

Addendum to 2019 Potomac River Water Quality in Metropolitan Washington Report

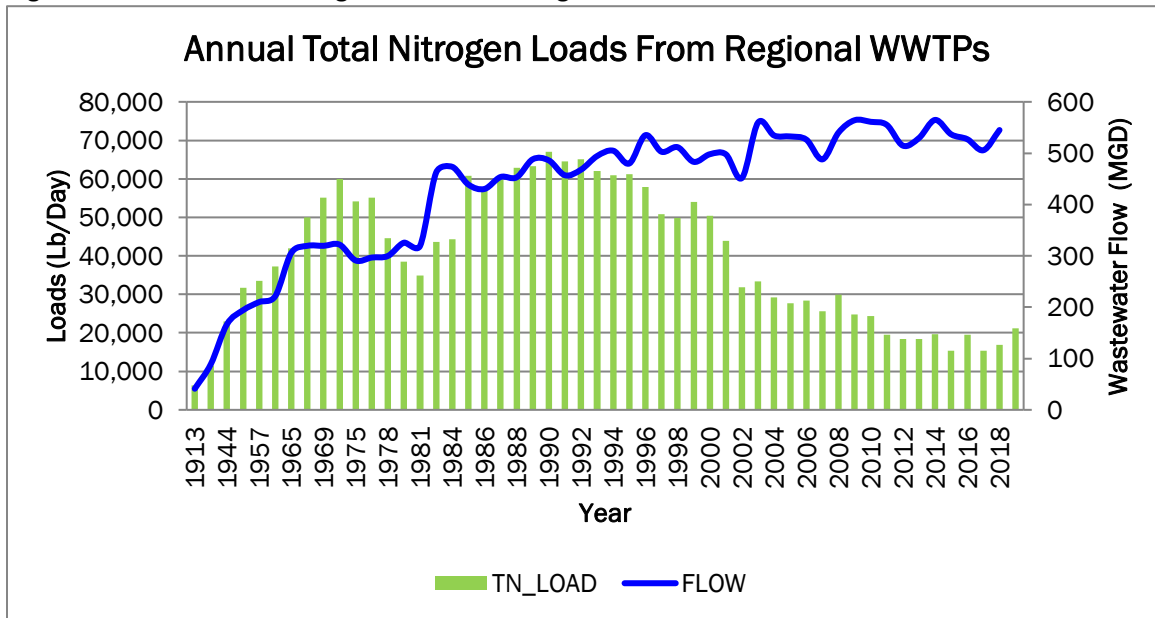
Updated graphs and images using the latest data
from COG, the Chesapeake Bay Program and USGS

The figure numbers correspond to the figure numbers and the subject matter in the original report, although in some cases the information presented is somewhat different than in the original graphs. In particular, most of the tidal trend graphs now show results for both flow adjusted, and non-flow adjusted (normal) trends.

A fuller set of tidal trend results for the Potomac can be found at: [Potomac Tidal Tributary Report Final 2020-12-18 \(6\).pdf](#)

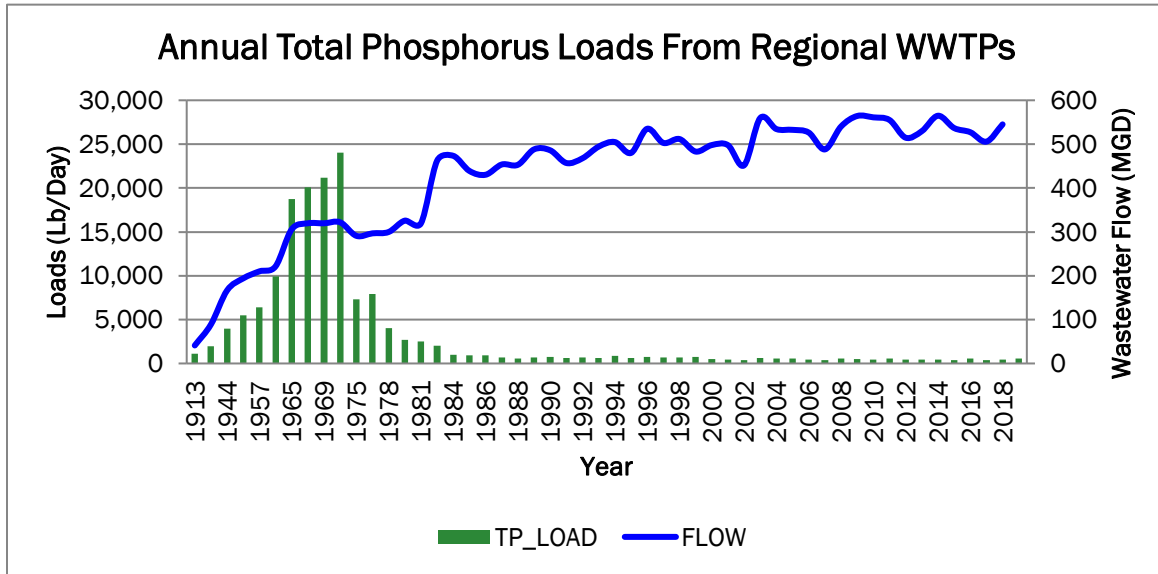
A fuller set of non-tidal trend results for the Potomac can be found at: [NTN Load and Trend Summary 2018.pdf \(usgs.gov\)](#)

Figure 2: Annual Total Nitrogen Loads from Regional WWTPs



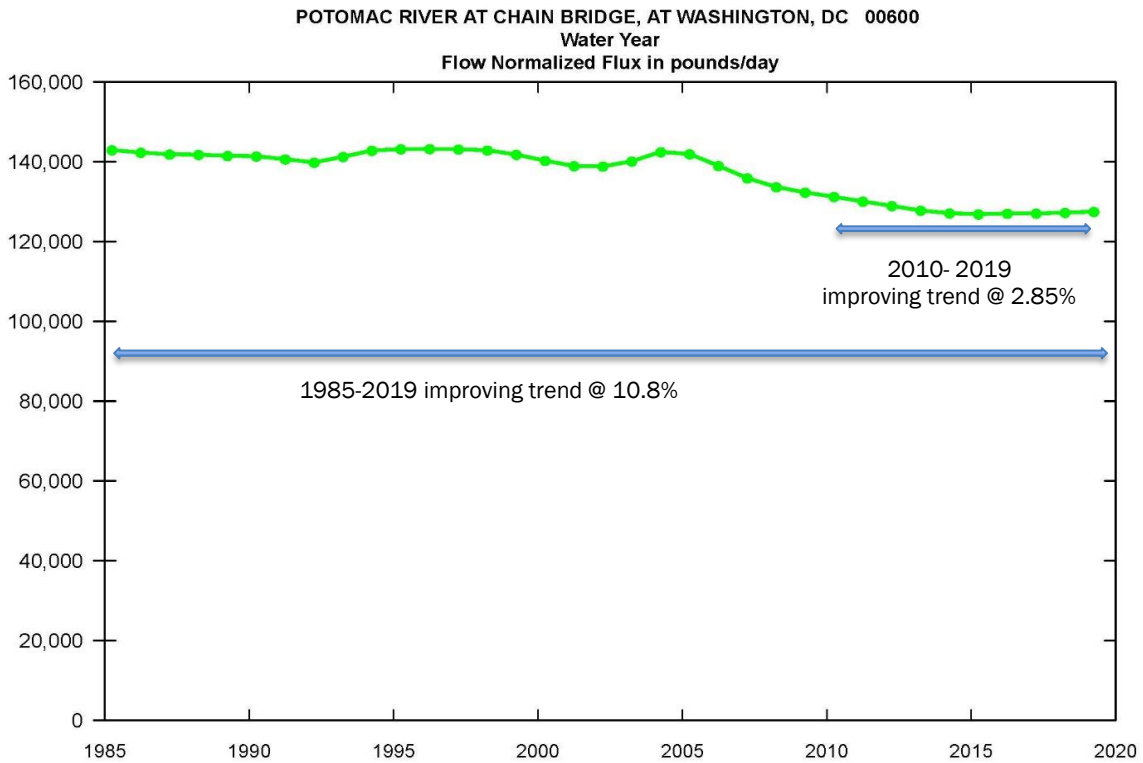
Source: COG Note that original graph compared load to population rather than wastewater flow

Figure 3: Annual Total Phosphorus Loads from Regional WWTPs



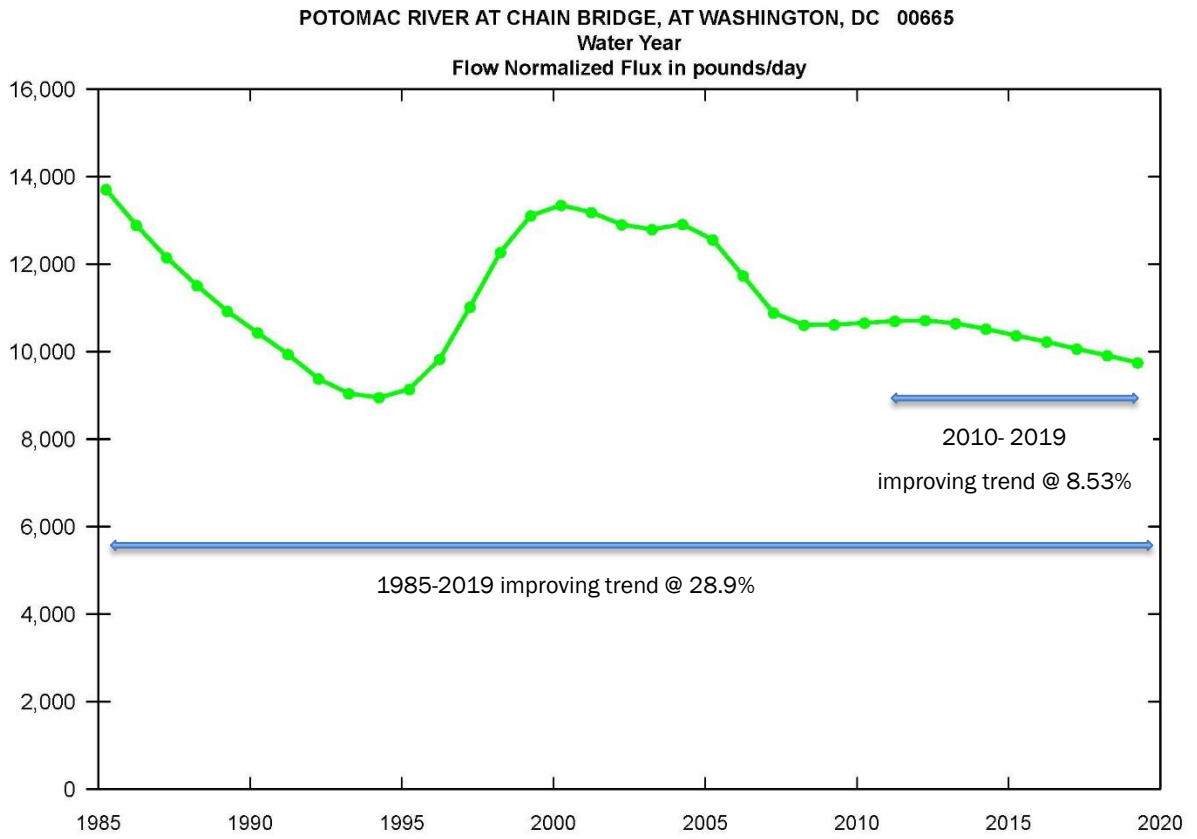
Source: COG Note that original graph compared load to population rather than wastewater flow

Figure 4: Potomac River at Chain Bridge – Total Nitrogen Load Trend



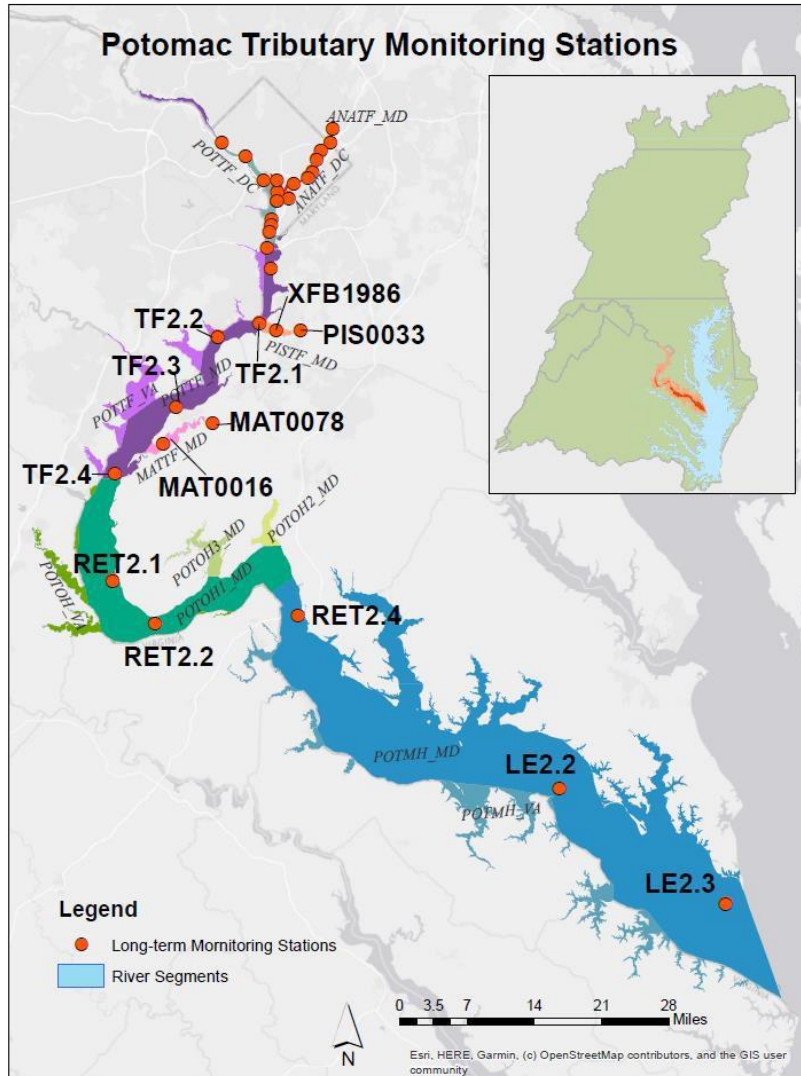
Source: USGS

Figure 5: Potomac River at Chain Bridge – Total Phosphorus Load Trend



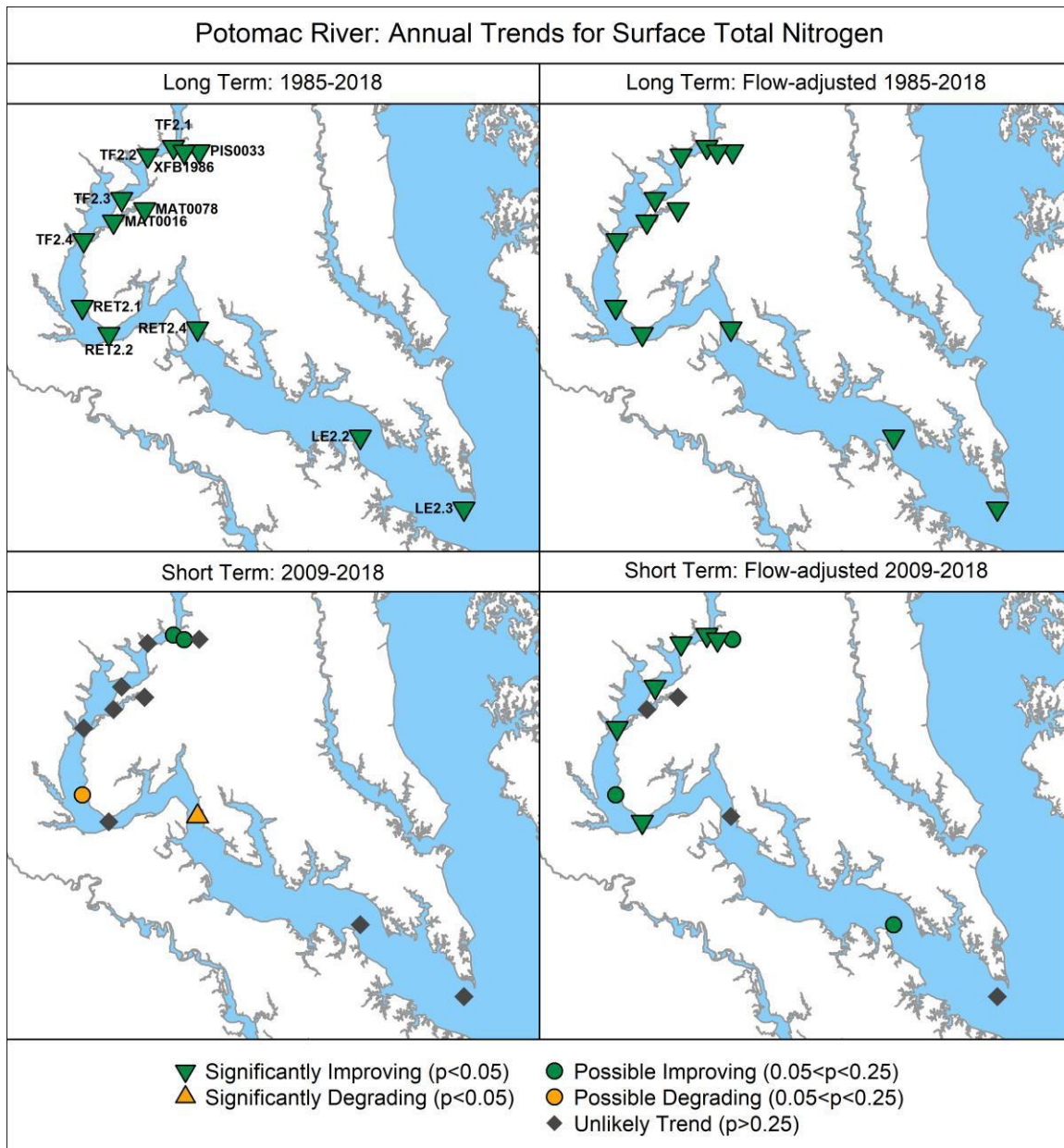
Source: USGS

Figure 9: Potomac River Segments and Stations



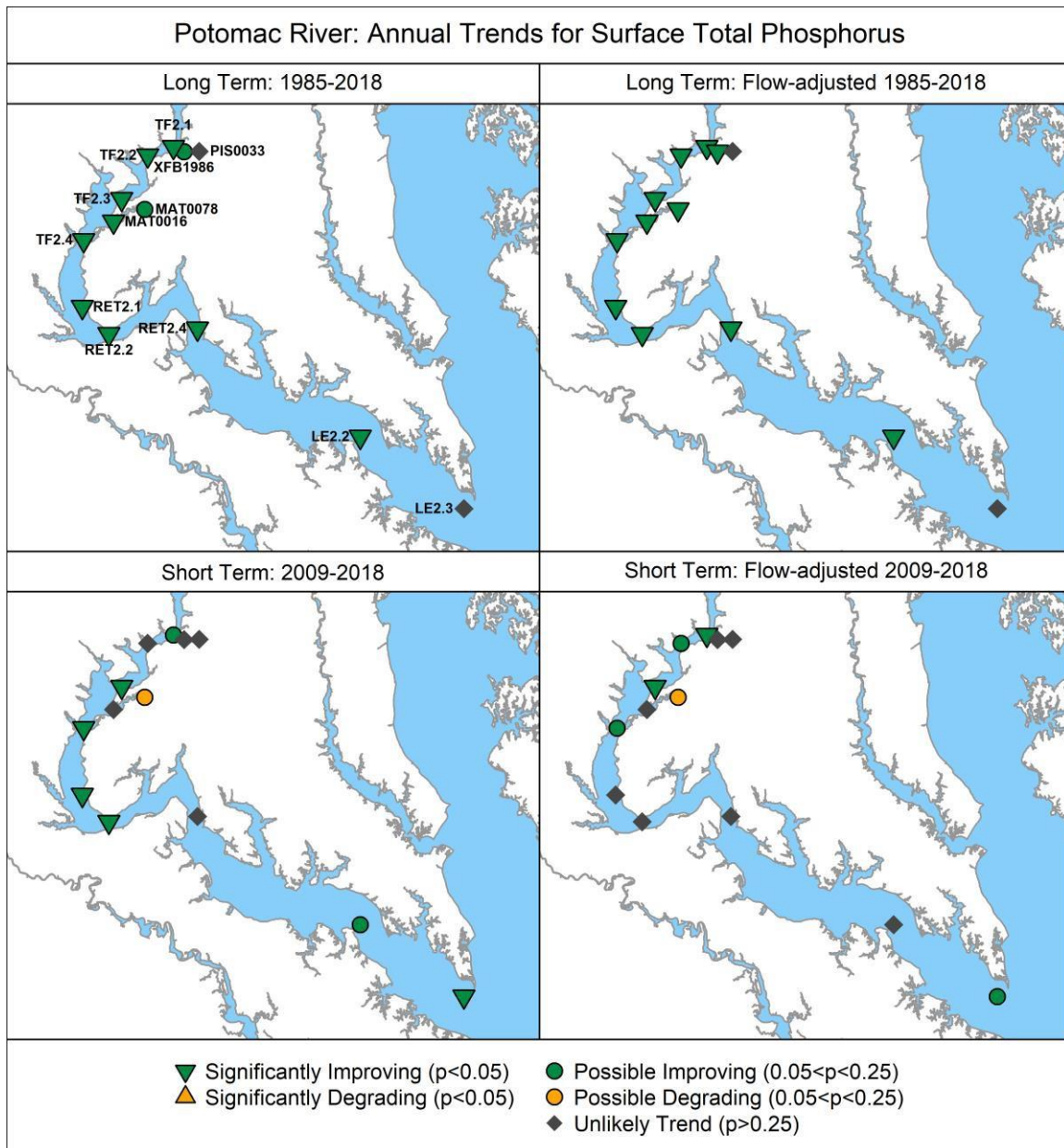
Source: Map of tidal Potomac River segments and long-term monitoring stations. Base map credit Esri, Garmin, (c) OpenStreetMap contributors, and the GIS user community, World Geodetic System 1984

Figure 12: Potomac River Annual Trends (normal and flow-adjusted) for Surface Total Nitrogen



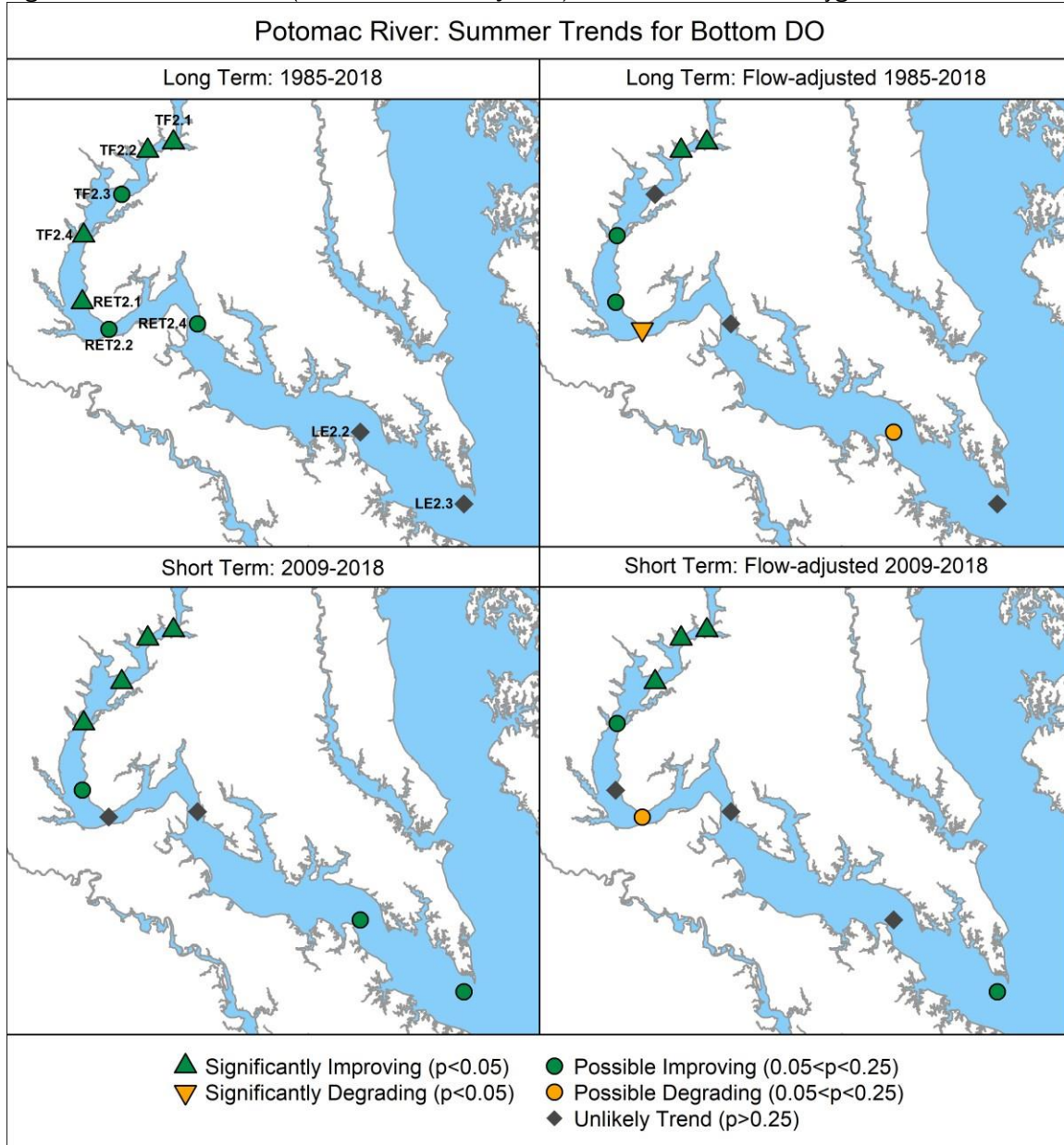
Source: Surface TN Trends. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

Figure 13: Potomac River Annual Trends (normal and flow-adjusted) for Surface Total Phosphorus



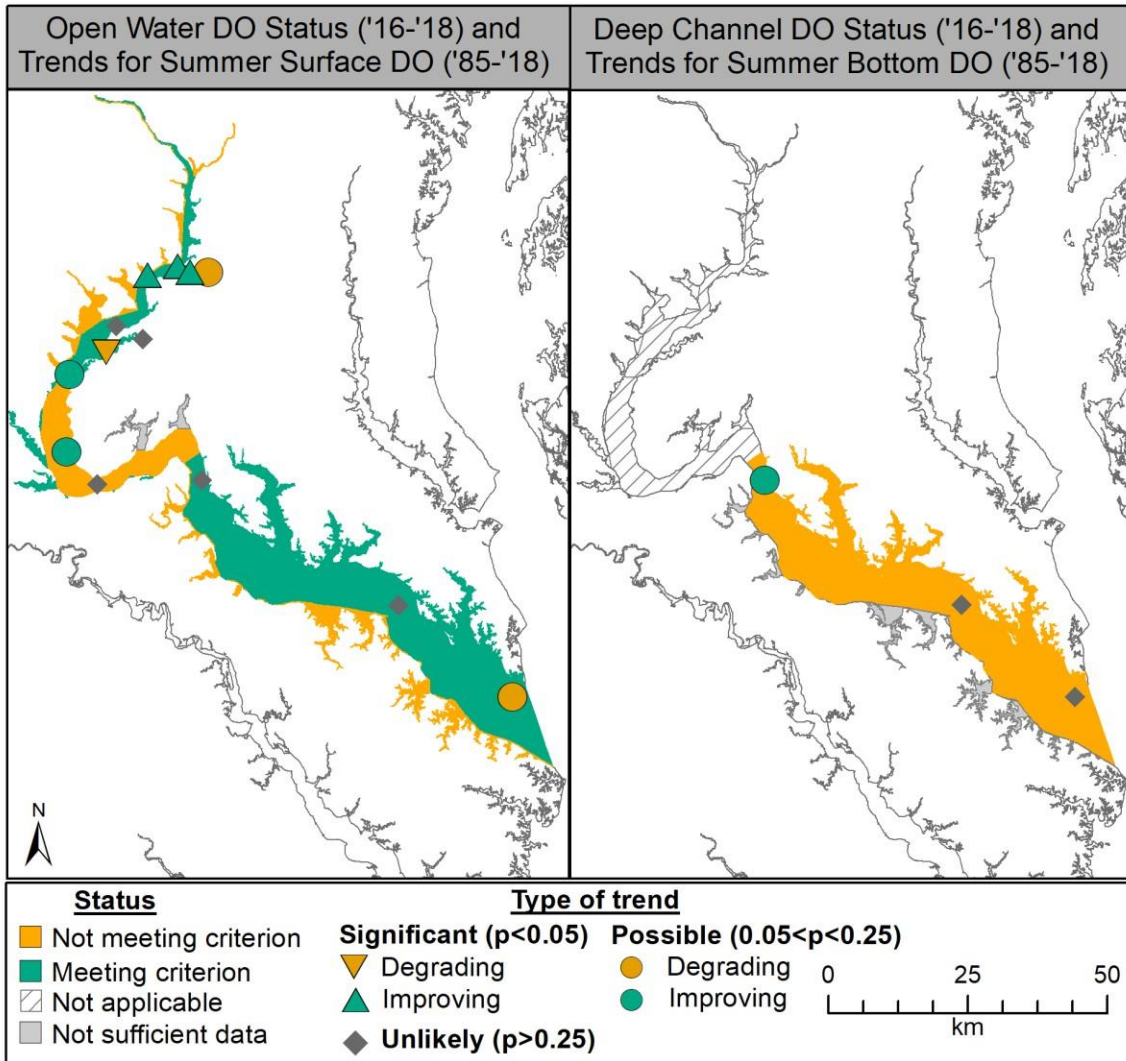
Source: Surface TP Trends. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

Figure 14: Summer Trends (normal and flow-adjusted) for Bottom Dissolved Oxygen



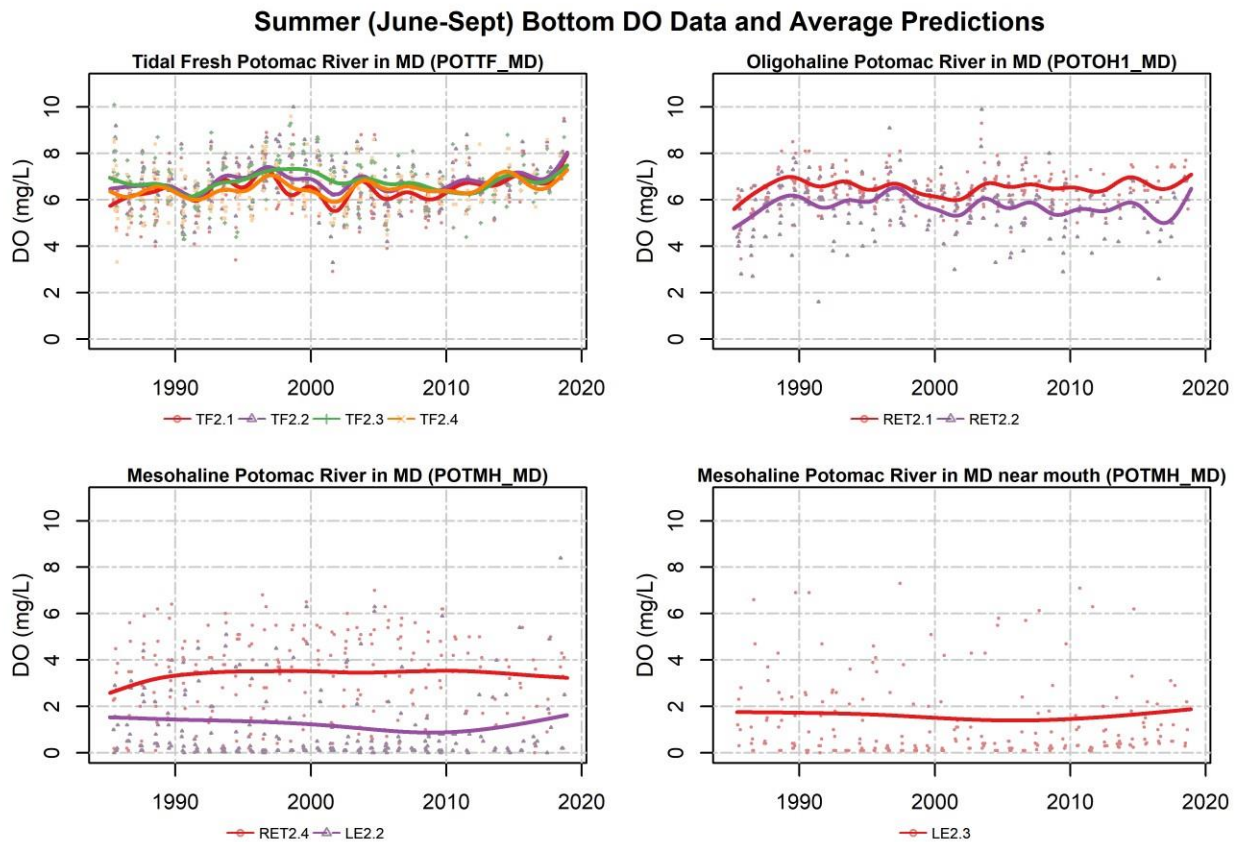
Source: Summer (June-September) bottom DO trends. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

Additional figure not in original report: Summer Trends for Bottom Dissolved Oxygen and DO criterion status



Source: Pass-fail DO criterion status for 30-day OW summer DO and DC instantaneous DO designated uses in Potomac segments along with long-term trends in DO concentrations. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

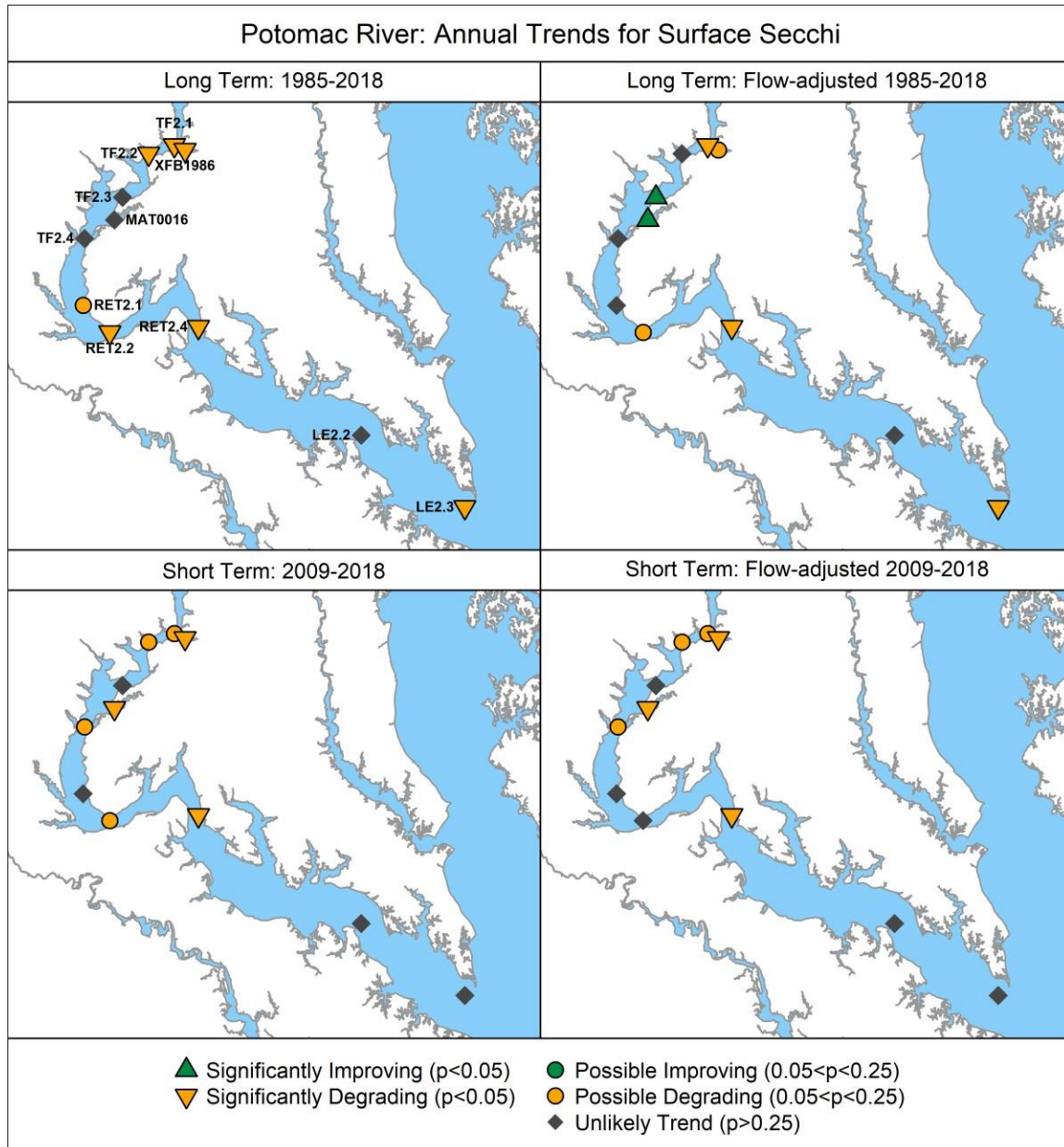
Figure 15: Summer Bottom DO Data and Average Predictions



Replaces figure 15 in original report

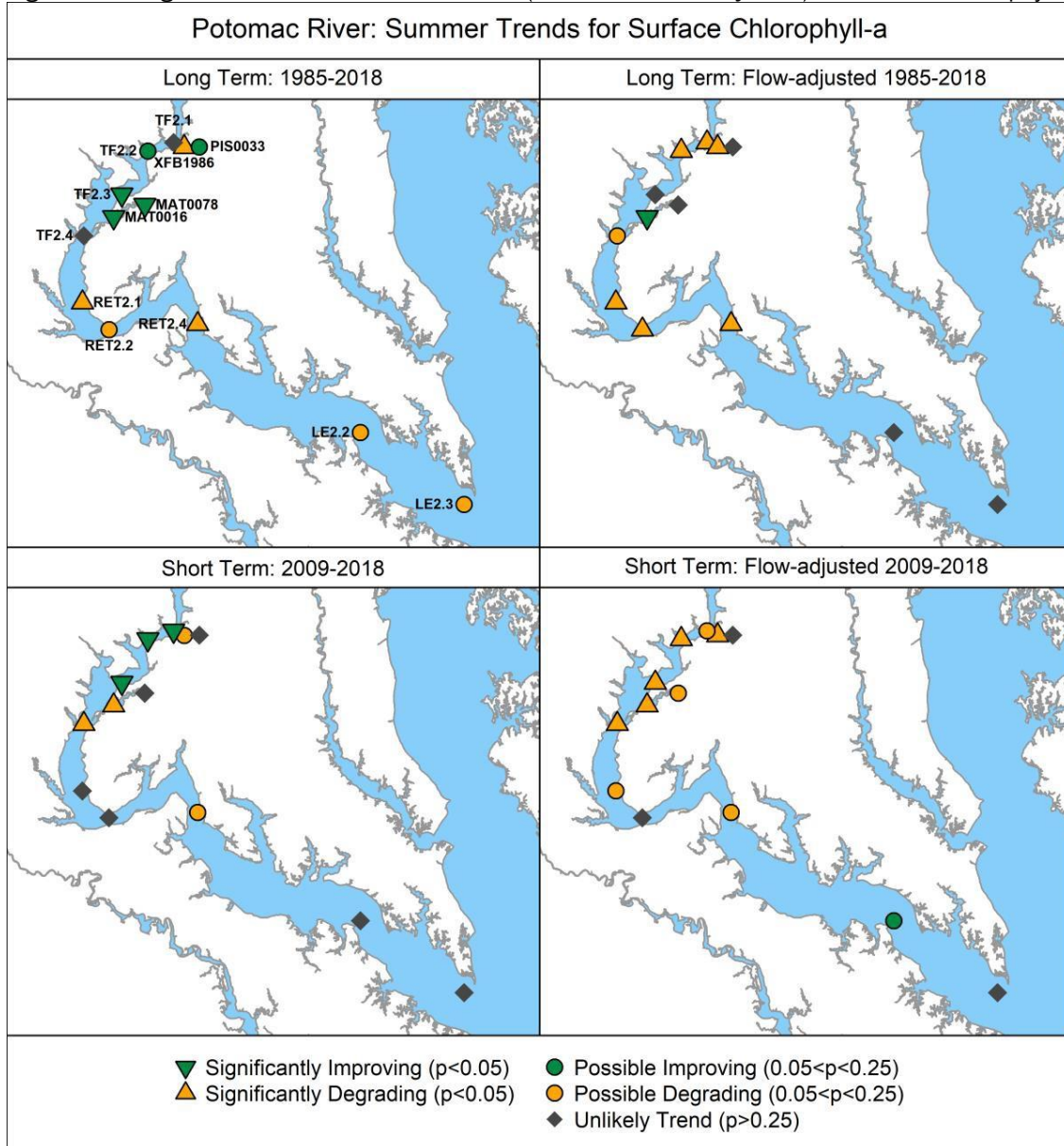
Source: Summer (June-September) bottom DO data (dots) and July 1 long-term pattern generated from non-flow adjusted GAMs. Colored dots represent data corresponding to the monitoring station shown indicated in the legend; colored lines represent mean summer GAM estimates for the noted monitoring stations

Figure 16: Annual Trends (normal and flow-adjusted) for Secchi Disk Depth



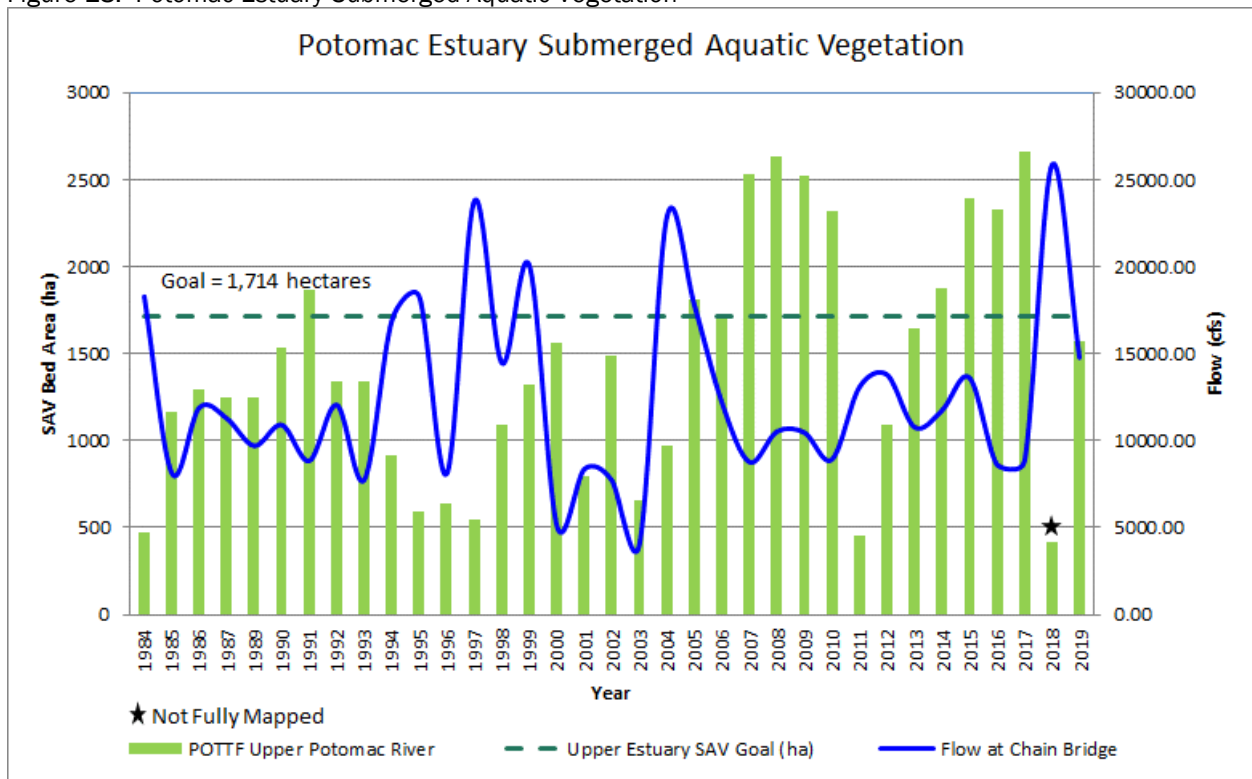
Source: Annual Secchi depth trends. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

Figure 17: Long and Short-Term Summer Trends (normal and flow-adjusted) for Surface Chlorophyll-a



Source: Surface summer (July-September) chlorophyll a trends. Base map credit Chesapeake Bay Program, www.chesapeakebay.net, North American Datum 1983

Figure 18: Potomac Estuary Submerged Aquatic Vegetation



Source: VIMS