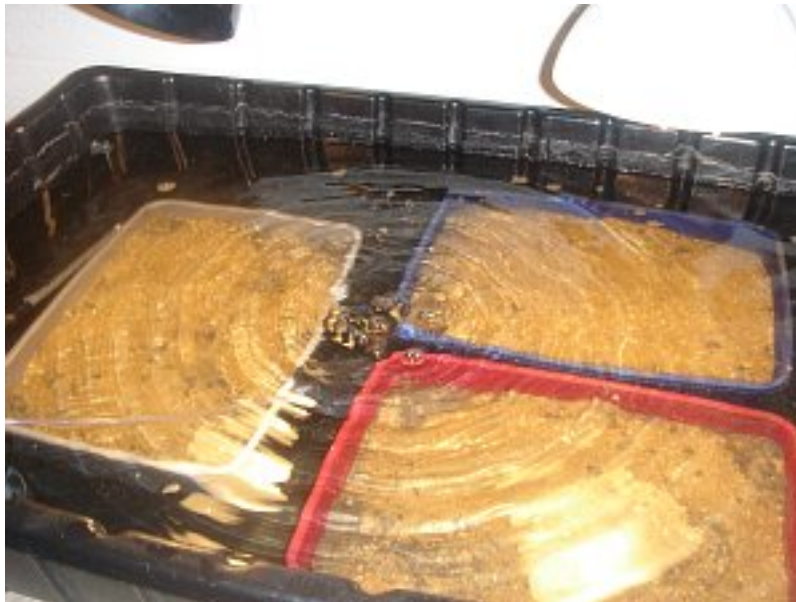


## Submerged Aquatic Vegetation

In spring 2006, some members of the Friends of Sligo Creek water quality committee participated in the Chesapeake Bay Foundation's Grasses for Masses program. In this program, submerged aquatic vegetation is grown at home in tubs from seeds and then planted in the Potomac River.



*Figure 1 The tub is set up for the plants to grow, April 12, 2006.*



Figure 2 The plants have grown, June 23, 2006. The plant is wild celery, *Vallisneria americana*.



Figure 3 Transported to the Potomac River at the Mason Neck National Wildlife Refuge for planting, June 24, 2006.



*Figure 4 The tub is prepared to be floated out to the planting site.*



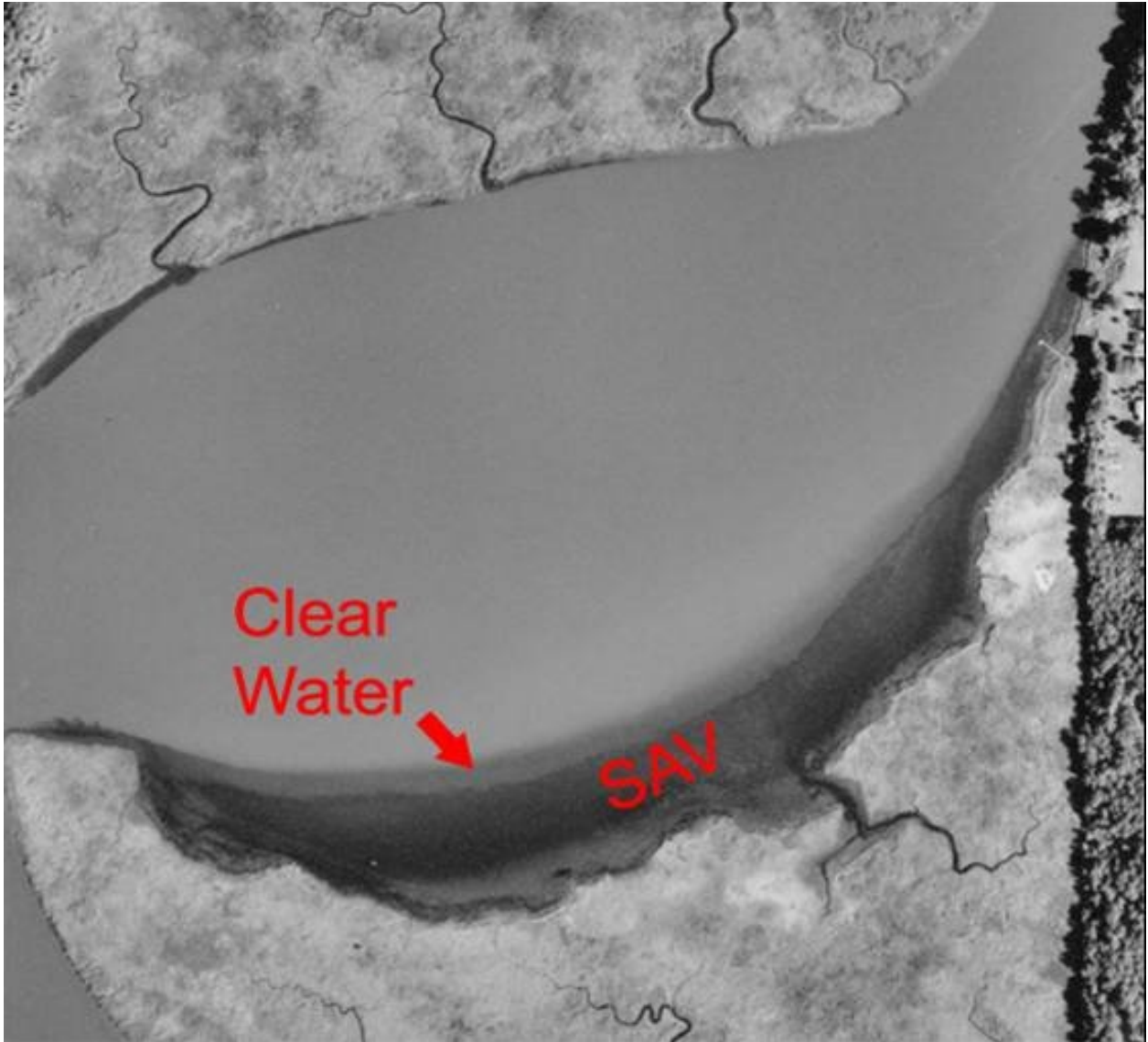
*Figure 5 Planting the wild celery in the Potomac River. The river is here at low tide.*

## Submerged Aquatic Vegetation and Water Quality

When a river or stream is wide enough to break the tree canopy and allow the sunlight through to the water, submerged aquatic vegetation may grow. At the local scale, the underwater plants help clarify turbid water in rivers by slowing water velocity, increasing removal (settling) of particulates, and stabilizing sediment, reducing sediment re-suspension. This can be seen in the picture at right showing the Patuxent River in 2001. The area adjacent to the aquatic vegetation is clear, while the rest of the river is turbid.

While Sligo Creek is too small a stream to allow for submerged aquatic vegetation, the suspended sediment produced by Sligo Creek and other area streams have an influence on submerged aquatic vegetation downstream in the Anacostia River. To allow the required light to reach the submerged aquatic vegetation in a tidal freshwater river, the total suspended solids and plankton chlorophyll-a in the water reportedly should be less than 15 mg/l and 15 µg/l respectively (see Chesapeake Bay Submerged Aquatic Vegetation Water Quality and Habitat-Based Requirements and Restoration Targets). The Chesapeake Bay Program's closest location to Sligo Creek, Station ANA0082 Anacostia River at Bladensburg Road, reports total suspended solids as high as 460 mg/l, and chlorophyll-a concentrations as high as 55.62 µg/l. These need to be reduced if the submerged aquatic vegetation in the Anacostia River is to survive.

Government officials from Montgomery County, Prince George's County, Maryland, and Washington, D.C. in 2001 agreed to a goal of Aiming High : Setting Targets for a Restored Anacostia Watershed. Within this document the Anacostia Restoration Indicators and Targets committed to a goal of 20 acres of submerged aquatic vegetation in the Anacostia River by the year 2010.



Photograph courtesy of the Chesapeake Bay Foundation