



WTWG Agenda

10:00 AM-Introductions and Announcements – Ted Tesler, PA DEP or Jeff Sweeney, EPA CBPO

Decision requested: Approval of December 6 meeting minutes.

10:10 AM-Status of 2018 Progress Model Scenario and Schedule –Jeff Sweeney, EPA CBPO

Jeff will discuss the status of the 2018 Progress model scenario and possible adjustments to previously published deadlines. The item will include an open discussion about the Progress scenario among WTWG members and attendees – which could include issues with submissions and findings.

10:50 AM-BMP Verification and QAPPs – Jeff Sweeney, EPA CBPO

Jeff will lead a discussion about the CBP office's review of BMP and wastewater data submitted in December for the 2018 Progress model assessment. This is related to some aspects of verification and getting a better understanding of the quality of the data.

11:20 AM-BMP Costs in CAST –Olivia Devereux, Devereux Consulting

Olivia will provide an update on the BMP costs in CAST. She will discuss the basis for the costs and review the new data for BMPs that previously did not have cost information.

11:45 AM-Classification of Ms4 and Non-MS4 Areas from CSS – WTWG

Continued discussion of concerns raised about the classification of MS4 versus non-MS4 areas, the associated model land uses, and the BMPs that affect those land uses.

12:00 PM-Adjourn



Status of 2018 Progress Model Scenario and Schedule

Jeff Sweeney
Environmental Protection Agency
Chesapeake Bay Program Office
jsweeney@chesapeakebay.net
410-267-9844

Watershed Technical Workgroup Meeting
February 7, 2019



2018 Progress Scenario Schedule

- Seven draft versions of 2018 Progress through 2/4/19
 - The most recent has a designation in CAST “2010 Progress V7”
- Draft 2018 Progress scenarios (Phase 6) have been shared on CAST at <http://cast.chesapeakebay.net>
- Validation reports for each draft 2018 Progress run have been available on jurisdiction’s password-protected ftp sites



2018 Progress Scenario Schedule

- CAST has 10 types of reports available to review inputs and outputs:
 - BMP Summary Report
 - BMP Submitted Versus Credited Report
 - BMP Input Files
 - Loads Report
 - Loads Per Unit
 - Wastewater Report
 - Base Conditions Report
 - Nutrients Applied
 - Atmospheric Deposition Report
 - Quick Results Report = Summary Loads, Detailed Loads, Land BMPs, Animal BMPs and Manure Transport BMPs



2018 Progress Scenario Schedule

- September, 2018 – Jurisdictions were encouraged to begin submitting their BMP implementation to NEIEN
 - Ongoing review of submissions could have occurred between September and December, with the expectation that December 3 submissions are final.



2018 Progress Scenario

Schedule

- December 3, 2018 – Jurisdictions submit final 2018 progress data and any updates to BMP Verification Program Plans describing new data sources and changes to methods of tracking, reporting, and verification
 - Data period is July 1, 2017 – June 30, 2018
 - Both wastewater data and non-wastewater BMPs
 - Jurisdictions utilize the latest versions of the following NEIEN technical documents and submission instructions at <http://webservices.chesapeakebay.net/schemas/>
 - Document_Exchange_Template_2014_xls
 - NEIEN_Appendix_P6_03052018
 - Codes_List_P6_12212015
 - NEIEN Submission Instructions



2018 Progress Scenario Schedule

- December 3, 2018 – January 31, 2019
 - CBPO and jurisdictions conduct QA/QC review of 2018 progress data, including verification
 - Several model runs with data revisions to accommodate findings from CBPO verification and feedback from jurisdictions



2018 Progress Scenario Schedule

- December 21, 2018 – Emails from CBPO about BMP and wastewater data verification went out to jurisdictions that met Dec. 3rd submission deadline.
 - Response to verification questions and issues was due January 9, 2019
- January 31, 2019 – Original jurisdiction deadline for last model run of 2018 Progress



2018 Progress Scenario

Revised Schedule

- February 22, 2019 –
 - Jurisdictions finalize 2018 progress model assessment – needed for outside reporting of progress on commitments and to keep results relevant
 - **There will be additional model runs for jurisdictions of their draft versions of 2018 Progress COB Fridays on 2/8/19, 2/15/19, and 2/22/19 – if there are changes to data submissions since the previous run.**
 - Jurisdictions finalize BMP Verification Program Plans
 - QAPPs will then be posted publicly shortly thereafter



BMP Verification and QAPPs

Jeff Sweeney
Environmental Protection Agency
Chesapeake Bay Program Office
jsweeney@chesapeakebay.net
410-267-9844

Watershed Technical Workgroup Meeting
February 7, 2019



2018 Progress Scenario Verification

- EPA CBPO did a preliminary review of data submissions received by the December 3, 2018 deadline – for verification purposes
- EPA CBPO staff sent emails December 21, 2018 with preliminary verification analyses and findings to those jurisdictions who met the December 3 submission deadline
- Deadline for response to potential verification issues was January 9, 2019



2018 Progress Scenario

Verification

- Verification emails asked each jurisdiction to further explain the quality of particular data that potentially could be over-reported or BMP project information that was illogical
- Also, charted jurisdiction-wide nutrient loads by major source 2009-2018 and asked for comments on what the jurisdiction attributed significant ($>2\%$) 2017-2018 increases/decreases to?



2018 Progress Scenario

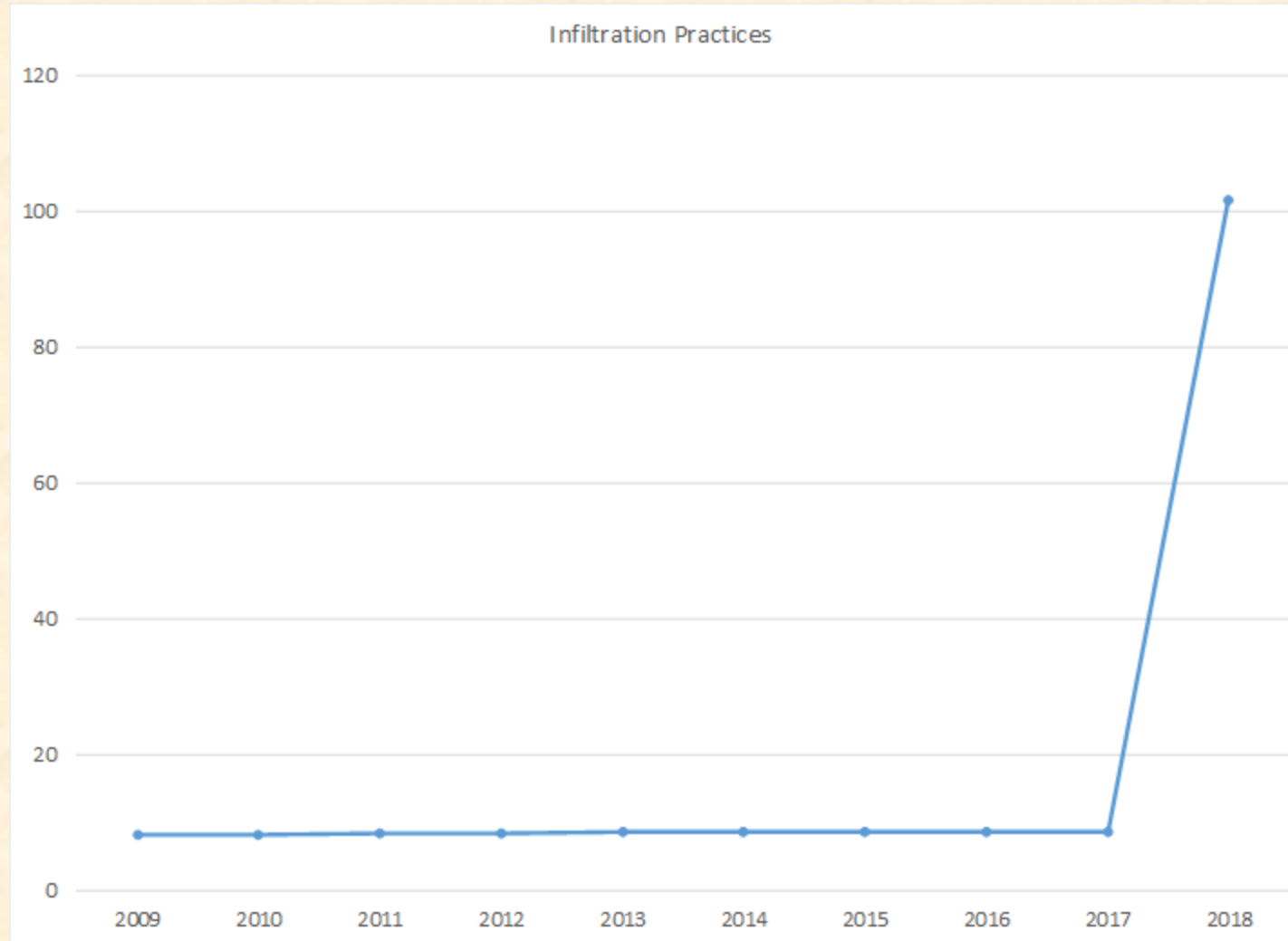
Verification

- Potential Verification Issues – Newly Reported BMPs
 - BMPs where there is no reported historic implementation before 2018 Progress
 - “Please identify the sections and page numbers in your state BMP Verification Program Plan (QAPP) where there’s an explanation of the quality of the data for each of the following BMPs (compliance program, visual inspection, etc.) and why each BMP has not been previously reported. For example, does this represent new on-the-ground implementation between 7/1/17 and 6/30/18 – or a new source of data – or both?”



2018 Progress Scenario Verification

- Potential Verification Issues – Newly Reported BMPs





2018 Progress Scenario

Verification

- Potential Verification Issues – Over-Reporting
 - BMPs where the 2017-2018 rate of implementation is more than double the 2009-2017 annual rate
 - “For each of the BMPs below, please explain the significant increase in the rate of implementation between 7/1/17 and 6/30/18 compared to the longer-term (2009–2017) annualized implementation rate. For example, does the new implementation represent stronger programs and, if so, highlight the program – or a new source of data – or both? See the BMP charts below for each of the highlighted practices.”



2018 Progress Scenario

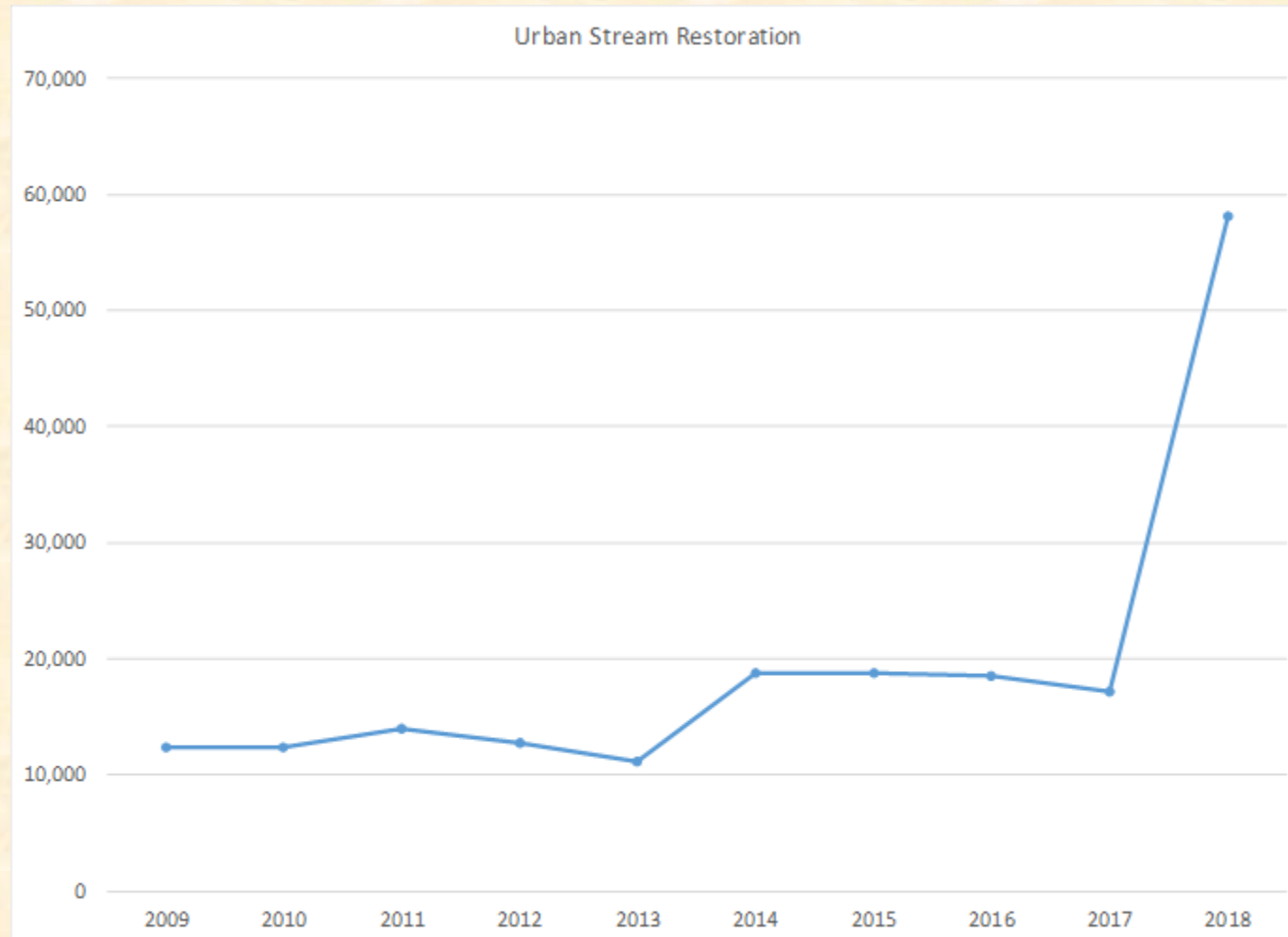
Verification

- Potential Verification Issues – Over-Reporting
 - The same rules of potential “over-reporting” applied to every BMP and every jurisdiction
 - Looked at “Summary BMP” table at state-wide scale
 - Similar analyses had been used for 15+ years by the CBP office, typically with less-formal exchanges, e.g., emails and one-on-one calls with each jurisdiction about Progress data



2018 Progress Scenario Verification

- Potential Verification Issues – Over-Reporting





2018 Progress Scenario

Verification

- Potential Verification Issues – Reported Dates
 - “For the BMP records within the period 7/1/17 – 6/30/18, the following implementation dates and/or inspection dates are repeated a significant number of times.”
 - “Are these accurate implementation and/or inspection dates and, if not, why are dates not being tracked and reported for the associated BMPs?”
 - For example:
 - X% of the BMP records over the reporting period are in X groups of the same date.
 - Where in the jurisdiction’s QAPP is this explained, e.g. what sections and page numbers?



2018 Progress Scenario

Verification

- Remember, we are trying to assess the quality of reported data – which should be described for each BMP in each jurisdiction's BMP Verification Program Plan – which should follow protocols developed by the WQGIT, workgroups, including BMP Verification Committee and its advisory group
- Wealth of verification information at https://www.chesapeakebay.net/what/programs/bmp_introduction_to_bmp_verification



Diversity of Verification Approaches

Tailored to Reflect Practices

Sector	Inspected	Frequency	Timing	Method	Inspector	Data Recorded	Scale
Stormwater	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Agriculture	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Forestry	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State



2018 Progress Scenario Verification

- According to CBP Grant Guidance, in the event that data are not submitted in time, are inaccurate, or do not use the appropriate NEIEN or wastewater formats for the CBPO to calculate annual progress, the CBPO will use the previous year's data submitted by a jurisdiction or will not account for implementation of the BMP or control measures.



2018 Progress Scenario Verification

- BMPs reported through NEIEN for the 2018 Progress as new or re-inspected implementation that do not have approved verification protocols reflected in the jurisdiction's QAPP will not be credited. The exceptions are Nutrient Application Management (core and supplemental) since the deadline for establishing quality compliance data for these program was extended for another year for all jurisdictions.



2018 Progress Scenario

Verification

- One of most significant components of verification is credit-life – where BMPs are automatically dropped from the database unless reported as re-inspected and functioning or maintained – which resets the “credit” clock
 - Inspected and passed
 - Did maintenance
- This procedure came from the CBP partnership’s direction and approval



Some Examples

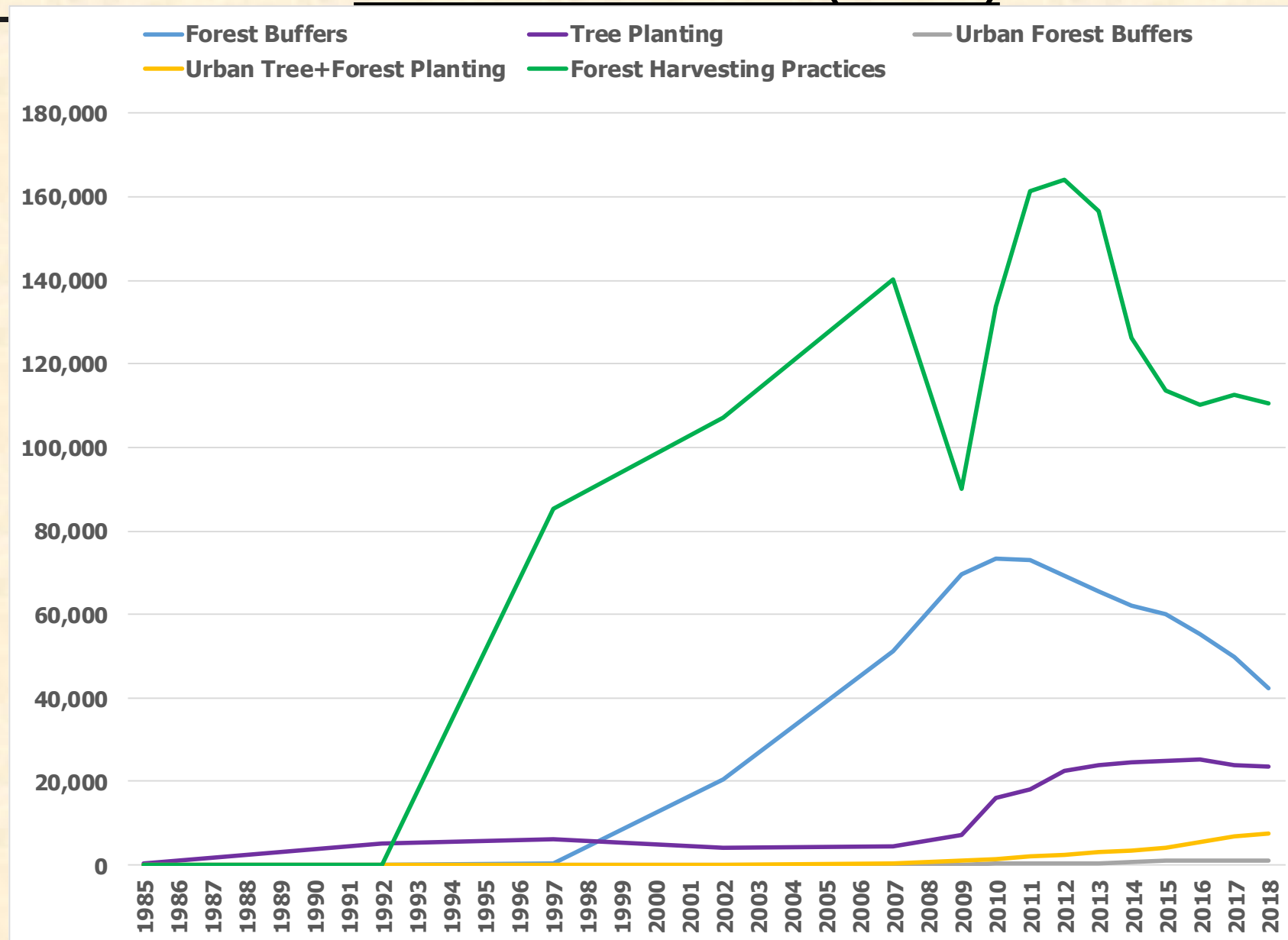
Reported Forestry BMPs

- Agricultural Sector
 - Forest Buffers
 - Tree Planting
- Developed Sector
 - Urban Forest Buffers
 - Urban Tree+Forest Planting
- Forest Harvesting Practices



CB Watershed Reported Forestry BMPs

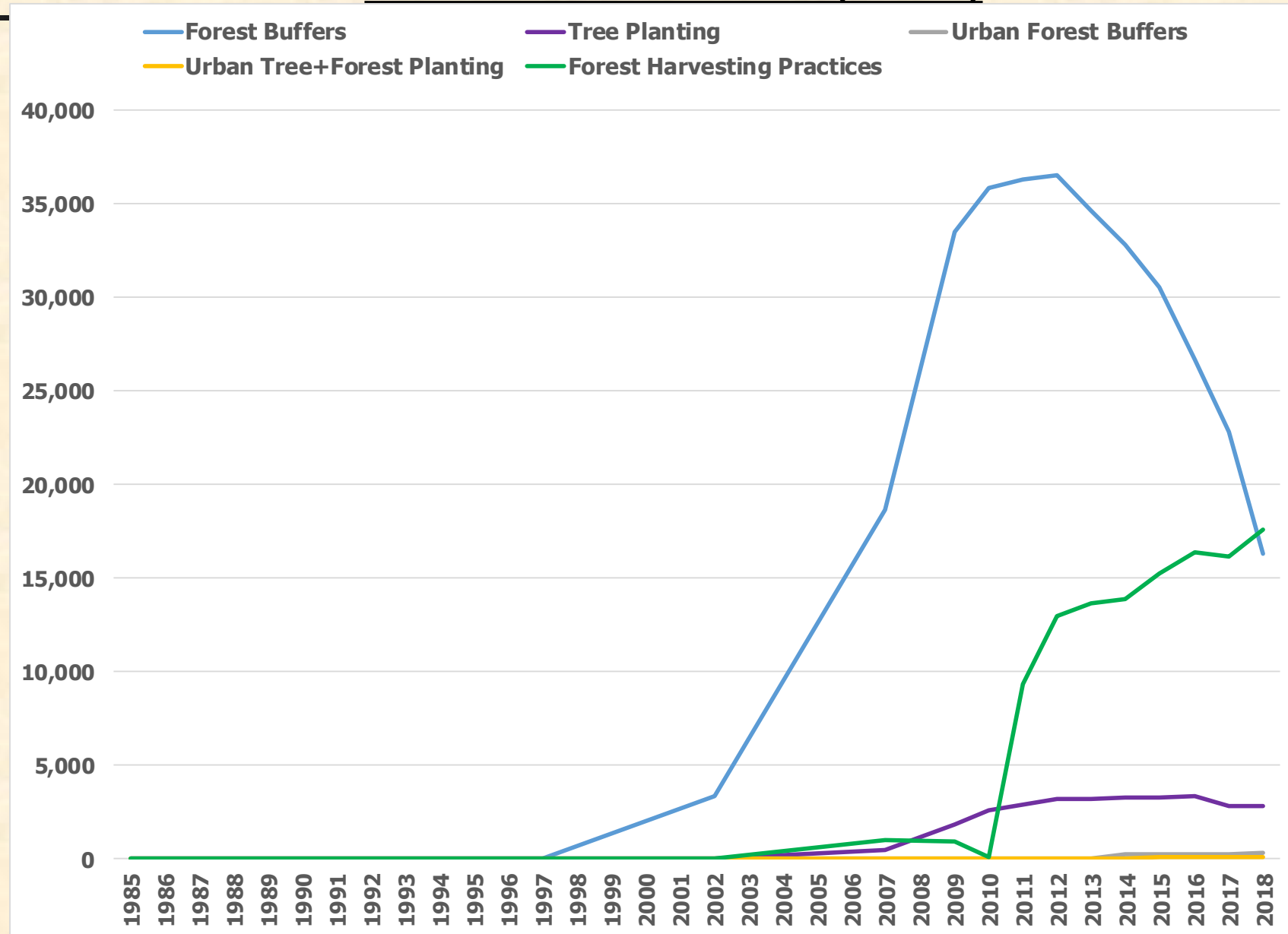
1985 – draft 2018 (acres)





Pennsylvania Reported Forestry BMPs

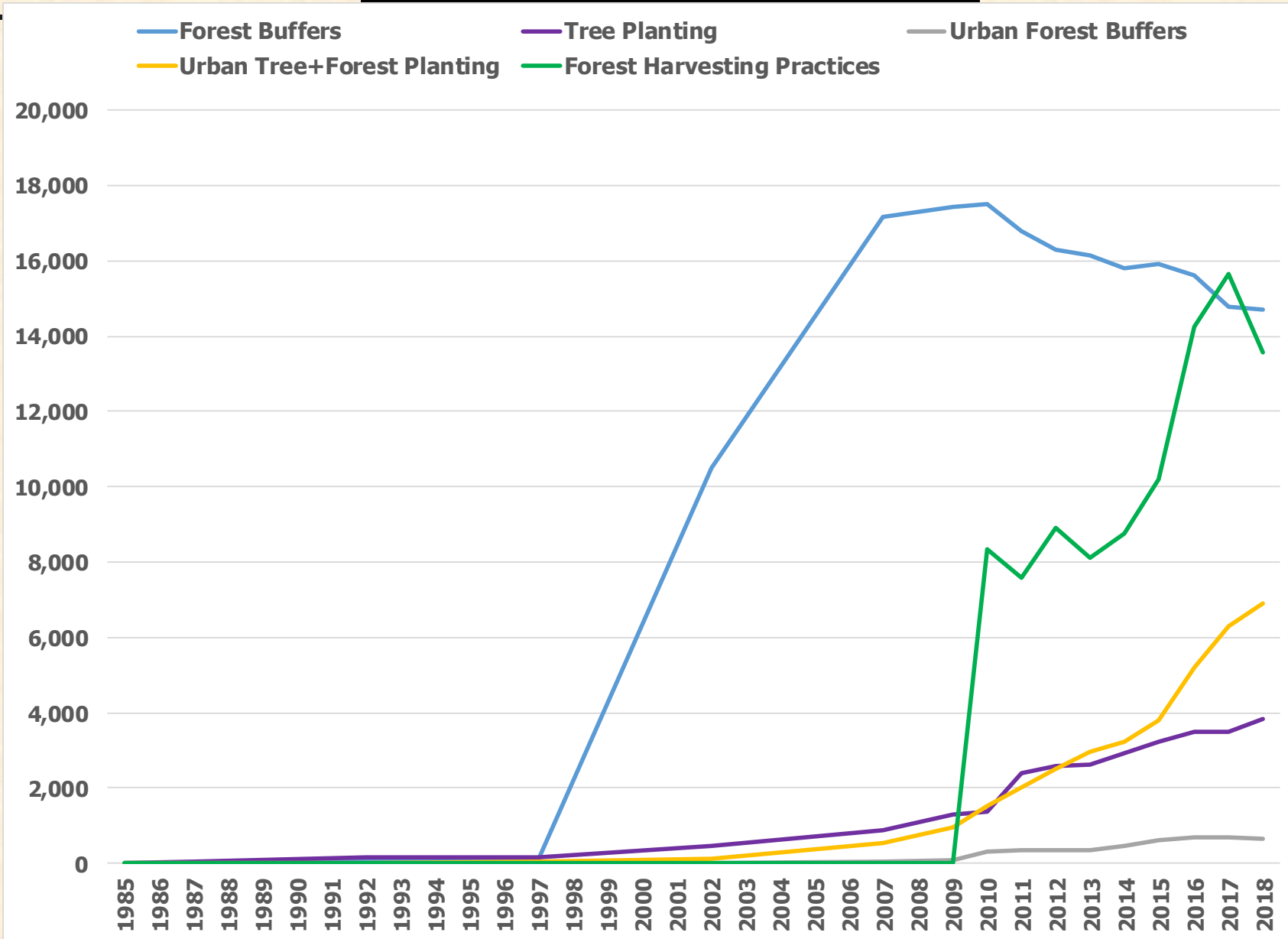
1985 – draft 2018 (acres)





Maryland Reported Forestry BMPs

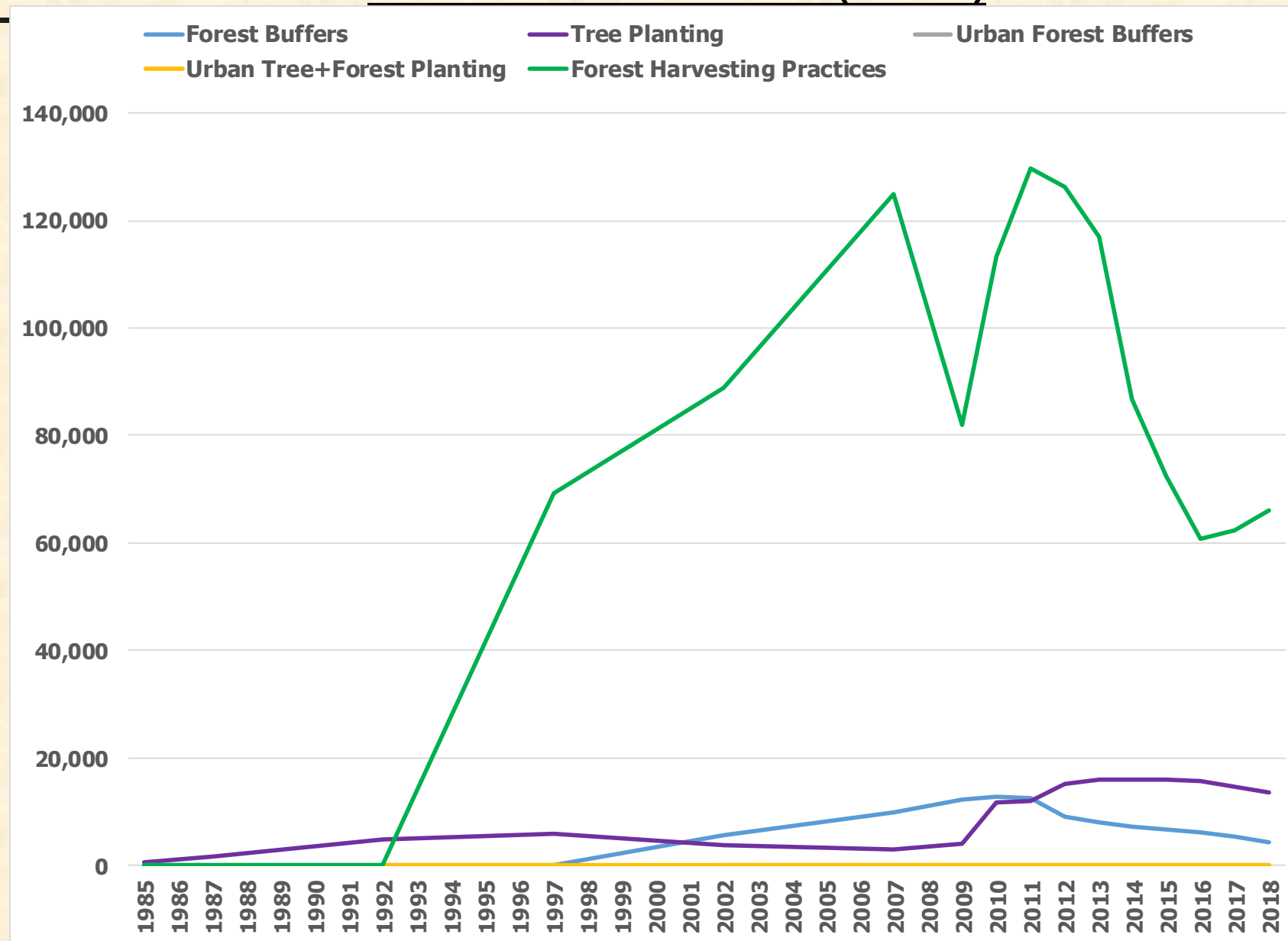
1985 – draft 2018 (acres)





Virginia Reported Forestry BMPs

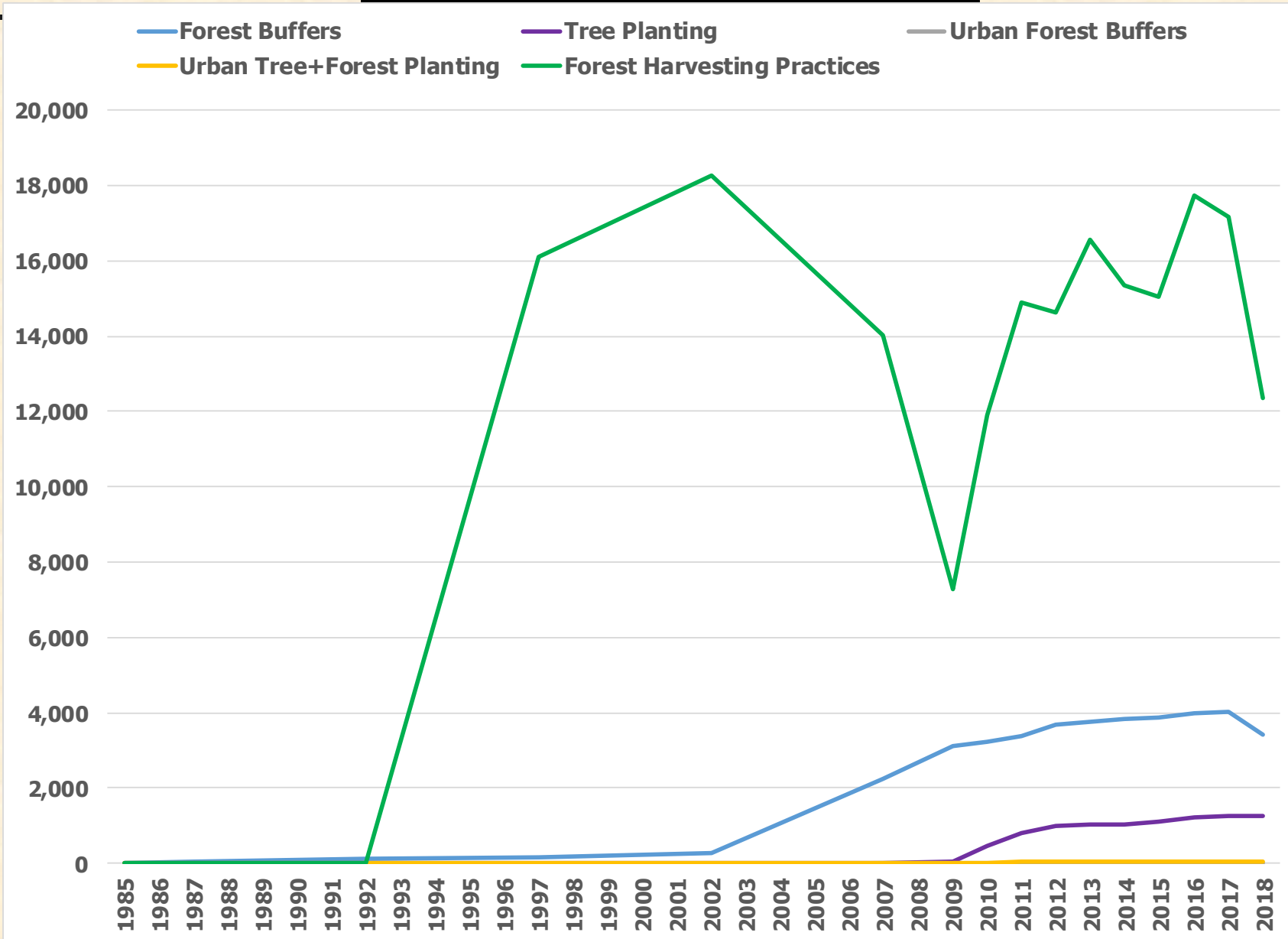
1985 – draft 2018 (acres)





West Virginia Reported Forestry BMPs

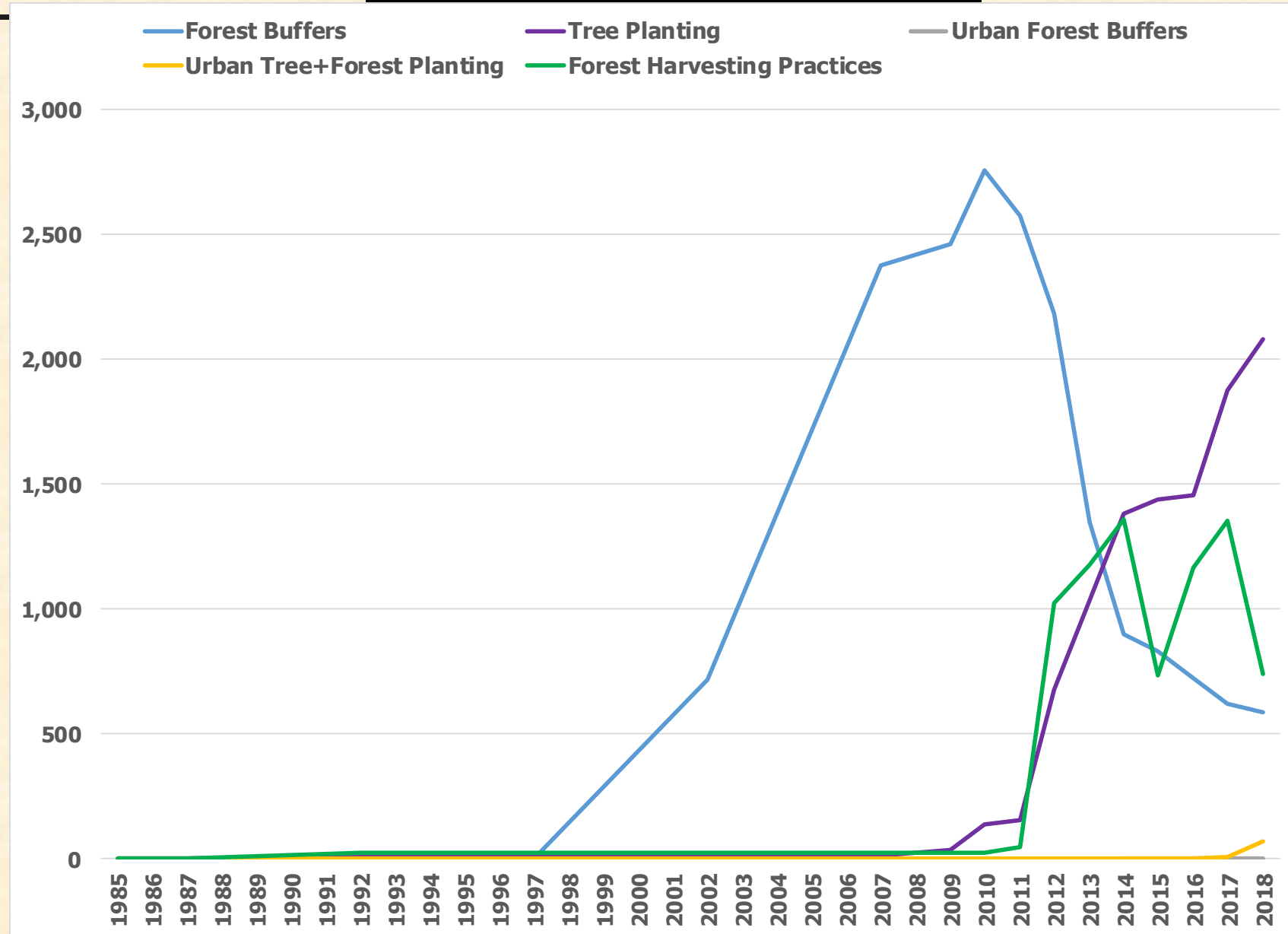
1985 – draft 2018 (acres)





Delaware Reported Forestry BMPs

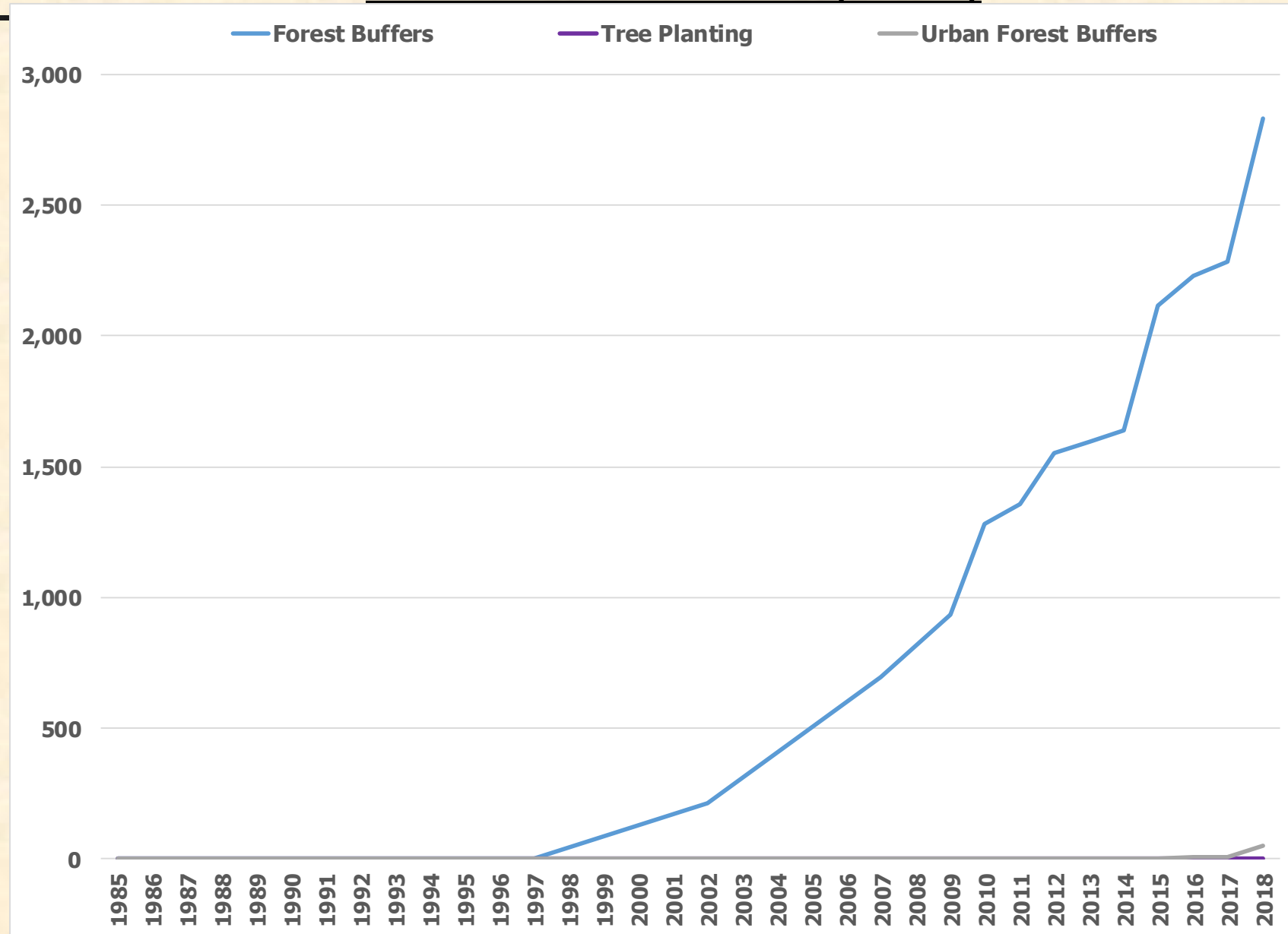
1985 – draft 2018 (acres)





New York Reported Forestry BMPs

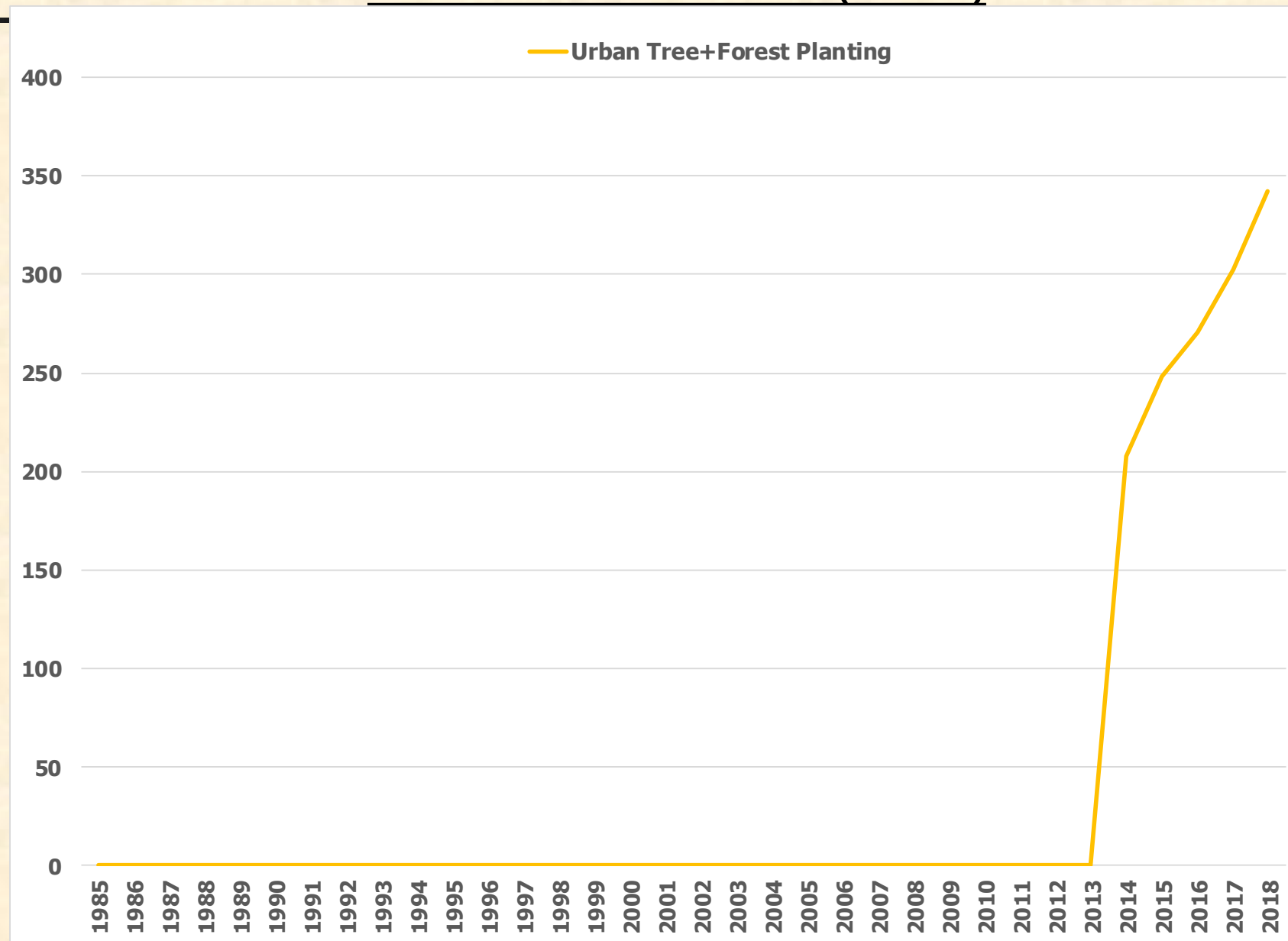
1985 – draft 2018 (acres)





DC Reported Forestry BMPs

1985 – draft 2018 (acres)





The 'Stopping Rule' PSC

All model data and methods may not be changed during the 2018 – 2019 milestone development and progress reporting time period per PSC decision, with the following exceptions:

- Historic implementation data may be updated in NEIEN;
- Permitted, disturbed construction acres for 2018 and 2019;
- Permitted harvested forest acres for 2018 and 2019.



The 'Stopping Rule'

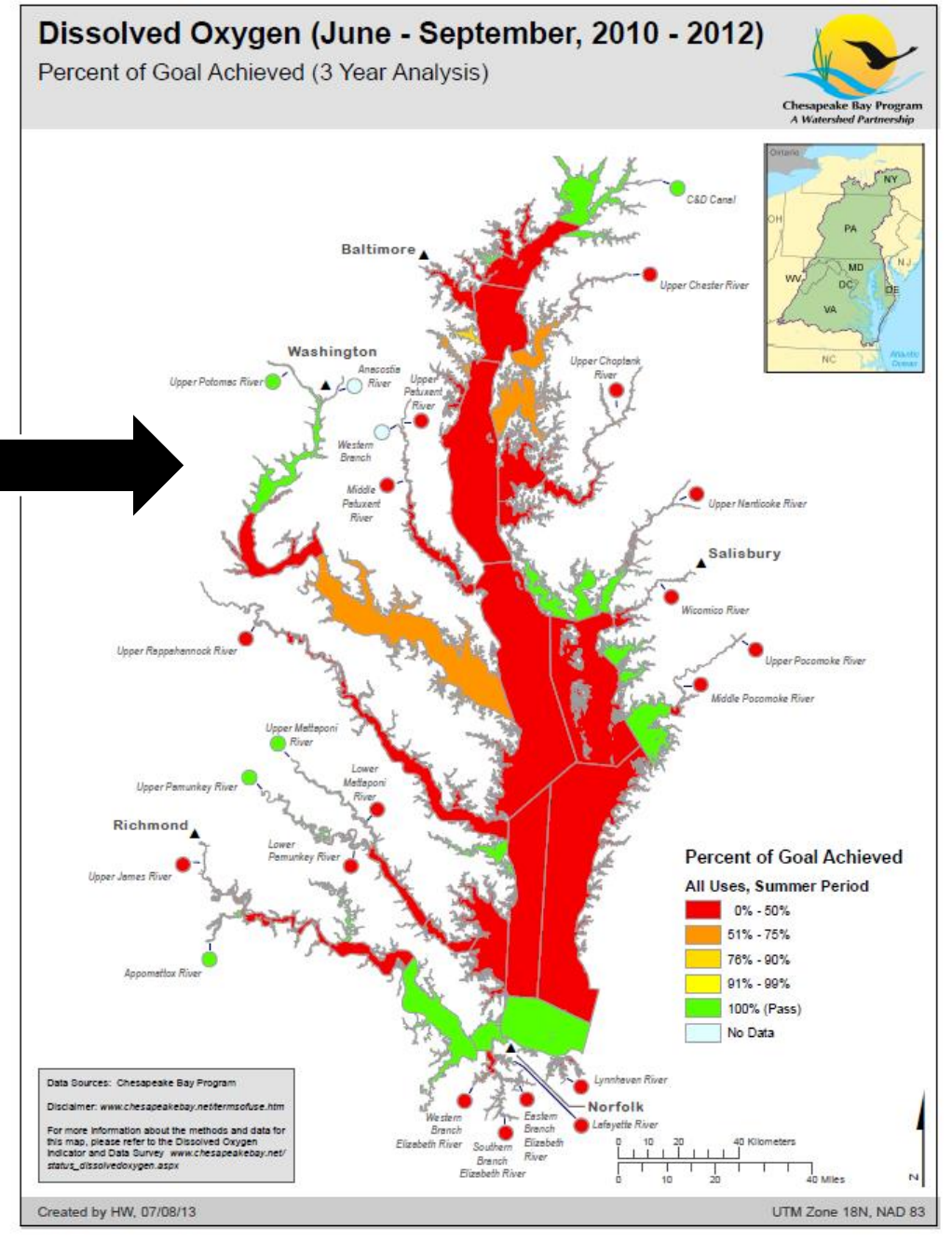
PSC

- Data and BMPs used in the Phase 6 Model are subject to change prior to the beginning of each milestone period per PSC decision; however, changes must be limited in scope so that they do not:
 - impact modeled runoff during the 1993-1995 critical period; or
 - alter the base conditions (land uses, septics, animals, etc.) from 1984 through 2013.
- Preservation of these estimates will enable the CBPO to provide a consistent assessment of how new management actions and changes in base conditions have influenced loads over time.



Chesapeake Bay Impairments

- Dissolved Oxygen
- Chlorophyll a
- Water Clarity (SAV Abundance)



Water Quality Standards Attainment



- During the 2014 to 2016 assessment period, an estimated 40 percent of the Chesapeake Bay and its tidal tributaries met water quality standards: the highest estimate of water quality standards attainment since 1985.

