Chesapeake Bay Program Partnership' 2017 Chesapeake Bay TMDL Midpoint Assessment

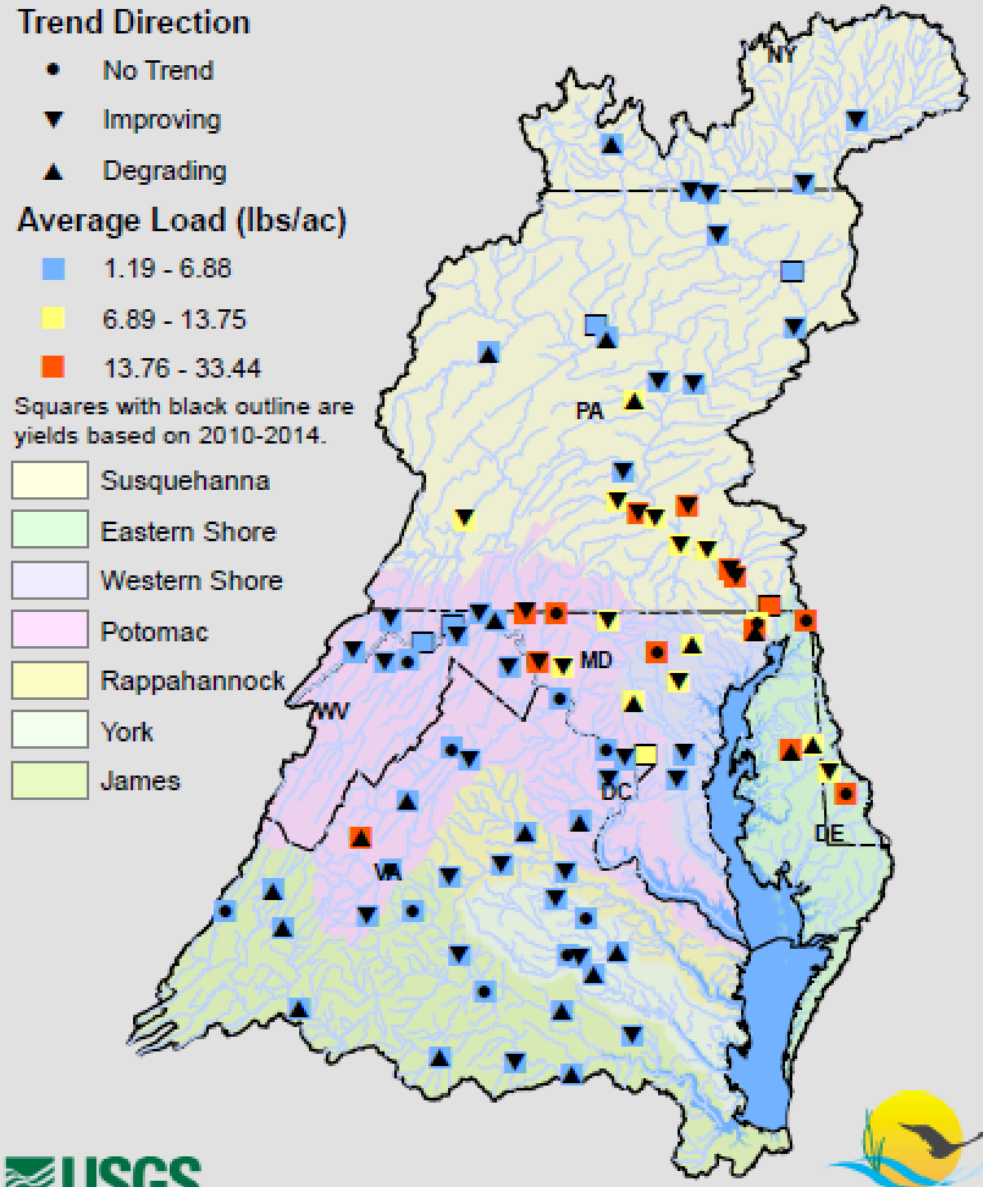
Metropolitan Washington Council of Governments Chesapeake Bay & Water Resources Policy Committee

September 16, 2016

Rich Batiuk, Associate Director for Science, Analysis and Implementation

Chesapeake Bay Program Office
U.S. Environmental Protection Agency
Annapolis, Maryland

Total Nitrogen per Acre Loads and Trends: 2005-2014

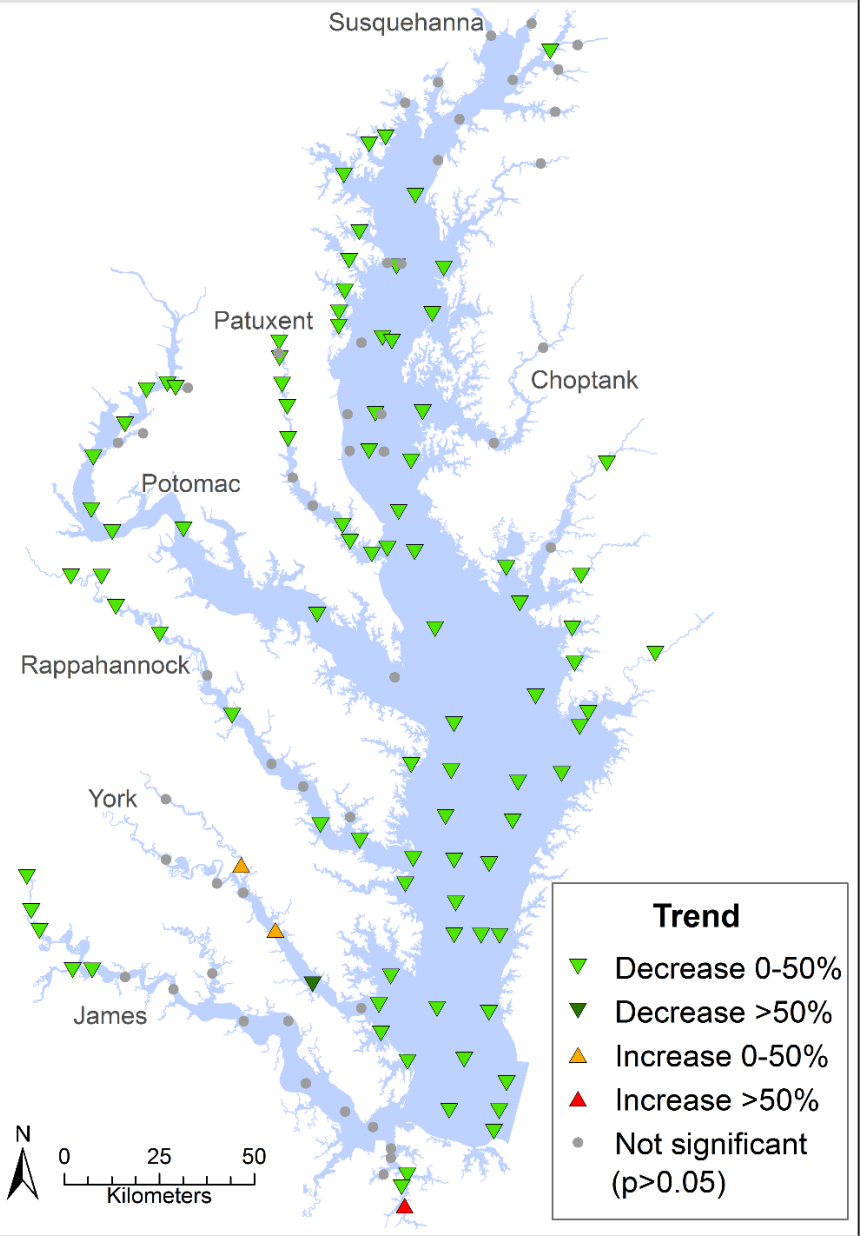


USGS science for a changing world

Prepared on 10/20/15

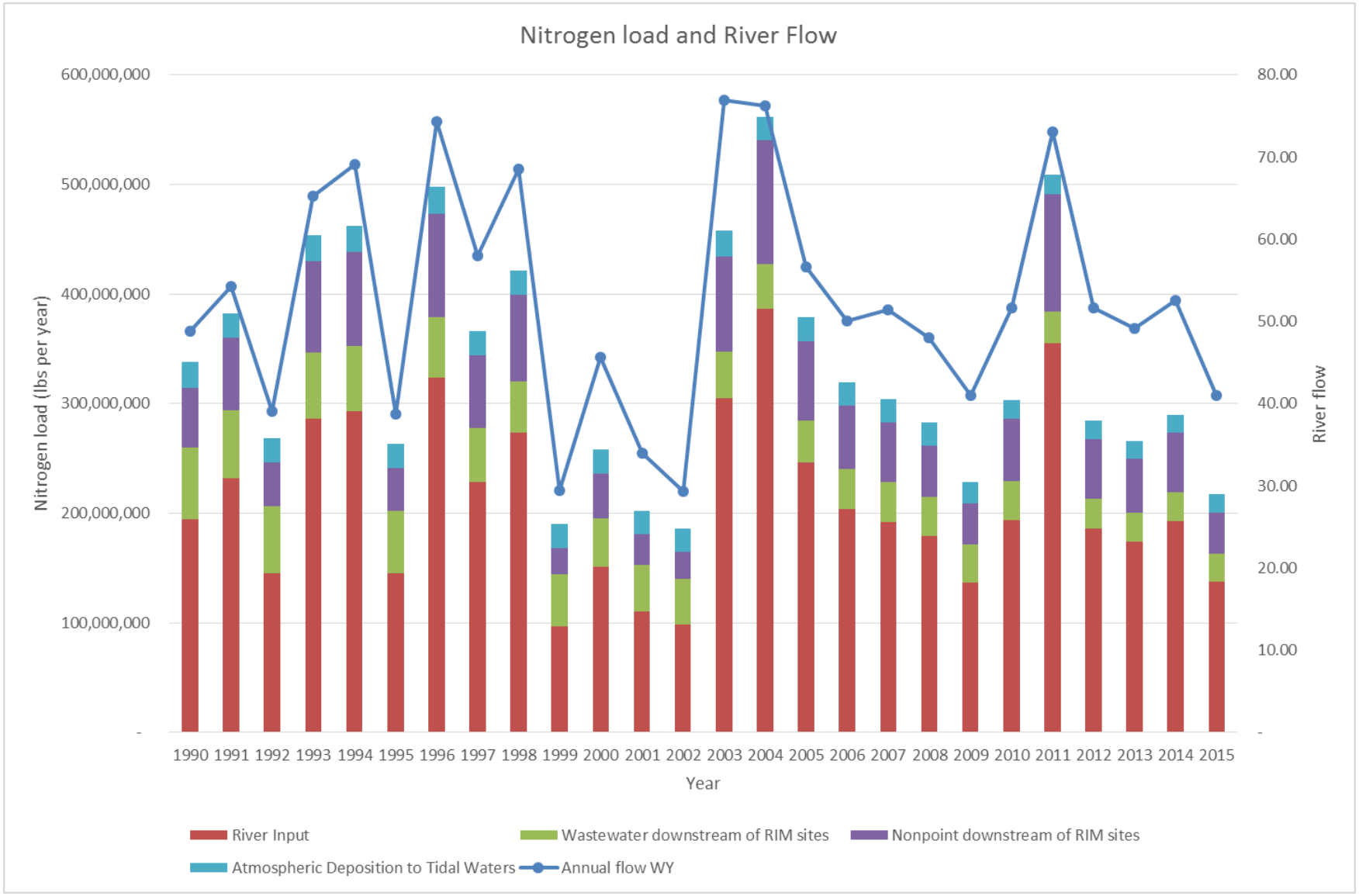
Chesapeake Bay Program

Trends for Surface Total Nitrogen in the Chesapeake Bay: 2005-2014

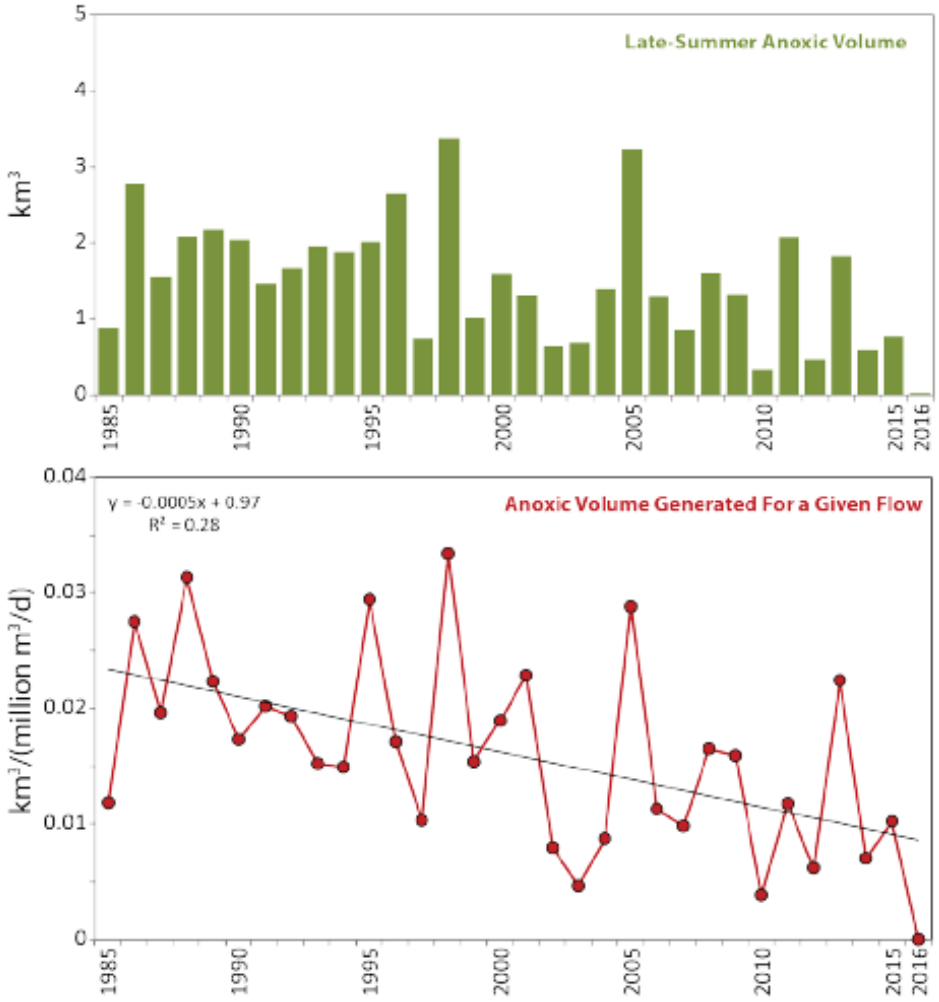


GAM Method Preliminary Results, Subject to Review

Over the Past Decade, There are Now Lower Nutrient Loads During Higher River Flows

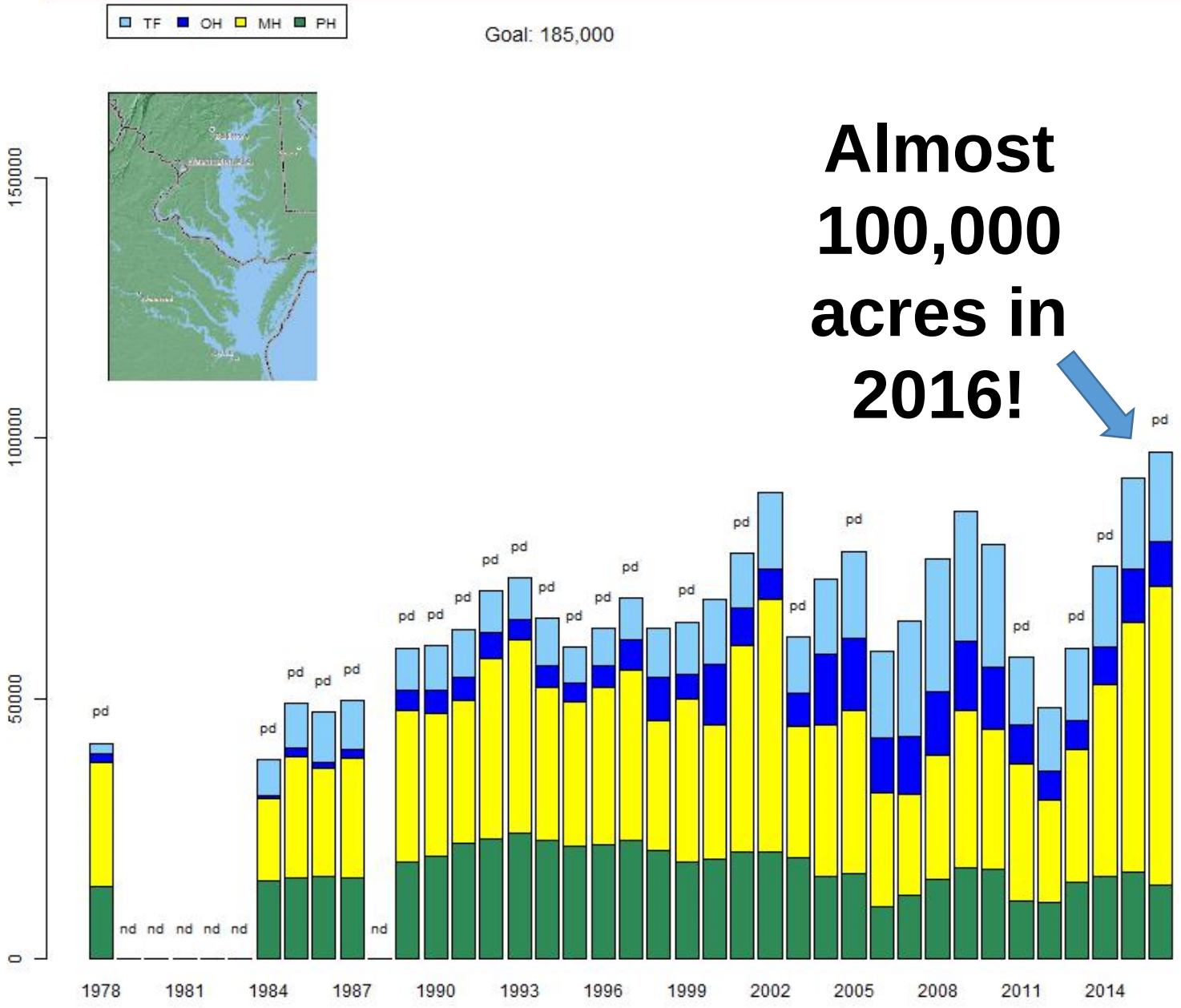


The Chesapeake Bay's Summertime Dead Zone is Decreasing in Size!



Source: Testa, 2017 unpublished

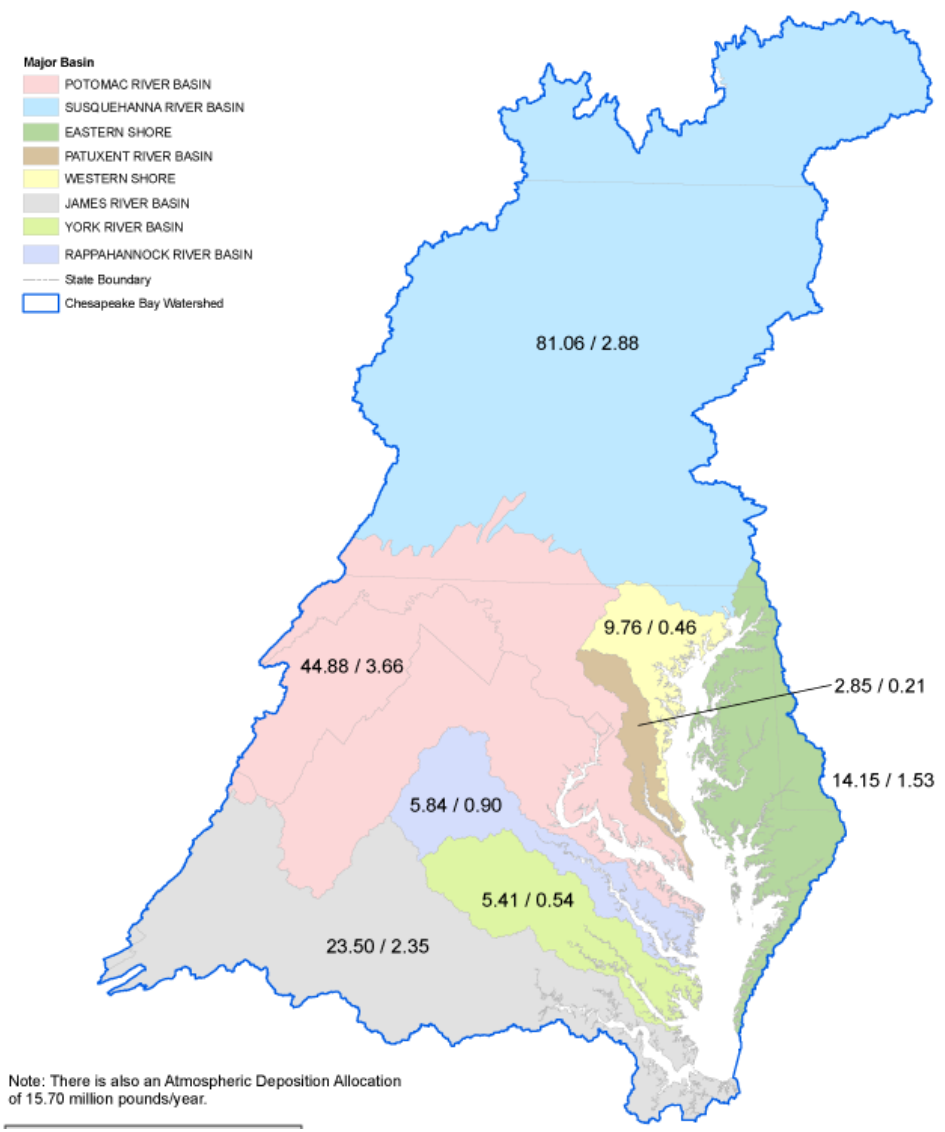
Chesapeake Bay Underwater Grasses are More than Halfway to their Restoration Goal

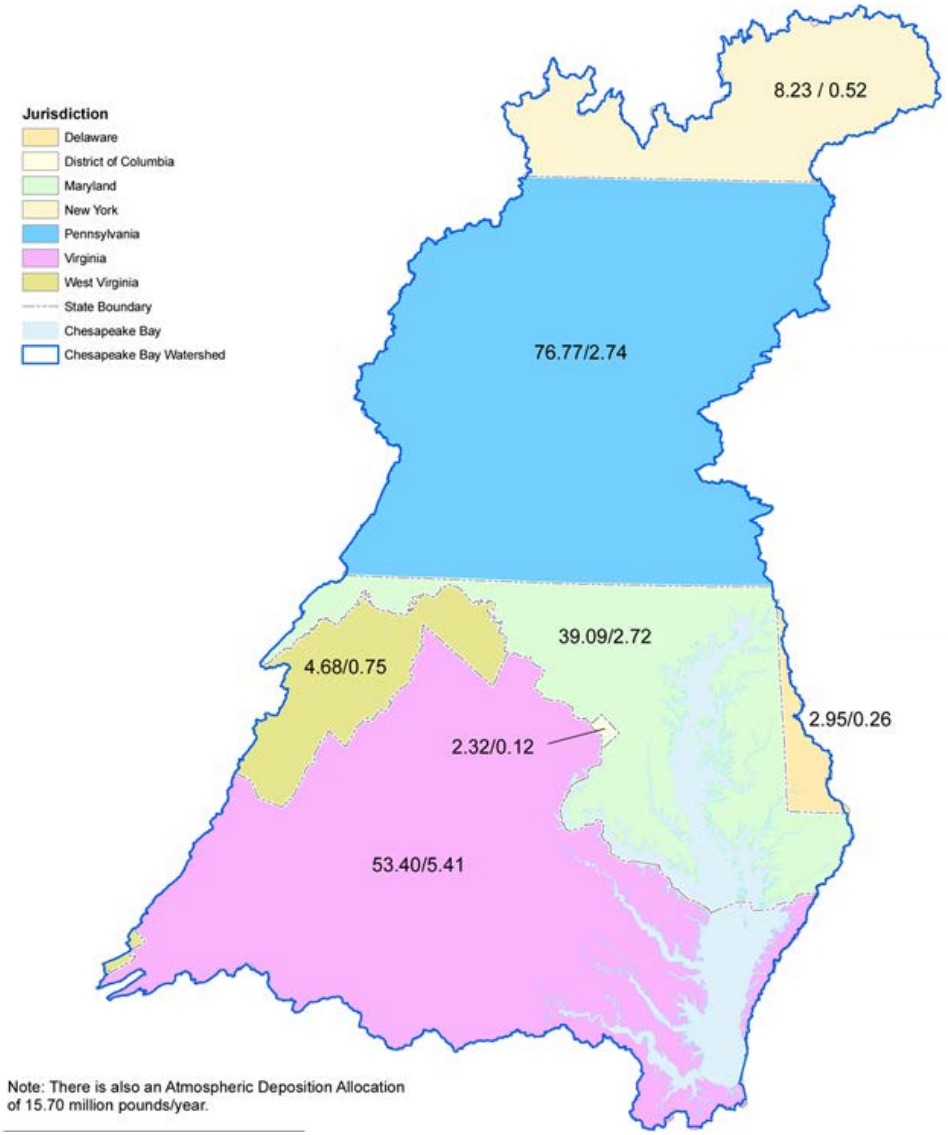


Phase III WIP Expectations – Top 4

- Programmatic and numeric implementation commitments for 2018-2025
- Strategies for engagement of local, regional and federal partners in implementation
- Account for changed conditions: climate change, Conowingo Dam infill, growth
- Develop, implement local planning goals below the state-major basin scales

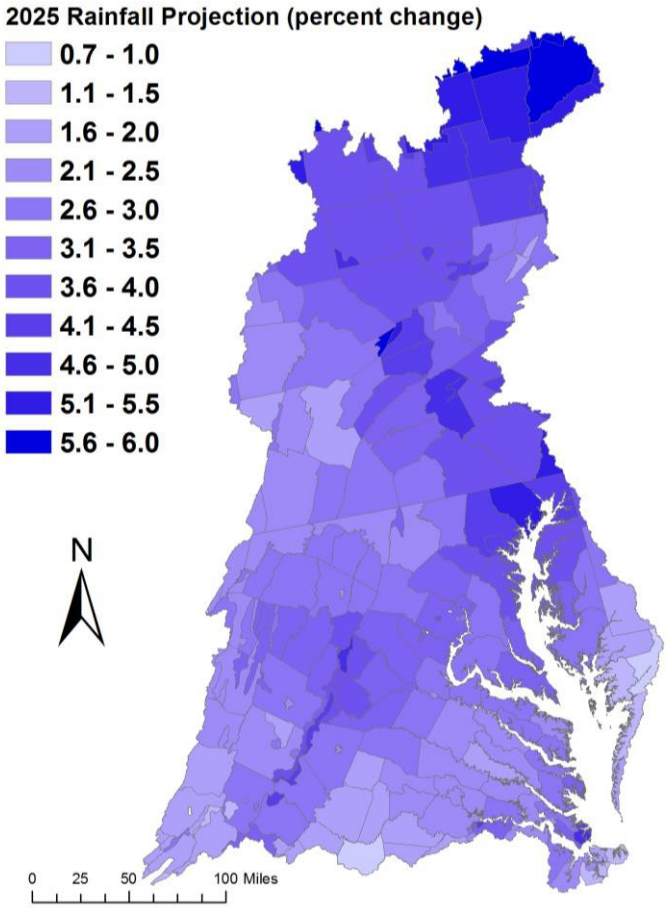
Reach Agreement on Phase III WIPs Planning Targets by Jurisdiction and Major River Basin





How to Incorporate Climate Change Considerations into the Phase III WIPs

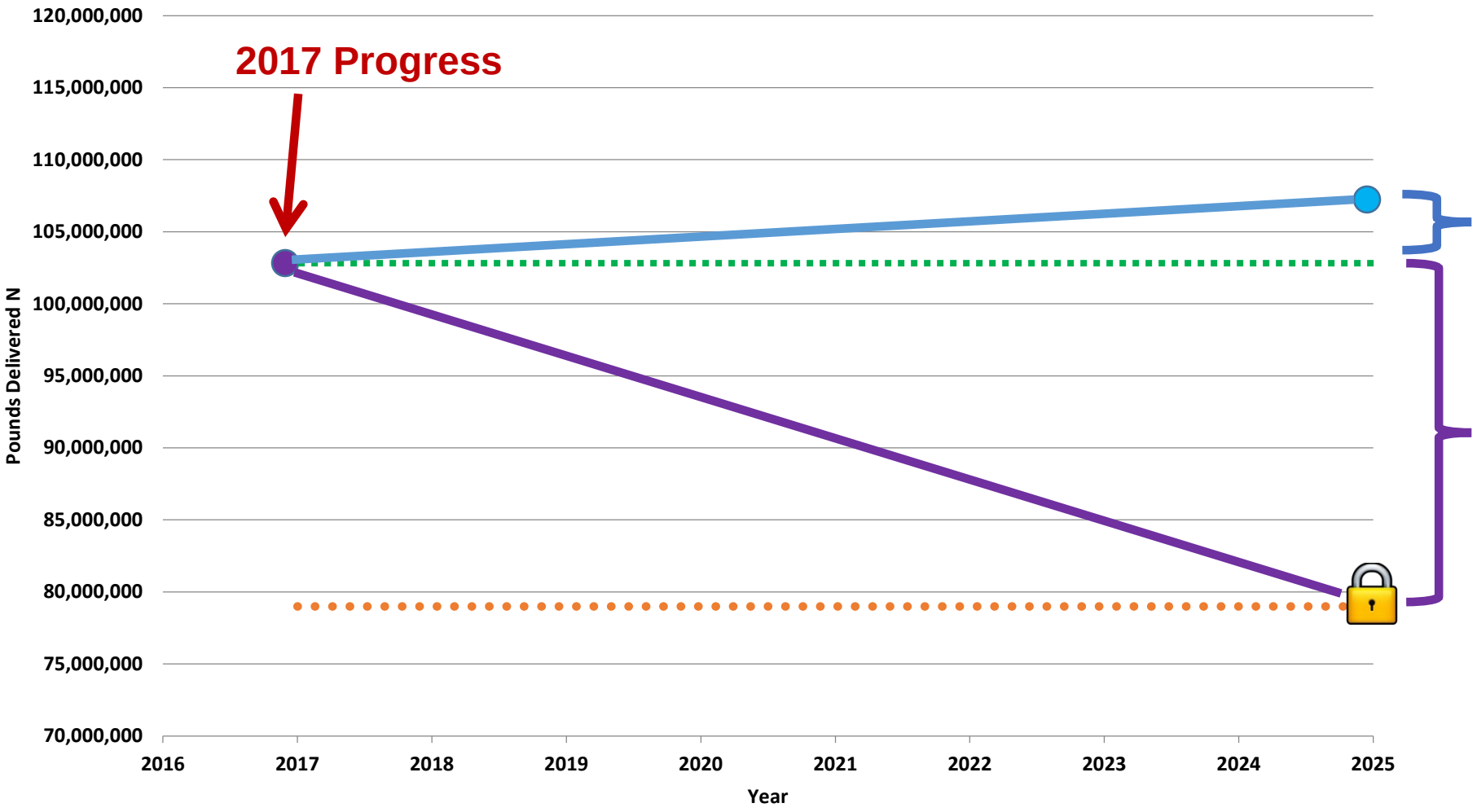
Rainfall projections using the trends in 88-years of annual PRISM[1] data



Change in Rainfall Volume 2021-2030 vs. 1991-2000

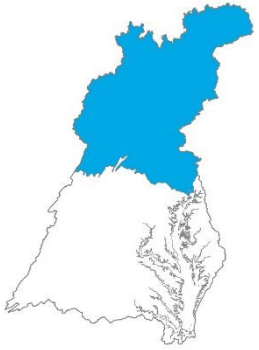
Major Basins	PRISM Trend
Youghiogheny River	2.1%
Patuxent River Basin	3.3%
Western Shore	4.1%
Rappahannock River Basin	3.2%
York River Basin	2.6%
Eastern Shore	2.5%
James River Basin	2.2%
Potomac River Basin	2.8%
Susquehanna River Basin	3.7%
Chesapeake Bay Watershed	**3.1%**

How to Account for and Offset Growth in Pollutant Loads in the Phase III WIPs



How to Offset the Additional Loads Due to Conowingo Dam Infill

Who?



How?

Allocation equity rules used in the Bay TMDL

Most cost effective practices and locations

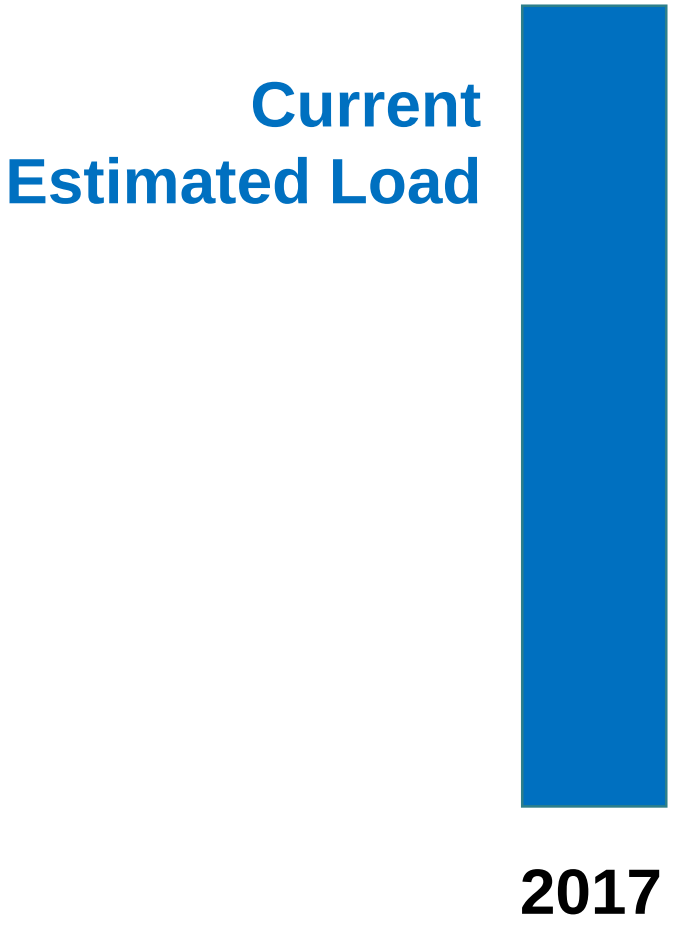
When?

By 2025

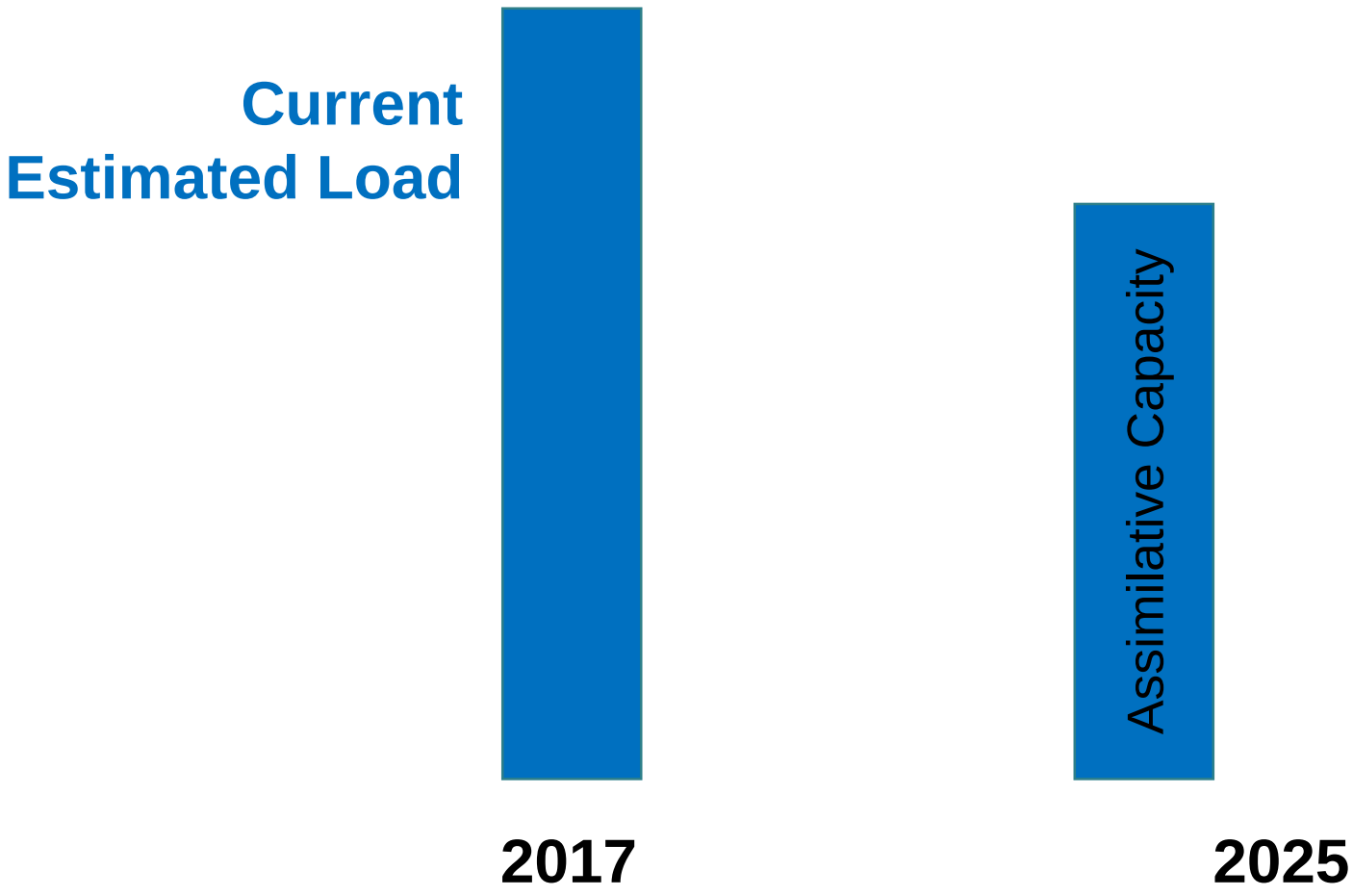
Beyond 2025

Post 2025

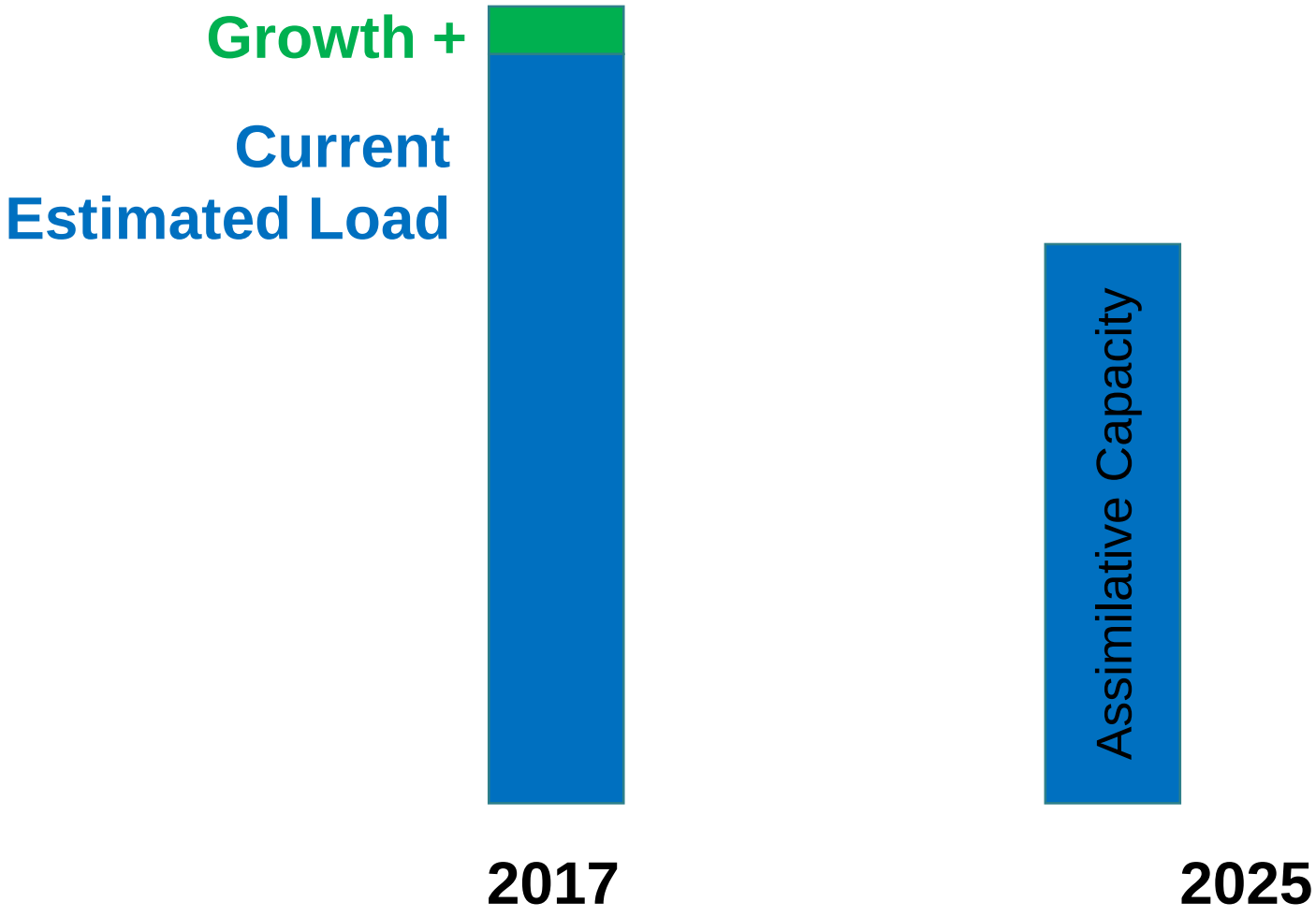
Setting the Stage for the Jurisdictions' Phase III WIPs



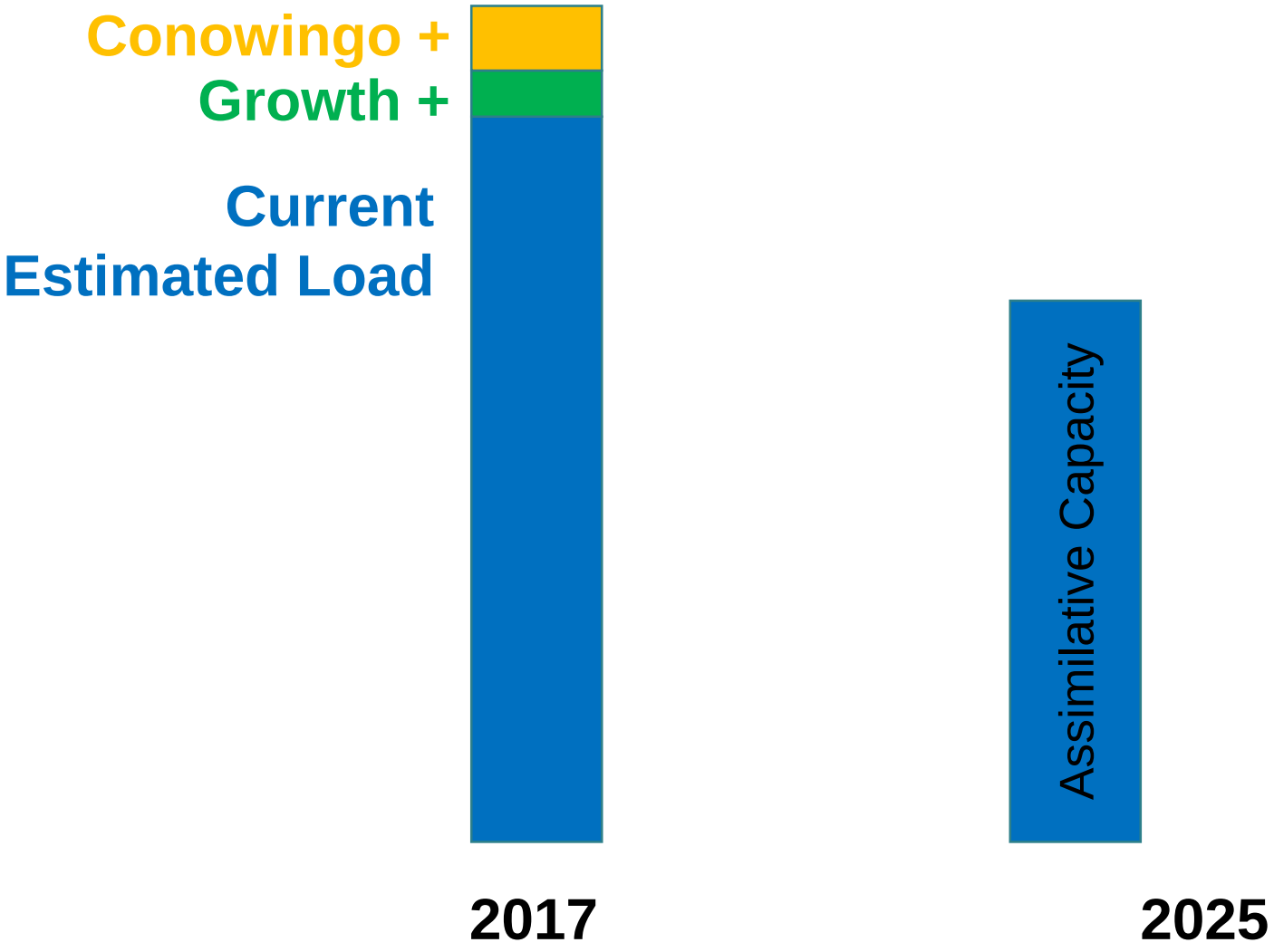
Setting the Stage for the Jurisdictions' Phase III WIPs



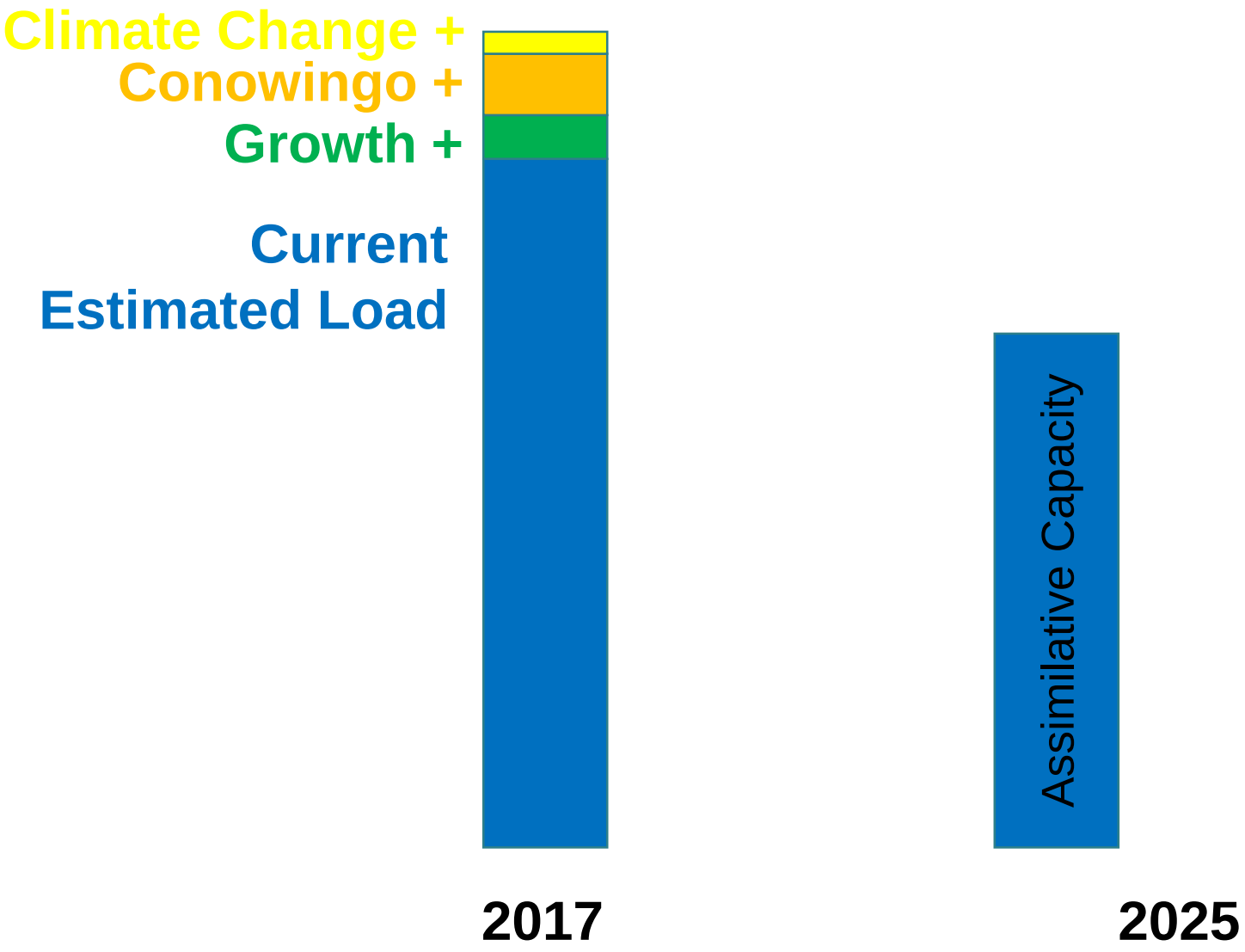
Setting the Stage for the Jurisdictions' Phase III WIPs



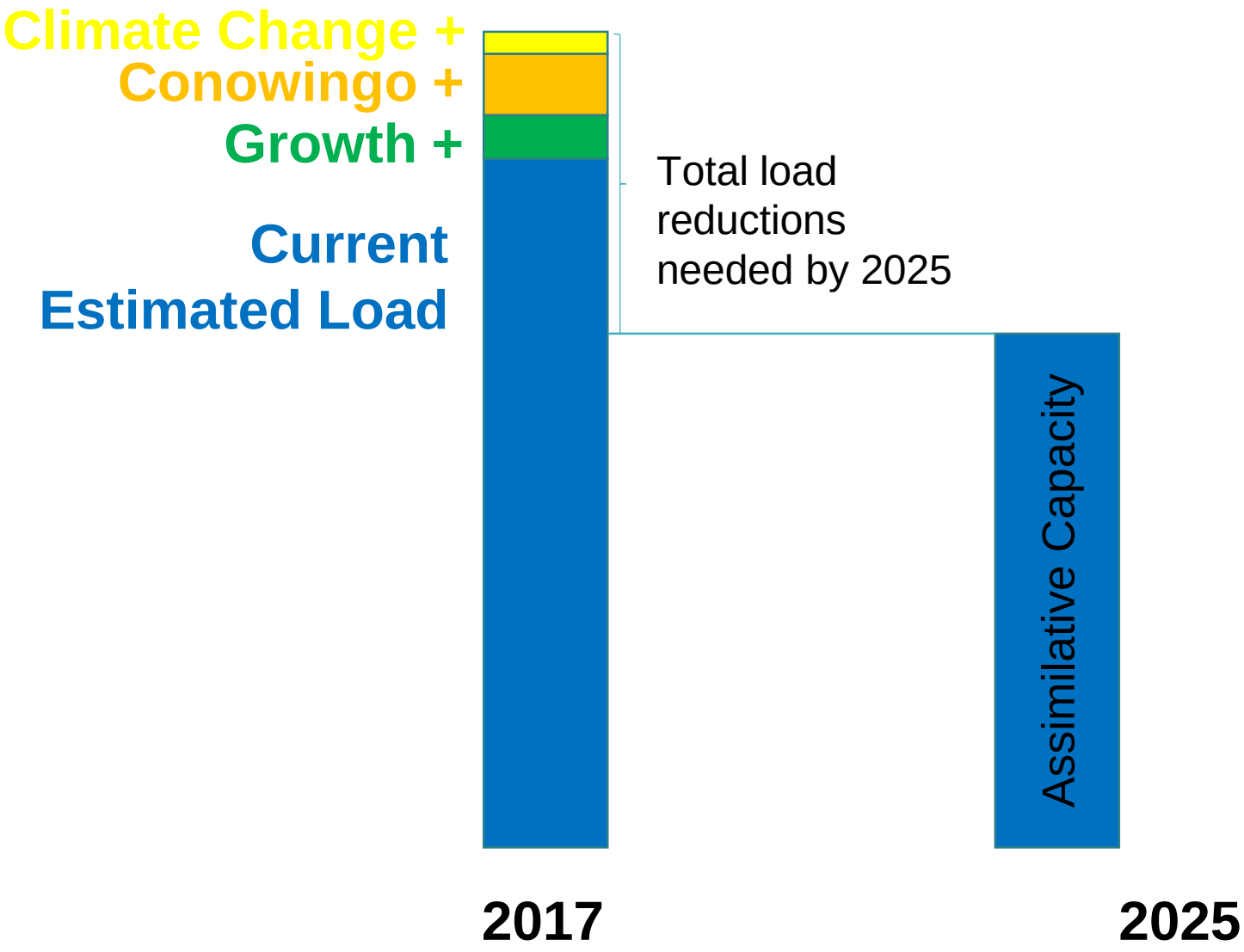
Setting the Stage for the Jurisdictions' Phase III WIPs



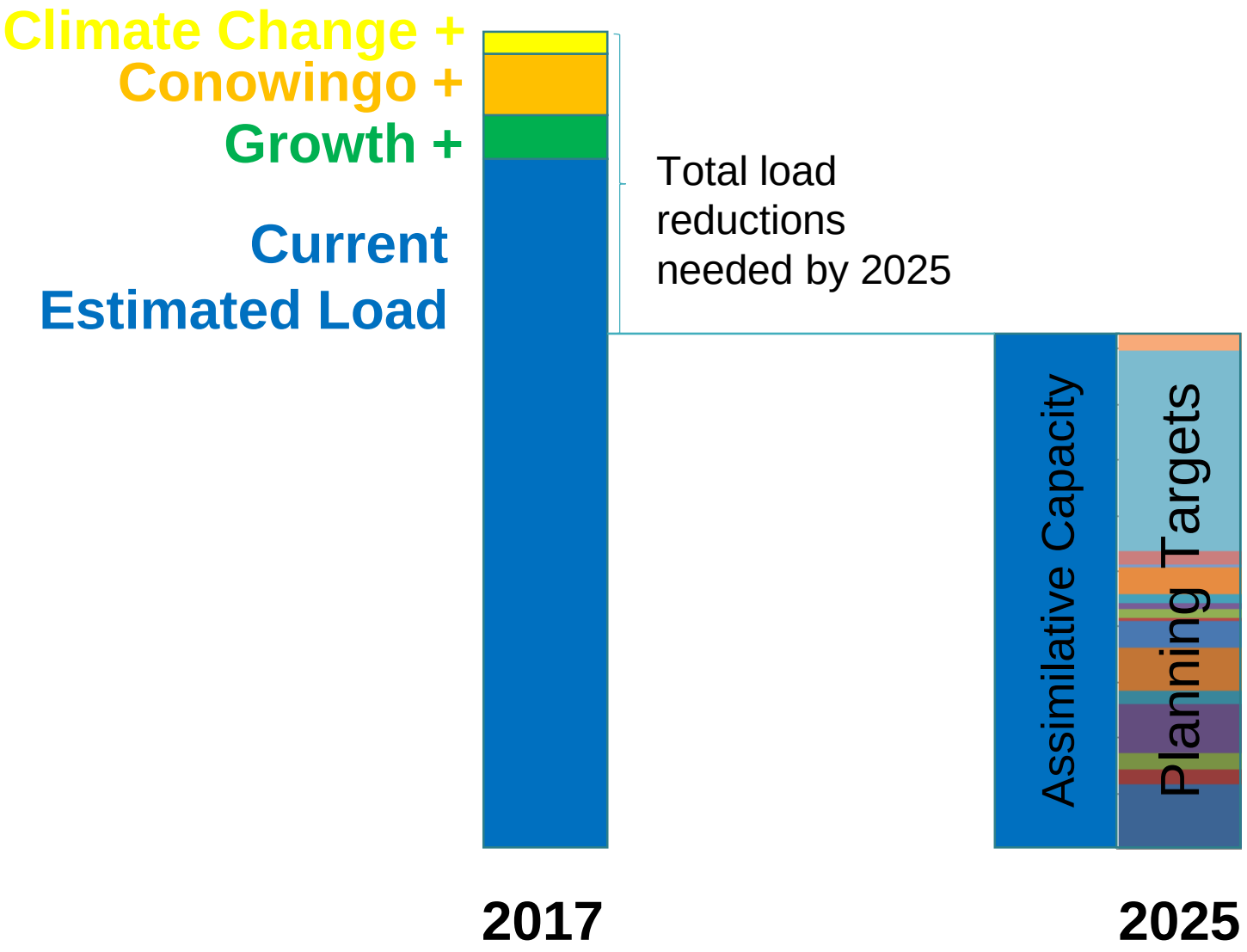
Setting the Stage for the Jurisdictions' Phase III WIPs



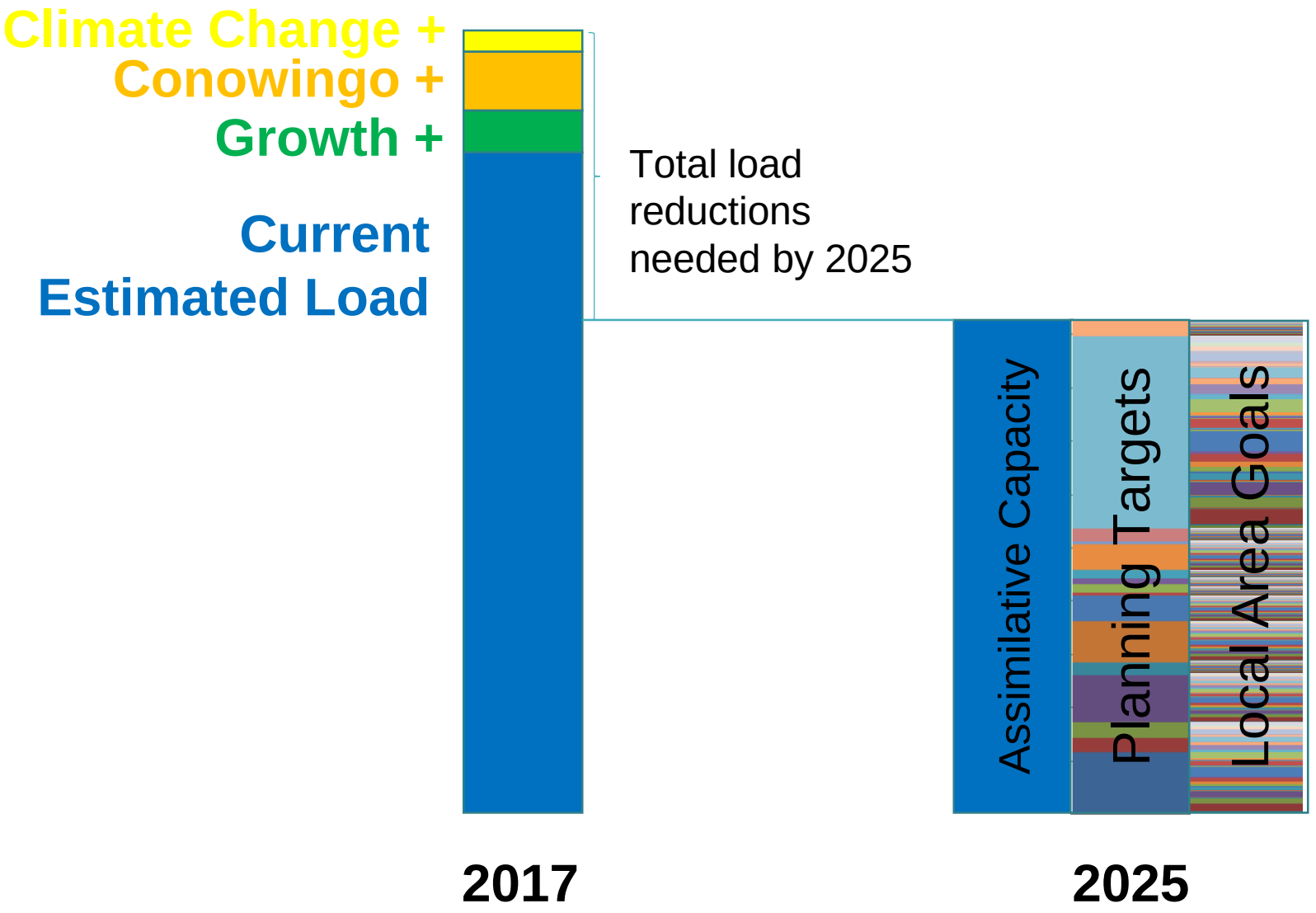
Setting the Stage for the Jurisdictions' Phase III WIPs



Setting the Stage for the Jurisdictions' Phase III WIPs



Setting the Stage for the Jurisdictions' Phase III WIPs



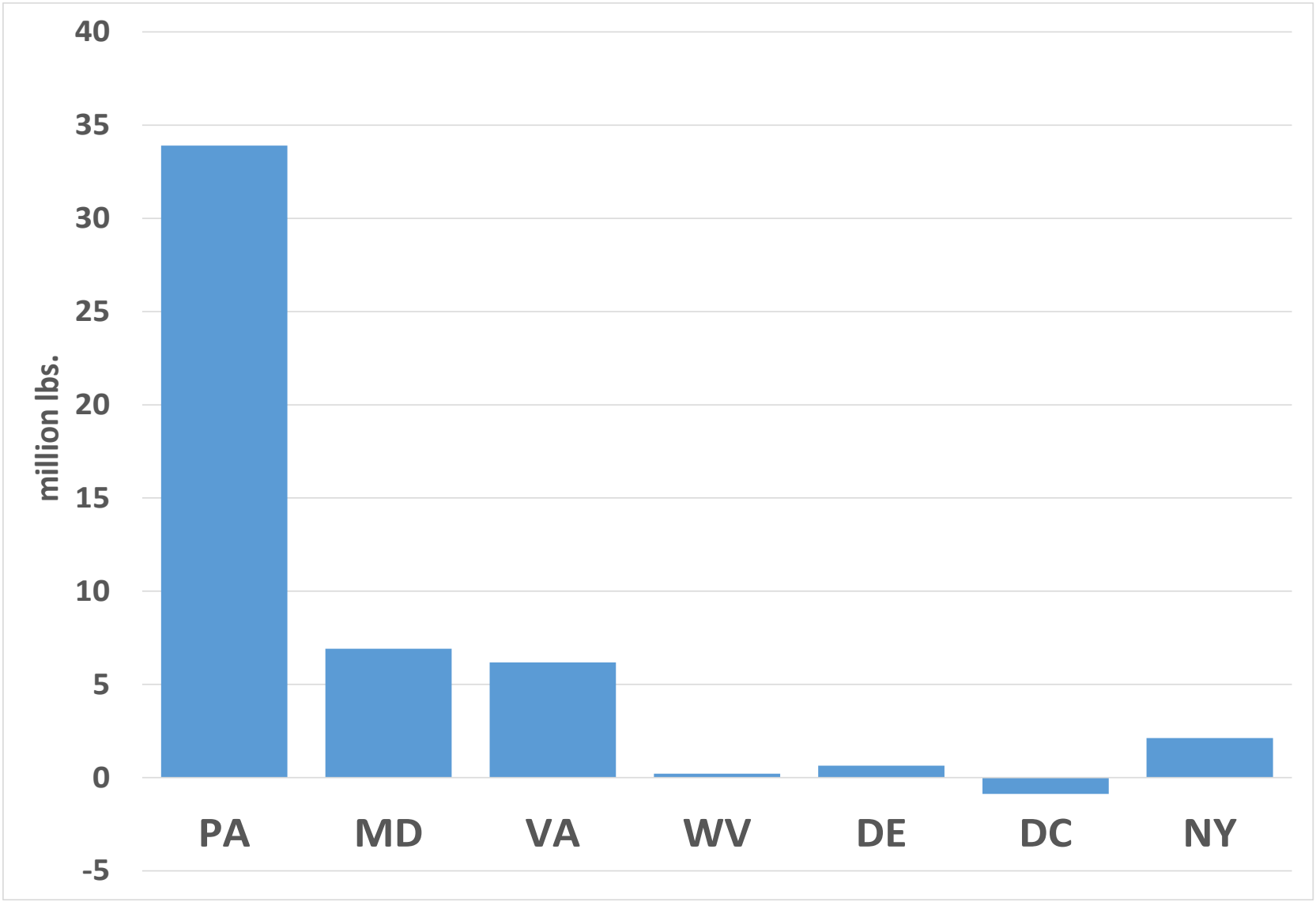
Midpoint Assessment Schedule

- **September 25-26**: Water Quality Goal Implementation Team meeting
- **October 30-31**: Principals' Staff Committee meeting
- **November**: EPA releases final Phase III WIP expectations document
- **November 2017–February 2018**: Review of draft Phase III Planning Targets
- **March 2018**: Decisions on final Phase III Planning Targets by the Principals' Staff Committee

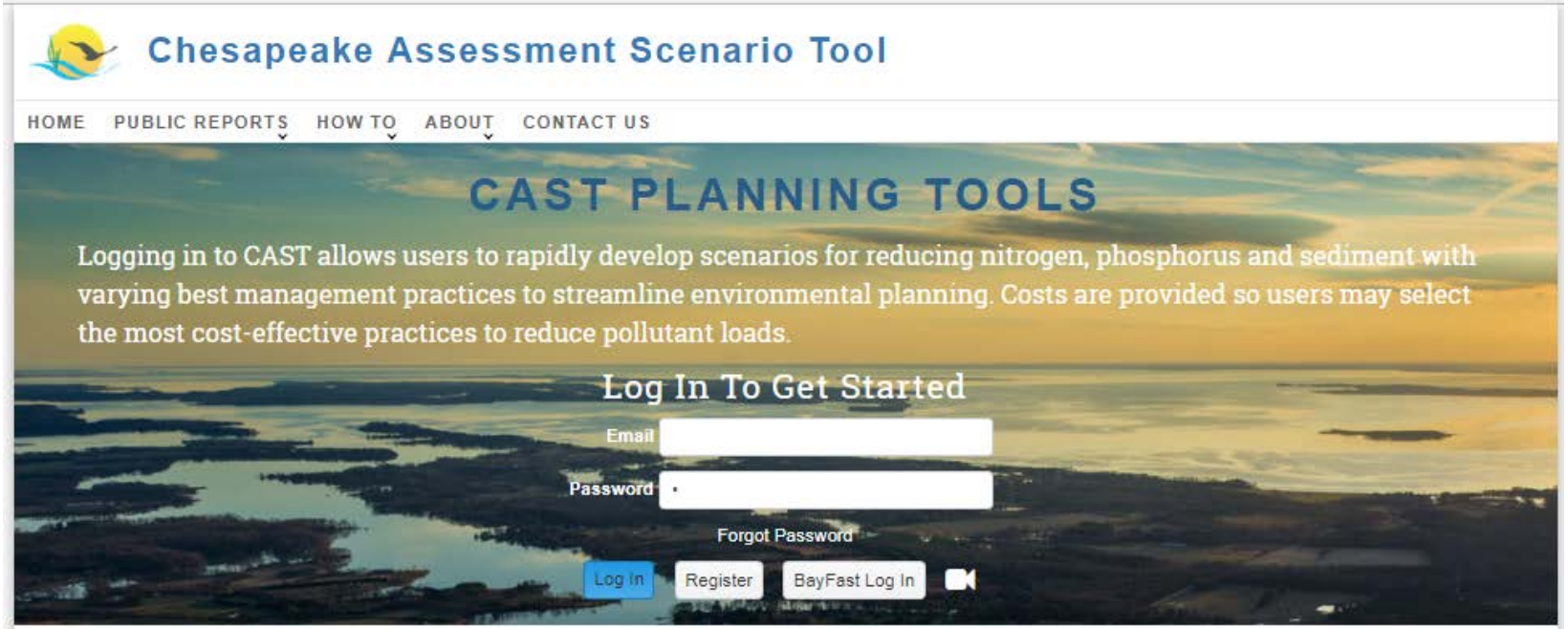
Phase III WIP Schedule

- **April-June 2018**: Jurisdictions work with local partners to develop local planning goals
- **December 14, 2018**: Draft Phase III WIPs posted on jurisdictions' websites for partner and public stakeholder review
- **February 15, 2018**: Partners and public stakeholders' feedback on draft Phase III WIPs due to jurisdictions
- **April 15, 2018**: Final Phase III WIPs posted on jurisdictions' websites

Nitrogen Load to be Reduced by 2025*



*Based on Jurisdictions' Phase II WIPs and Phase 5.3.2 Watershed Model



ADDITIONAL RESOURCES

Frequently requested data and information associated with water quality monitoring and modeling.

MODEL DOCUMENTATION

Find additional information about the Phase 6 model, its documentation and links to model review webinars and files.

Learn More

TRANSITION TO PHASE 6

Get answers to your questions about the transition to the new Chesapeake Bay Partnership's Phase 6 Modeling tools.

Phase 6 FAQs

SOURCE DATA

Download data tables including information on load sources and agencies, BMPs, animals, geographic references and delivery factors.

View Source Data

CALIBRATION INPUTS

Find graphs and maps of inputs to the Phase 6 Watershed Model Calibration for all versions.

View Inputs

BMPs, MODELS & GEOGRAPHY

View additional information on BMPs, CBP Partnership Models, Shapefiles and Geographical Information.

Learn More

TMDL TRACKING

Information on how to submit progress data via NEIEN and view implemenation data on meeting the Chesapeake Bay TMDL.

TMDL Tracking

ADD SCENARIO

Save Cancel View Documentation

* Required field

Version: Draft Final 07/14/2017

Scenario Name *

Oneata NY

Scenario Description *

Current BMPs

(Max. characters 500)

BMPs Available *

Official BMPs

Geographic Scale *

HUC 12-Area in state and CBWS only

Geographic Area *

ny

NY-020501010605 - Goodyear Lake-Susquehanna River
NY-020501010701 - Upper Wharton Creek
NY-020501010702 - Middle Wharton Creek
NY-020501010703 - Lower Wharton

NY-020501010606 - Oneonta Creek-Susquehanna River

Click on Geography to select

Base Condition *

2013

Wastewater Data Set *

2013

Cost Profile *

New York

Share This Scenario With

This feature allows users to share data, compare scenarios and divide work within or between Partnership organizations.

Selected Users

bat

Rich Batiuk

Click on user to select

Notes

(Max. characters 3000)

Copy/Upload BMPs

Upload File | Existing Scenario

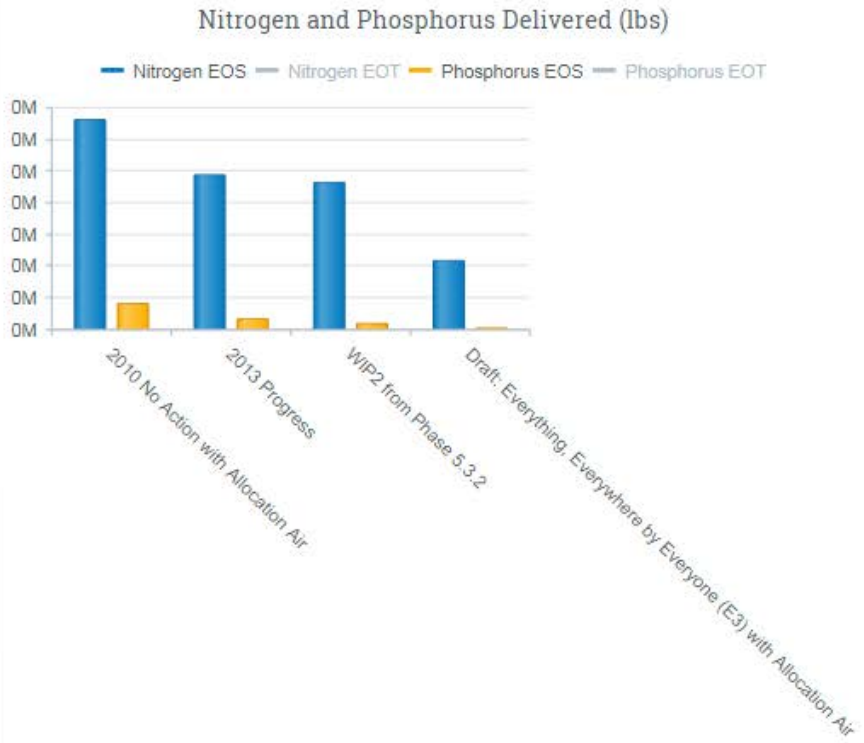
Single Sector State Clear All

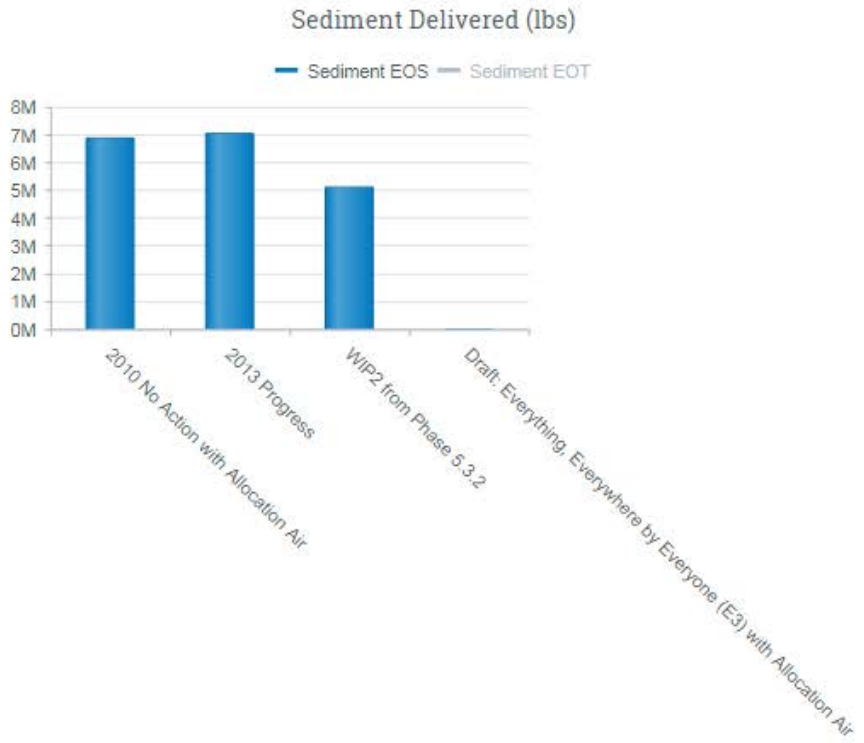
Chesapeake Assessment Scenario Tool

GRAPH SCENARIOS

Create Graph | Loads | Sources

Print





 Software Release: 4.3.1

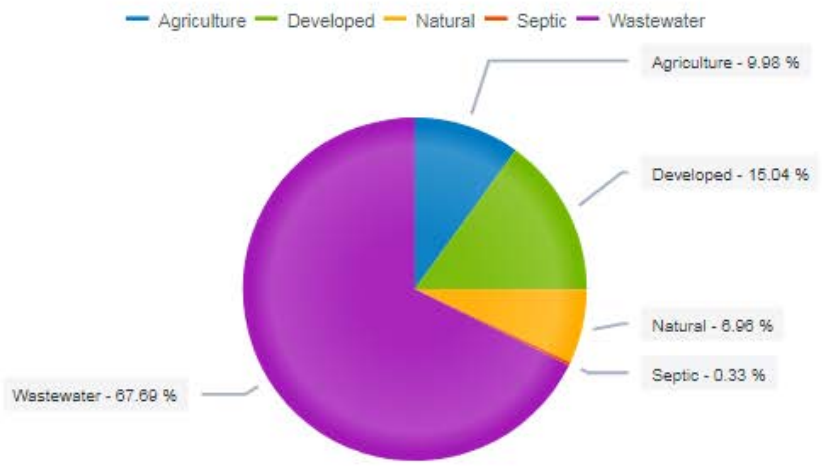
GRAPH SCENARIOS

Create Graph | Loads | Sources

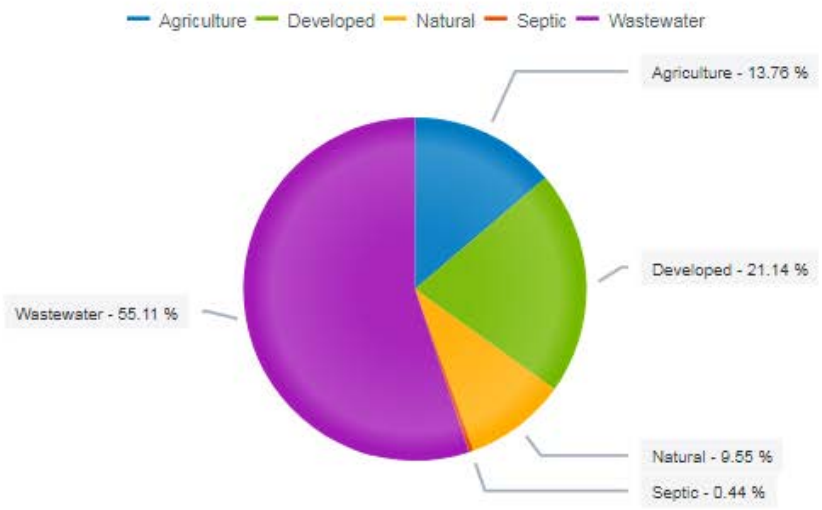
Print

Sources of Nitrogen at Edge of Tide

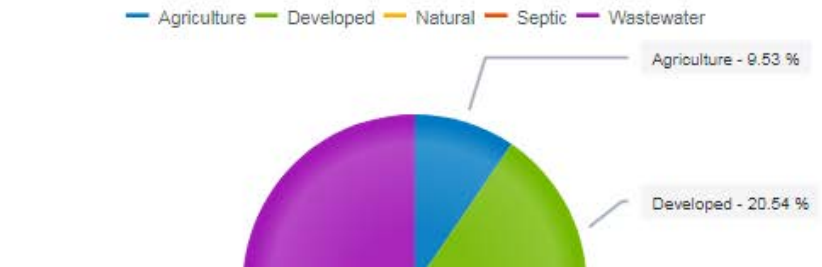
2010 No Action with Allocation Air



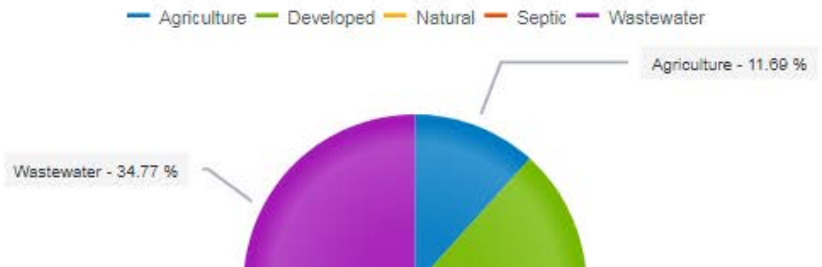
2013 Progress



WIP2 from Phase 5.3.2



Draft: Everything, Everywhere by Everyone (E3) with Allocation Air



Chesapeake Assessment Scenario Tool

olivia@devereuxconsulting.com
Manage Profile
Log Off

Download Percent Change In Loads

Percent Change In Loads: From WIP2 from Phase 5.3.2 To Draft: Everything, Everywhere by Everyone (E3) with Allocation Air

Load Source	Percent Change Nitrogen	Percent Change Phosphorus	Percent Change Sediment
Sector: Agriculture			
AgencyType: Non Federal			
Agency: Non-Federal			
Ag Open Space	1.52	-1.85	-2.46
Double Cropped Land	-39.12	-66.03	-75.95
Full Season Soybeans	-51.05	-65.34	-75.96
Grain with Manure	-60.91	-77.48	-75.96
Grain without Manure	-47.94	-48.11	-75.96
Legume Hay	-15.84	-17.33	-5.45
Non-Permitted Feeding Space	-83.15	-85.14	-16.67
Other Agronomic Crops	-55.51	-68.39	-80.37
Other Hay	-17.52	-3.52	-5.45
Pasture	-37.25	-3.46	-33.17
Permitted Feeding Space	-14.79	-17.70	0.00
Riparian Pasture Deposition	0.00	0.00	0.00
Silage with Manure	-64.41	-78.80	-80.37
Silage without Manure	-48.16	-54.45	-80.37
Small Grains and Grains	-39.92	-65.17	-75.96
Specialty Crop High	-54.61	-59.58	-35.23
Specialty Crop Low	-49.84	-53.00	-20.66
AgencyType: Federal			
Sector: Developed			

Rich Batiuk
Associate Director for Science
U.S. EPA Chesapeake Bay Program Office
410-267-5731 Work
443-223-7823 Mobile
batiuk.richard@epa.gov

Chesapeake Bay Program
Science. Restoration. Partnership.

www.chesapeakebay.net