Comparison of Phase 4.3 and Phase 5.2

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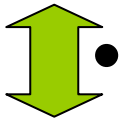
8/24/2009

Reasons for overall load change in calibration



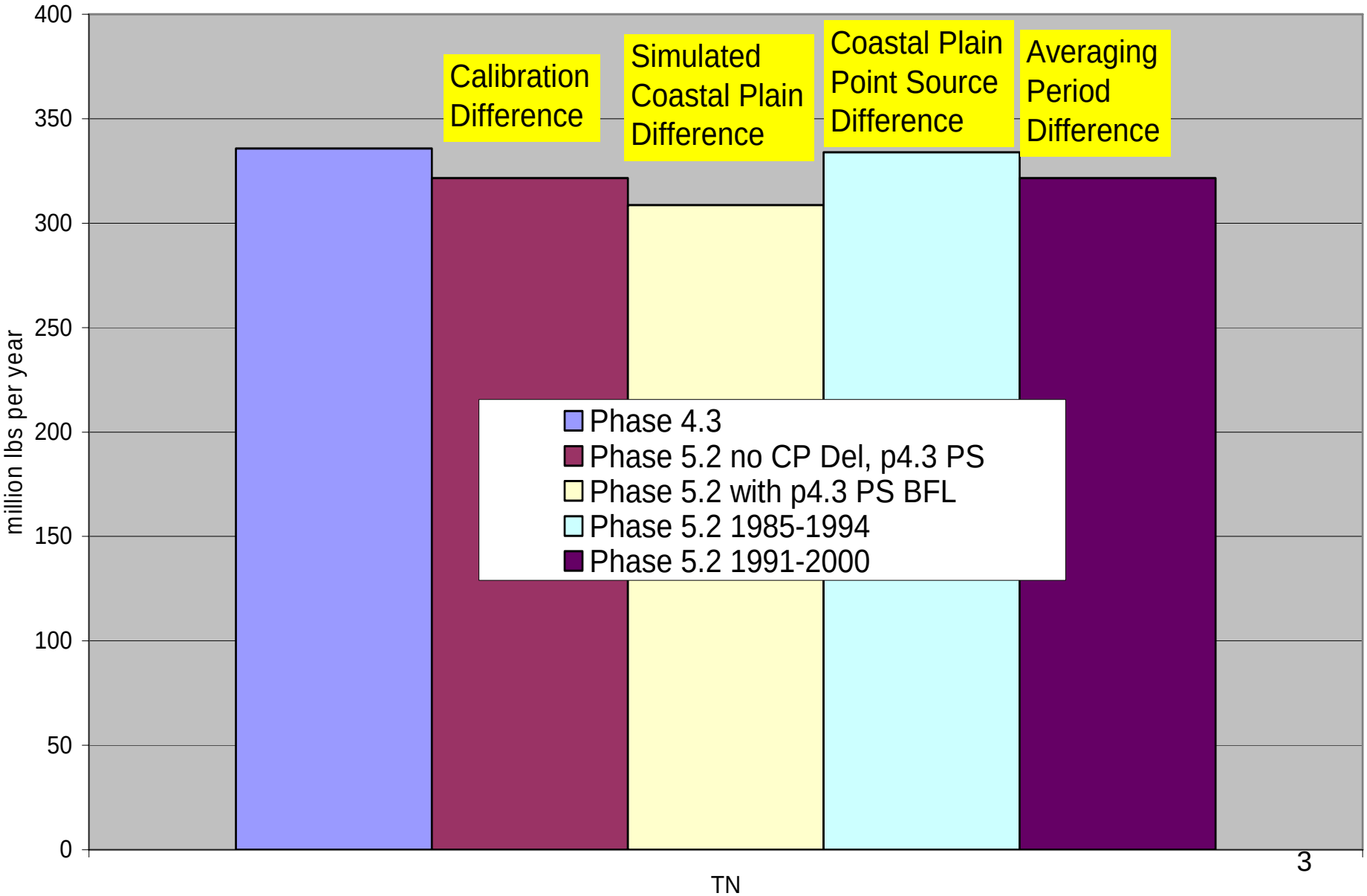
- Change in agreement with data
  - More calibration data
  - Better calibration method
  - Use both concentration and load to calibrate in phase 5.2

- Simulated Coastal Plain Rivers

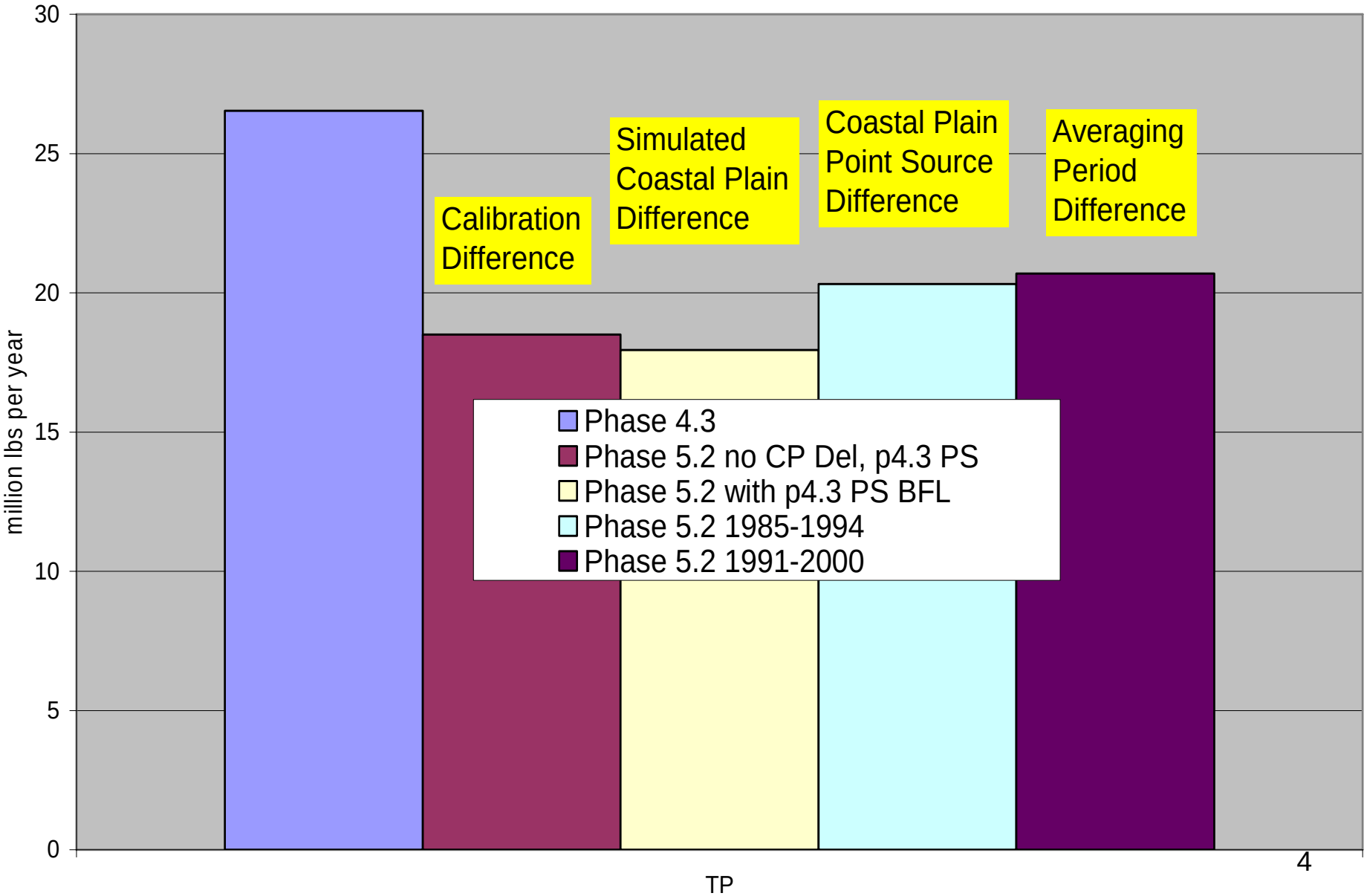
- New Point Sources Below monitoring stations

- Averaging Period Change

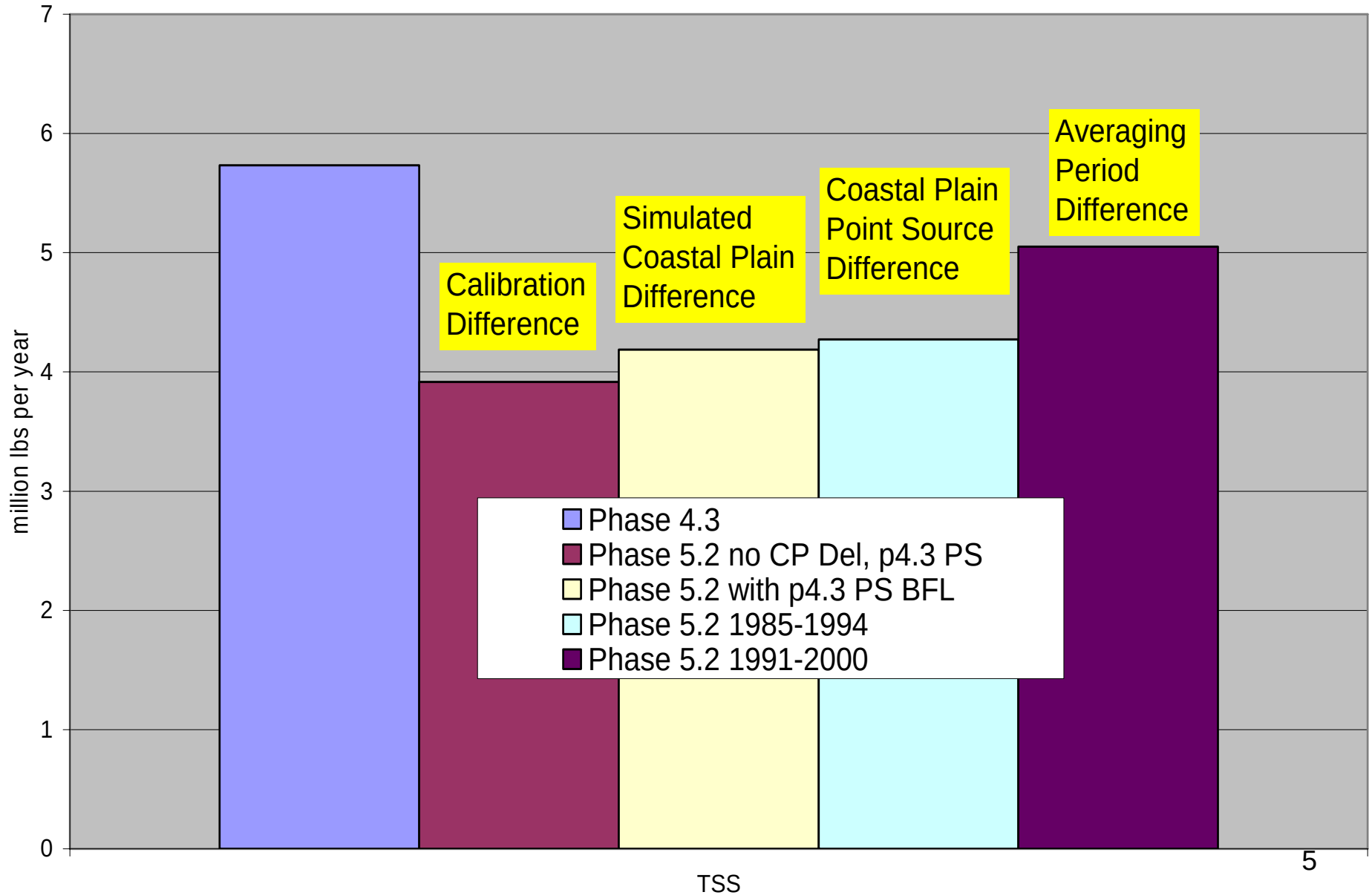
TN Calibration Load Changes



TP Calibration Load Changes

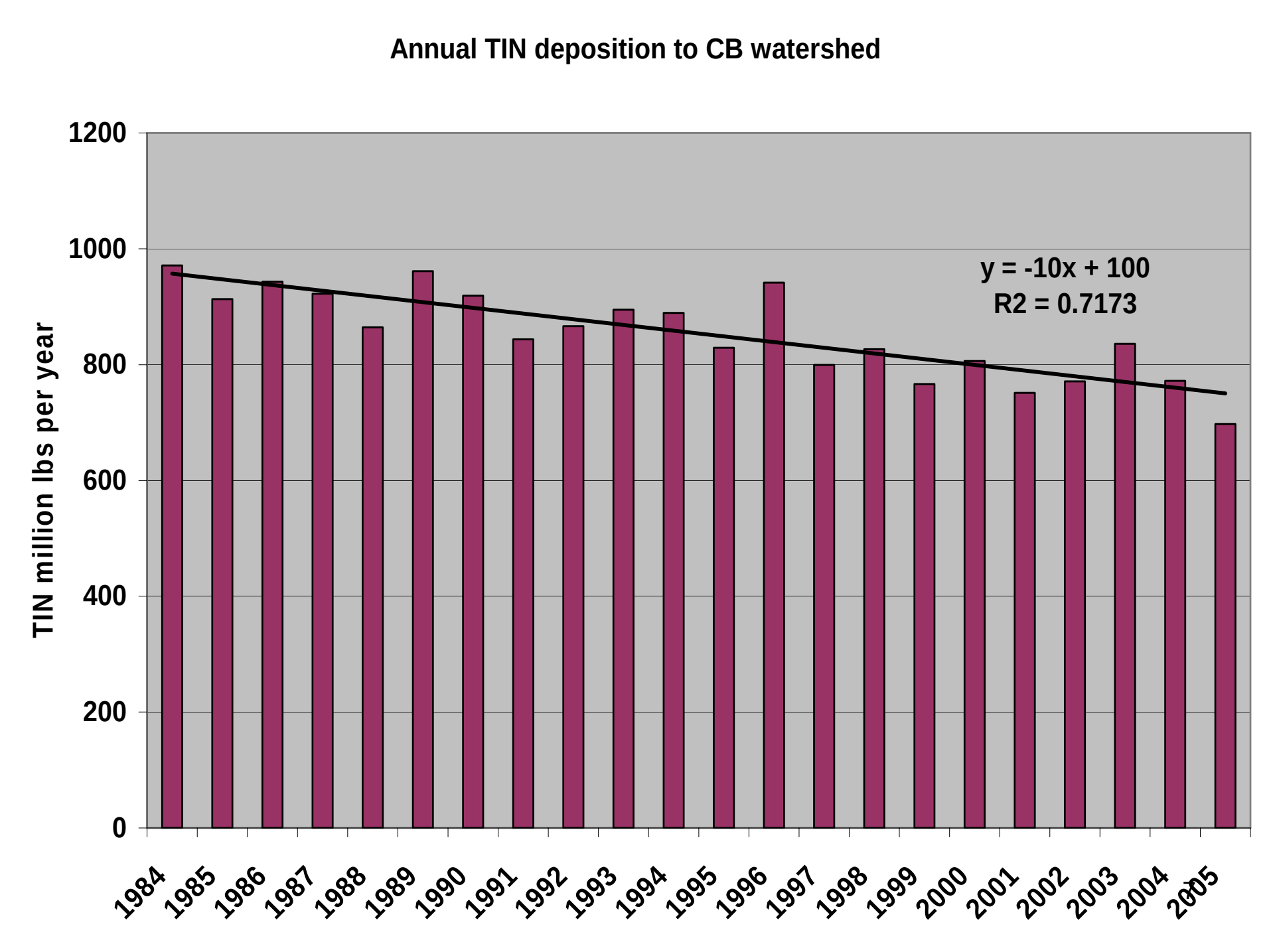


TSS Calibration Load Changes

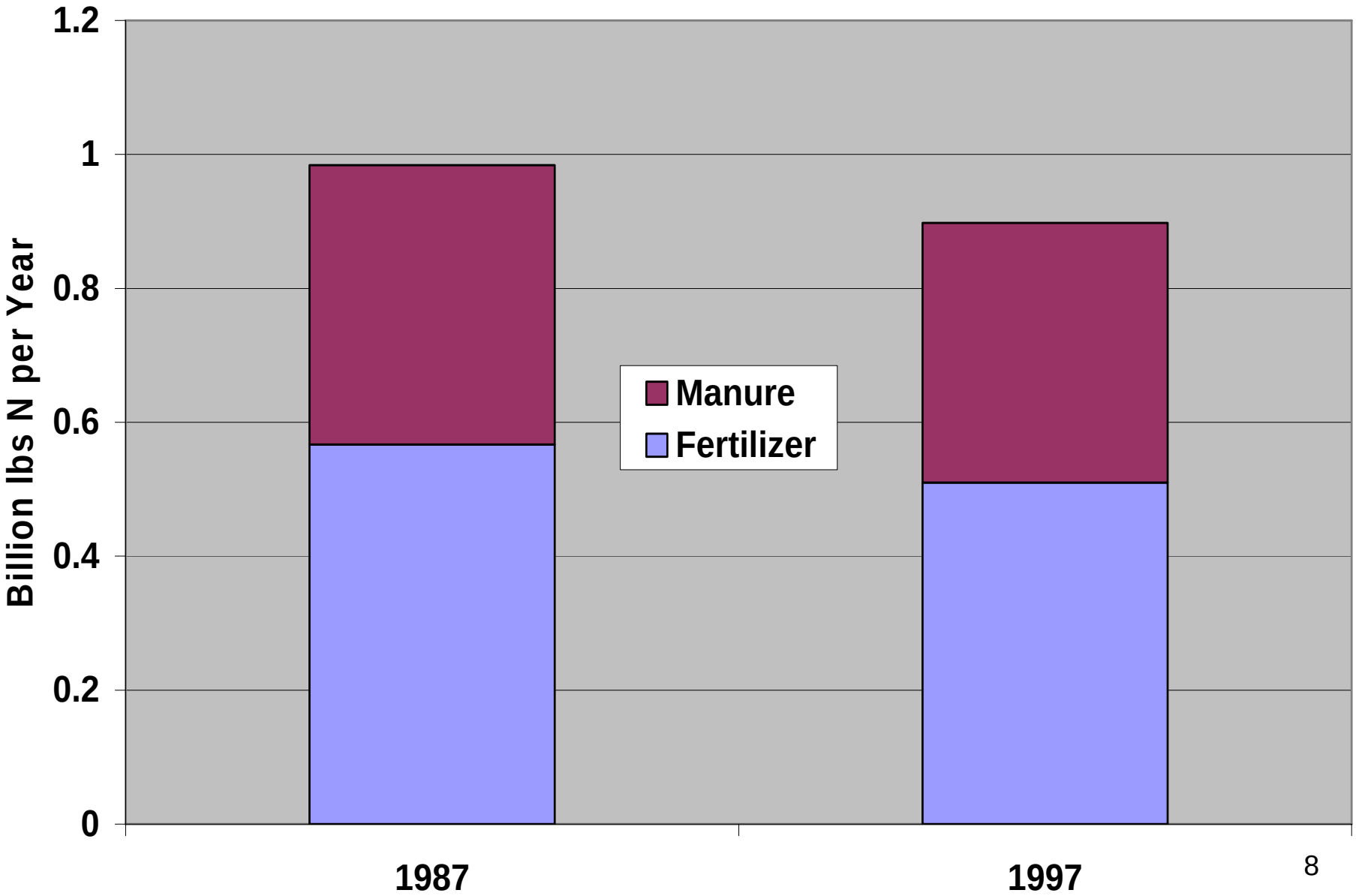


Reasons for overall load change in scenarios

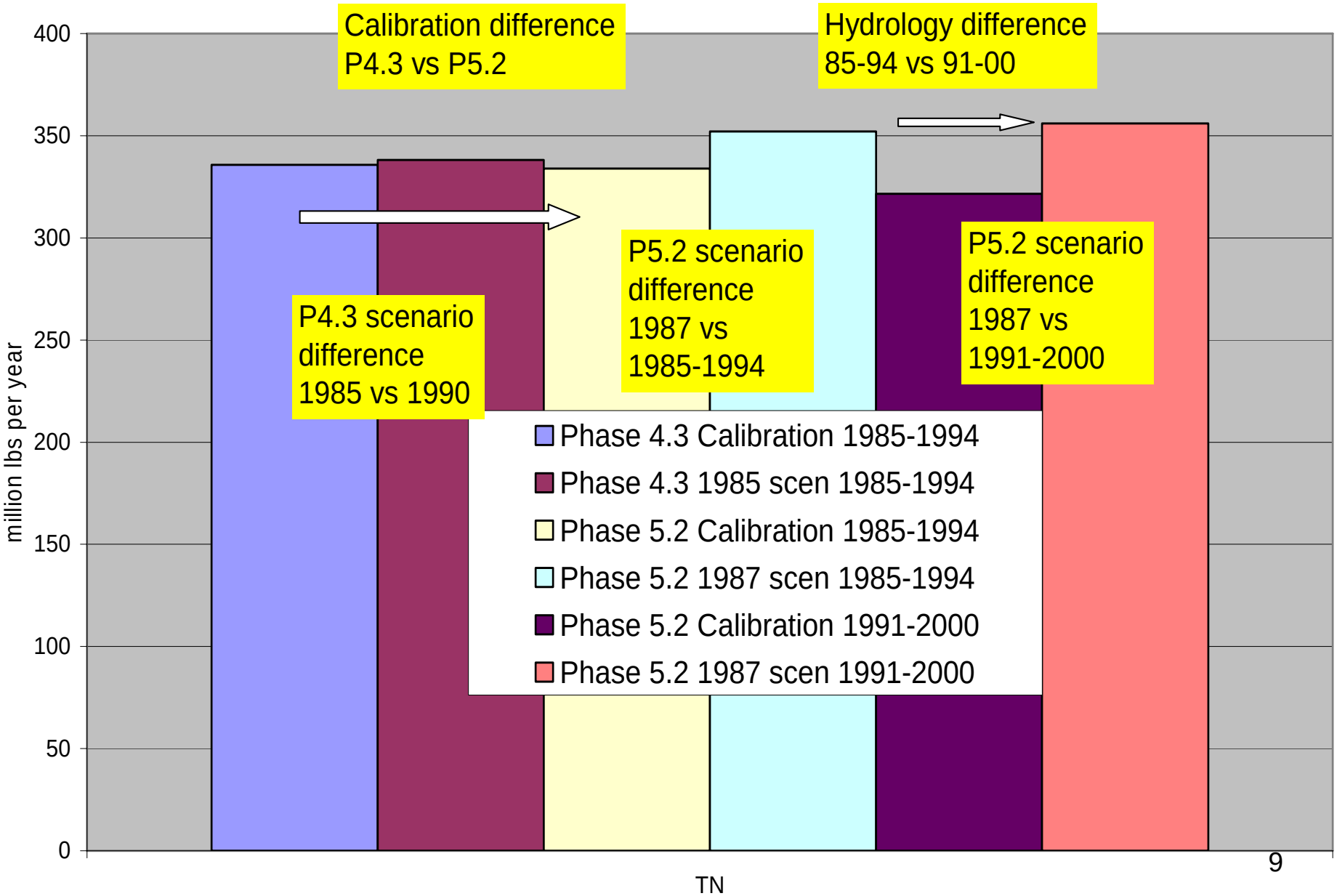
- Calibration differences
- Differences in scenario data and interpretation
  - Phase 4.3 non-point inputs from 1984-1995 were constant, phase 5.2 are variable

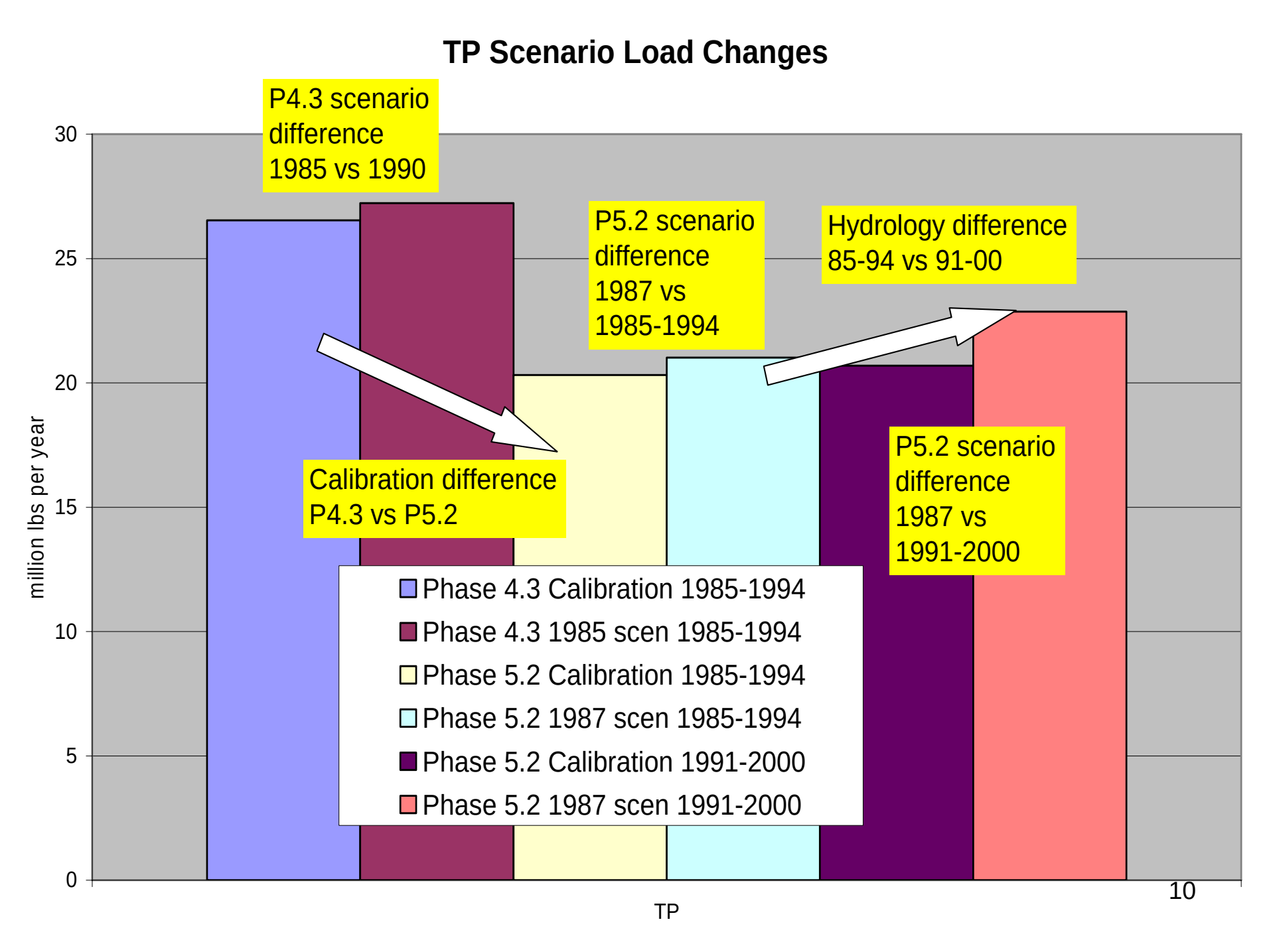

Annual TIN deposition to CB watershed
TIN million lbs per year
1200
1000
800
600
400
200
0
y = -10x + 100
R2 = 0.7173
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005

Nitrogen Cropland application in billion lbs per year - Phase 5.2

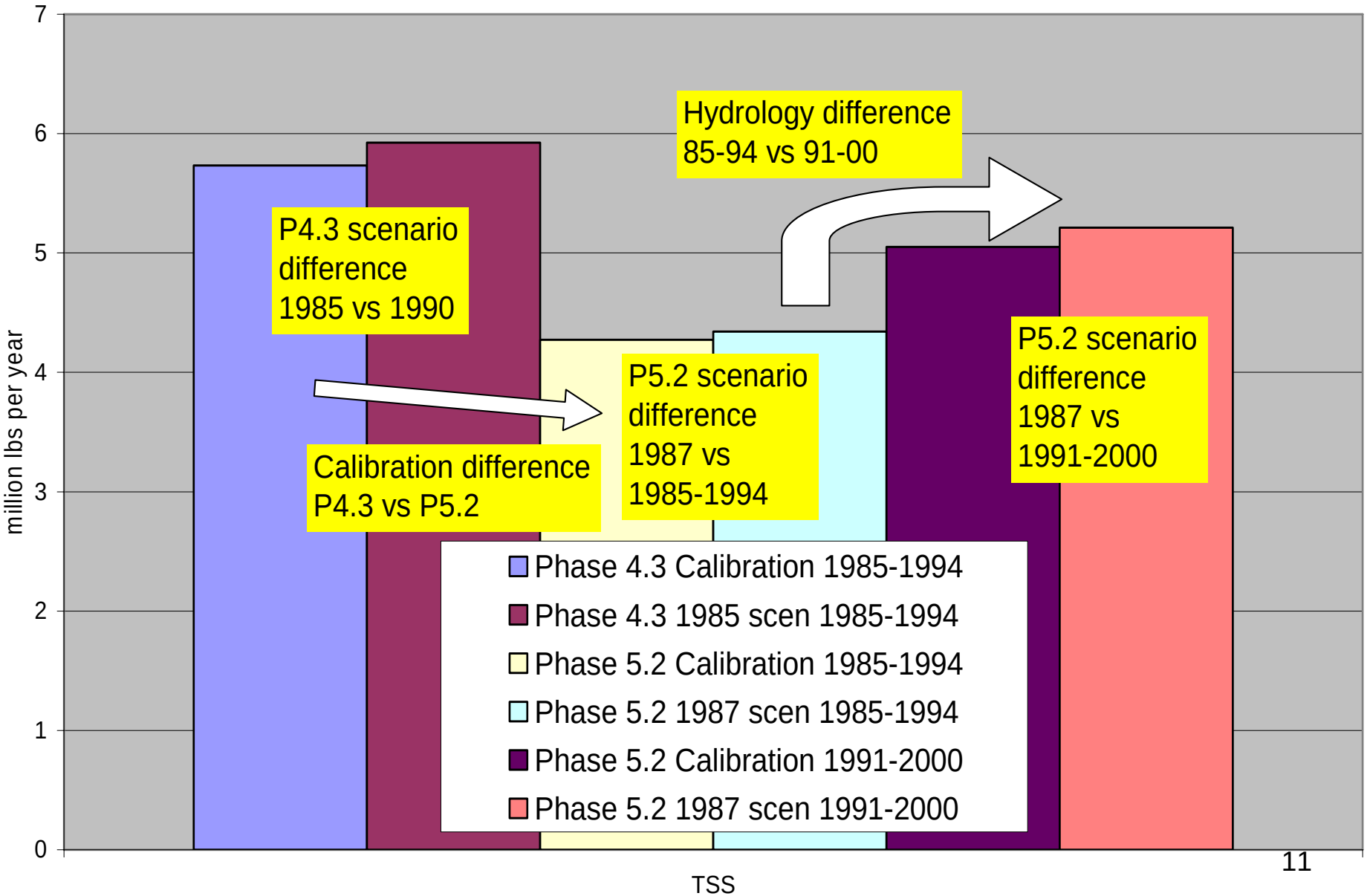


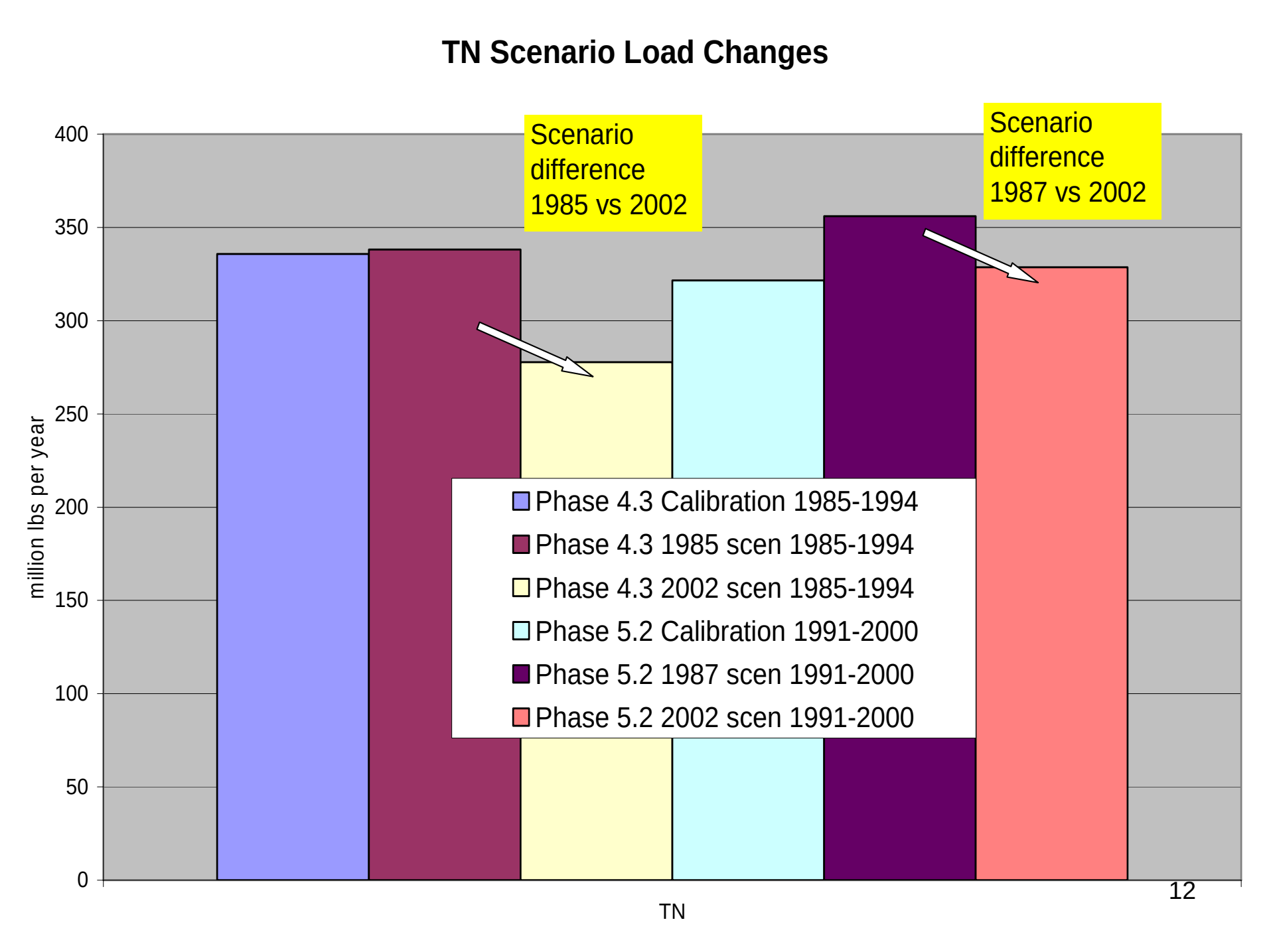
TN Scenario Load Changes



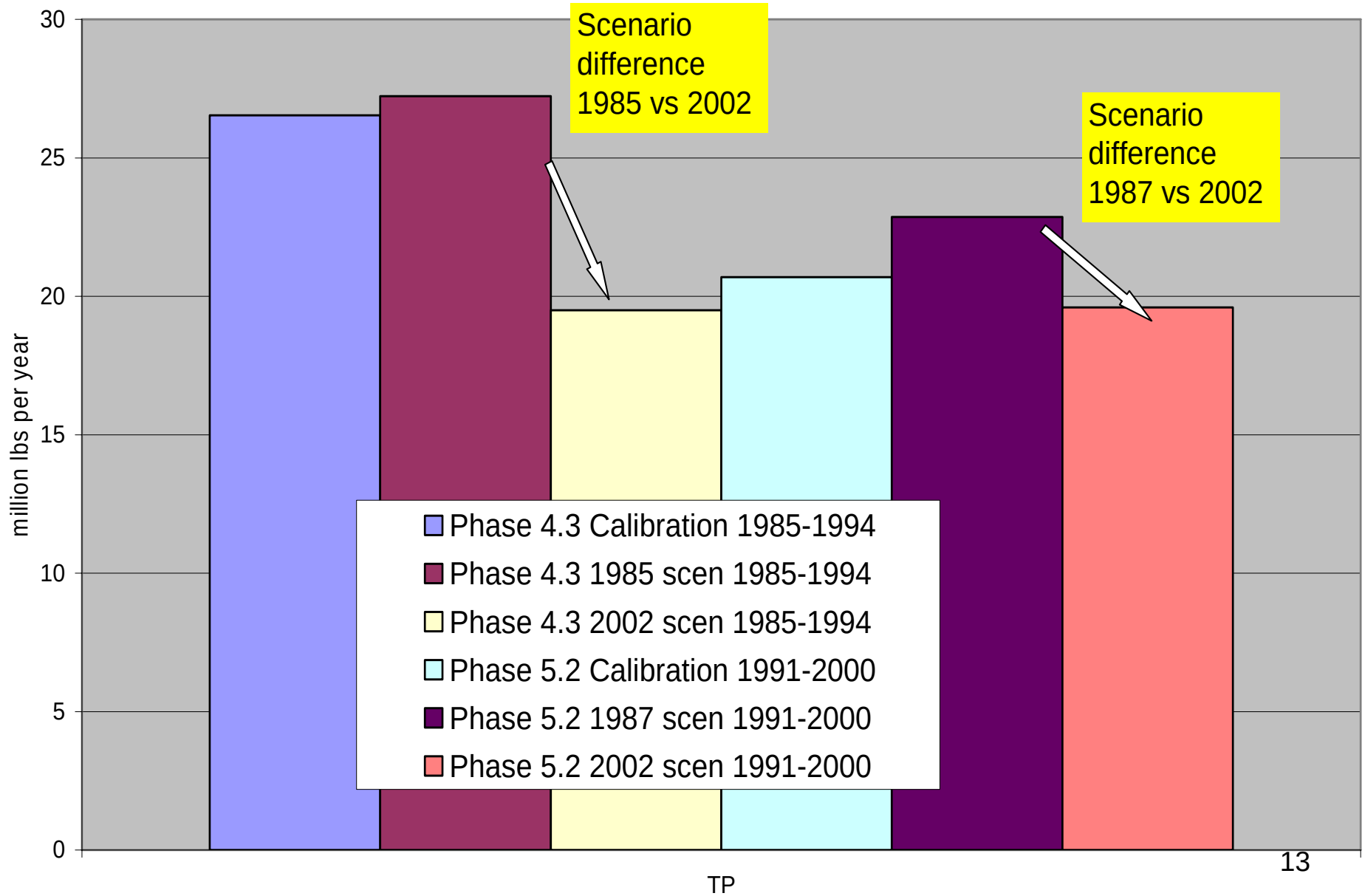

TP Scenario Load Changes
P4.3 scenario difference 1985 vs 1990
P5.2 scenario difference 1987 vs 1985-1994
Hydrology difference 85-94 vs 91-00
Calibration difference P4.3 vs P5.2
P5.2 scenario difference 1987 vs 1991-2000
Phase 4.3 Calibration 1985-1994
Phase 4.3 1985 scen 1985-1994
Phase 5.2 Calibration 1985-1994
Phase 5.2 1987 scen 1985-1994
Phase 5.2 Calibration 1991-2000
Phase 5.2 1987 scen 1991-2000
million lbs per year
30
25
20
15
10
5
0
TP
10

TSS Scenario Load Changes

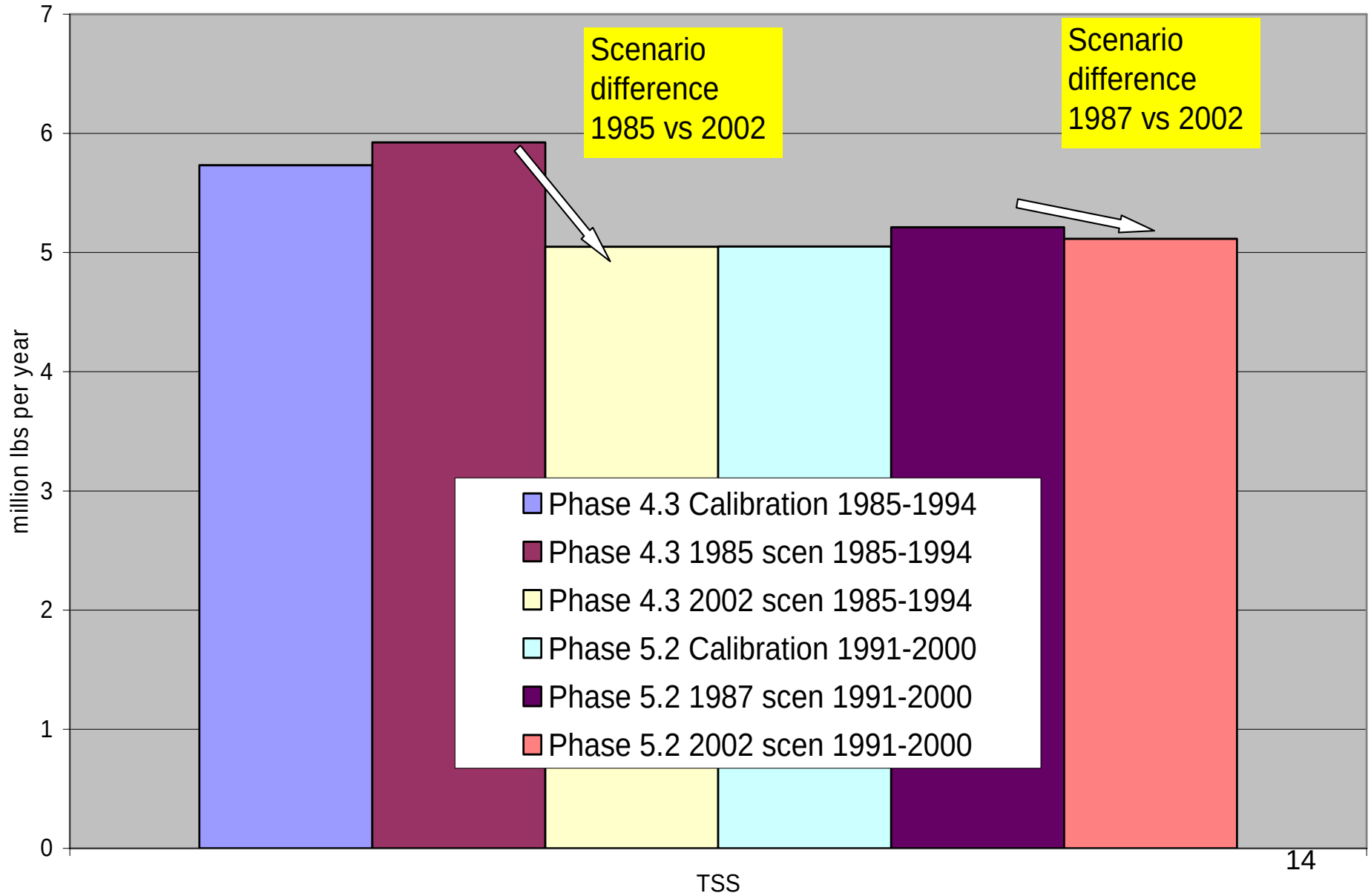



TN Scenario Load Changes
Scenario difference 1985 vs 2002
Scenario difference 1987 vs 2002
400
350
300
250
200
150
100
50
0
million lbs per year
Phase 4.3 Calibration 1985-1994
Phase 4.3 1985 scen 1985-1994
Phase 4.3 2002 scen 1985-1994
Phase 5.2 Calibration 1991-2000
Phase 5.2 1987 scen 1991-2000
Phase 5.2 2002 scen 1991-2000
TN
12

TP Scenario Load Changes



TSS Scenario Load Changes



Summary

- Better calibration
- Better data for 1985 vs calibration
- Better estimate of BMP efficiencies
- More representative hydrologic period