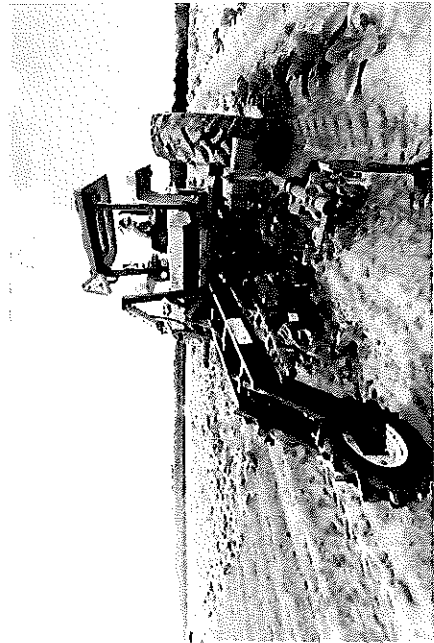


ABOUT US

The 11-member GWC meets 10 times a year and includes elected officials, citizens, Accomack-Norfolk Planning District Commission (ANPDC) staff, and a consulting hydrogeologist to discuss a wide variety of Eastern Shore groundwater issues. Under its mandate, the GWC comments on proposed withdrawal permits, and advises the two counties on issues relating to groundwater. Occasionally, EPA sends federal projects to the GWC for review as part of a Memorandum of Understanding related to our Sole Source Aquifer.

The GWC encourages the use of the more sustainable surficial Columbia aquifer as one approach to preserve the deeper, resource-limited Yorktown-Eastover aquifer. The GWC is working with local farmers and farm agencies to reduce irrigation dependence on the Yorktown-Eastover. The GWC also conducts special studies and supports educational activities for Eastern Shore communities. New programs and information are being developed in 2024.



For more information or to get involved, visit:



www.esvaplan.org/planesva/
#easternshoregroundwater



April, 2024

Protecting Our
Precious Resource

EASTERN SHORE
OF VIRGINIA
GROUND
WATER

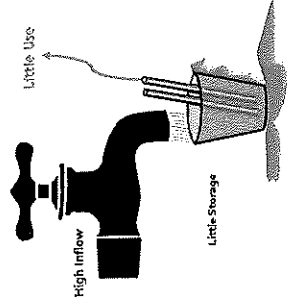


The Aquifer

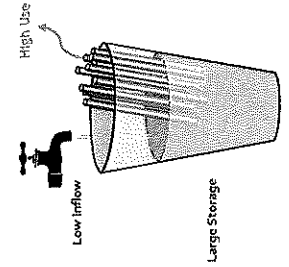
As shown in the generalized graphic, the Eastern Shore of Virginia's Sole Source Aquifer consists of a Multi-aquifer System: the Columbia (surficial) aquifer and Yorktown-Eastover aquifer. These aquifers are composed of permeable sand that are separated by layers of clay, which restricts groundwater flow. The permeable nature of the sands allow groundwater to be pumped from wells screened in the aquifers.

Replenishment and Use

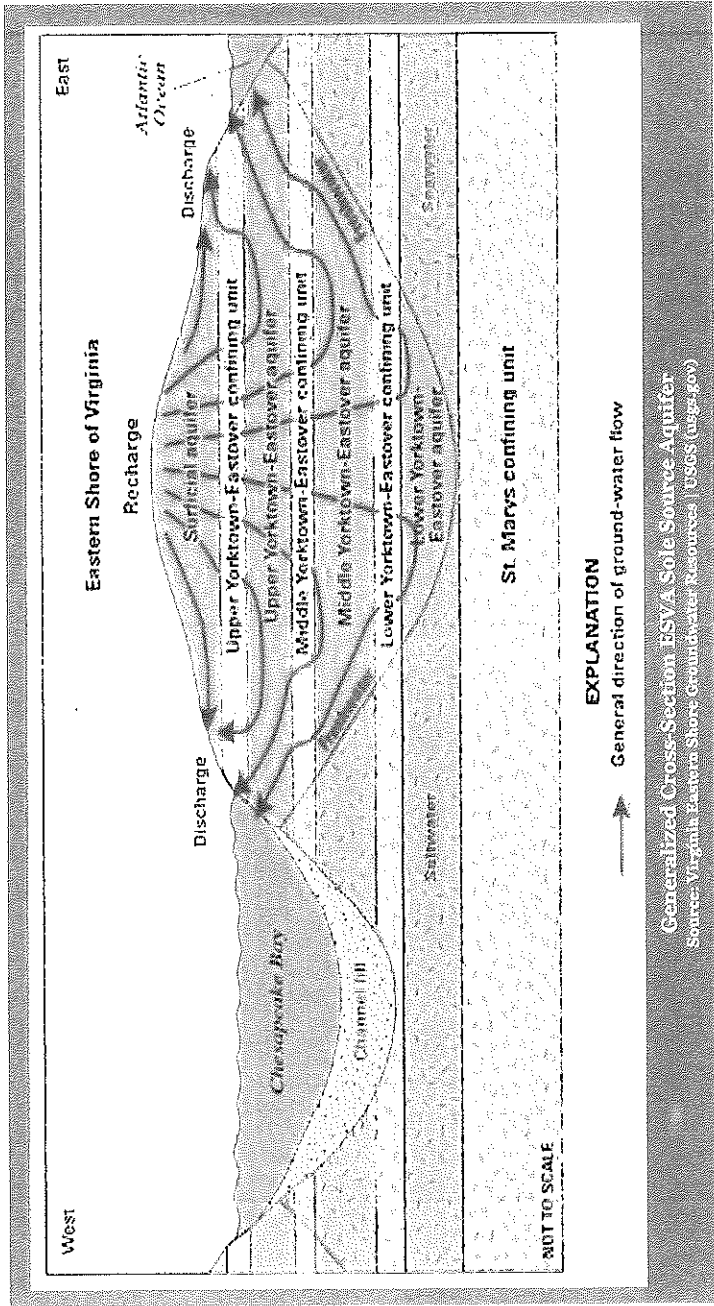
Groundwater on the Eastern Shore is only replenished by direct precipitation, with about 12%, or 625 million gallons a day (MGD), reaching the Columbia aquifer. Only about 1%, or 9 MGD, reaches the Yorktown-Eastover aquifer. Approximately 15 MGD is pumped from ponds and wells on the Shore, half of which is from surface ponds in the Columbia aquifer. In 2023, an estimated 8.4 MGD was pumped from wells, 93% of which from the confined Yorktown-Eastover aquifer system.



COLUMBIAAQUIFER (WATER TABLE)



YORKTOWN-EASTOVER AQUIFER (DEEP)



Background

The Eastern Shore of Virginia depends entirely on groundwater for drinking water supplies, irrigation, and other water uses.

Multiple federal, state, and local agencies work together to manage and protect the availability and quality of our groundwater, including US Geological Survey, Virginia Dept. of Environmental Quality, US Environmental Protection Agency, and Virginia Dept. of Health.

At the county level, in 1990 Accomack and Northampton counties established the Eastern Shore of Virginia Ground Water Committee (GWC) to assist local governments and residents in understanding, protecting, and managing the ground water resource. All withdrawals over 300,000 gallons a month require a DEQ permit. The GWC monitors all permit requests, as well as USGS and DEQ modeling, to identify any areas of concern, including excessive withdrawals or saltwater intrusion.

Important Designations

The Eastern Shore Groundwater Management Area

In 1976, the Virginia State Water Control Board declared the Eastern Shore of Virginia as one of two groundwater management areas in the state. It encompasses the counties of Accomack and Northampton.

Sole-Source Aquifer

The Eastern Shore of Virginia is one of six areas designated by the EPA, in 1997, as a Sole Source Aquifer within the Mid-Atlantic area (Federal Region 3). The Sole Source Aquifer Program, which is authorized by the Safe Drinking Water Act, allows communities to petition the EPA for protection when a community is dependent on a single source of drinking water and there is no potential replacement water supply.