

Trout Lake, Lake Carlton, Palatlakaha River Water Quality Review

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Background

- ▣ Listed as impaired in 2002
- ▣ TMDLs adopted in 2003, 2004
 - ▣ Lake Carlton – TSI exceeded 60, TP limited
 - ▣ Trout Lake – TSI exceeded 60, TN limited
 - ▣ Palatlakaha River – DO exceedances, nutrient related

Data Comparison

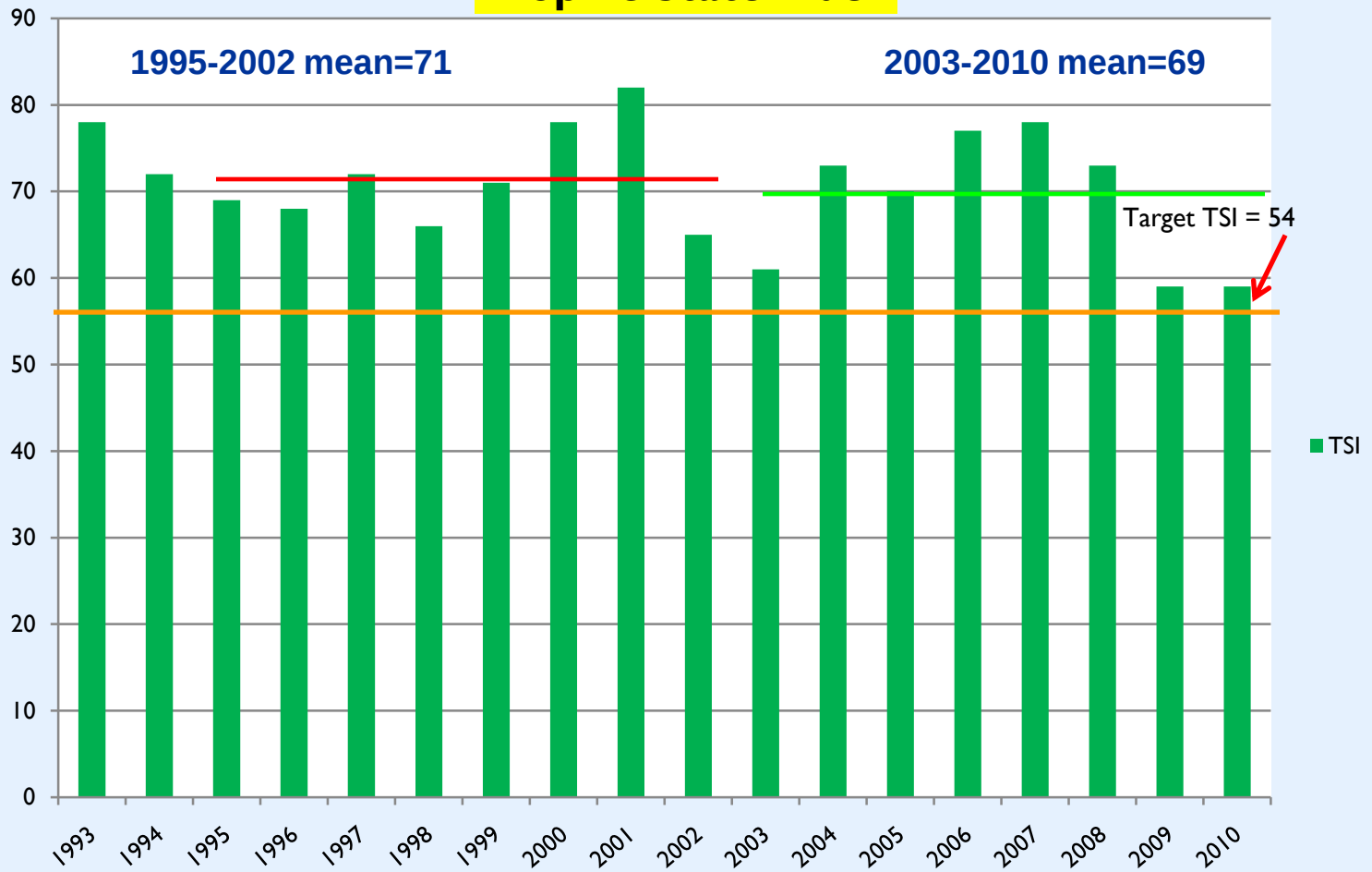
- **Data Comparison**
 - **Time series**
 - **Annual means – TN, TP, chlorophyll a, TSI, DO for Palatlakaha**
 - **Compare data periods**
 1. **Compare 1995-2002 listing period**
 2. **2003-2010 post listing or BMAP period**

Trout Lake

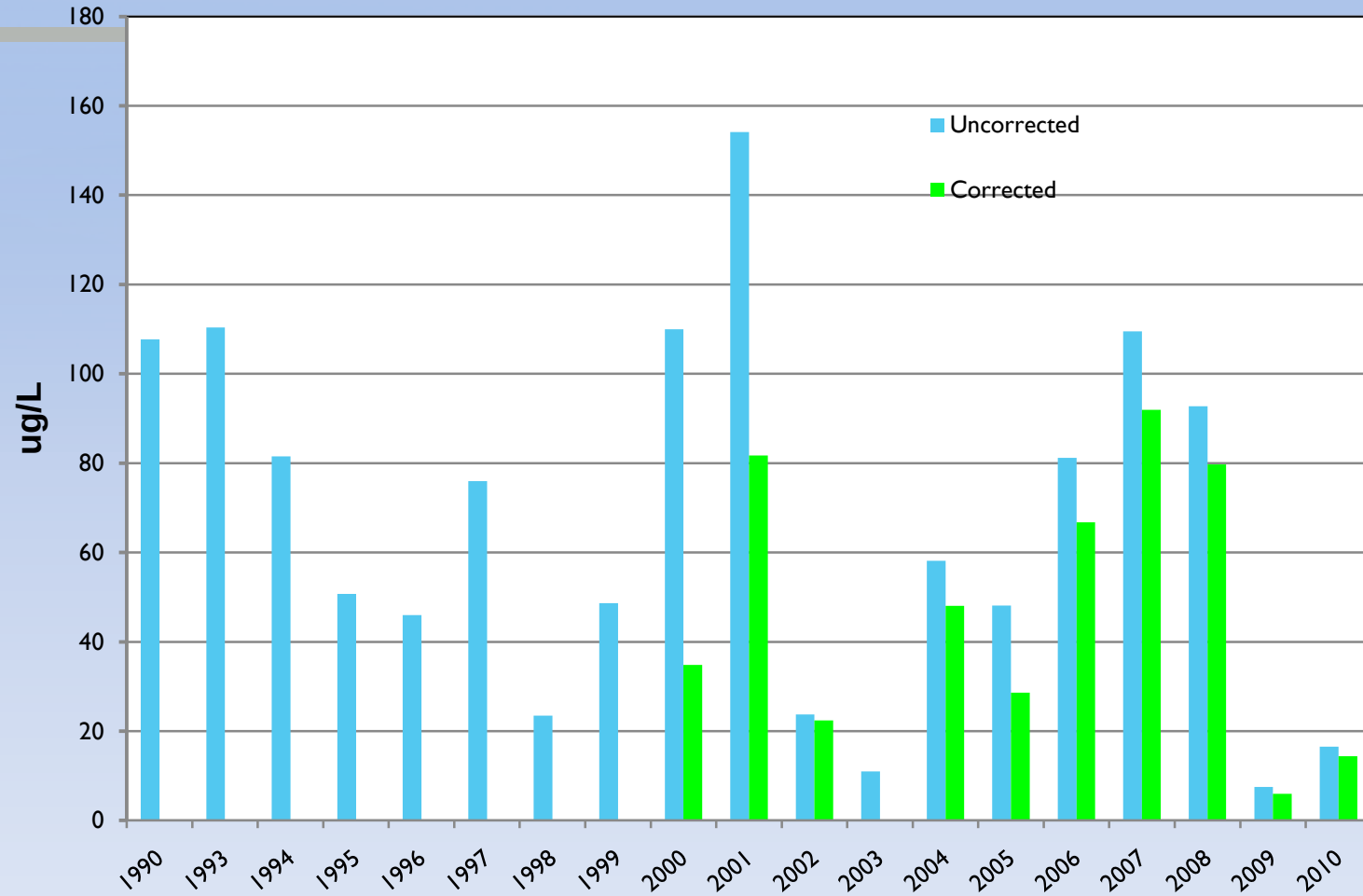
- Sampling locations
- TRTL & LKTRROUTEUS are active
- Others historic



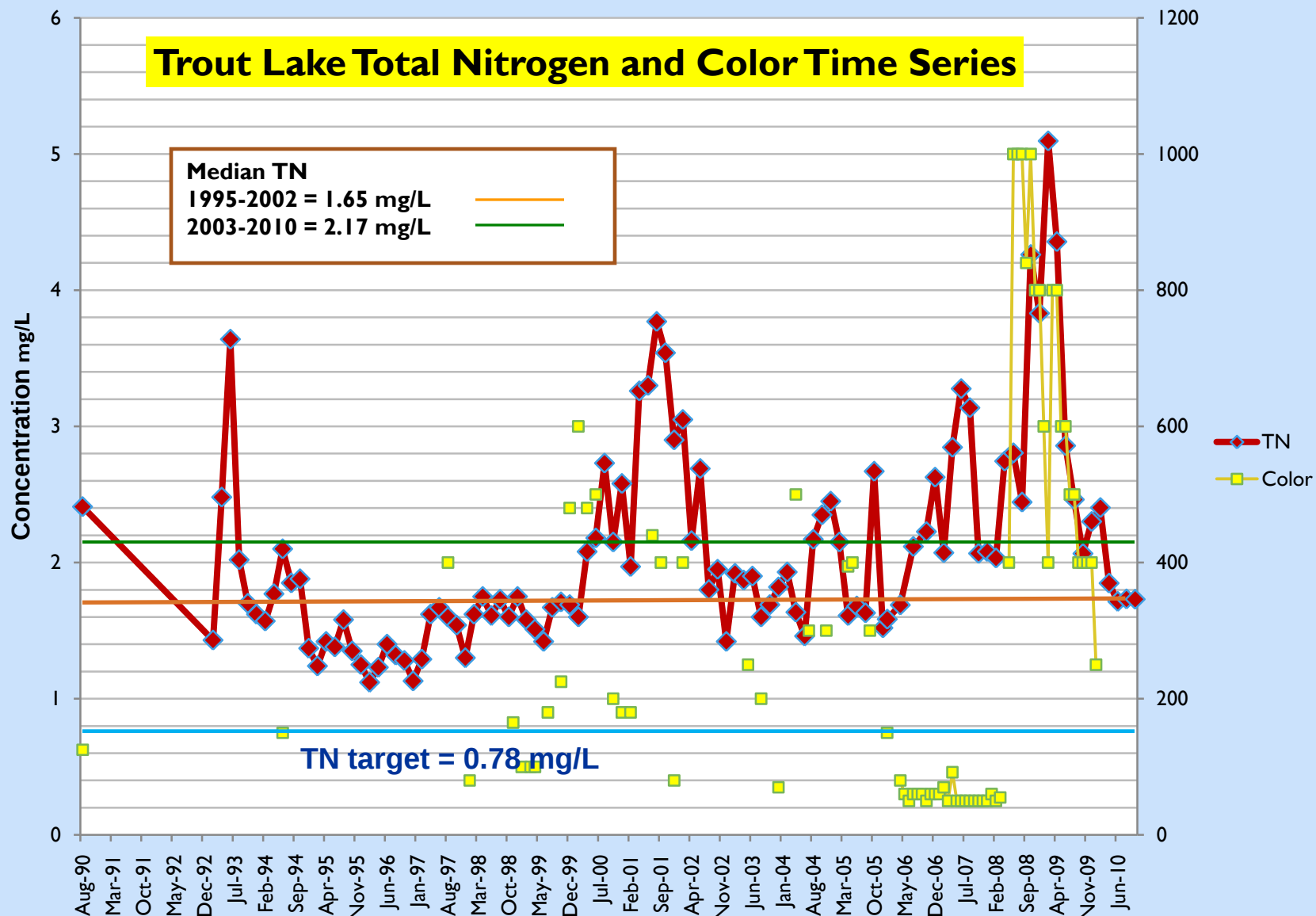
Trophic State Index



Trout Lake Average Annual Chlorophyll a



Trout Lake Total Nitrogen and Color Time Series



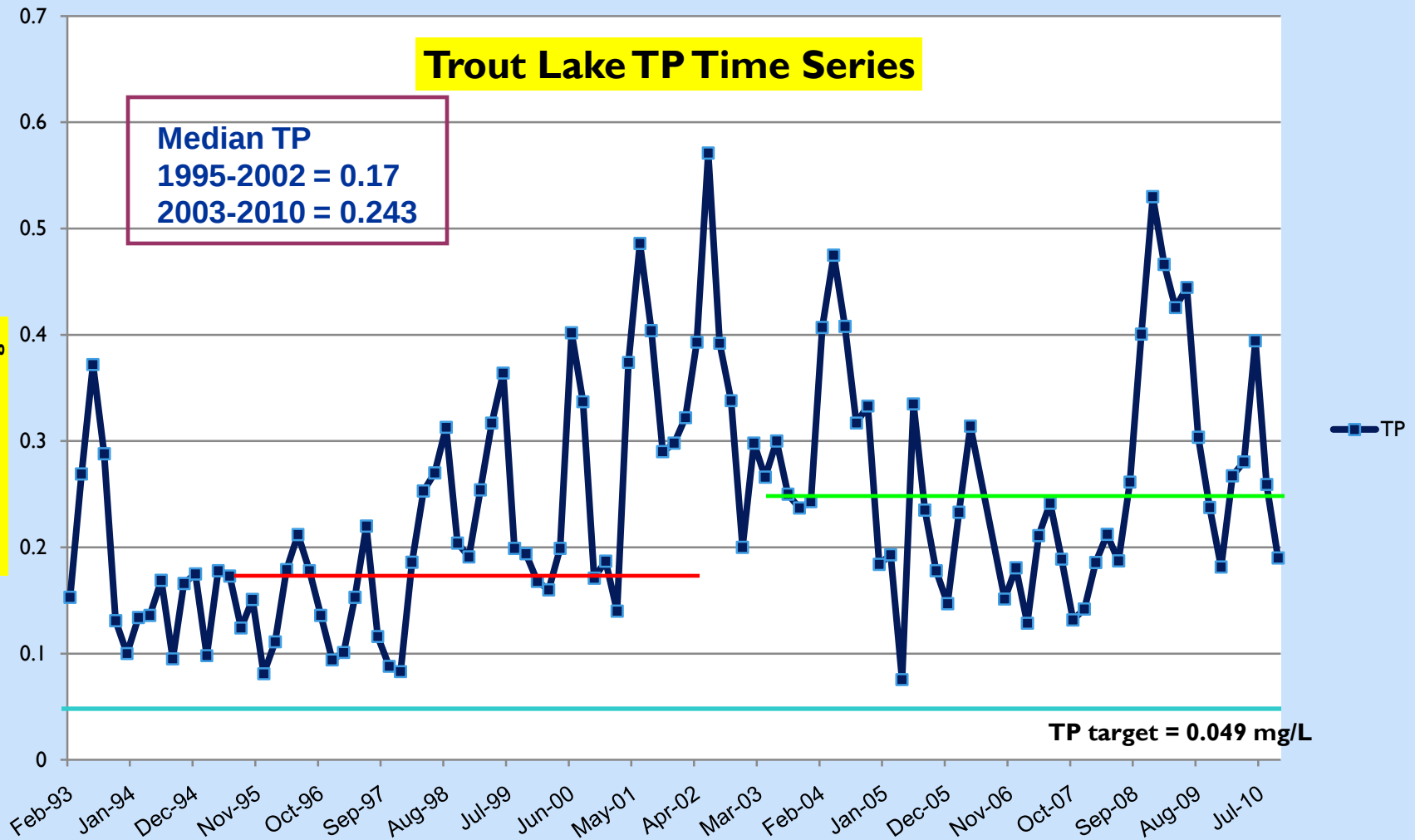
Trout Lake TP Time Series

Median TP

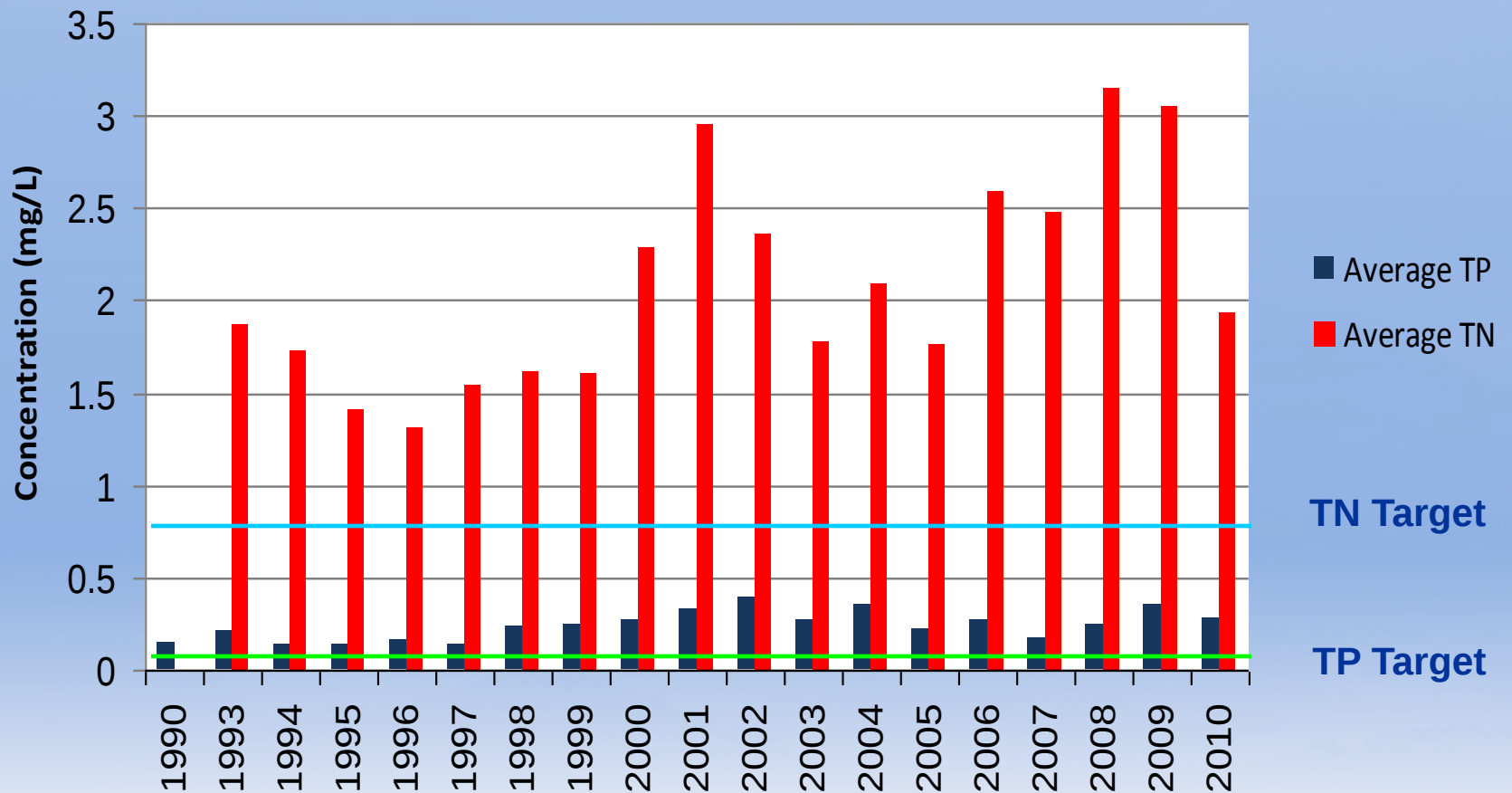
1995-2002 = 0.17

2003-2010 = 0.243

Concentration mg/L

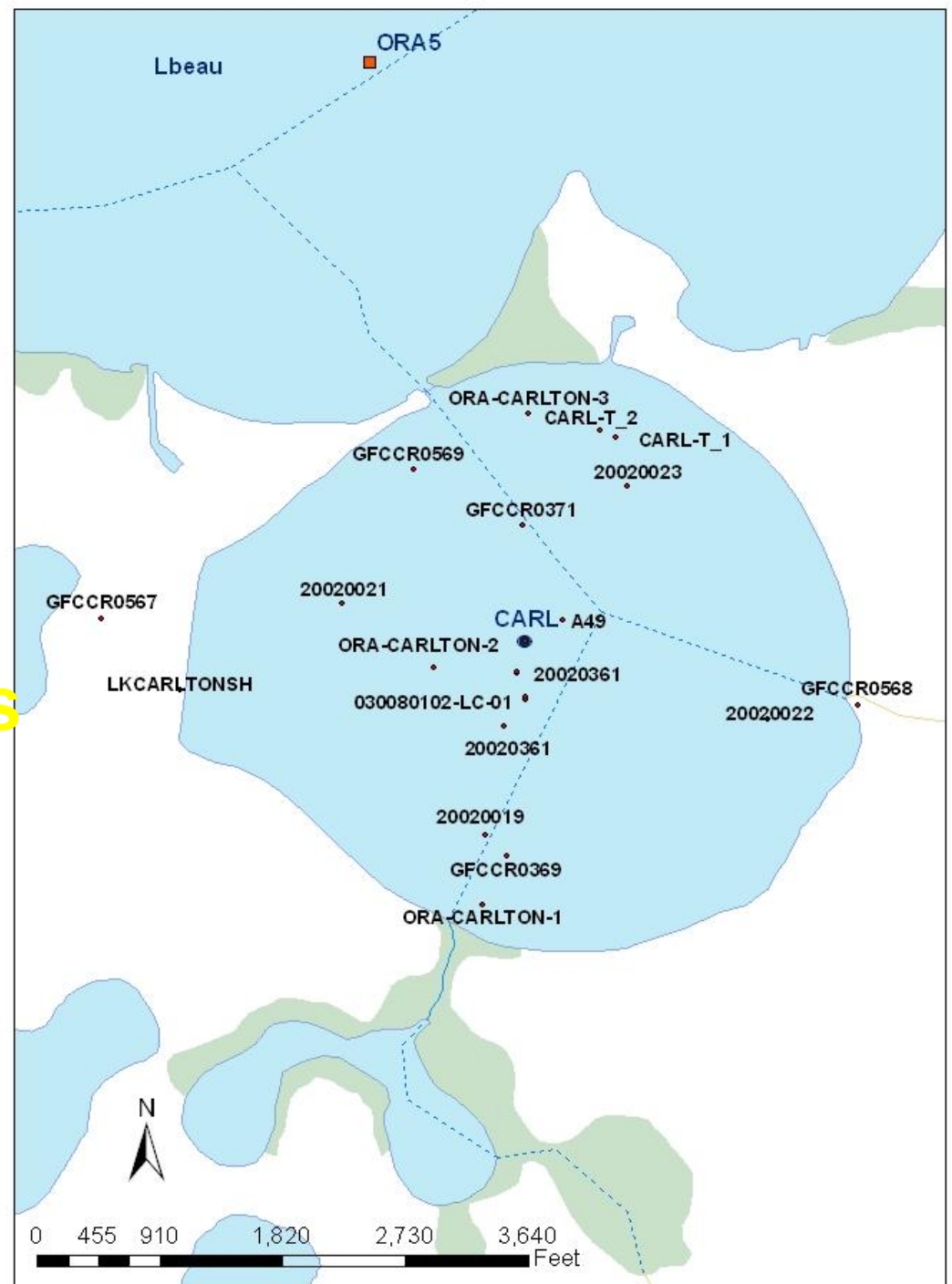


Trout Lake Average Annual TP and TN

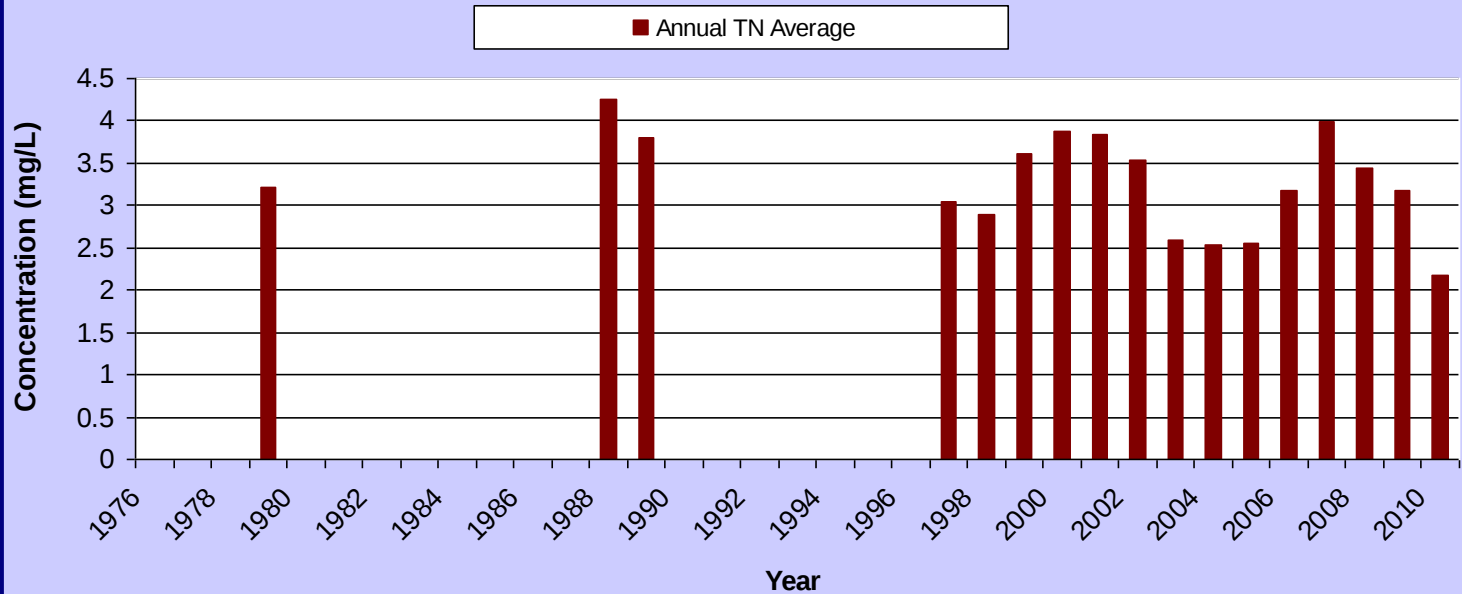


Lake Carlton

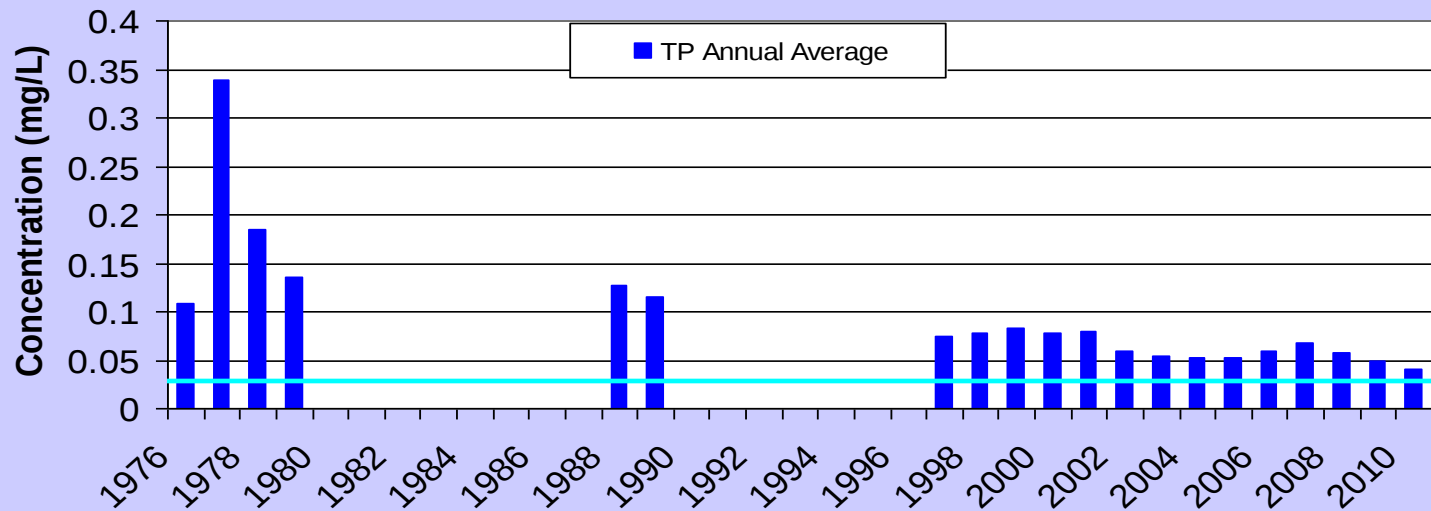
- Sampling locations
- CARL active
- Others historic



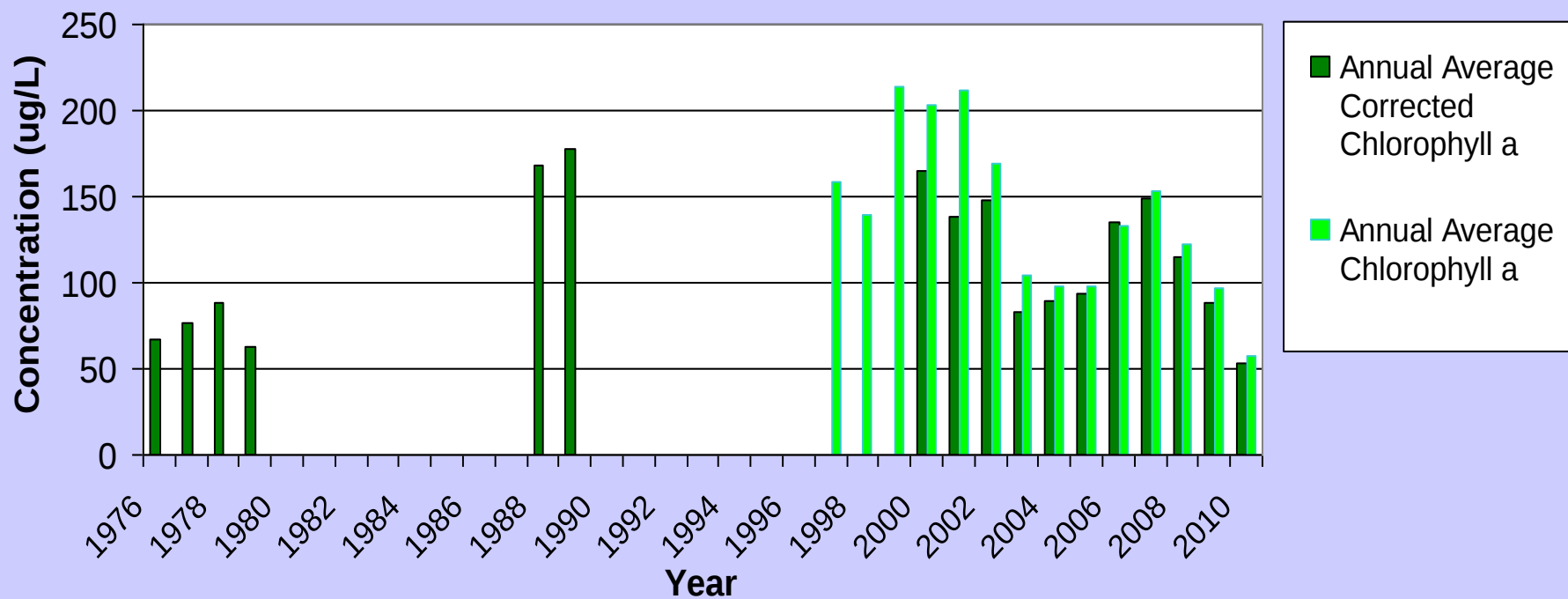
Lake Carlton Annual Average TN



Lake Carlton Annual Average TP

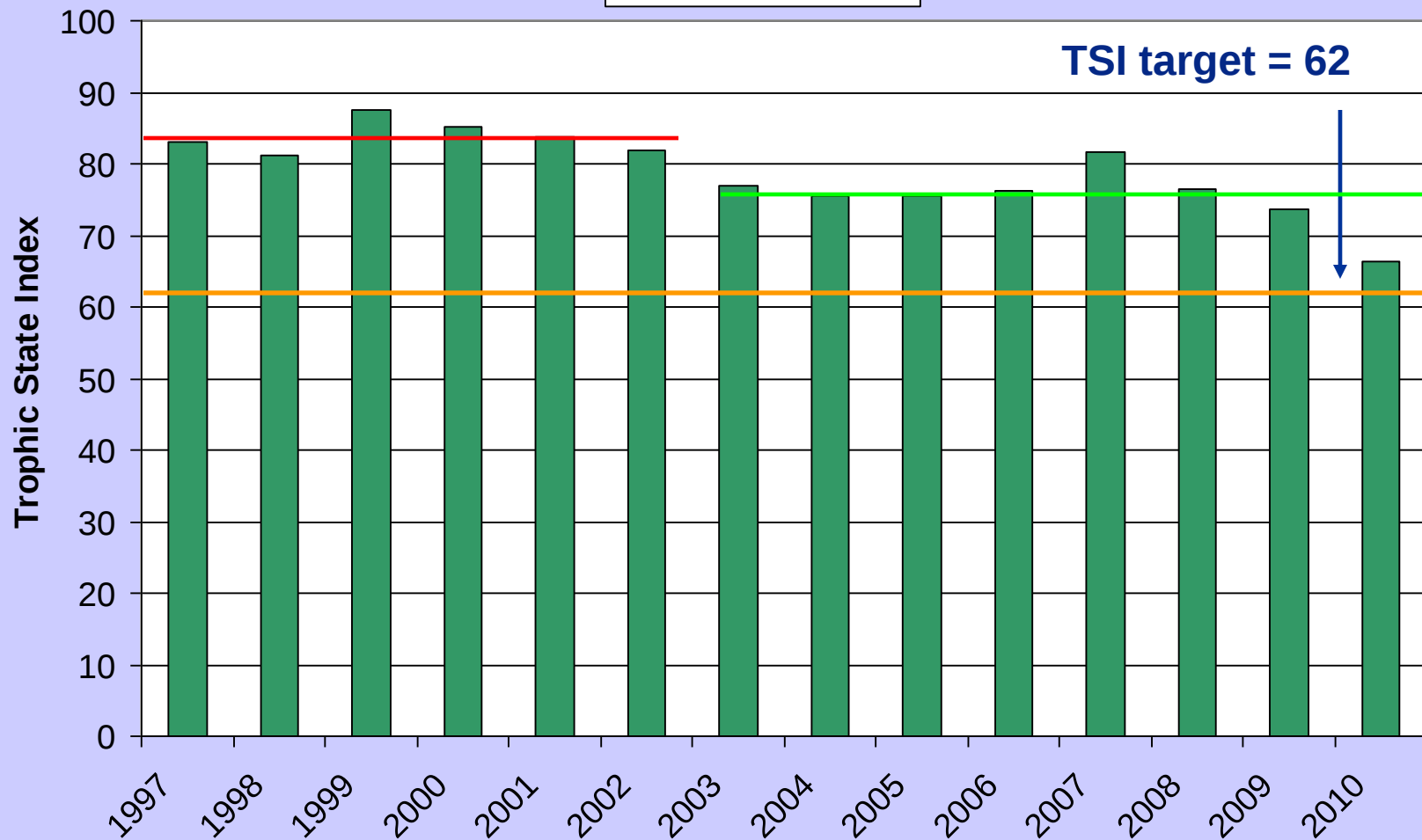


Annual Average Chlorophyll a Lake Carlton



Lake Carlton Annual Average TSI

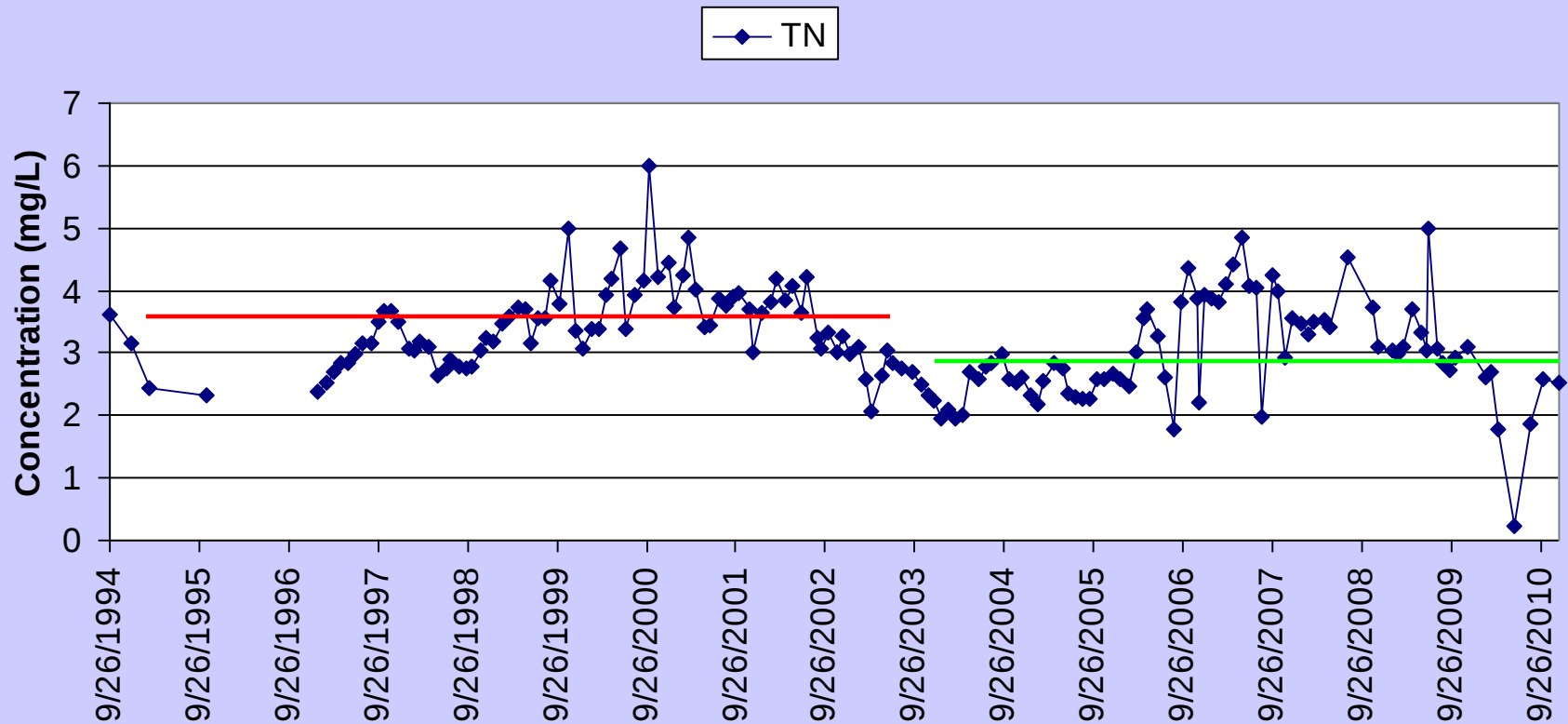
■ Annual Average TSI



1997-2002 average = 84

2003-2010 average = 75

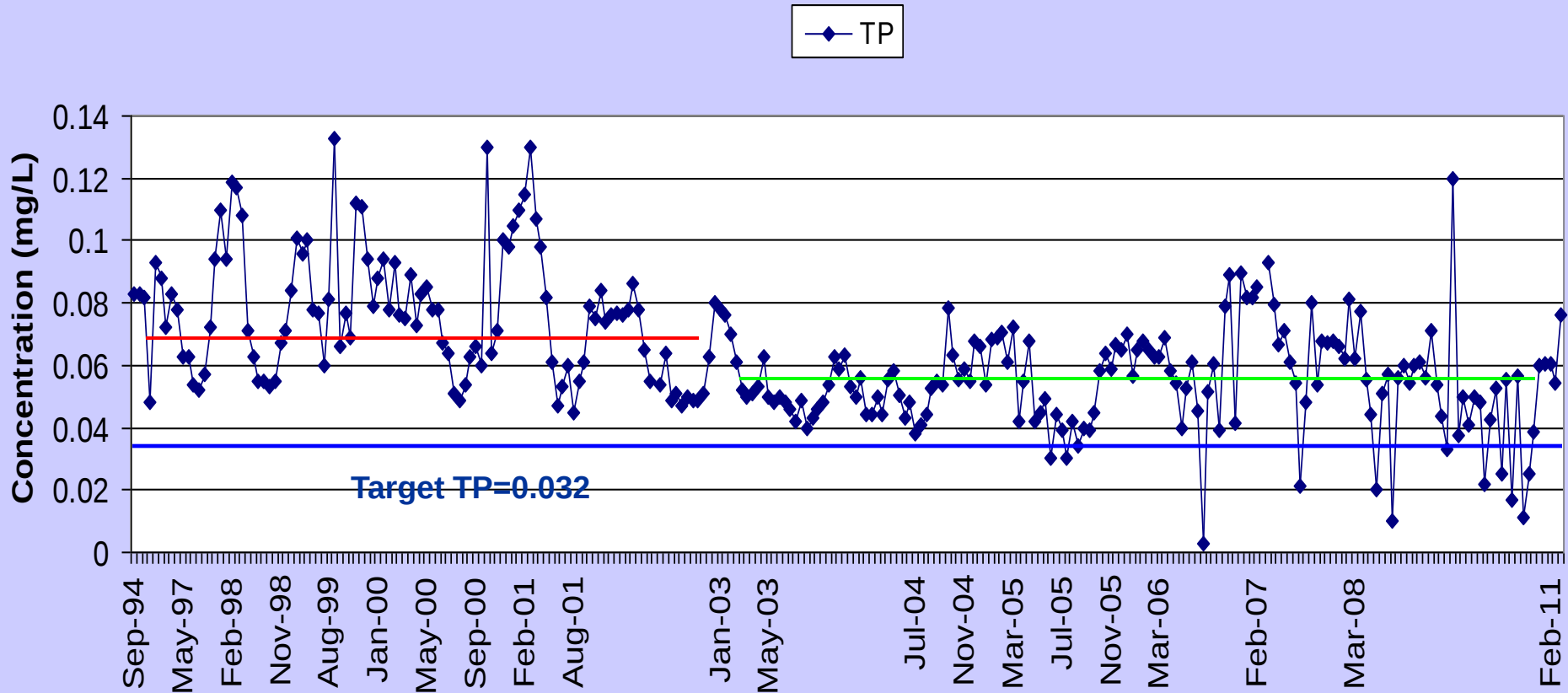
Lake Carlton TN 1994-2010



Median 1995-2002 = 3.43 mg/L

Median 2003-2010 = 2.836 mg/L

TP Lake Carlton 1994-2010

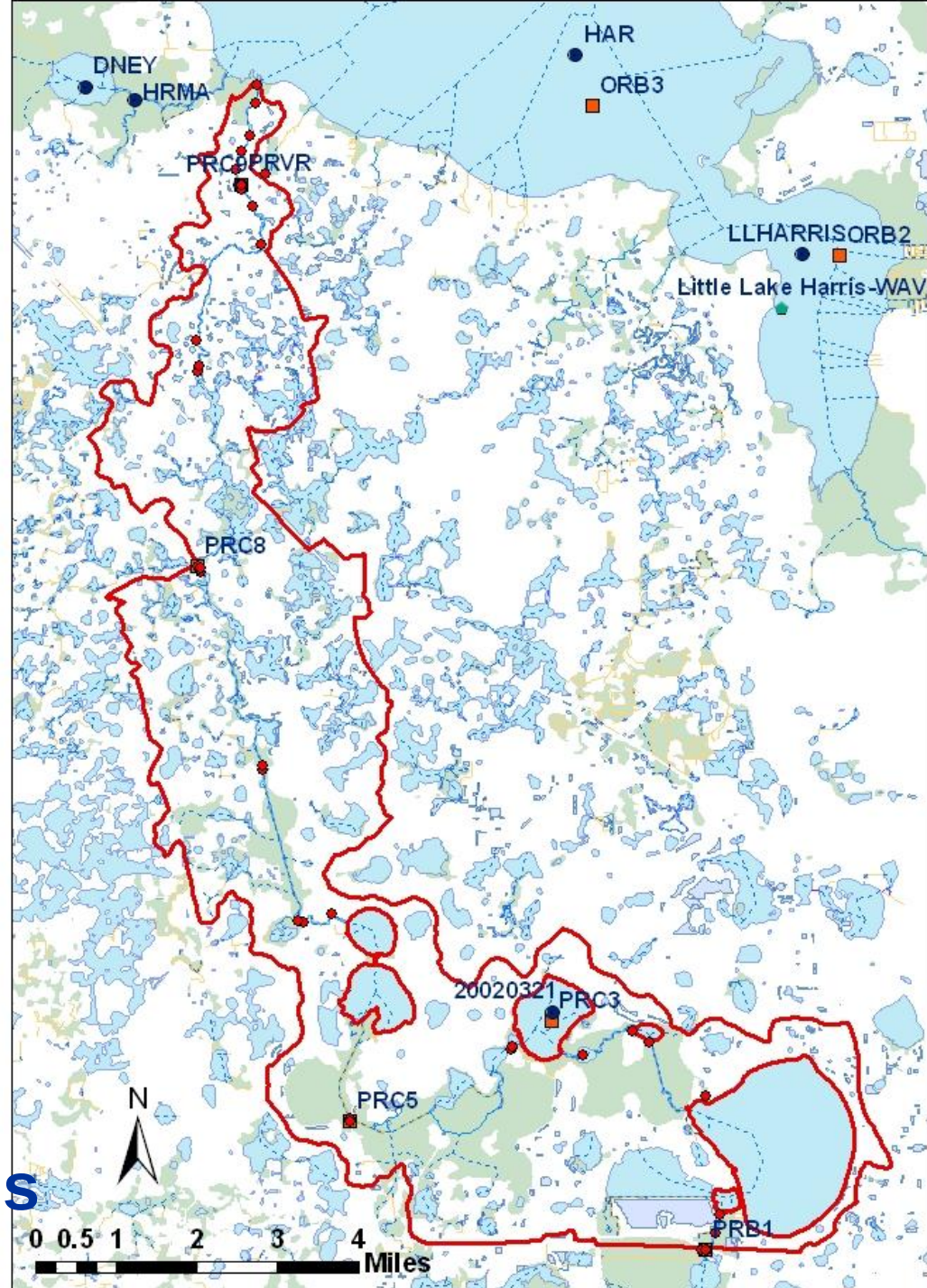


Median 1995-2002 =.07 mg/L

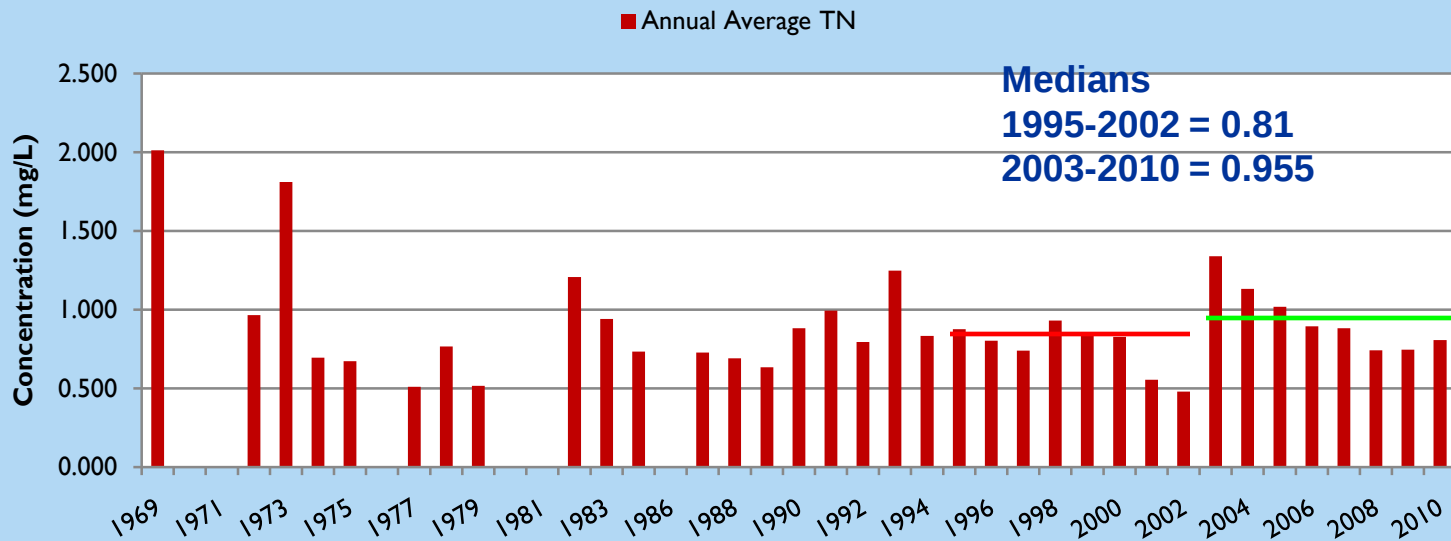
Median 2003-2010 =.054 mg/L

Palatlakaha River

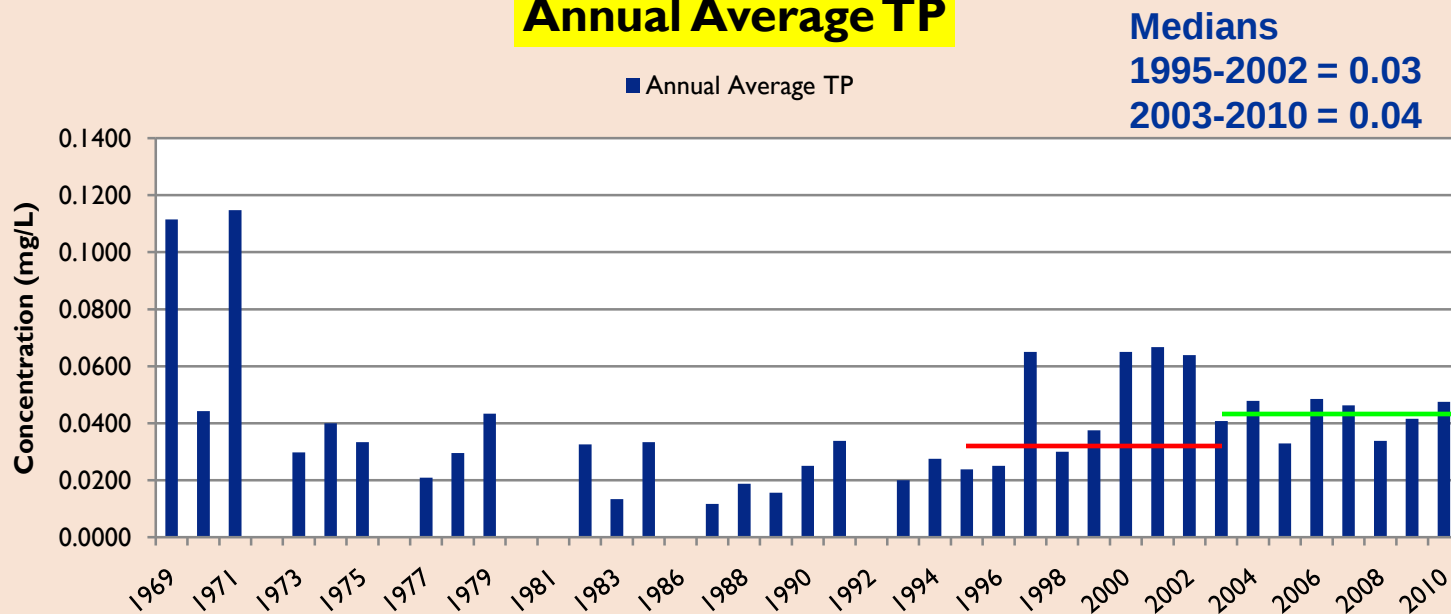
- Sampling locations
- Named locations are active
- Red dots represent historic site
- Data for river mouth composite of 4 stations



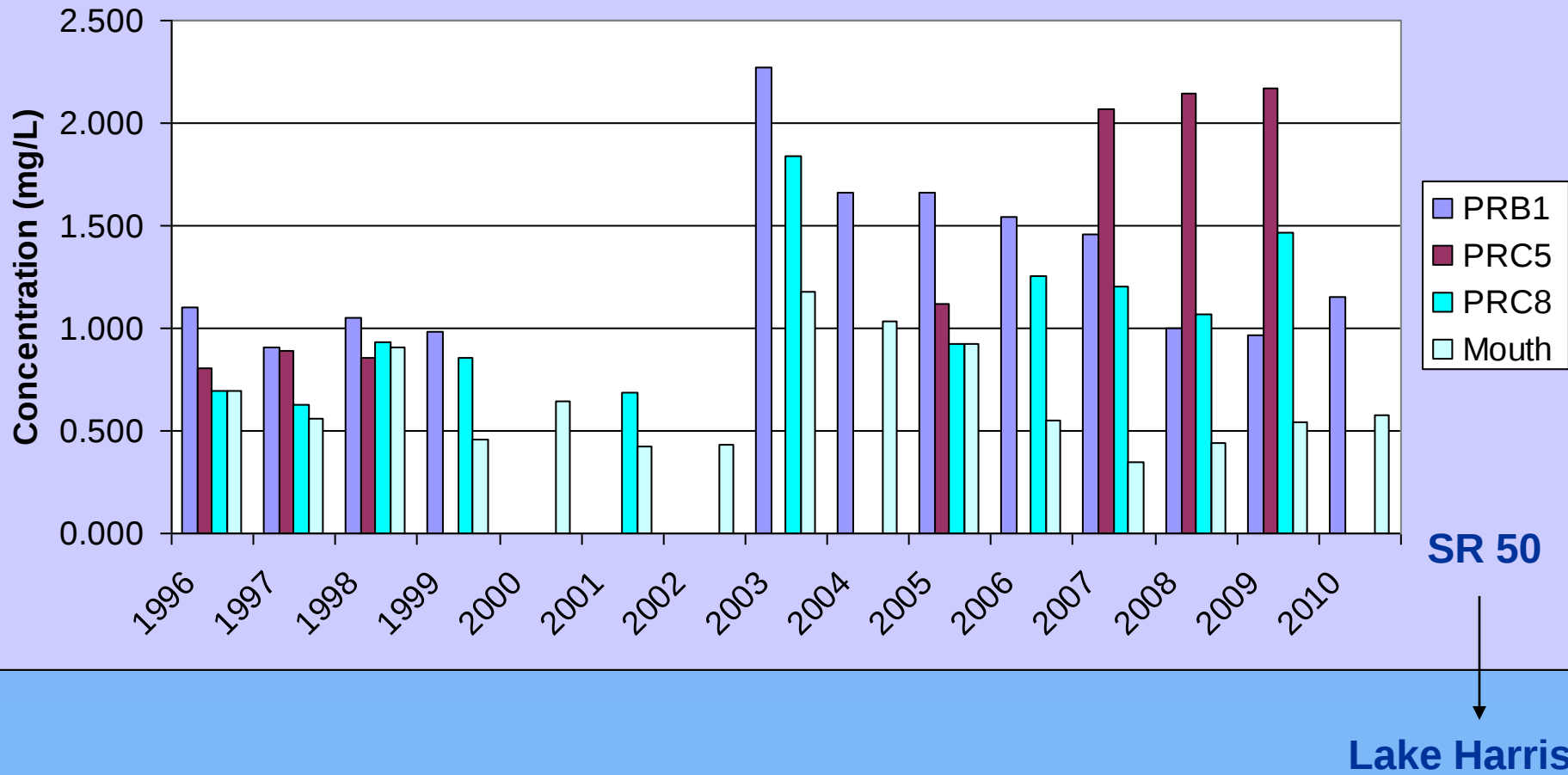
Annual Average TN



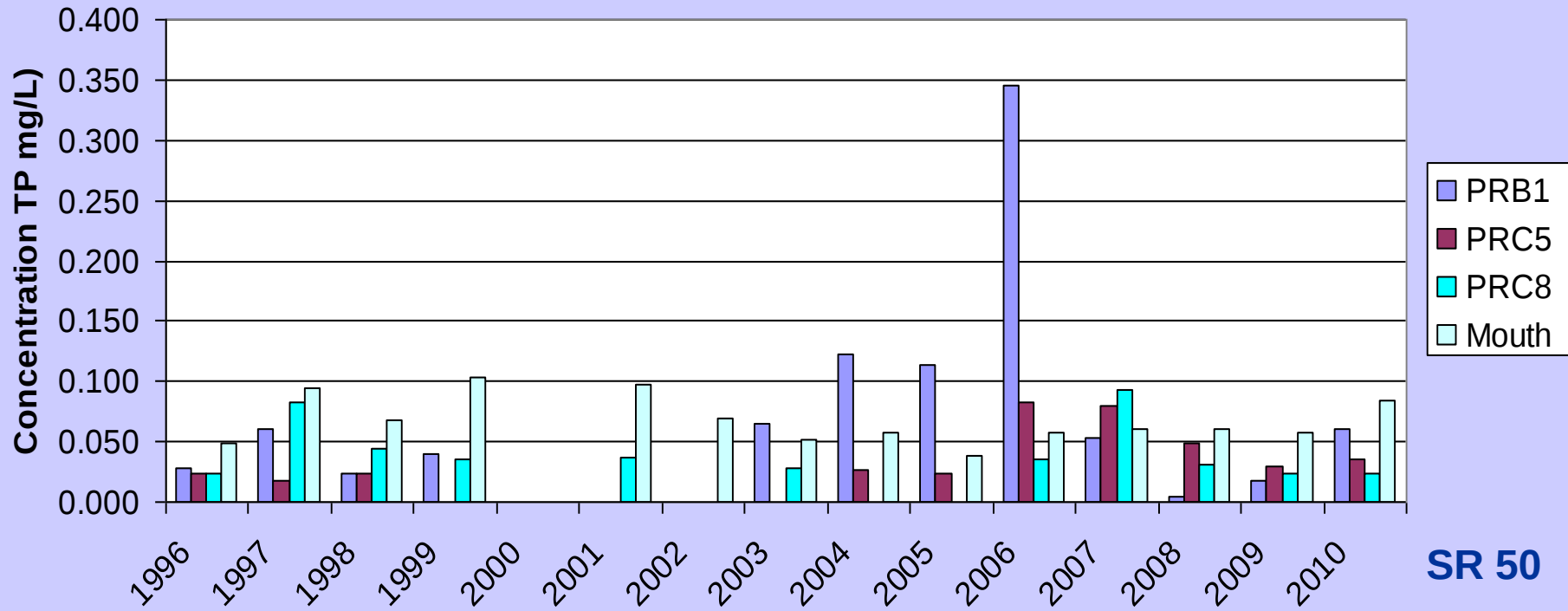
Annual Average TP



Annual Average TN Palatlakaha River



Annual Average TP Palatlakaha River



Lake Harris

Annual Average DO Palatlakaha River

