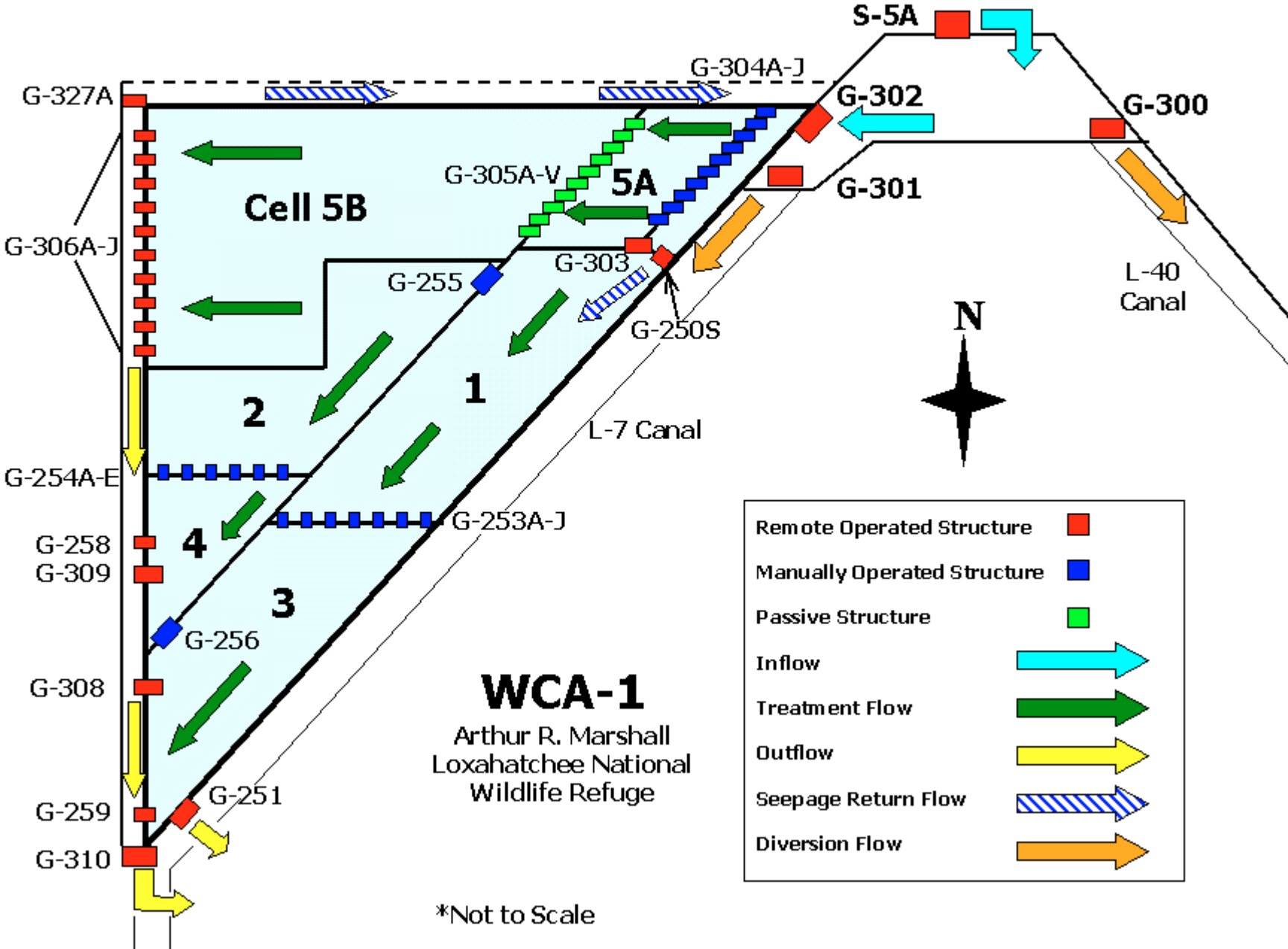
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

STA-1W Adaptive Management and Recovery Plan for STA-1W

Everglades Division

sfwmd.gov

STA-1W Structures & Flow*

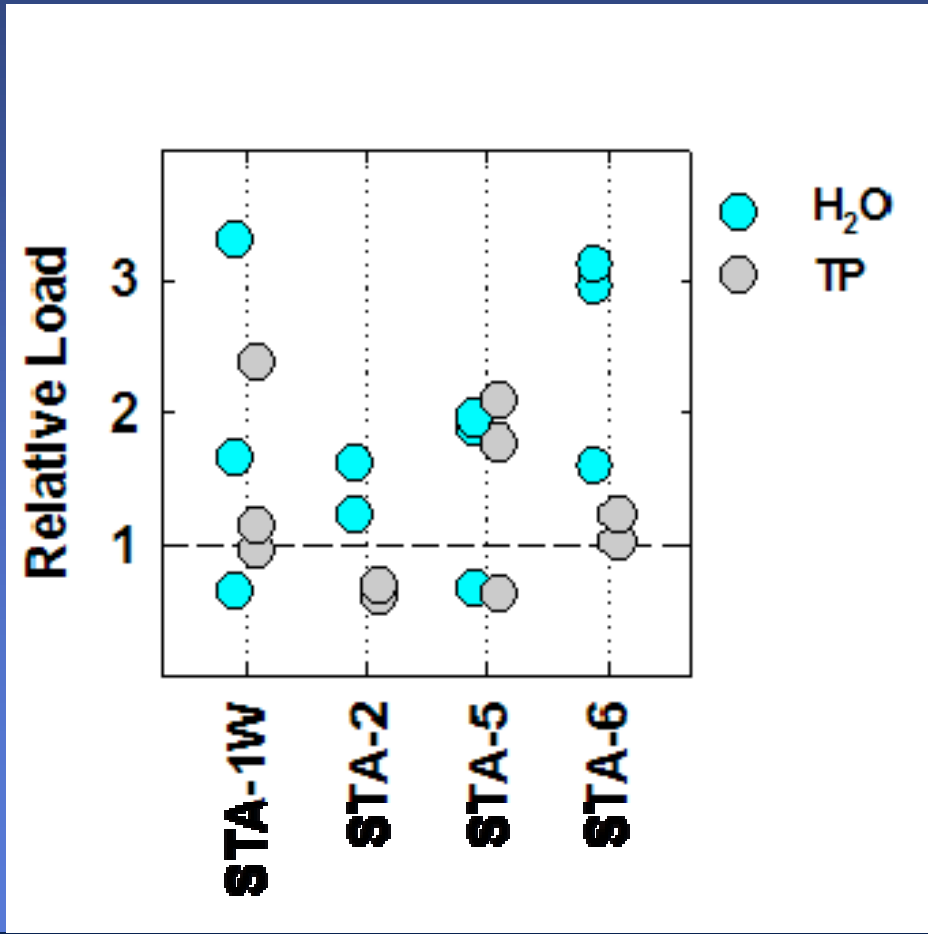


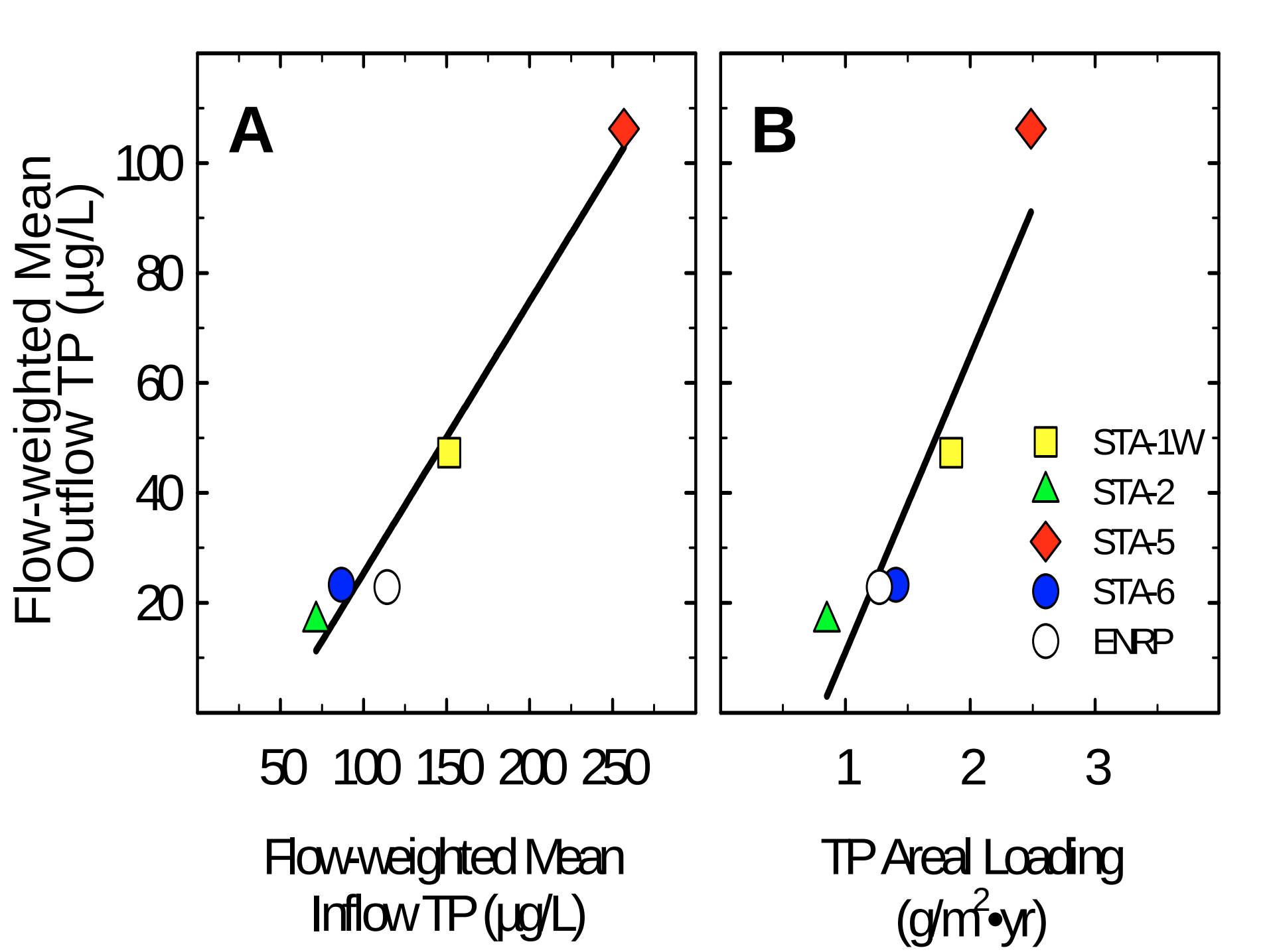
Design Envelope

Table 1. Revised design parameters for STA-1W.

	Peak Flow cfs	Average Flow acre-feet/yr	TP Conc ppb	Average Hydraulic Loading Rate cm/d	Peak Hydraulic Loading Rate cm/d	Average Nutrient Loading Rate $g/m^2/yr$
Inflow	3,250	159,985	139	2.00	29.46	1.01
Outflow	3,490	188,100	24-30			

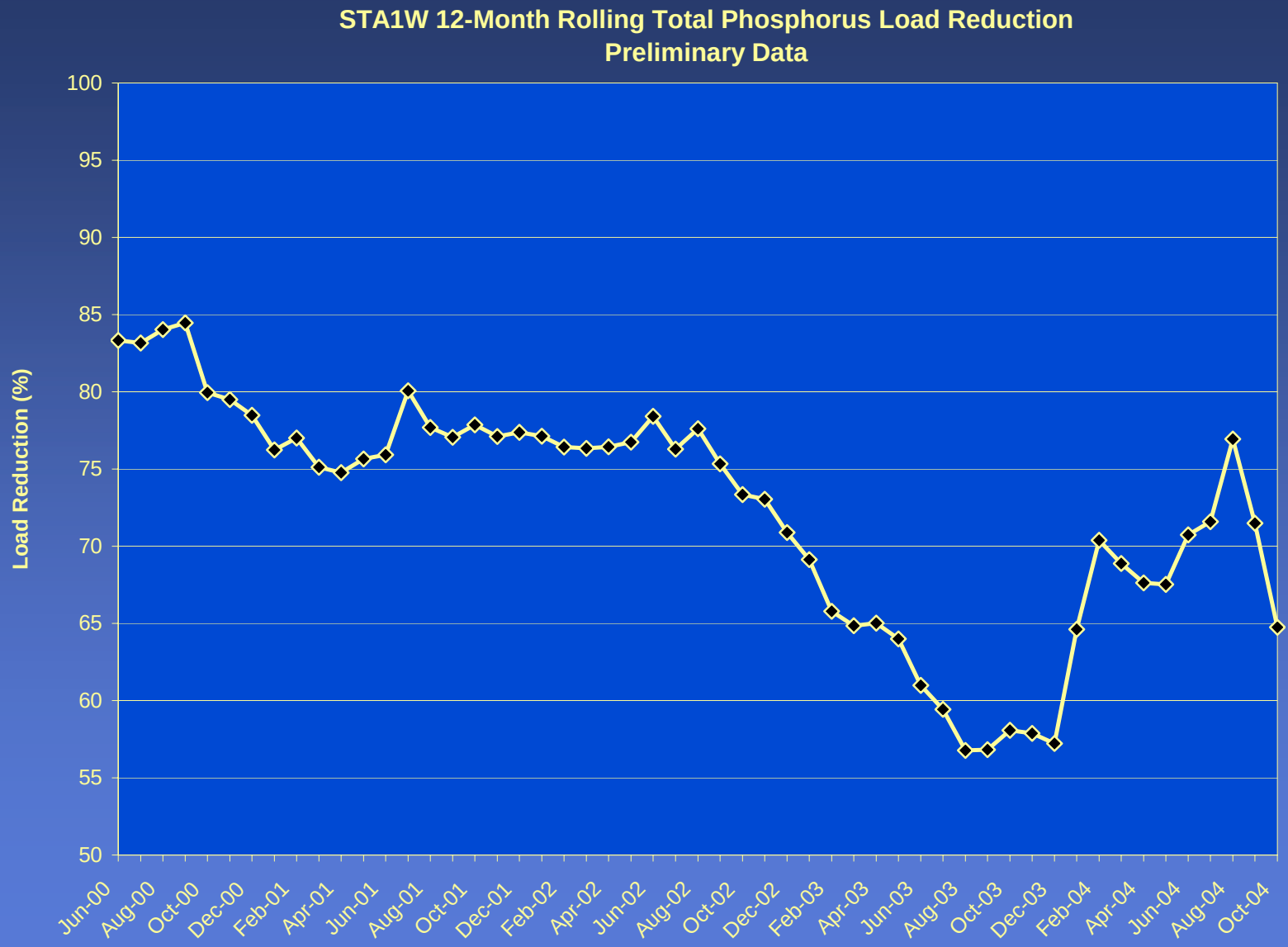
STA Relative Loads



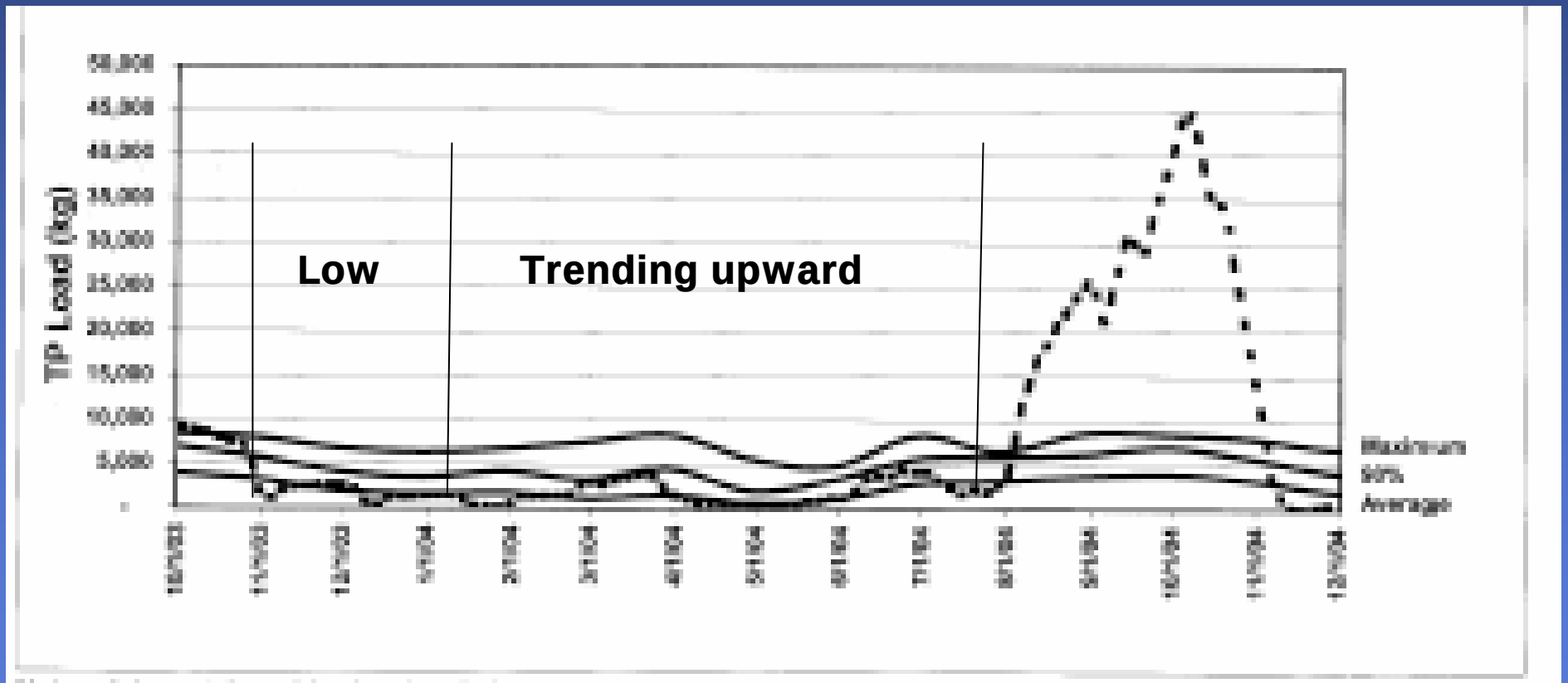

A
B
Flow-weighted Mean Outflow TP (µg/L)
100
80
60
40
20
50
100
150
200
250
1
2
3
Flow-weighted Mean Inflow TP (µg/L)
TP Areal Loading (g/m2•yr)
STA-1W
STA-2
STA-5
STA-6
ENRP

Design vs. Actual

- FLOW
  - Mean annual design inflow of 160,000 ac-ft.
  - 109,912 ac-ft loaded in September 2004, 65% of the annual design loading rate
- TP Concentration
  - Mean design assumption of 139 ppb
  - May 1994 through September 2004 flow-weighted mean inflow TP concentration of 151 ppb
  - Mean TP inflow concentrations during September 2004 of 296 ppb


STA1W 12-Month Rolling Total Phosphorus Load Reduction
Preliminary Data
Load Reduction (%)
100
95
90
85
80
75
70
65
60
55
50
Jun-00
Aug-00
Oct-00
Dec-00
Feb-01
Apr-01
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Aug-04
Oct-04

STA-1W
30-day Cumulative vs. Design Envelope



STA-1W Recovery Plan

- Provide a methodology and time scale to restore and enhance the nutrient removal performance of the STA-1W.
  - Achieved through hydrologic control, construction of enhancements, vegetation management, monitoring and assessment, and continued communication with stakeholders
  - Monitoring and assessment of the performance data will occur throughout this recovery period in order to provide operational guidelines and promote adaptive management decisions throughout the recovery process