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CWGT

Scenario Base Year Overview

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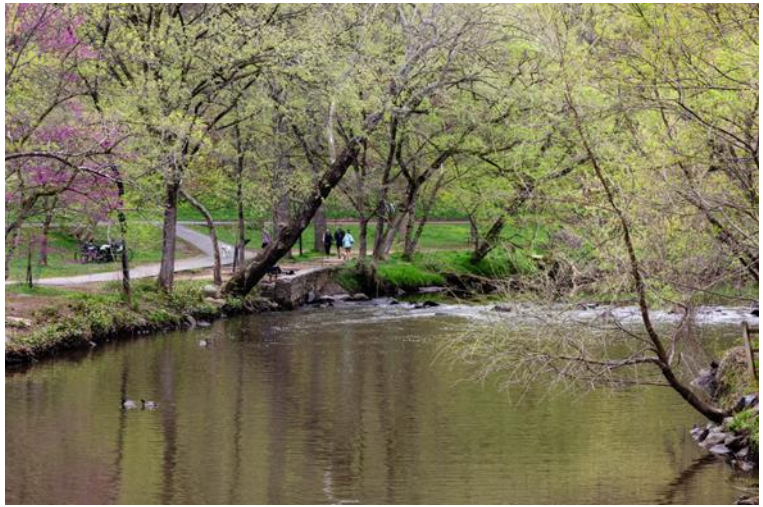
CWGT Request to Sector Workgroups

Sector Workgroups are to provide insight on preferences on the following to the CWGT by August, and for decision in September 2026:

- Scenario Base Year –what base year should be utilized for the scenarios.

- Scenario (E3) Inputs- WWTP and relative effectiveness governed effort for point source vs non-point source, exfiltration, CSOs, and Septic system considerations



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Reason for CWGT Request

The Chesapeake Bay Program partnership uses a methodology to derive the basin-jurisdiction allocations that leans upon model parameters related to N, P, and overall performance:

- Hydrologic period
- Critical period
- Relative Effectiveness
- Defined controllable loads

Scarlet oak during fall. (Photo courtesy of Ashley M Bradford/iNaturalist CC BY-NC, cropped)

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Scenario Base Year Summary

What is a Scenario Base Year?

- The year that future and past trend analyses for land use, agricultural assumptions, and other model parameters are based on to produce base conditions for other years.
- When data is not available, program backcasts or forecasts these modeled parameters to produce the modeled landscape in other years.
- Forecasts from the scenario base year are automatically through 2075 – for changing environmental conditions work, and through 2040 for WIP scenario development

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Suggested Scenario Base Year Options

2010

- Used in Phase 5.3.2 and Phase 6 as Scenario Base Year
- Land use and septic systems here are confirmed in backcast using updated data sources.
- Other data categories lean upon the past data submissions that were received during that year.

- For example, the 2022 land use would be referenced to produce a more accurate picture of what the land use was in 2010, using the past land use categories (2007).

2022

- Crop Acres, Yields, and Animal Populations updated to more recent Ag Census
- Land use updated to current categories
- Population/Septic Systems mapping update
- Organic and Inorganic Nutrients (Fertilizer, Biosolids, and Manure) update

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Considerations with Scenario Base Year change:

- What is the level of confidence associated with each dataset (e.g., LULC, animals, septics) at different scenario base years?
- How are loads associated with growth across state-basins distributed?
- How does a proposed scenario base year compare with the previous scenario base year of 2010 for Phase 6 and Phase 5.3.2?
- NOTE: It is **not possible** to predict exactly how a change in scenario base year will affect loads and planning targets due to a myriad of changes taking place in Phase 7 (e.g., different methods, inputs, scale). Any additional changes to the critical period, hydrologic averaging period, or planning targets method would also have an influence (to some degree).

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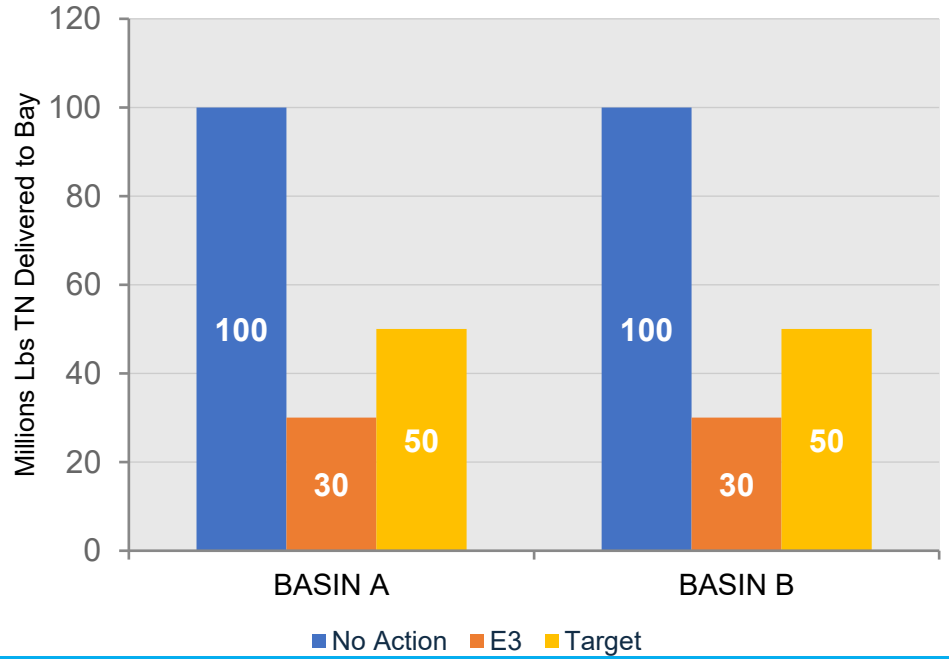
Considerations: How are loads associated with growth across state-basins distributed?



Basins with Equal Effort & Targets

- Scenario year = 2010
- Targets must sum to 100
- Basins have same impact on DO.
- Basins have same no action, E3 and targets.
- **% Reduction needed = 71% for both basins.**

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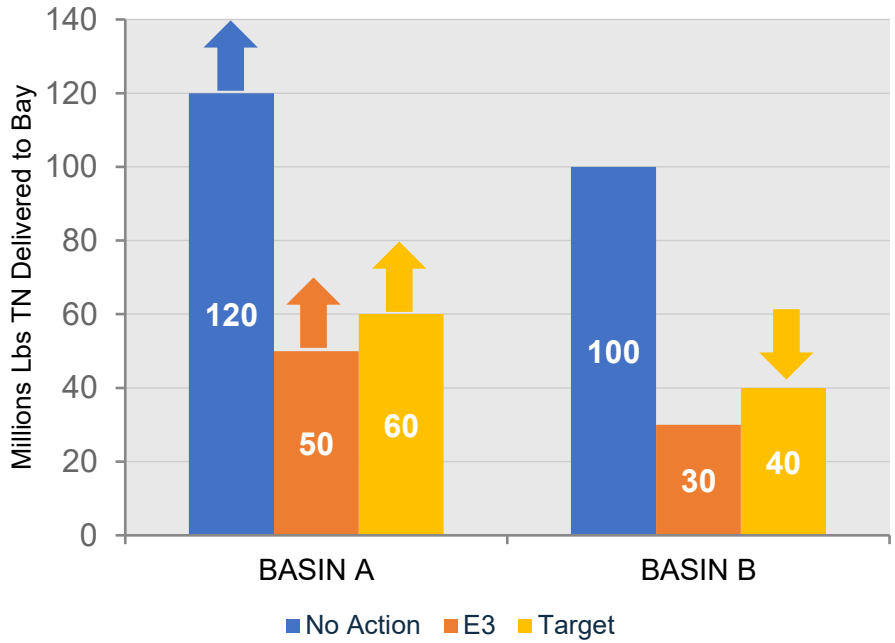
Considerations with Scenario Base Year change:
How are loads associated with growth across state-basins distributed?



Basin A Grows, Basin B Does Not

- Scenario year = 2022
- Targets must = 100
- Basin A grows.
- Basin B does not grow.
- **% Reduction needed for both basins = 86%**
- **Basin B has more to do!**

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Considerations: What is the level of confidence associated with each dataset at different scenario base years?

Criterion	2010	2022
Level of Confidence in Data (LU, Animals, Septics, etc.)	Less Confidence	More Confidence
Consistency with Phase 6 and Phase 5.3.2 decisions	Same Year	Not Consistent
Responsibility for additional load from a state-basin that grows (in load due to LU, Animals, Septics, etc.)	State basin that is growing	All state-basins

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Scenario Base Year (and E3) Timeline for Review and Completion

Request Deliverables:

- Presentation outlining desired scenario base year (and E3 assumptions), and major reasons why your group feels this base year would be the appropriate choice.
- This is to the inform the CWGT's decision on the scenario base year and the E3 scenario assumptions.

Timeline:

- August CWGT – Draft presentation ready for discussion from workgroups
- September CWGT – Finalize Scenario Base Year (and E3 Assumptions)
- Review window to complete scenario and inputs by September 2026 is similar to Phase 6.

Thank you!

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