

Phase 7 E3 Scenario Sector Input Assumptions

Approved by the CWGT on September 29th, 2026. More details with justification for the assumptions, changes from Phase 6 and the approval discussion and process are available on the [meeting page](#).

Urban Stormwater

BMP/Input	Input Assumption
Retrofits	RR Retrofits sized to treat 1.5 in IA for all urban land uses
New Development	All new development has RR BMPs sized for 2.0 inch IA
Street Sweeping	100% Roads swept using SCP-1
UNM Plans	100% of turf, TC over turf, and solar pervious have UNM Plans BMP; For Turf and TC over Turf - 50% Implement UNM W/ a Soil Test (BMP #1), and 50% Implement Non-Fertilized Turf (BMP#3). For Solar Pervious, 100% covered by BMP #3.
Gray Infrastructure and Storm Drain Cleanouts	5% of Urban N and P load removed due to both credits
Stream Restoration	Bed and Bank loads from the following stream miles within each jurisdiction will be reduced by 50%: •DE: 11.677 miles •DC: 3.500 miles •MD: 211.1623 miles •NY: 84.733 miles •PA: 400.754 miles •VA: 583.425 miles •WV: 70.871 miles
Erosion and Sediment Control	100% of all construction sites are treated to ESC Level 3 and have UNM plan (BMP #1)

Riparian Buffers on Urban	30% of turf grass acres (MS4, CSS, Non-Regulated) within the 35 ft riparian area are buffered as forest for each modeled hydrologic segment in the Chesapeake Bay watershed
Tree Canopy Expansion and Forest Planting on Urban	20% of turf grass and compacted pervious acres (MS4, CSS, Non- Regulated) will be converted to Tree Canopy over Turfgrass (TCTG) using the Urban Tree Canopy Expansion BMP, and an additional 20% of turf grass and compacted pervious acres will be converted to Forest using the Urban Forest Planting BMP.
Impervious Cover Removal	1% of total impervious cover (Roads, Buildings and Other, and TC over Impervious) will be converted to Turfgrass per the ICR BMP.
Shoreline Management	70% of unprotected shoreline linear feet will be managed by the Living Shoreline BMP and receive the default rate for non-conforming practices
Abandoned Mine Reclamation	Not included for Phase 7 E3 scenario.

Wastewater

BMP/Input	Input Assumption
Definition	LOT Everywhere
Concentration Sig Municipal Plants	TN=3 mg/l and TP=0.1 mg/l; BOD=3 mg/l, DO=6 mg/l and TSS=5 mg/l
Concentration Sig Industrial Plants	WIP loads adjusted by the percentage of equivalent sig municipal average load reduction from WIP to E3 level by state; BOD=3 mg/l, DO=6 mg/l and TSS=5 mg/l
Concentration Non-sig Municipal Plants	TN=8 and TP=2 or the same level as sig plants if ENR is required; BOD =5 mg/l, DO=5 mg/l and TSS= 8 mg/l

Concentration Non-sig Industrial Plants	State estimated non-sig industrial data adjusted by the percentage of equivalent reduction from No-Action (18 mg/l TN, 3mg/l TP) to E3 (3 mg/l TN, 0.1 mg/l TP); BOD =5 mg/l, DO=5 mg/l and TSS= 8 mg/l
Flow	WIP flows for sig plants; 2006 data or newly submitted non-sig data for non-sig plants
CSO	100% CSO overflow reduction
Septic Systems	10% of septic systems connected to WWTP; Remaining septic system applied 75% TN reduction for the most efficient combined ex situ and in situ BMPs
Exfiltration	Not included for Phase 7 E3 Scenario.

Oysters

BMP/Input	Input Assumption
Oyster Restoration - Assimilation	33,095 acres
Oyster Restoration - Denitrification	35,000 acres
Licensed Oyster Harvest	Maintain replenishment of 330M oysters/year and maximum allowable harvest (9.9 M oysters/year)
Private Oyster Aquaculture	476 M oysters harvested/year

Natural Sector Forestry

*Other forestry BMPs are accounted for in Urban and Agriculture assumptions

BMP/Input	Input Assumption
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Timber Harvest	100% Timber harvest BMP implementation on harvested forest lands
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Agriculture

BMP/Input	Input Assumption
Forest Buffers	80% of cropland within 20m of all unbuffered streams/rivers
Forest Buffers (w fence)	85% of pasture within 20m of all unbuffered streams/rivers
Grass Buffers	20% of cropland within 20m of all unbuffered streams/rivers
Grass Buffers (w fence)	15% of pasture within 20m of all unbuffered streams/rivers
Tree Planting	2% of available ag land (excluding ag open space)
Agroforestry	5% of available cropland/pasture
Wetland Restoration	1% of available ag land uses (excluding ag open space)
Land Retirement to Open Space	Land retirement: combined 7% of available ag land uses
Land Retirement to Pasture	Land retirement: combined 7% of available ag land uses
Alternative Crops	1% of available row crop acres
Nutrient Application Management Core N and P	100% of all available land uses
Nutrient Application Management	80% of all available land uses

Supplemental (N and P Placement, Rate, Timing)	
Tillage Management-Continuous High Residue	99% of row crops (excluding corn silage and soybeans), and low input specialty crops
Tillage Management-Conservation Tillage	99% of soybeans and high input specialty crops
Tillage Management-Low Residue Tillage	99% of corn silage
Cover Crop	100% of available cropland, excluding small grains and double cropped land, receives early aerial-seeded rye efficiency [NY and PA Growth Region 1] 75% of available cropland, excluding small grains and double cropped land, receives early drilled rye efficiency, and 25% of available cropland, excluding small grains and double cropped land, receives early aerial-seeded rye efficiency [DE, MD, PA Growth Regions 2 and 3, VA, and WV]
Commodity Cover Crop	100% of available small grain and double cropped land receives standard commodity cover crop efficiency
Off Stream Watering Without Fencing	100% of all available livestock pasture
Prescribed Grazing/Precision Intensive Rotational Grazing	100% of all available livestock pasture
Soil Conservation and Water Quality Plans	100% of animal units
Animal Waste Management Systems	100% of animal units

Animal Mortality Management	100% of dead animal units (disposal by composting)
Manure Injection	99% of row crops (excluding corn silage and soybeans), and low input specialty crops
Manure Incorporation; Low Disturbance	99% of soybeans, high input specialty crops, and corn silage
Non-Urban Stream Restoration	Loads from the following stream miles within each jurisdiction will be reduced at twice the default stream restoration value: DE: 37.299 mi MD: 250.722 mi NY: 238.749 mi PA: 793.672 mi VA: 632.944 mi WV: 131.881 mi
Shoreline Management	70% of unprotected shoreline linear feet will be managed by the Living Shoreline BMP and receive the default rate for non-conforming practices (same as USWG)
Barnyard Runoff Control	100% of available feed space acres
Loafing Lot Management	100% of available feed space acres
Agricultural Stormwater Management	100% of available permitted feed space acres
Manure Transport	Up to 100% of excess organic nutrients applied will be transported out of the watershed, using only poultry litter/manure; Includes benefits of MTT1-19
Dairy Precision Feeding and/or Forage Management N	100% of dairy manure @ TN = 24% reduction

Dairy Precision Feeding and/or Forage Management P	100% of dairy manure @ TP = 28% reduction
Biofilters and Lagoon Covers	100% of Dairy and Swine; excludes manure storage for dry manure/stackable manure
Poultry Litter Amendments (including alum)	100%