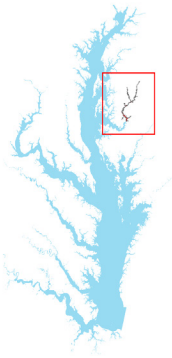
Attainable

Upper Choptank River (CHOOH, CHOTF)

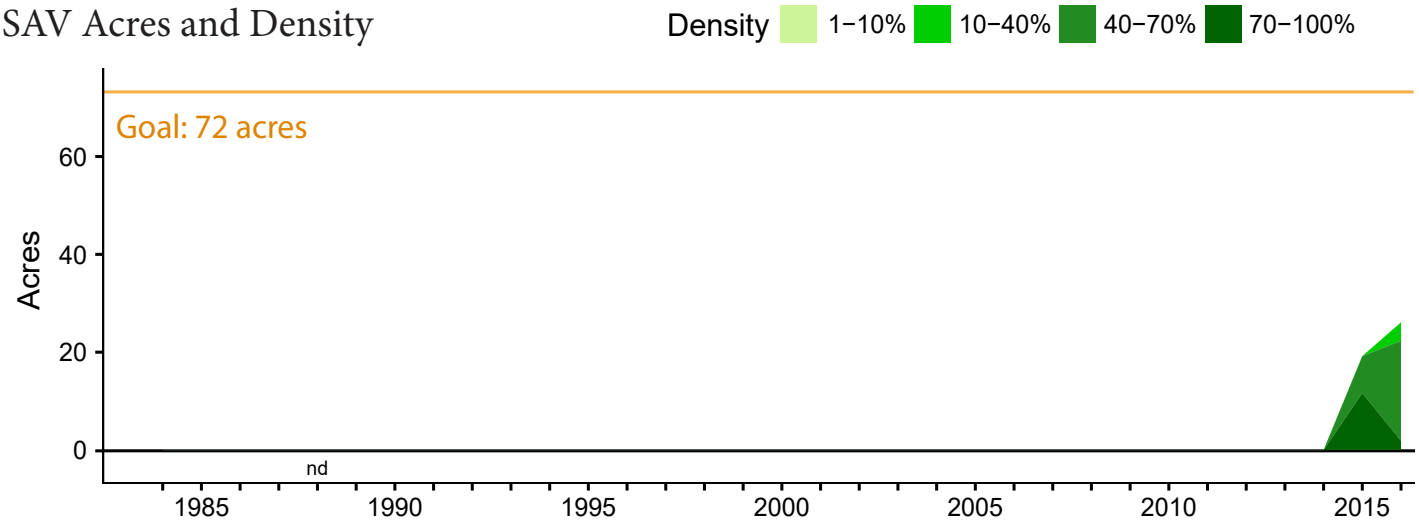


Submerged aquatic vegetation (SAV) in the upper Choptank River was not observed until 2015, when water quality improvements likely promoted recovery.

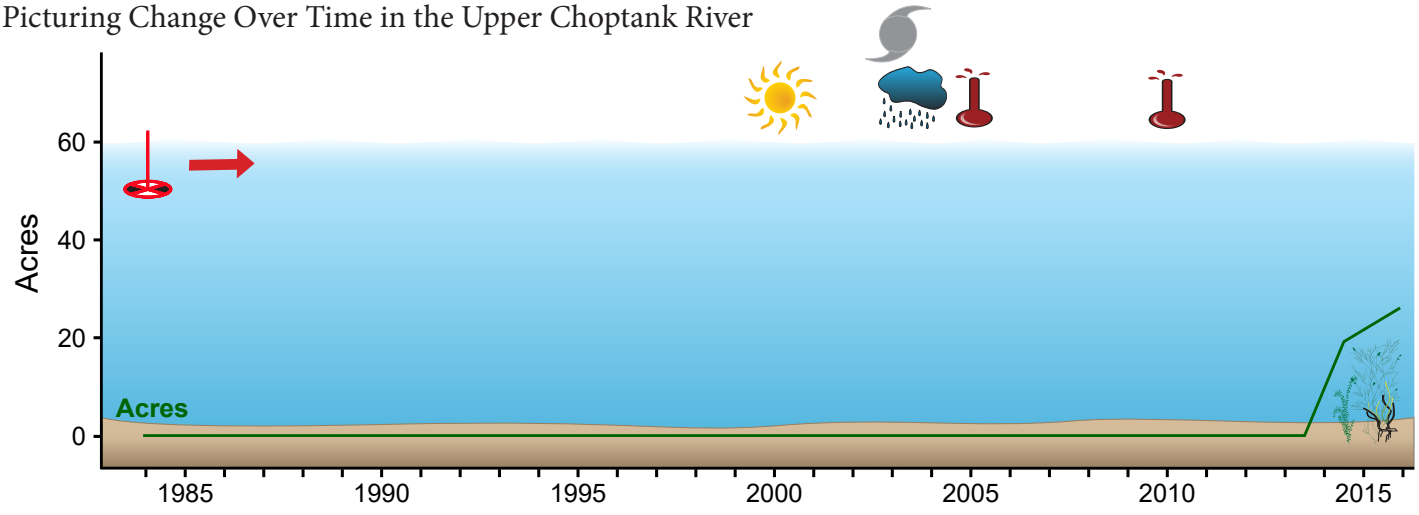
Executive Summary

The 72-acre SAV goal for this system is considered attainable despite having never been reached. Chesapeake Bay-wide water quality improvements likely promoted recovery in 2015 and 2016, although the acreage observed was minimal.

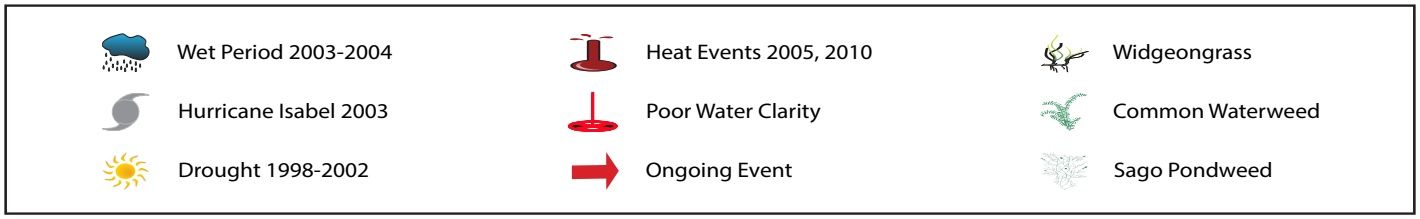
SAV Acres and Density



Picturing Change Over Time in the Upper Choptank River



Key



Attainable

Take Home Points

Goal - Attainable

There is no SAV restoration goal for the tidal fresh portion of the Choptank River. The 72-acre goal for the oligohaline portion is, however, considered attainable.

Historical Coverage

Historical coverage not well known

SAV was likely present and possibly abundant in the upper Choptank River prior to development of the Bay watershed. While there are no definitive records of SAV in the freshwater portion of the Choptank River, reports do indicate that common waterweed, widgeongrass and sago pondweed were present in the "upper estuarine bay of the Choptank" during surveys in the 1950s. Although horned pondweed was observed on a few occassions in the late 1990s, there was no SAV detected by the Chesapeake Bay-wide aerial survey in this river until 2015, when it appeared near the Dover Bridge south of Easton.

Key Events

Water quality improvements from BMPs

Water quality improvements associated with best management practices (BMPs) that reduce nutrient and sediment pollution likely facilitated the establishment of SAV in this segment in 2015 and 2016.

Vulnerability/Resilience

Land use changes; resilience from diversity

SAV in the upper Choptank River is vulnerable to impacts from land use changes. The freshwater regions of the Bay host up to 15 species of SAV, however, so diversity and the potential for resilience from diversity is naturally higher in these areas and may aid recovery once more fully established.

Management Implications

Nutrient and sediment reductions; active restoration efforts

Management actions should focus on installation and implementation of BMPs that reduce nutrient and sediment pollution. Water clarity improvements would likely facilitate a full recovery here, although active restoration is encouraged with a variety of freshwater species to mitigate long-term absence of a seed bank.

References

Stevenson and Confer 1978; Orth and Moore 1983, 1984; Moore et al. 2000, 2004; Orth et al. 2010a, 2017; Patrick and Weller 2015; Lefcheck et al. 2018

www.vims.edu/bio/sav/SegmentAreaChart.htm (abundance data)

www.vims.edu/bio/sav/maps.html (species information)

www.eyesonthebay.org (Maryland water quality data)