

Maryland Phase II WIP Strategies

ALLEGANY Agriculture - Annual Practices

		2010 Progress	2017 Interim Strategy	2025 Final Strategy
BMP Name	Unit			
Conservation Tillage	Acres/Year	0	915	915
Cover Crop	Acres/Year	403	246	250
Cropland Irrigation Management	Acres/Year	0	25	25
Nutrient Management (All forms)	Acres/Year	6,437	14,991	14,932
Poultry Litter Incorporation	Acres/Year	0	121	200
Soil Conservation and Water Quality Plans	Acres/Year	6,103	11,923	13,305

- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

ALLEGANY Agriculture - Additional BMPs

		2010 Progress	2017 Interim Strategy	2025 Final Strategy
BMP Name	Unit			
Barnyard Runoff Control	Acres	23	53	73
Forest Buffers	Acres	579	617	643
Grass Buffers / Vegetated Open Channel	Acres	176	188	196
Horse Pasture Management	Acres	0	36	60
Land Retirement	Acres	504	649	815
Loafing Lot Management	Acres	0	2	3
Off Stream Watering Without Fencing	Acres	541	793	961
Precision Intensive Rotational Grazing	Acres	0	150	250
Prescribed Grazing	Acres	62	1,350	2,250
Stream Access Control with Fencing	Acres	24	37	37
Tree Planting / Vegetative Environmental Buffers	Acres	1,204	1,204	1,204
Wetland Restoration	Acres	13	33	47
Non Urban Stream Restoration / Shoreline Erosion Control	Linear Feet	0	19,995	33,325

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

Please note: The Agricultural BMP tables represent Land BMPs that can be shown as acres or feet and do not show those BMPs that are based on percentages such as Animal Waste Storage and Poultry Litter Treatment (Alum). Manure Transport is also not represented in these tables.

**ALLEGANY
Forest BMPs**

			2010 Progress	2017 Interim Strategy	2025 Final Strategy
BMP Name	Zone	Unit			
Forest Harvesting Practices	harvested forest	Acres	1,827	1,792	1,792

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

**ALLEGANY
Developed Land BMPs**

		2010 Progress	2017 Interim Strategy	2025 Final Strategy
BMP Name	Unit			
Abandoned Mine Reclamation	Acres	0	992	1,593
Bioretention / Raingardens	Acres	0	122	133
Dry Detention Ponds and Hydrodynamic Structures	Acres	467	464	463
Dry Extended Detention Ponds	Acres	14	15	15
Impervious Urban Surface Reduction	Acres	0	7	12
MS4 Permit Stormwater Retrofit	Acres	1,473	1,467	1,461
Urban Filtering Practices	Acres	0	1	1
Urban Forest Buffers	Acres	0	146	211
Urban Infiltration Practices	Acres	8	9	9
Urban Tree Planting / Urban Tree Canopy	Acres	0	35	74
Wet Ponds and Wetlands	Acres	68	105	105
Erosion and Sediment Control on Construction	Acres/Year	126	126	126
Urban Nutrient Management	Acres/Year	4,866	5,621	5,559
Urban Stream Restoration (interim)	Linear Feet	0	13,145	19,545

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

ALLEGANY Septic System BMPs

			2010 Progress	2017 Interim Strategy	2025 Final Strategy
BMP Name	Zone	Unit			
Septic Denitrification	Critical Area	Systems	0	0	0
	Outside of the Critical Area, not within 1000 ft of a perennial stream	Systems	2	2	2
	Within 1000 ft of a perennial stream	Systems	2	2	2
	<i>Septic Denitrification Total</i>		4	4	4

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

Maryland Phase II WIP Strategies

ALLEGANY Total Nitrogen Loads

		2010 Progress	2017 Interim Strategy	2025 Final Strategy	Final Target
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Agriculture	AFO	0.002	0.000	0.000	0.001
	CAFO	0.000	0.000	0.000	0.000
	Crop	0.035	0.033	0.031	0.038
	Nursery	0.005	0.005	0.005	0.005
	Pasture	0.017	0.014	0.013	0.015
	Subtotal		0.059	0.051	0.050
Forest	Harvested	0.013	0.013	0.013	0.018
	Natural	0.252	0.255	0.255	0.252
	Subtotal	0.265	0.268	0.268	0.270
Non-Tidal Atm	Non-Tidal Atm	0.006	0.006	0.006	0.006
	Subtotal	0.006	0.006	0.006	0.006
Septic	Septic	0.006	0.006	0.006	0.005
	Subtotal	0.006	0.006	0.006	0.005
Stormwater	CSS	0.000	0.000	0.000	0
	Construction	0.001	0.001	0.001	0.001
	Extractive	0.015	0.012	0.010	0.013
	Non-Regulated Developed	0.061	0.058	0.058	0.053
	Regulated Developed	0.000	0.000	0.025 ¹	0.000
	Subtotal		0.077	0.071	0.093
Wastewater	CSO	0.031	0.029	0.002	0.034
	Industrial	0.028	0.028	0.026	0.026
	Municipal	0.113	0.055	0.063	0.061
	Subtotal	0.172	0.113	0.091	0.120
	Total	0.585	0.515	0.515	0.528

- The agricultural sector strategies were set to meet basin targets rather than county targets. Therefore, agricultural strategies are likely to overshoot or undershoot county targets, which can be reflected in the total countywide target results.
- Stormwater sector strategies may overshoot the county target for nitrogen (N) to meet the phosphorus (P) target, or vice versa. This is because the N and P reduction targets differ and the same BMP has different effects on the reduction of N and P.

¹ This load can be attributed to CSO disconnect

ALLEGANY
Total Phosphorus Loads

		2010 Progress	2017 Interim Strategy	2025 Final Strategy	Final Target
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Agriculture	AFO	0.001	0.000	0.000	0.000
	CAFO	0.000	0.000	0.000	0.000
	Crop	0.005	0.004	0.004	0.005
	Nursery	0.003	0.003	0.003	0.003
	Pasture	0.004	0.003	0.003	0.003
	Subtotal		0.012	0.010	0.010
Forest	Harvested	0.001	0.001	0.001	0.001
	Natural	0.015	0.015	0.016	0.015
	Subtotal	0.016	0.016	0.016	0.016
Non-Tidal Atm	Non-Tidal Atm	0.001	0.001	0.001	0.001
	Subtotal	0.001	0.001	0.001	0.001
Septic	Septic	0.000	0.000	0.000	0.000
	Subtotal	0.000	0.000	0.000	0.000
Stormwater	CSS	0.000	0.000	0.000	0
	Construction	0.000	0.000	0.000	0.000
	Extractive	0.012	0.009	0.008	0.010
	Non-Regulated Developed	0.012	0.012	0.011	0.009
	Regulated Developed	0.000	0.000	0.004 ²	0.000
	Subtotal		0.025	0.022	0.023
Wastewater	CSO	0.008	0.007	0.000	0.008
	Industrial	0.016	0.019	0.017	0.017
	Municipal	0.027	0.008	0.010	0.009
	Subtotal	0.050	0.034	0.027	0.034
Total		0.104	0.083	0.078	0.081

- The agricultural sector strategies were set to meet basin targets rather than county targets. Therefore, agricultural strategies are likely to overshoot or undershoot county targets, which can be reflected in the total countywide target results.
- Stormwater sector strategies may overshoot the county target for nitrogen (N) to meet the phosphorus (P) target, or vice versa. This is because the N and P reduction targets differ and the same BMP has different effects on the reduction of N and P.

² This load can be attributed to CSO disconnect

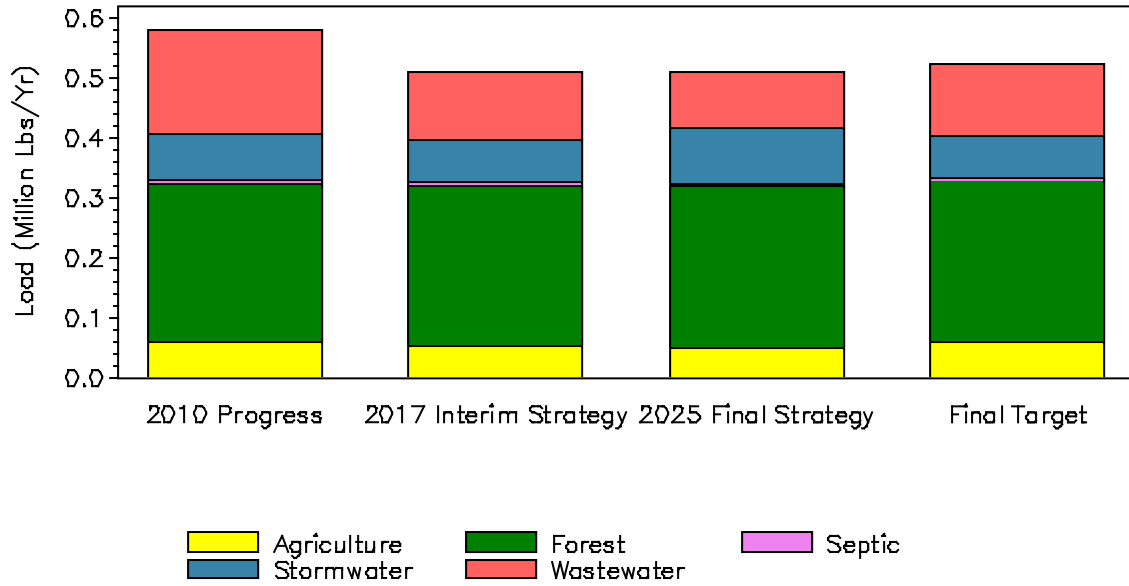
ALLEGANY
Total Sediment Loads

		2010 Progress	2017 Interim Strategy	2025 Final Strategy
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Agriculture	AFO	0.046	0.039	0.034
	CAFO	0.000	0.000	0.000
	Crop	3.824	3.412	3.317
	Nursery	0.030	0.025	0.024
	Pasture	0.970	0.736	0.704
	Subtotal		4.869	4.212
Forest	Harvested	0.944	1.083	1.083
	Natural	7.335	7.420	7.445
	Subtotal	8.279	8.503	8.528
Non-Tidal Atm	Non-Tidal Atm	0.000	0.000	0.000
	Subtotal	0.000	0.000	0.000
Septic	Septic	0.000	0.000	0.000
	Subtotal	0.000	0.000	0.000
Stormwater	CSS	0.000	0.000	0.000
	Construction	0.380	0.398	0.440
	Extractive	12.799	10.005	8.312
	Non-Regulated Developed	10.939	9.325	9.008
	Regulated Developed	0.054	0.055	2.028 ³
	Subtotal	24.171	19.783	19.788
Wastewater	CSO	1.528	1.461	0.090
	Industrial	1.137	1.366	1.698
	Municipal	0.234	0.971	1.091
	Subtotal	2.899	3.798	2.880
Total		40.219	36.295	35.276

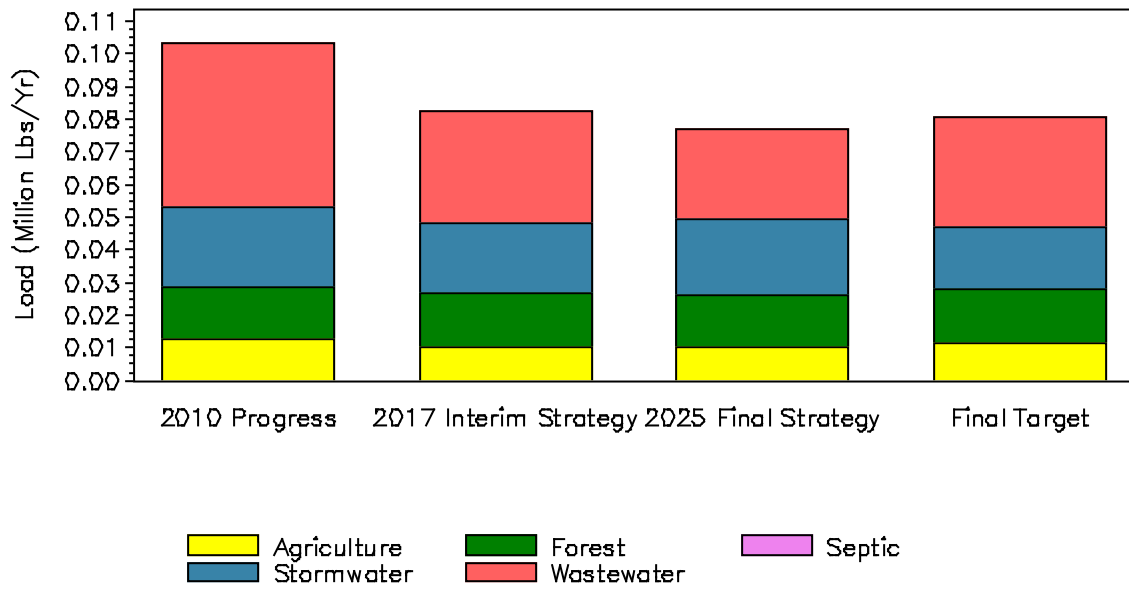
• The State did not distribute EPA's state and basin targets at the county or sector scale for sediment. Hence a Final Target column is not shown.

³ This load can be attributed to CSO disconnect

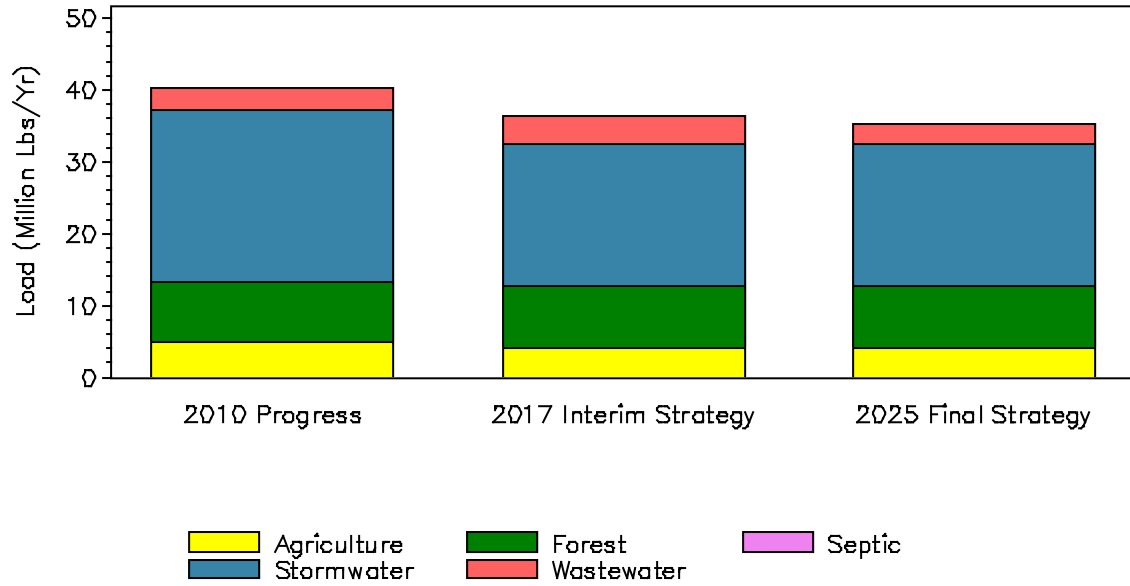
ALLEGANY
Total Nitrogen Loads



ALLEGANY
Total Phosphorus Loads



ALLEGANY
Total Sediment Loads



• The State did not distribute EPA's state and basin targets at the county or sector scale for sediment. Hence a Final Target bar is not shown.

Maryland Phase II WIP Team MAST Submittals

ALLEGANY Developed Land BMPs

		2010 Progress	2017 WIP Team	2017 Interim Strategy	2025 WIP Team	2025 Final Strategy	Change in 2017 Submittal	Change in 2025 Submittal
BMP Name	Unit							
Abandoned Mine Reclamation	Acres	0	992	992	1,593	1,593	0	0
Bioretention / Raingardens	Acres	0	122	122	133	133	0	-0
Dry Detention Ponds and Hydrodynamic Structures	Acres	467	464	464	463	463	0	-0
Dry Extended Detention Ponds	Acres	14	15	15	15	15	0	0
Impervious Urban Surface Reduction	Acres	0	7	7	12	12	0	0
MS4 Permit Stormwater Retrofit	Acres	1,473	1,467	1,467	1,461	1,461	0	0
Urban Filtering Practices	Acres	0	1	1	1	1	0	0
Urban Forest Buffers	Acres	0	146	146	211	211	0	0
Urban Infiltration Practices	Acres	8	9	9	9	9	0	0
Urban Tree Planting / Urban Tree Canopy	Acres	0	35	35	74	74	0	0
Wet Ponds and Wetlands	Acres	68	105	105	105	105	0	-0
Erosion and Sediment Control on Construction	Acres/Year	126	78	126	78	126	48	48
Urban Nutrient Management	Acres/Year	4,866	5,613	5,621	5,559	5,559	8	0
Urban Stream Restoration (interim)	Linear Feet	0	13,145	13,145	19,545	19,545	0	0

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)
- Acres of BMPs might be observed to decrease in subsequent scenarios for several reasons:
 - To meet the countywide sector target, the State supplemented the Team scenarios with a generic set of BMPs.
 - Some aspects of the State strategies were automated, such that BMP levels were computed as a percentage of available acres. The application of some BMPs convert the acres of developed land to forest land, or impervious to pervious. This reduces/increases the available acres so that, if the same percentage level of other BMPs is applied to these lands, then a decrease/increase in BMP acreage might be observed even though the implementation level was intended to remain equal.
 - Because the Bay watershed model is not able to account for BMPs that treat overlapping areas (nested BMPs), the acreage available for BMPs can be used up before the Final Target is achieved. In such cases the State gave precedence to the more effective BMPs.
- The columns labeled Team include the State Highway Administration (SHA) strategies as well as 2010 Progress levels for other entities.
- The columns for Interim and Final strategies include numbers for SHA, federal facilities, State lands, industrial facilities, Phase I and II MS4 and non-regulated stormwater where applicable. They also reflect changes made by the State.

**ALLEGANY
Septic System BMPs**

			2010 Progress	2017 WIP Team	2017 Interim Strategy	2025 WIP Team	2025 Final Strategy	Change in 2017 Submittal	Change in 2025 Submittal
BMP Name	Zone	Unit							
Septic Denitrification	Critical Area	Systems	0	0	0	0	0	0	0
	Outside of the Critical Area, not within 1000 ft of a perennial stream	Systems	2	2	2	2	2	0	0
	Within 1000 ft of a perennial stream	Systems	2	2	2	2	2	0	0
Septic Denitrification Total			4	4	4	4	4	0	0

- The BMP values represent the total amount of implementation in place.
- The BMP values are the amount credited in the Bay watershed model. It is the amount of BMP submitted minus the amount not given credit for (e.g., due to overlapping with other BMPs)

Maryland Phase II WIP Team MAST Submittals

ALLEGANY Total Nitrogen Loads

		2010 Progress	2017 WIP Team	2017 Interim Strategy	2025 WIP Team	2025 Final Strategy	Final Target
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Stormwater	CSS	0.000	0.000	0.000	0.000	0.000	0
	Construction	0.001	0.001	0.001	0.001	0.001	0.001
	Extractive	0.015	0.012	0.012	0.010	0.010	0.013
	Non-Regulated Developed	0.061	0.058	0.058	0.058	0.058	0.053
	Regulated Developed	0.000	0.000	0.000	0.000	0.025	0.000
	Subtotal		0.077	0.071	0.071	0.069	0.093
Septic	Septic	0.006	0.006	0.006	0.006	0.006	0.005
	Subtotal	0.006	0.006	0.006	0.006	0.006	0.005

- The columns labeled Team include the State Highway Administration (SHA) strategies as well as 2010 Progress levels for other entities.
- The columns for Interim and Final strategies include numbers for SHA, federal facilities, State lands, industrial facilities, Phase I and II MS4 and non-regulated stormwater where applicable. They also reflect changes made by the State.

ALLEGANY Total Phosphorus Loads

		2010 Progress	2017 WIP Team	2017 Interim Strategy	2025 WIP Team	2025 Final Strategy	Final Target
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Stormwater	CSS	0.000	0.000	0.000	0.000	0.000	0
	Construction	0.000	0.000	0.000	0.000	0.000	0.000
	Extractive	0.012	0.009	0.009	0.008	0.008	0.010
	Non-Regulated Developed	0.012	0.012	0.012	0.011	0.011	0.009
	Regulated Developed	0.000	0.000	0.000	0.000	0.004	0.000
	Subtotal		0.025	0.022	0.022	0.020	0.023
Septic	Septic	0.000	0	0.000	0	0.000	0.000
	Subtotal	0.000	0	0.000	0	0.000	0.000

- The columns labeled Team include the State Highway Administration (SHA) strategies as well as 2010 Progress levels for other entities.
- The columns for Interim and Final strategies include numbers for SHA, federal facilities, State lands, industrial facilities, Phase I and II MS4 and non-regulated stormwater where applicable. They also reflect changes made by the State.

ALLEGANY
Total Sediment Loads

		2010 Progress	2017 WIP Team	2017 Interim Strategy	2025 WIP Team	2025 Final Strategy
Source Sector	Landuse	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr	Million Lbs/Yr
Stormwater	CSS	0.000	0.000	0.000	0.000	0.000
	Construction	0.380	0.477	0.398	0.477	0.440
	Extractive	12.799	10.005	10.005	8.312	8.312
	Non-Regulated Developed	10.939	8.788	9.325	8.685	9.008
	Regulated Developed	0.054	0.055	0.055	0.055	2.028
	Subtotal	24.171	19.324	19.783	17.529	19.788
Septic	Septic	0.000	0	0.000	0	0.000
	Subtotal	0.000	0	0.000	0	0.000

- The columns labeled Team include the State Highway Administration (SHA) strategies as well as 2010 Progress levels for other entities.
- The columns for Interim and Final strategies include numbers for SHA, federal facilities, State lands, industrial facilities, Phase I and II MS4 and non-regulated stormwater where applicable. They also reflect changes made by the State.