NO SAV GOAL

Elizabeth and Lafayette Rivers (ELIPH, EBEMH, SBEMH, WBEMH, LAFMH)
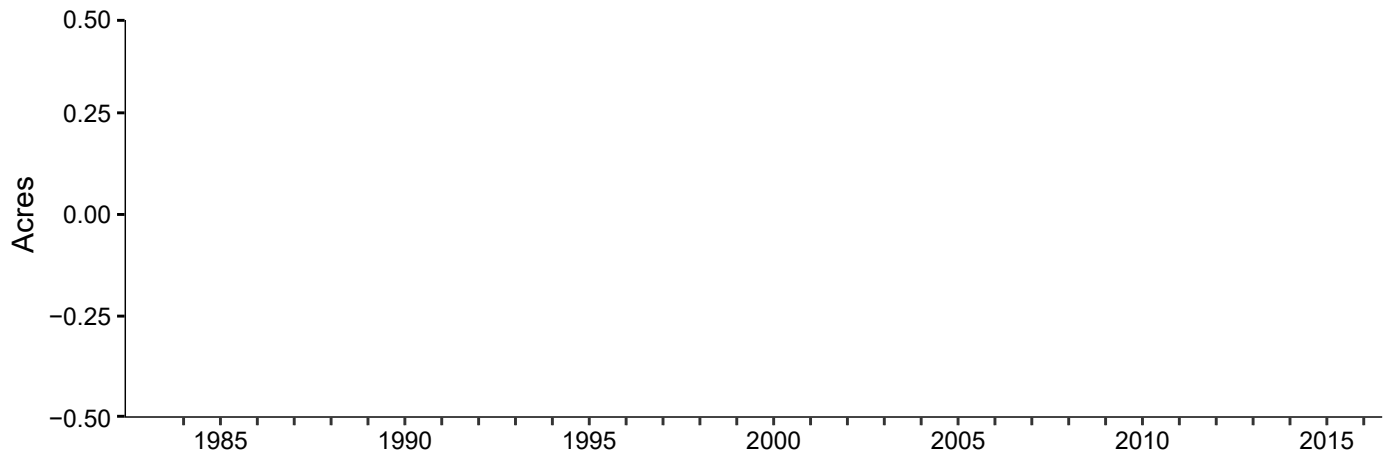
One of the most highly developed rivers and creeks in the region has no detectable submerged aquatic vegetation (SAV).
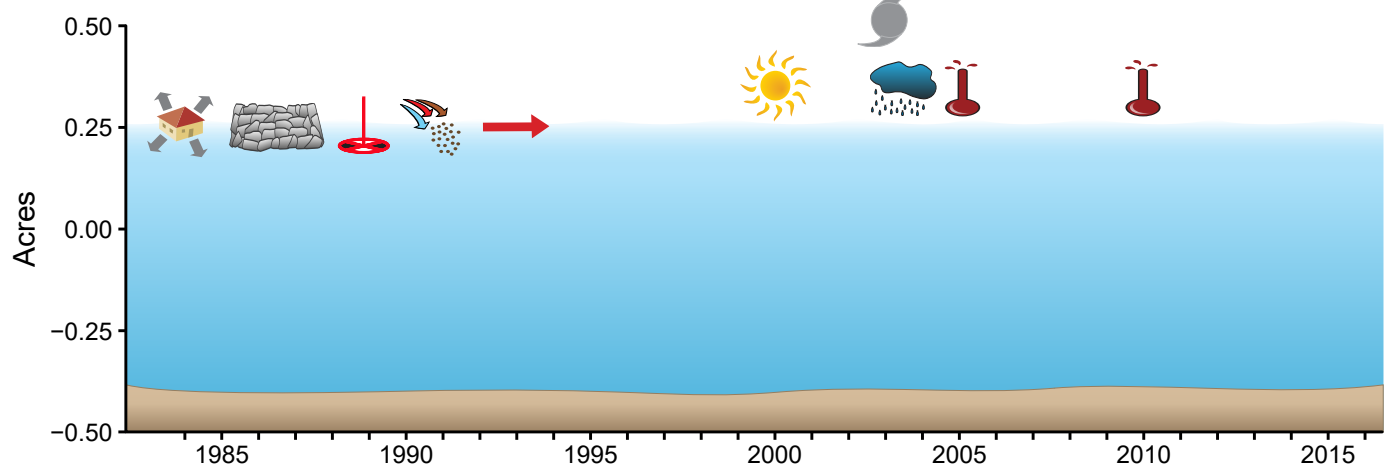
Executive Summary

The Elizabeth and Lafayette rivers are some of most highly developed and industrialized, and at one time, very polluted, rivers in this region. Much of the shoreline in the lower potions are heavily fortified with major military installations and shipbuilding industries. There is relatively little shallow water to support SAV even if water quality conditions improved. Upper portions are less developed with some shallow water areas that could potentially support SAV if water quality conditions were significantly improved. There is currently no SAV restoration goal as no historical data could be found for these segments. Emphasis should be on water clarity goals.

SAV Acres and Density

Density ▨ 1–10% ▨ 10–40% ▨ 40–70% ▨ 70–100%

Picturing Change Over Time in the Elizabeth and Lafayette Rivers

Key

☀ Drought 1998-2002	Poor Water Clarity	Shoreline Hardening
Wet Period 2003-2004	Development	
Hurricane Isabel 2003	Nutrient and Sediment Loading	
Heat Events 2005, 2010	➡ Ongoing Event	

Goal - No Goal Established

There is no SAV goal for this set of segments as there was no historical information for SAV here to set a goal.

Historical Coverage

No historical information

There is no historical information for SAV here. It's possible that before the extensive shoreline alterations from both military and industry activities began, there may have been SAV in some of the shoals at the lower polyhaline regions, which mainly contain brackish water.

Key Events

Development and industrialization

The Elizabeth and Lafayette rivers are some of most highly developed and industrialized, and at one time, very polluted, rivers in this region. Although much has been done to improve water quality for benthic resources, much still remains to be done.

Vulnerability/Resilience

Shoreline alterations

This region of the Elizabeth and Lafayette rivers has been most influenced by human activities since early colonization, with significant shoreline modifications and hardening that have eliminated shallow water habitat.

Water quality

While SAV will be of limited significance here, much can be done to improve water quality for other living resources, including fish, crabs, oysters and benthic invertebrates.

Management Implications

Nutrient and sediment reductions

Managers will need to focus on improving general water quality by both reducing sediments and nutrients.

References

Stevenson and Confer 1978; Orth and Moore 1983, 1984; Moore et al. 1999, 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)

http://vecos.vims.edu/ (Virginia water quality data))