Comparing Options for E3 and No Action Scenario Base Year in Planning Targets

8/19/2026

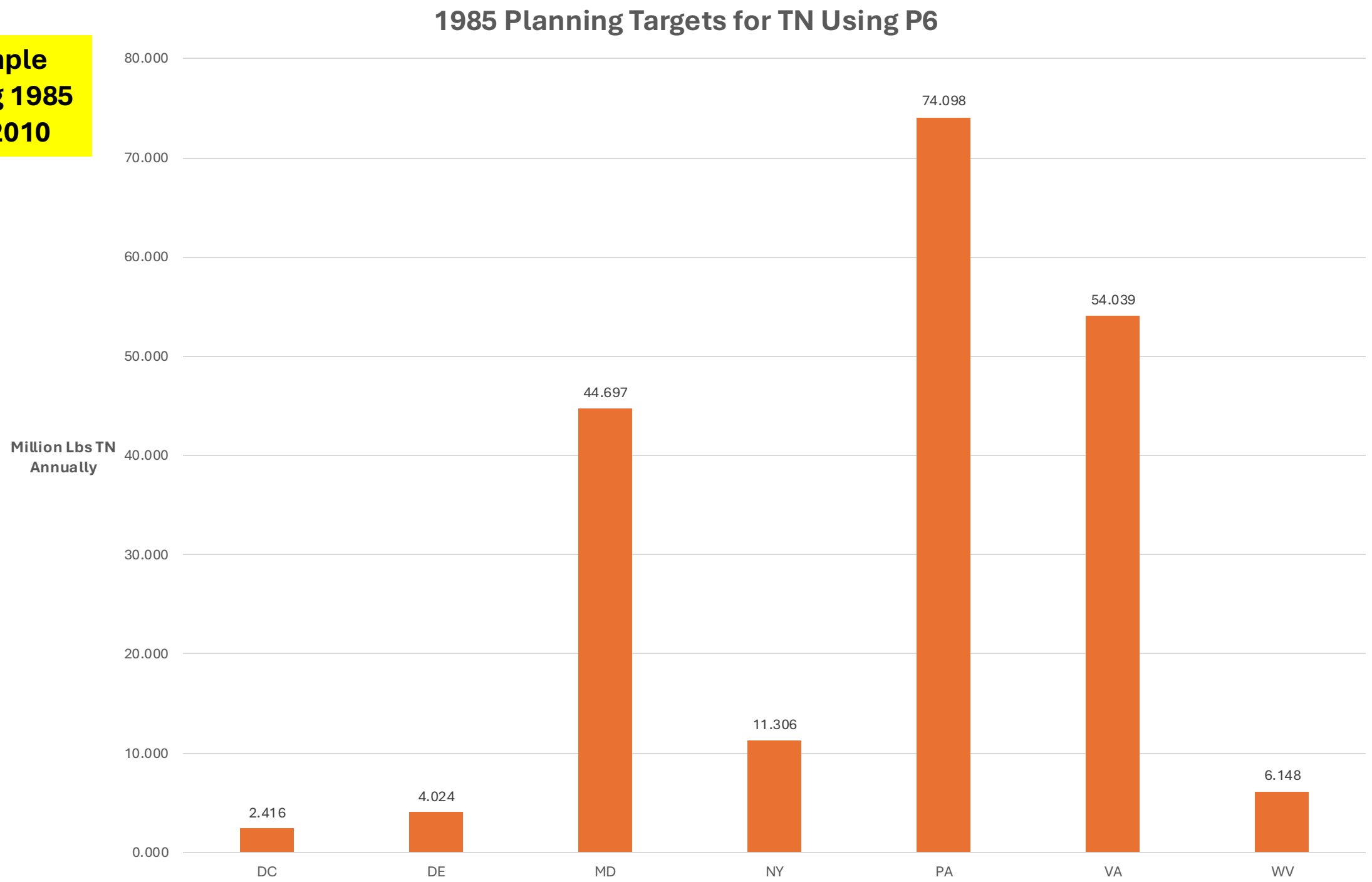
Criteria	2010	2022	2022a	2022b
Data Confidence	Lower	Higher	Higher*	Higher
Growth after 2010 is the responsibility of the jurisdiction where it took place	Yes	No	Yes	Partially
Level of Risk for E3 Not Meeting WQ Standards	Higher	Lower	Higher	Moderate
Simplification of communication to partners	Straightforward	Straightforward	Potential Confusion	Potential Confusion

* = Benefit of higher quality data is negated by artificially adjusting back to 2010 levels

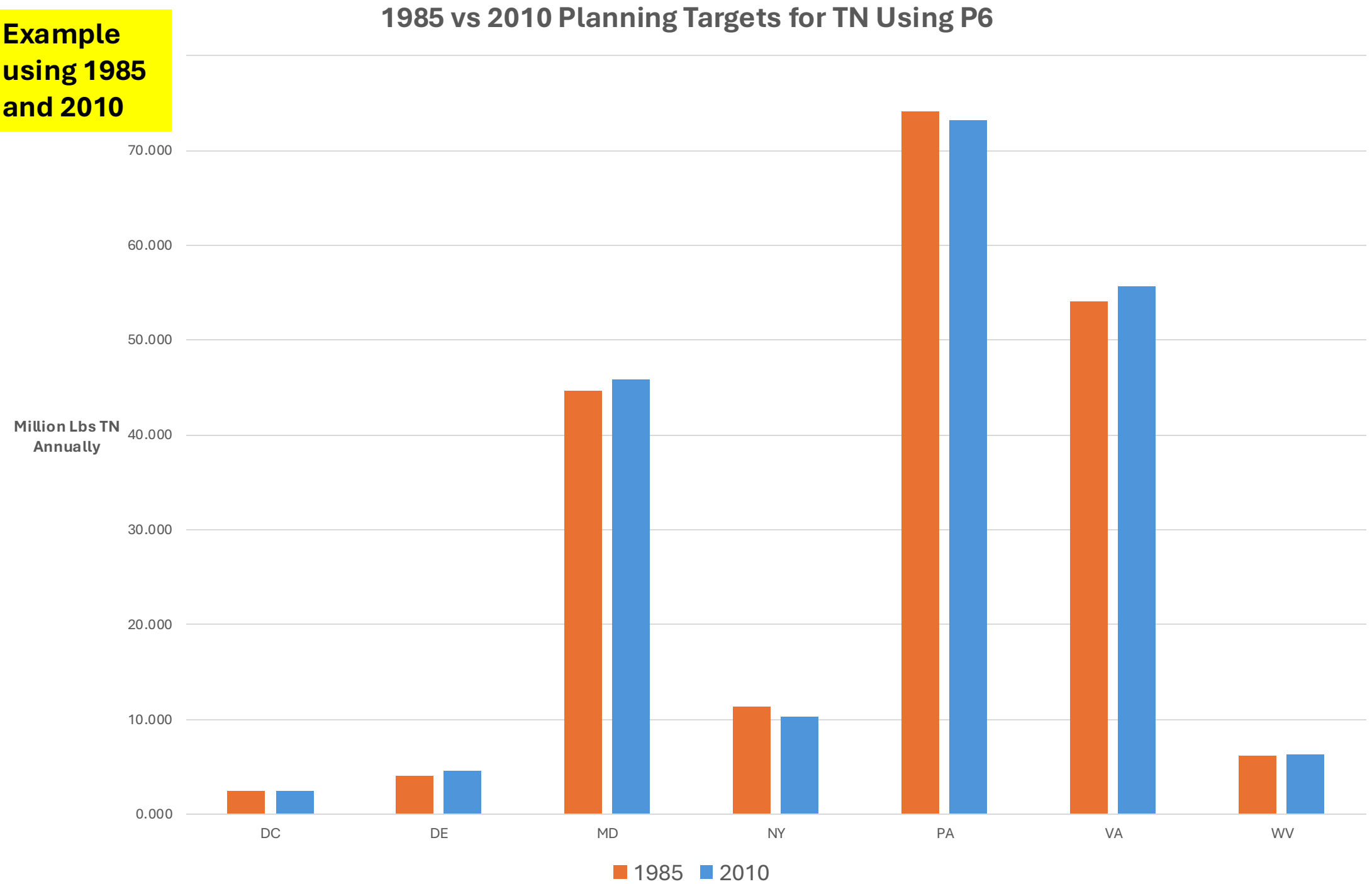
2022 E3 isn’t ready yet

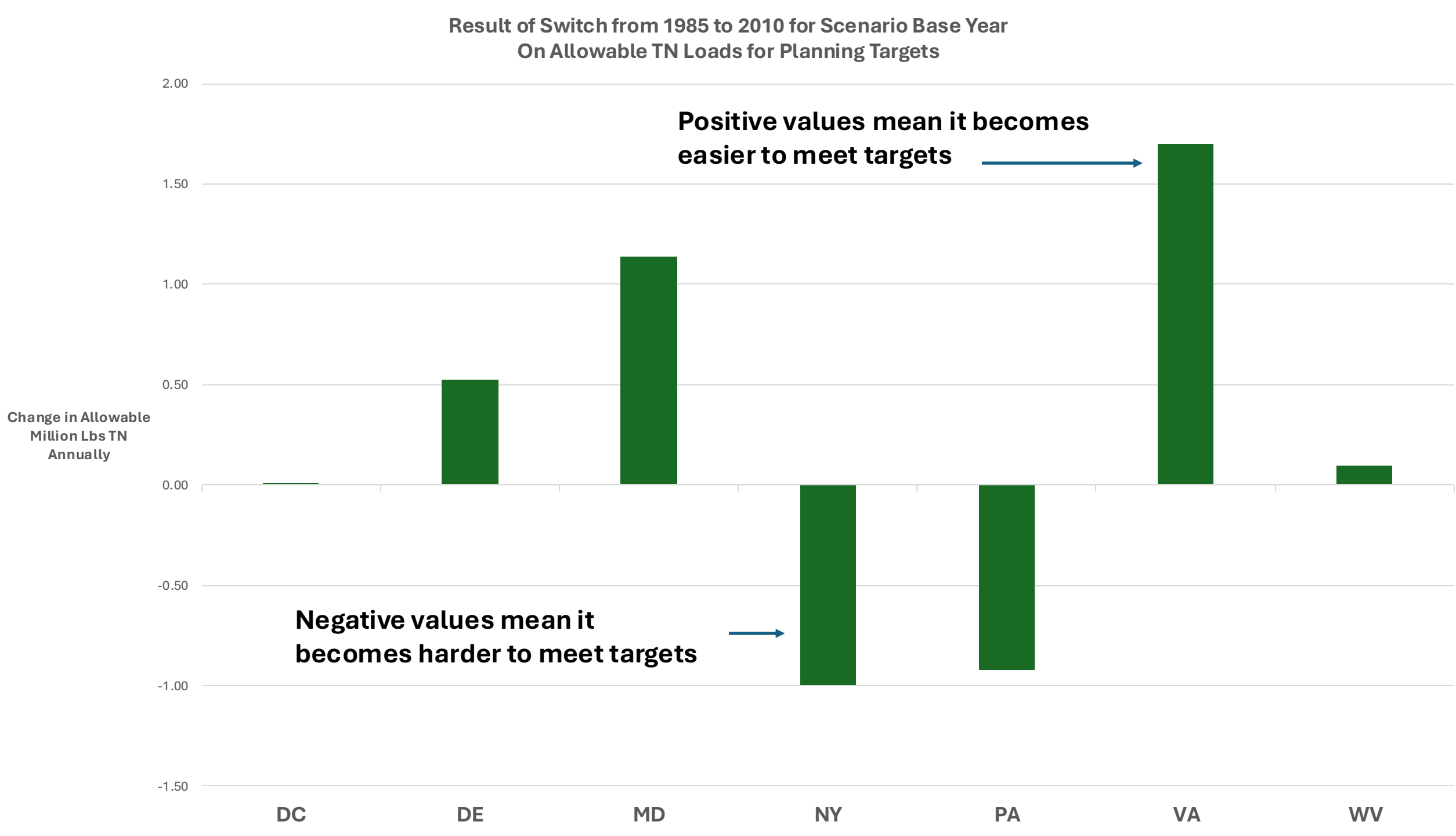
- Instead: Compare 1985 and 2010 as base year options using the phase 6 suite of models

Example using 1985 and 2010



Example using 1985 and 2010




Result of Switch from 1985 to 2010 for Scenario Base Year
On Allowable TN Loads for Planning Targets
Change in Allowable Million Lbs TN Annually
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
Positive values mean it becomes easier to meet targets
Negative values mean it becomes harder to meet targets
DC
DE
MD
NY
PA
VA
WV

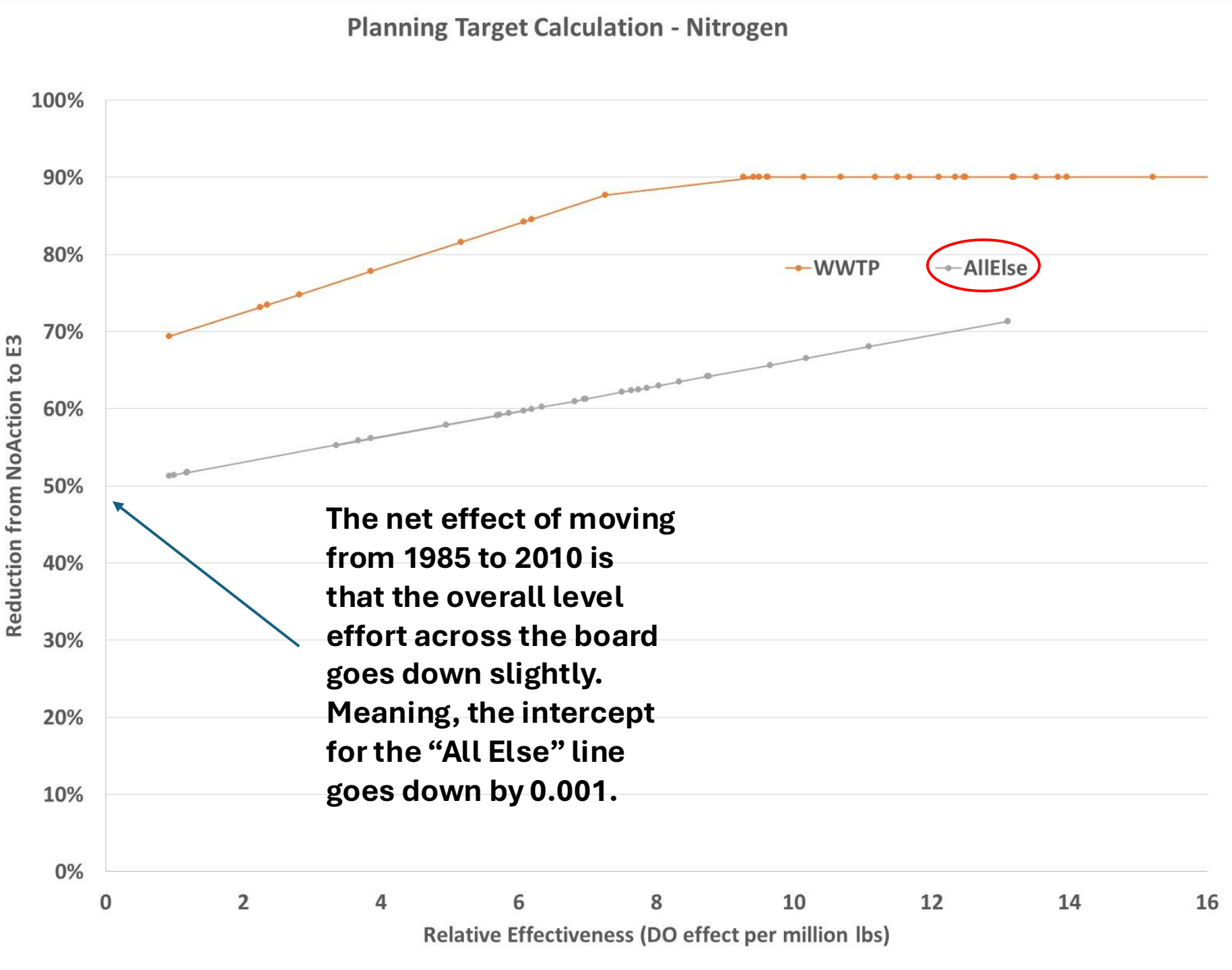
How would a move from 1985 to 2010 Influence Jurisdictions' TN Planning Targets?

- Becomes easier to meet TN planning targets
  - VA – can pollute an extra 1.7M lbs TN
  - MD – can pollute an extra 1.14M lbs TN
  - DE – can pollute an extra 0.53M lbs TN
  - WV – can pollute an extra 0.1M lbs TN
  - DC – can pollute an extra 0.01M lbs TN

- Becomes harder to meet TN planning targets
  - NY – has to reduce an extra 1.0M lbs TN
  - PA – has to reduce an extra 0.92M lbs TN

The net effect of moving from 1985 to 2010 is that the overall level effort across the board goes down slightly. Meaning, the intercept for the "All Else" line goes down by 0.001.

However, you can see that a decrease in level of effort doesn't yield the same result for each jurisdiction, since the distance between E3 and NA changes for each basin.


Planning Target Calculation - Nitrogen
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Reduction from NoAction to E3
0
2
4
6
8
10
12
14
16
Relative Effectiveness (DO effect per million lbs)
WWTP
AllElse
The net effect of moving from 1985 to 2010 is that the overall level effort across the board goes down slightly. Meaning, the intercept for the “All Else” line goes down by 0.001.

Let's Break This Down With A Simple Example

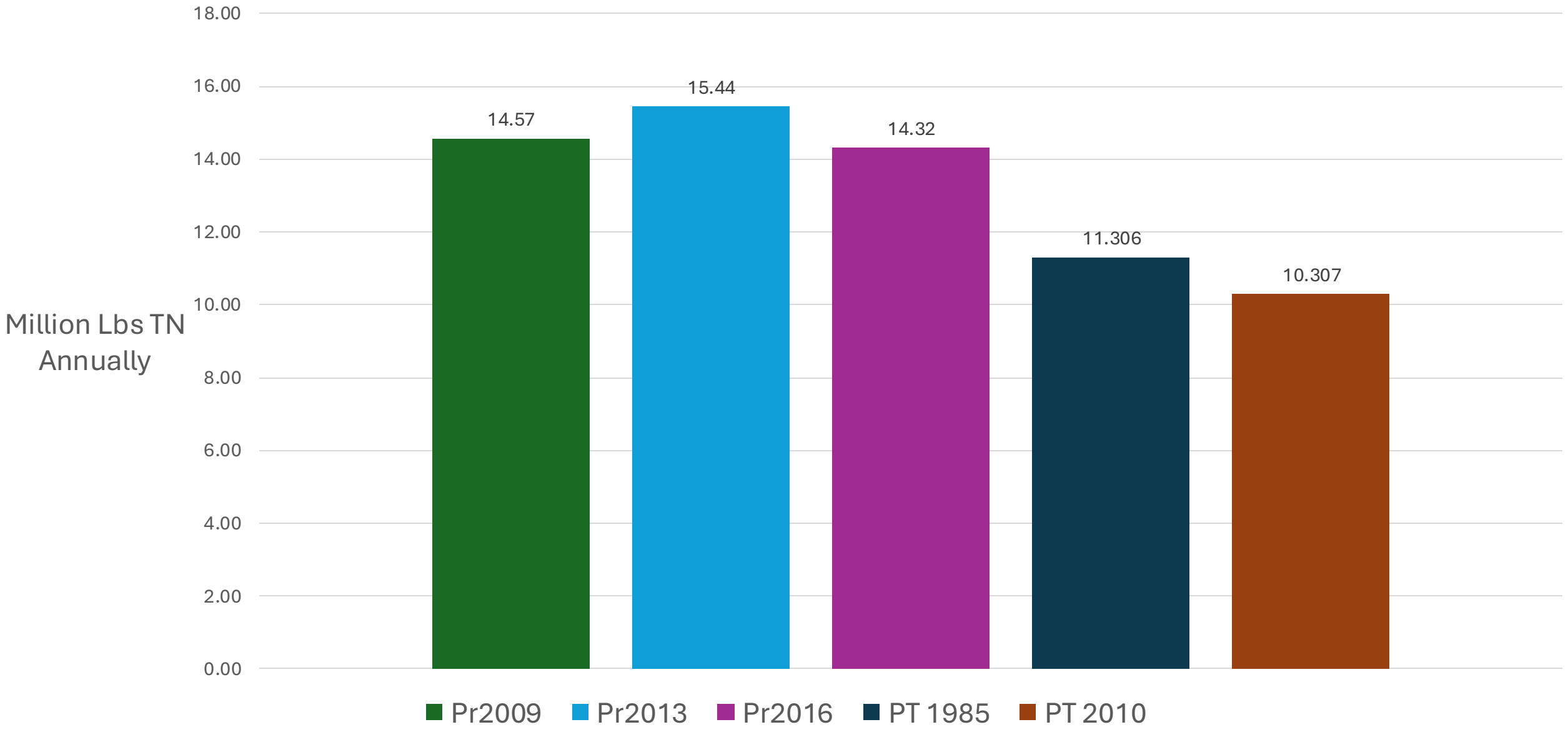
- NY is only comprised of the Susquehanna Above Fall Line, so useful to explain the concept

Scenario Base Year	No Action All Else (M lbs TN)	E3 All Else (M lbs TN)	Planning Target (M lbs TN)	Level of Effort (% difference between E3 & NA)
1985	15.41 M lbs TN	6.72 M lbs TN	10.23 M lbs TN	59.6%
2010	13.24 M lbs TN	6.5 M lbs TN	9.23 M lbs TN	59.4%

- Since No Action shrank more than E3 did (2.17 M lbs vs 0.22 M lbs), the reduction in level of effort is counteracted, and then some
- Potential reasons: land coming out of production and going through natural succession, decrease in population on septic from out-migration

NY was at 14.57 M Lbs TN at 2009 Progress

Susquehanna NY AFL



An Opposite Example

- VA Potomac Above Fall Line can show us the opposite: larger gap between No Action and E3

Scenario Base Year	No Action All Else (M lbs TN)	E3 All Else (M lbs TN)	Planning Target (M lbs TN)	Level of Effort (% difference between E3 & NA)
1985	11.97 M lbs TN	5.00 M lbs TN	7.84 M lbs TN	59.3%
2010	12.46 M lbs TN	5.01 M lbs TN	8.05 M lbs TN	59.1%

- Growth in load from No Action with a steady E3 & a slight decrease in level of effort mean Potomac AFL VA can pollute more in this case
- Potential reasons: agricultural intensification, population growth and development

Potomac VA AFL