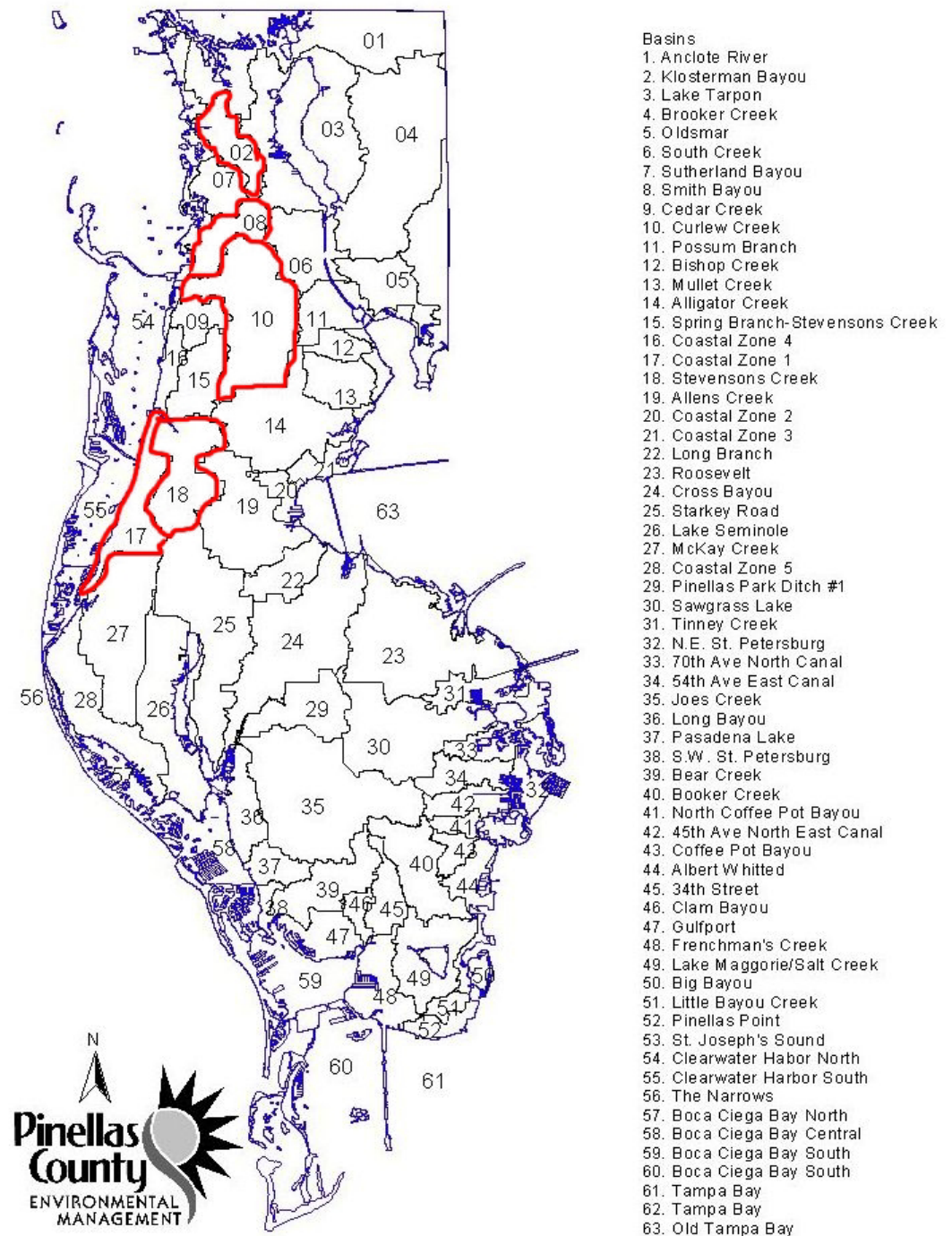
Fixed Site Monitoring Program

- Streams, Creeks, Anclote River
- 9X/Year
- Pollutant Loading Estimates
- Parameters: Nutrients, BOD, Turbidity, TSS, Chlorophyll, Fecal Coliform, Enterococci, pH, Temperature, Conductivity, Dissolved Oxygen, Flow, Field Conditions



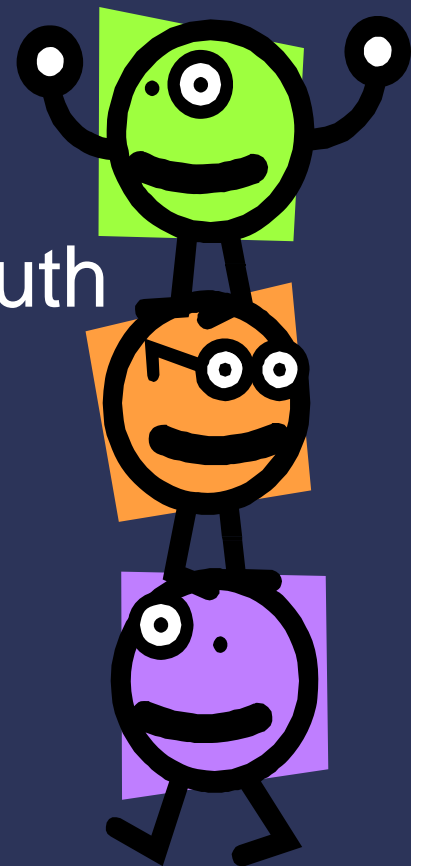
Pollutant Loading

- Contributing Watersheds
- Permitted Discharges
- High Priority Watersheds
 - Nutrients
 - TSS
- TMDLs...



Summary

- Overall Water Quality is good
- Best WQ – St. Joseph Sound
- Worst WQ – Clearwater Harbor South
- Seasonal Variability
- Pollutant Loading is a Concern
- TMDLs are Moving Forward
- Teamwork is a Must



Questions?

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