

New York Climate Change Allocations and Input Deck

January 2022

The Chesapeake Bay Program Partnership relayed preliminary modeling results of climate change in 2025 in the form of nutrient load projections as part of the Midpoint Assessment completed in July 2018. It is estimated that an increased load of 399,000 thousand lbs. of nitrogen and 44,000 thousand lbs. of phosphorus from New York can be attributed to climate change. New York committed to adopting the new numeric climate change loads starting with the 2022-2023 milestones. All loads in this document are at Edge of Tide (EOT).

New York's climate change allocation, combined with the May 2021 Final Amended Phase III WIP targets for nitrogen and phosphorus, are shown in Table 1 below.

Table 1. Final Amended Phase III WIP Targets and Climate Change Allocations

	Nitrogen (million lbs.)	Phosphorus (million lbs.)
Final Amended Phase III WIP Target	11.79	0.476
Climate Change Allocation	0.399	0.044
Total Allocation	11.391	0.432

A new input deck to offset the climate change loads was developed using agricultural BMPs that are expected to exceed the BMP targets outlined in the May 2021 Final Amended Phase III WIP input deck, based on current implementation trends. BMPs were applied proportionally at the county scale based on the percent of the county portion of the watershed. BMPs that were cutoff at the county scale were re-applied at the state level. Table 2 shows the BMPs that were included in New York's input deck in CAST – "New York Combined Phase III WIP and Climate Change" made available to EPA on 1/11/2022.

Table 2. Climate Change Input Deck BMPs

Agriculture Practices	Unit	Final Amended Phase III WIP Input Deck	Climate Change Input Deck	Combined Final Amended Phase III WIP and Climate Change Input Deck
Nutrient Management Core Nitrogen and Phosphorus	Acres	151,245	0	151,245
Nutrient Application Management Timing, Rate, and Placement for Nitrogen and Phosphorus	Acres	151,245	0	151,245
Conservation Tillage	Acres	7,558	0	7,558
High Residue Tillage	Acres	5,353	769	6,122
Low Residue Tillage	Acres	1,973	10,291	12,264
Cover Crop	Acres	5,443	528	5,970

Cover Crop with Fall Nutrients	Acres	8,528	7,553	16,080
Commodity Cover Crop	Acres	5,985	0	5,985
Pasture Alternative Watering	Acres	0	6,239	6,239
Prescribed Grazing	Acres	45,486	0	45,486
Horse Pasture Management	Acres	708	67	775
Forest Buffers on Fenced Pasture Corridor	Acres	3,543	0	3,543
Grass Buffers on Fenced Pasture Corridor	Acres	1,815	0	1,815
Forest Buffers	Acres	2,124	0	2,124
Wetland Restoration	Acres	1,274	0	1,274
Wetland Creation	Acres	0	258	258
Wetland Rehabilitation	Acres	0	2,034	2,034
Land Retirement	Acres	1,781	7,074	8,855
Grass Buffers	Acres	776	0	776
Tree Planting	Acres	0	819	819
Alternative Crops	Acres	0	2,068	2,068
Soil and Water Conservation Plans	Acres	299,454	0	299,454
Manure Incorporation	Acres	0	89,359	89,359
Non-Urban Stream Restoration	Feet	23,540	89,800	113,340
Livestock Waste Management Systems	Animal Units	78,255	55,486	133,741
Barnyard Runoff Control + Loafing Lot Management	Acres	103	488	591
Dairy Precision Feeding	Animal Units	10,372	19,681	30,053

With the combined May 2021 Final Amended Phase III WIP and climate change agricultural input deck, New York does not meet the phosphorus target, but exceeds the nitrogen target. A portion of the excess nitrogen load reduction can be converted to phosphorus using the N:P ratio for the Susquehanna Basin (1:0.424). After the conversion, the phosphorus target will be met and New York will overachieve the nitrogen target by 168,230 lbs.

Table 3. Climate Change Input Deck BMPs

	Nitrogen (million lbs.)	Phosphorus (million lbs.)
Final Amended Phase III WIP and Climate Change Targets Combined	11.391	0.432
Combined Final Amended Phase III WIP and Climate Change Input Deck	11.114	0.478
Remaining Required Load Reduction (TP target not met)	-0.108	0.046
Loads after N:P conversion	11.22	0.432
Exceeded Reduction	0.168	0