



Chesapeake Bay Program
Science. Restoration. Partnership.

August, 2024

Interim ~~Planning~~ Targets Overview

Proposed Definitions for Planning Targets

- ❑ **Initial Planning Targets** - Phase 3 WIP Planning Targets as agreed to by the PSC in 2018, modified by subsequent basin-to-basin and nitrogen and phosphorus exchanges. The initial version of the Phase 3 WIPs were intended to address this load.
- ❑ **2025 Climate-Adjusted Planning Targets** - Initial Planning Targets updated for climate factors. In 2020, the partnership agreed to additional reductions to offset climate change from 1995 through 2025.
- ❑ **Interim Planning Targets** - Interim planning targets including climate and Unaccounted Additional Loads (UALs). In 2023, the partnership agreed to use these **Planning Targets** as the interim goal until the Phase 7 models were developed. The UALs lower the reduction effort by reversing increases in effort required by input data updates that occurred after the **initial** planning targets were initially set in 2018. Additional reductions necessary to account for Conowingo infill are not included.

Addressing Climate Change

The PSC met in March 2018 and agreed that the jurisdictions' Phase III WIPs would address climate change narratively and include numeric pollutant reduction loads due to 2025 climate change conditions. Specifically, the WIPs would include a narrative strategy describing the jurisdictions' current action plans and strategies to address an increase in nitrogen and phosphorus across the watershed as a result of climate change as well as changes in the tidal Chesapeake.

Addressing Unaccounted Additional Loads

Unaccounted Additional Loads (UALs) are the additional effort necessary to meet water quality standards that is due to model updates between the latest version of CAST (CAST-23) and the version of CAST (CAST-19) that existed when the decision was made.

On 9/26/2023, following the [initial UALs discussions held in July](#), the PSC discussed the following definition of UALs: “Unaccounted Additional Loads are calculated as the positive difference between the latest version of the WIPs run on CAST-2023 and CAST-2017, after within-jurisdiction exchanges are performed.”

Nitrogen Interim Targets

	million lbs/yr						million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate -Adjusted Planning Target % Completion since 2009
New York	18.64	14.42	13.82	13.45	12.17	43%	11.40	32%
Pennsylvania	122.43	112.44	108.62	105.76	77.08	19%	71.68	16%
Maryland	85.19	57.92	52.24	48.49	46.20	80%	44.69	71%
Virginia	84.44	67.96	55.84	55.13	52.04	81%	51.37	77%
West Virginia	8.72	8.03	7.76	7.78	8.45	100%	8.23	100%
Delaware	7.42	6.61	6.93	7.28	5.61	0%	4.51	0%
District of Columbia	6.48	2.76	1.64	1.56	2.42	100%	2.42	100%
Total Basinwide Simulated N Load	333.33	270.14	246.85	239.46	203.95	46%	194.29	40%

These loads were produced using CAST-23, the current model of record for annual progress.

Nitrogen Interim Targets w/ Conowingo

	million lbs/yr						million lbs/year		million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate Adjusted Planning Target % Completion since 2009	CWIP Adjustments	CWIP Planning Target % Completion
New York	18.64	14.42	13.82	13.45	12.17	43%	11.40	32%	0.08	TBD
Pennsylvania	122.43	112.44	108.62	105.76	77.08	19%	71.68	16%	6.41	TBD
Maryland	85.19	57.92	52.24	48.49	46.20	80%	44.69	71%	0.18	TBD
Virginia	84.44	67.96	55.84	55.13	52.04	81%	51.37	77%	-	
West Virginia	8.72	8.03	7.76	7.78	8.45	100%	8.23	100%	-	
Delaware	7.42	6.61	6.93	7.28	5.61	0%	4.51	0%	-	
District of Columbia	6.48	2.76	1.64	1.56	2.42	100%	2.42	100%	-	
Total Basinwide Simulated N Load	333.33	270.14	246.85	239.46	203.95	46%	194.29	40%	6.67	TBD

These loads were produced using CAST-23, the current model of record for annual progress.

TBD=percent progress will be calculated when progress data is available.

Phosphorus Interim Targets

	million lbs/yr						million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate -Adjusted Planning Target % Completion since 2009
New York	1.17	0.75	0.58	0.56	0.46	64%	0.43	58%
Pennsylvania	5.95	4.47	3.66	3.58	2.84	55%	2.81	54%
Maryland	7.45	3.95	3.49	3.03	3.57	100%	3.57	100%
Virginia	13.54	6.76	5.51	5.39	5.25	90%	5.25	90%
West Virginia	0.75	0.63	0.42	0.42	0.43	100%	0.42	100%
Delaware	0.22	0.12	0.12	0.11	0.11	58%	0.11	55%
District of Columbia	0.09	0.07	0.06	0.06	0.13	100%	0.13	100%
Total Basinwide Simulated P Load	29.17	16.75	13.84	13.16	12.78	90%	12.71	89%

These loads were produced using CAST-23, the current model of record for annual progress.

Phosphorus Interim Targets w/ Conowingo

	million lbs/yr						million lbs/year		million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate Adjusted Planning Target % Completion since 2009	CWIP Adjustments	CWIP Planning Target % Completion
New York	1.17	0.75	0.58	0.56	0.46	64%	0.43	58%	(0.013)	TBD
Pennsylvania	5.95	4.47	3.66	3.58	2.84	55%	2.81	54%	0.153	TBD
Maryland	7.45	3.95	3.49	3.03	3.57	100%	3.57	100%	0.003	TBD
Virginia	13.54	6.76	5.51	5.39	5.25	90%	5.25	90%	-	
West Virginia	0.75	0.63	0.42	0.42	0.43	100%	0.42	100%	-	
Delaware	0.22	0.12	0.12	0.11	0.11	58%	0.11	55%	-	
District of Columbia	0.09	0.07	0.06	0.06	0.13	100%	0.13	100%	-	
Total Basinwide Simulated P Load	29.17	16.75	13.84	13.16	12.78	90%	12.71	89%	0.143	TBD

These loads were produced using CAST-23, the current model of record for annual progress.

TBD=percent progress will be calculated when progress data is available.

Sediment Interim Targets

	million lbs/yr						million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate -Adjusted Planning Target % Completion since 2009
New York	798	697	645	636	533	37%	533	37%
Pennsylvania	3,641	3,270	2,708	2,610	2,161	60%	2,161	60%
Maryland	8,277	7,612	7,506	7,481	8,343	100%	8,343	100%
Virginia	6,762	6,561	6,350	6,300	6,872	100%	6,872	100%
West Virginia	733	598	541	538	609	100%	609	100%
Delaware	63	48	32	33	27	69%	27	69%
District of Columbia	43	44	35	36	42	100%	42	100%
Total Basinwide Simulated S Load	20,318	18,830	17,817	17,634	18,587	100%	18,587	100%

These loads were produced using CAST-23, the current model of record for annual progress.

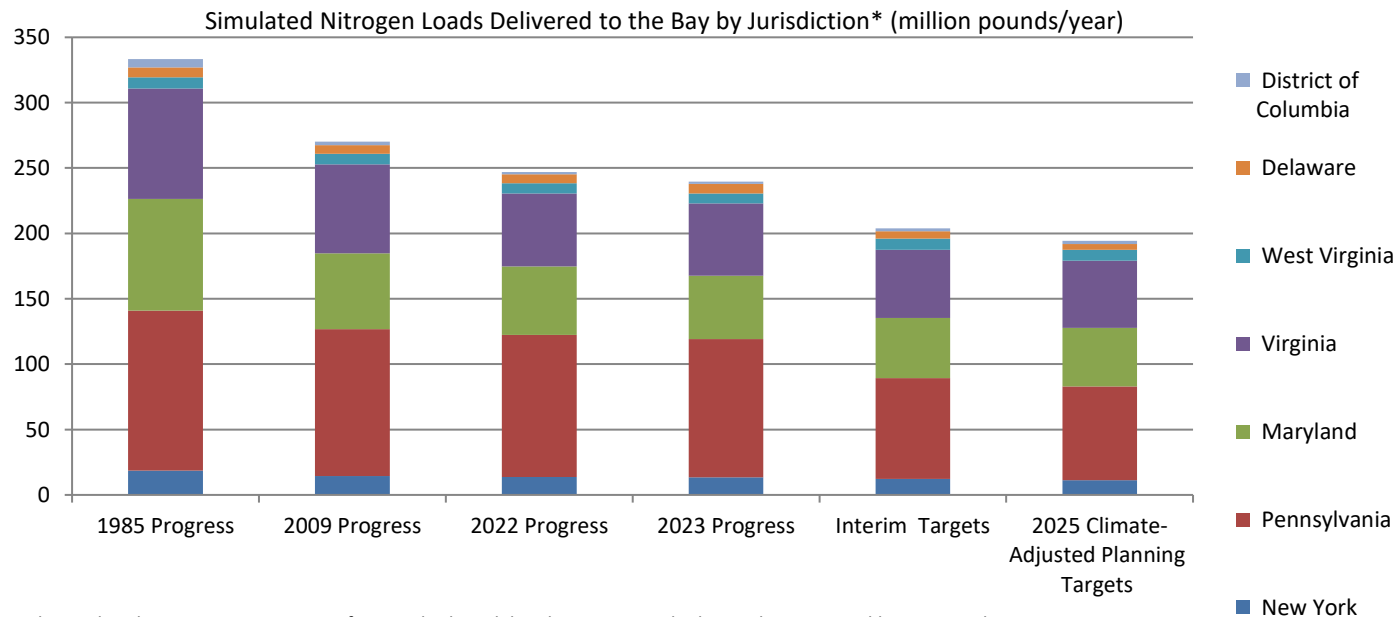
Sediment Interim Targets w/ Conowingo

	million lbs/yr						million lbs/year		million lbs/year	
<i>By Jurisdiction</i>	1985 Progress	2009 Progress	2022 Progress	2023 Progress	Interim Planning Targets	Interim Planning Target % Completion since 2009	2025 Climate Adjusted Planning Targets	2025 Climate Adjusted Planning Target % Completion since 2009	CWIP Adjustments	CWIP Planning Target % Completion
New York	798	697	645	636	533	37%	533	37%	(3)	TBD
Pennsylvania	3,641	3,270	2,708	2,610	2,161	60%	2,161	60%	172	TBD
Maryland	8,277	7,612	7,506	7,481	8,343	100%	8,343	100%	8	TBD
Virginia	6,762	6,561	6,350	6,300	6,872	100%	6,872	100%	-	
West Virginia	733	598	541	538	609	100%	609	100%	-	
Delaware	63	48	32	33	27	69%	27	69%	-	
District of Columbia	43	44	35	36	42	100%	42	100%	-	
Total Basinwide Simulated S Load	20,318	18,830	17,817	17,634	18,587	100%	18,587	100%	177	TBD

These loads were produced using CAST-23, the current model of record for annual progress.

TBD=percent progress will be calculated when progress data is available.

Chesapeake Progress Mock Up



*Loads simulated using CAST23 version of Watershed Model and wastewater discharge data reported by Bay jurisdictions..

Office Hours Planned!

- **Tuesday 8/6: 1-2pm**
- **Monday 8/12: 2-3pm**
- **Thursday 8/22: 3-4pm**



Thank you!

Any questions?

You can contact me at mcdonnell.lee@epa.gov



Chesapeake Bay Program

Science. Restoration. Partnership.

Major	State		2020 Climate Adjustments			2023 Unaccounted Additional Loads			2023 Planning Targets with climate and UALs		
Major	State	StateBasin	Nitrogen	Phosphorus	EU	Nitrogen	Phosphorus	EU	Nitrogen	Phosphorus	EU
Potomac	DC	DC Potomac	0.01	0.001	0.1	0.00	0.000	0.0	2.42	0.129	34.8
Eastern Shore	DE	DE Eastern Shore	0.04	0.003	0.5	1.10	0.001	11.0	5.61	0.106	58.8
Eastern Shore	MD	MD Eastern Shore	0.37	0.032	4.9	0.81	0.000	8.5	16.04	1.258	209.8
Patuxent	MD	MD Patuxent	0.11	0.019	2.0	0.02	0.000	0.3	3.12	0.281	47.7
Potomac	MD	MD Potomac	0.21	0.033	3.6	0.57	0.000	7.8	16.15	1.057	245.3
Susquehanna	MD	MD Susquehanna	0.14	0.007	2.6	0.10	0.000	1.7	1.56	0.043	27.2
Western Shore	MD	MD Western Shore	0.31	0.020	5.1	0.00	0.000	0.0	9.32	0.929	164.2
Susquehanna	NY	NY Susquehanna	0.40	0.044	8.2	0.77	0.027	13.6	12.17	0.458	216.3
Eastern Shore	PA	PA Eastern Shore	0.05	0.005	0.7	0.06	0.001	0.7	0.47	0.018	5.6
Potomac	PA	PA Potomac	0.04	0.008	0.7	0.84	0.023	12.3	6.95	0.353	105.4
Susquehanna	PA	PA Susquehanna	1.72	0.082	31.3	4.50	0.009	73.7	69.64	2.471	1232.0
Western Shore	PA	PA Western Shore	0.00	0.000	0.1	0.00	0.000	0.0	0.02	0.001	0.4
Eastern Shore	VA	VA Eastern Shore	0.01	0.000	0.1	0.17	0.000	2.6	1.99	0.152	33.3
James	VA	VA James	0.30	0.143	1.8	0.00	0.000	0.0	21.51	2.097	68.9
Potomac	VA	VA Potomac	0.56	0.073	9.3	0.08	0.000	1.1	16.03	1.750	258.4
Rappahannock	VA	VA Rappahannock	0.54	0.102	6.1	0.24	0.000	2.1	6.78	0.717	68.5
York	VA	VA York	0.17	0.018	1.0	0.17	0.000	0.9	5.72	0.530	33.1
James	WV	WV James	0.00	0.000	0.0	0.00	0.000	0.0	0.05	0.006	0.2
Potomac	WV	WV Potomac	0.00	0.008	0.2	0.22	0.005	3.1	8.39	0.423	127.3
AllTributaries	AllJurisdiction	AllStateBasins	4.99	0.60	78.24	9.66	0.066	139.42	203.95	12.78	2937.17

Office Hours and Additional Suggestions

- Take out Planning and use Interim Targets
- Need to be clear on what math is applied for interim targets
- Should add in Conowingo to the table
- Add 2025 to the heading describing climate loads
- Need to address 2026-202? Progress reporting in terms of percentage of goal met

WQGIT Decision

- Accept the definitions for “Initial”, “Interim”, and “2025 Climate Adjusted” targets
- Accept the tables as shown to be used for presentation to the MB and PSC for how 2024 and 2025 progress will be displayed