

COG'S POTOMAC WATER QUALITY REPORT

Outline and Executive Summary Review

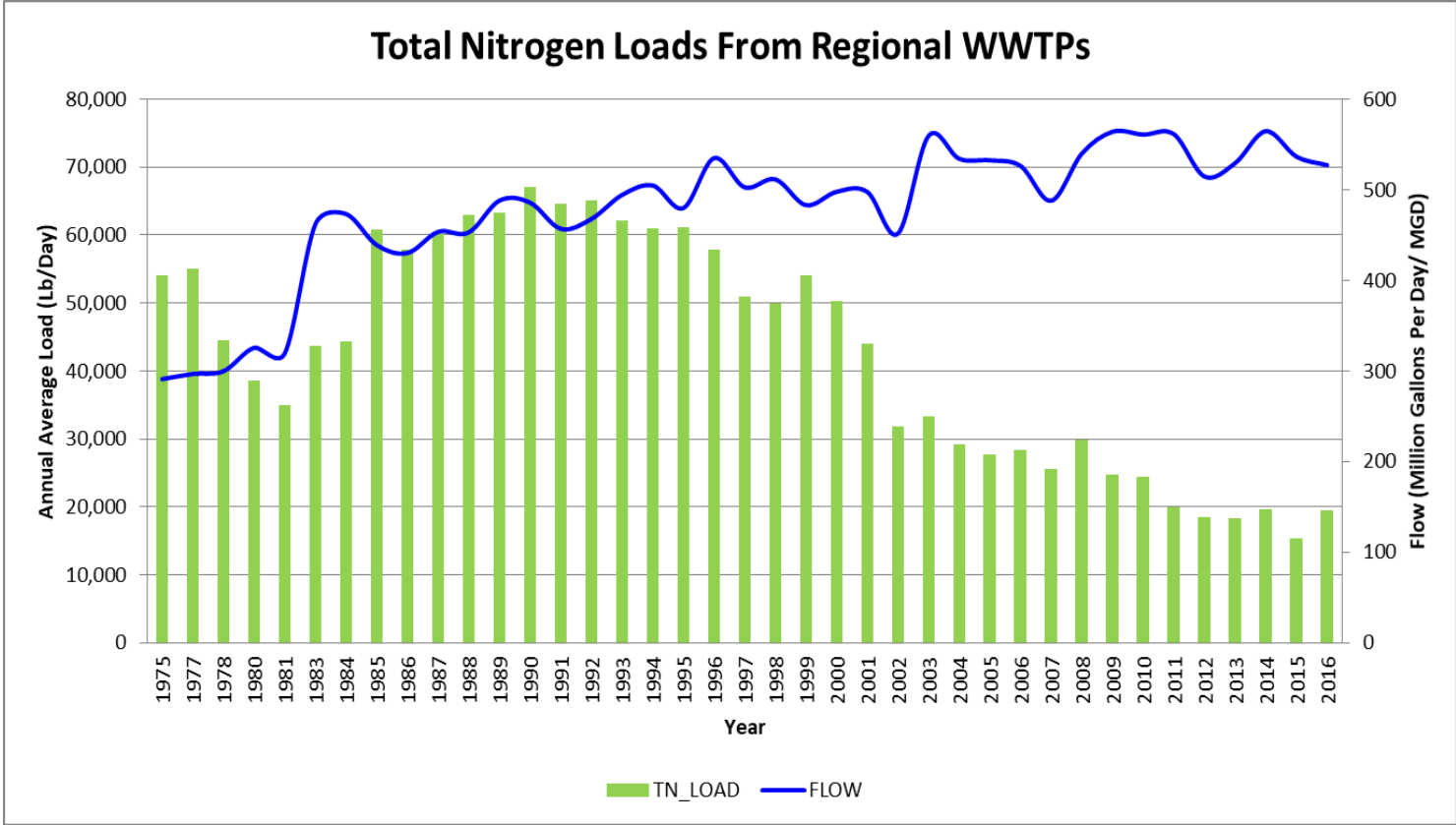
Karl Berger
Department of Environmental Programs

Chesapeake Bay and Water Resources Policy Committee
Jan. 18, 2019

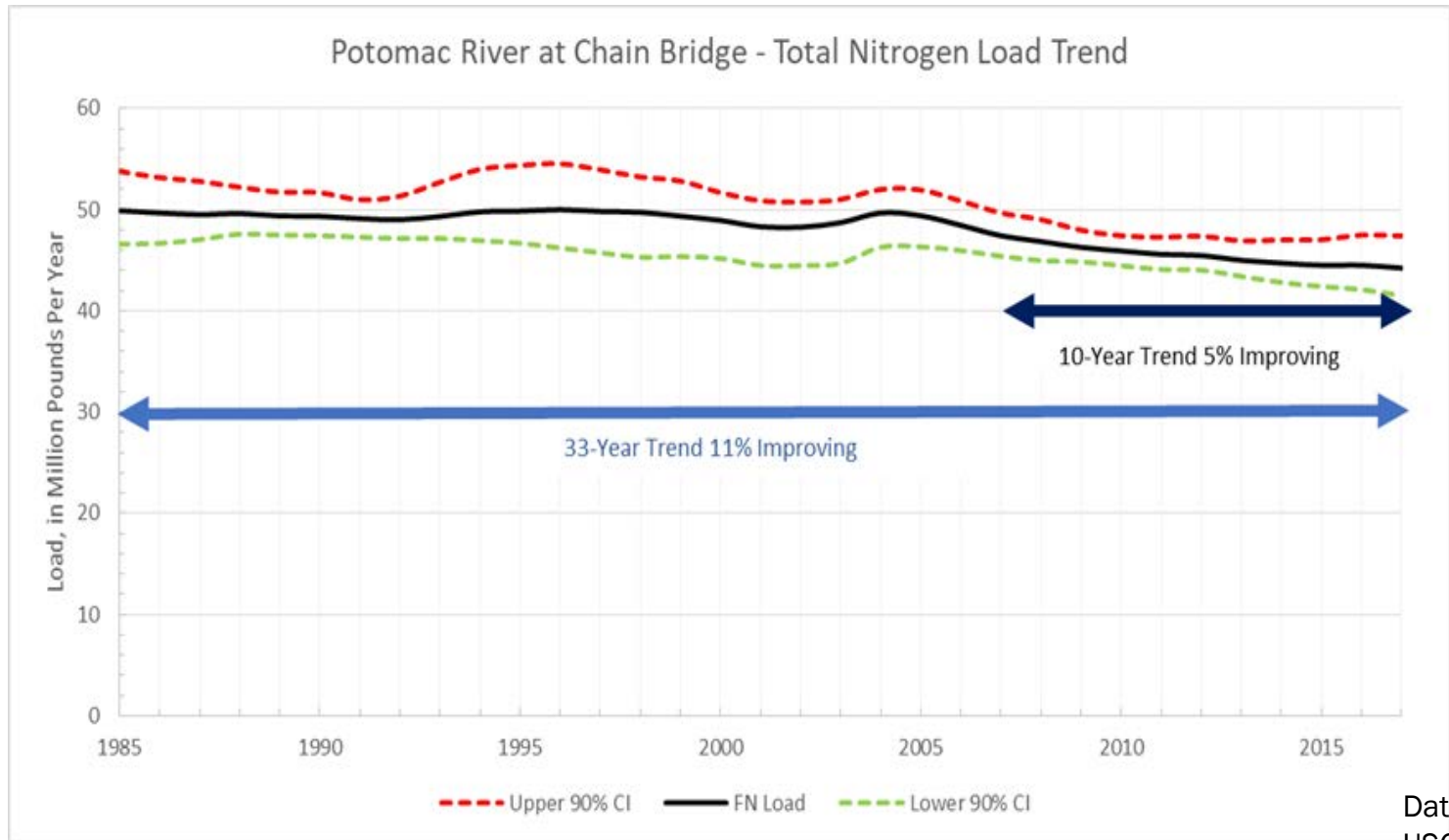
2019 Water Quality Report Focus

- Updates 2014 report
- Potomac water quality in the metro region
 - Particularly upper Potomac estuary
- Emphasis on attainment of Chesapeake Bay Program water quality parameters:
 - Dissolved oxygen
 - Water clarity
 - Chlorophyll-a
- And CBP's three main pollutants:
 - Nitrogen
 - Phosphorus
 - Sediment
- Much of data is trend-based and some is flow-adjusted

Wastewater Inputs to Estuary



Upstream Watershed Inputs to Estuary (flow-adjusted data)

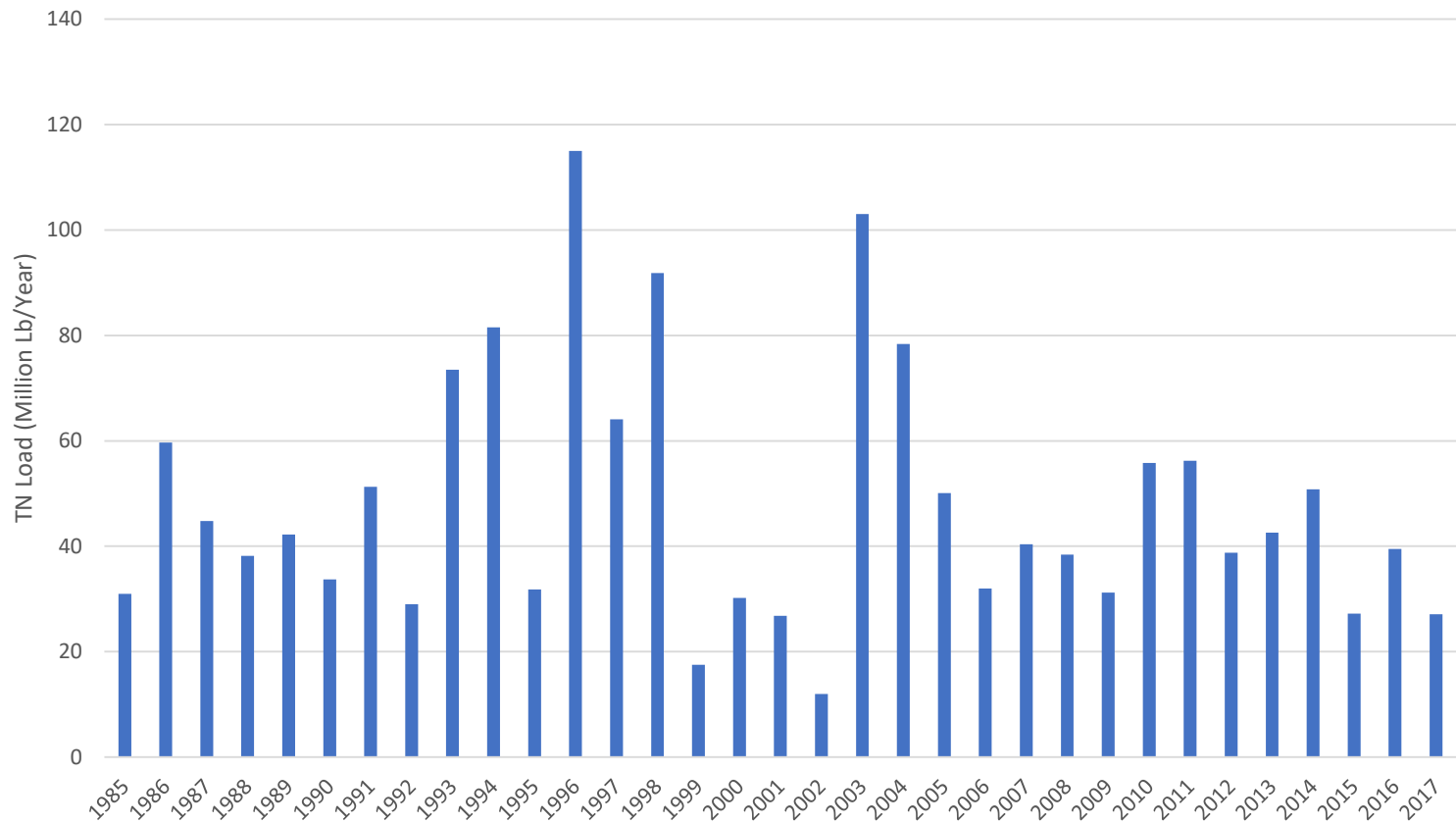


Data from
USGS



Using Unadjusted Data: A Different Picture

Potomac River at Chain Bridge, Annual Total Nitrogen Load

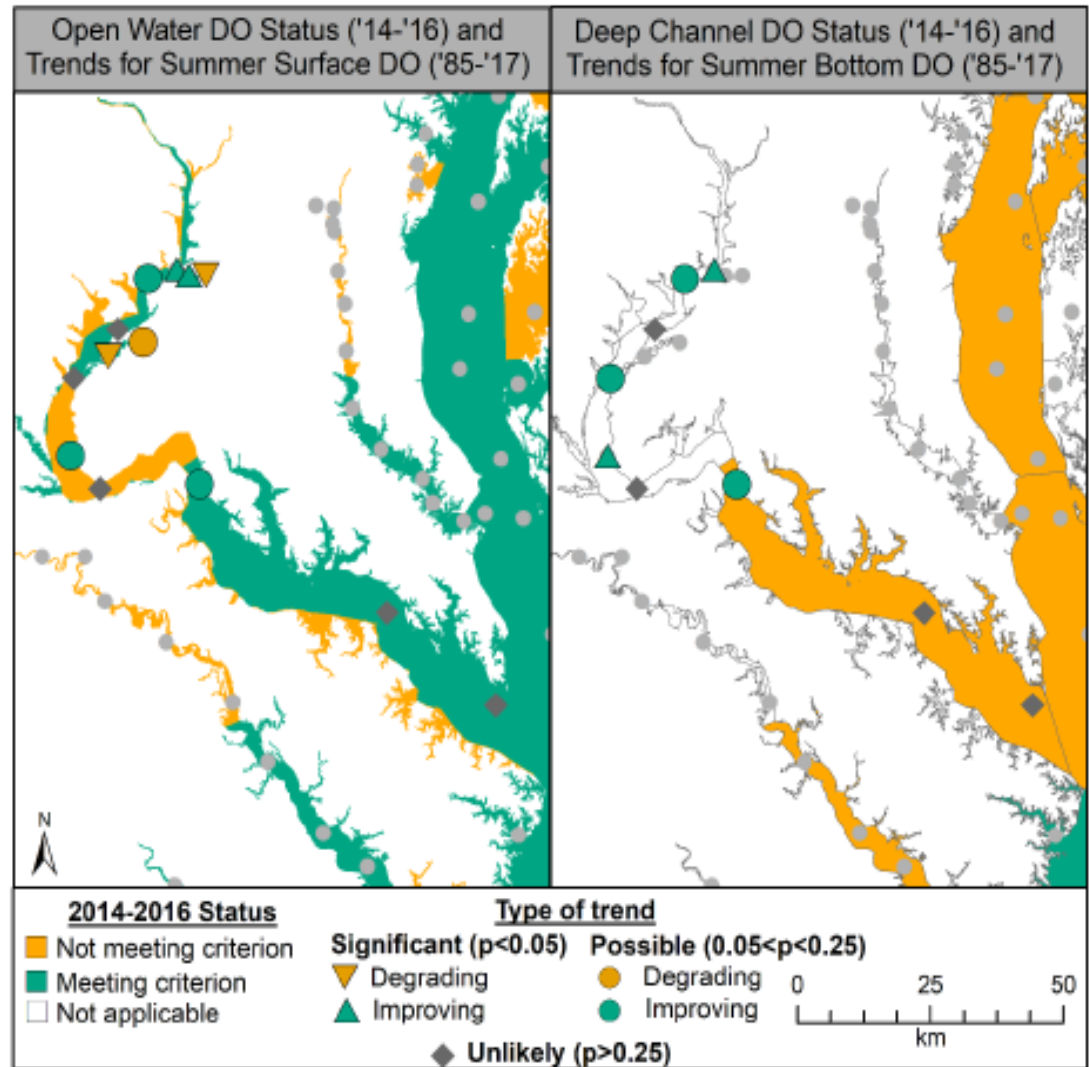


Data from USGS



Putting It Together – Estuary Water Quality

- Progress is Mixed
- Both degrading and improving trends
- Both in compliance and out of compliance with criteria



2014-2016 Dissolved Oxygen Criterion Status for Potomac Segments along with Long-Term Trends in DO Concentrations

Take Home Messages

1. Our region has made a lot of progress, but more needs to be done
2. Water quality data indicates a mixed picture of progress, with certain parameters showing signs of improvement while others have degraded
3. Improving water quality does not follow a simple, linear path; estuaries are complex systems affected by lag times and other phenomena



Chesapeake Bay Foundation 2018 Report Card

- Based on real-time data, not flow-adjusted
- Grade scoring is arbitrary
- Overall message is same as COG report card: more to be done

<http://www.cbf.org/about-the-bay/state-of-the-bay-report/>

STATE of the BAY

2018
HEALTH
INDEX:

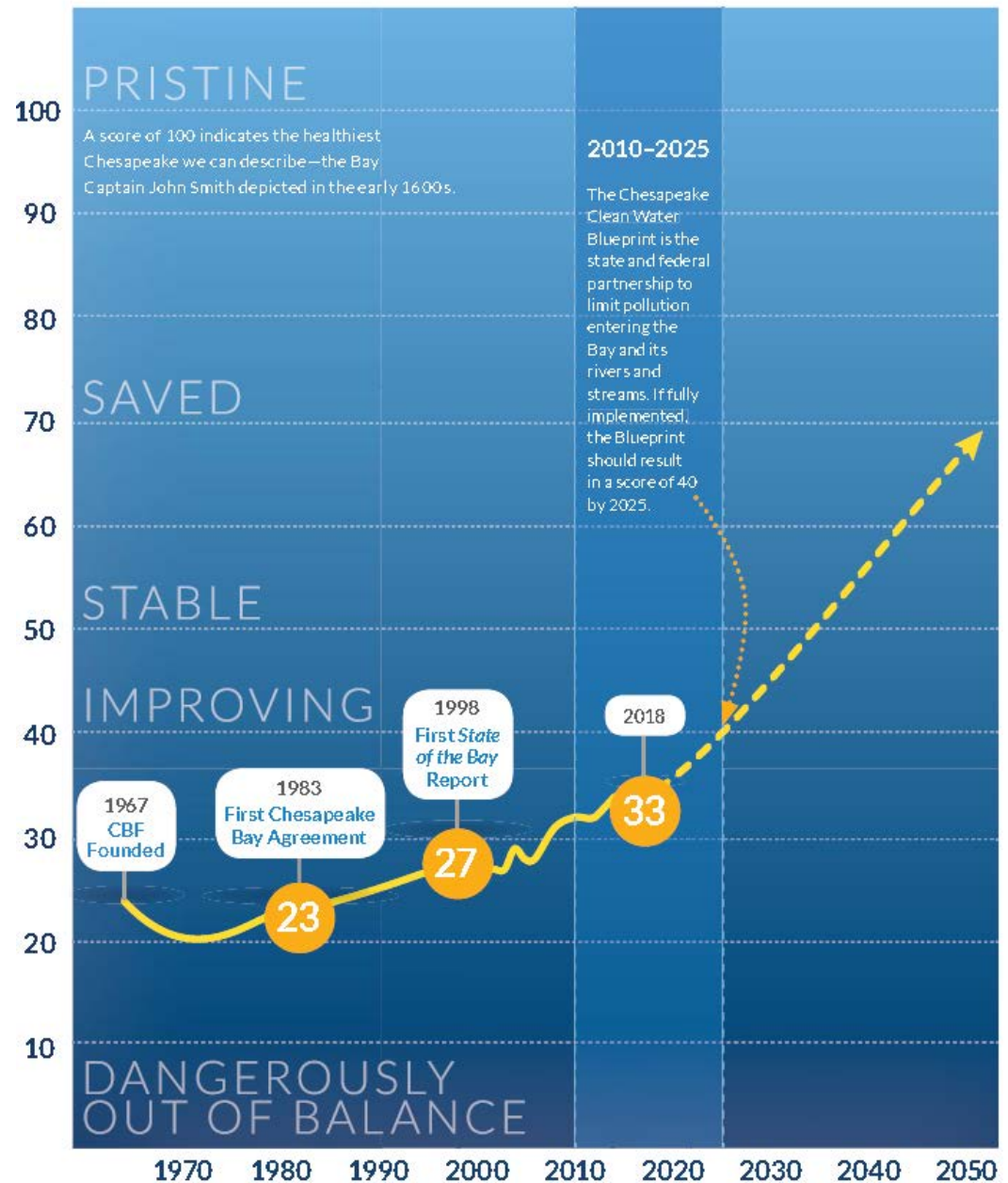
33 D+
-1 from 2016

	Indicator	2018 Score	Change From 2016	Grade
POLLUTION	Nitrogen	12	-5	F
	Phosphorus	19	-9	F
	Dissolved Oxygen	42	+2	C
	Water Clarity	16	-4	F
	Toxics	28	0	D
HABITAT	Forested Buffers	57	0	B
	Wetlands	42	0	C
	Underwater Grasses	25	+1	D
	Resource Lands	33	+1	D+
FISHERIES	Rockfish	66	0	A-
	Blue Crabs	55	0	B
	Oysters	10	0	F
	Shad	10	-1	F



CBF Report Card

- Trajectory is trending up, but hard to know exactly where we are on the curve



Next Steps for COG Report

1. Review of report and executive summary by CBPC members (through early February)
2. Compare to water quality report cards: Chesapeake Bay Foundation, Potomac Conservancy, University of Maryland Center for Environmental Science
3. COG Board presentation sometime this spring



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