

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

**EASTERN VIRGINIA GROUNDWATER
MANAGEMENT ADVISORY COMMITTEE 2021
ANNUAL REPORT**

**TO THE HONORABLE RALPH S. NORTHAM,
GOVERNOR, THE GENERAL ASSEMBLY, AND THE
STATE WATER COMMISSION**

NOVEMBER 2021

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EXECUTIVE SUMMARY

The Eastern Virginia Groundwater Management Advisory Committee (EVGMAC) was reestablished effective July 1, 2020 pursuant to legislation enacted following the 2020 Virginia General Assembly session.¹ The Director of the Department of Environmental Quality (DEQ) appoints members of the EVGMAC. DEQ convenes the EVGMAC at least four times each fiscal year, and during each meeting DEQ updates the EVGMAC on activities related to groundwater management in the Eastern Virginia Groundwater Management Area and solicits EVGMAC members to present topics and analysis at future meetings. DEQ prepares and submits this report of the EVGMAC's examinations to the Governor, the General Assembly, and the State Water Commission by November 1 of each year pursuant to § 62.1-256.2 of the Code of Virginia.

INTRODUCTION

The Eastern Virginia Groundwater Management Advisory Committee (EVGMAC) was reestablished effective July 1, 2020 pursuant to legislation enacted following the 2020 Virginia General Assembly session.² The purpose of the EVGMAC is to serve “as an advisory committee to assist the State Water Commission and the Department [of Environmental Quality (DEQ)] in the management of groundwater in the Eastern Virginia Groundwater Management Area.”³ The Eastern Virginia Groundwater Management Area includes all of the Commonwealth east of Interstate 95, except for the Eastern Shore, which is a separate groundwater management area.⁴

The first iteration of the EVGMAC was established pursuant to legislation adopted by the 2015 General Assembly.⁵ Pursuant to the 2015 legislation, the first iteration of the EVGMAC completed its activities in 2017 and the committee's enabling legislation expired on January 1, 2018. The final report submitted by the first iteration of the EVGMAC is available on DEQ's [Eastern Virginia Groundwater Management Advisory Committee website](#).

¹ 2020 Va. Acts Ch. 805.

² *Id.*

³ Va. Code Ann. § 62.1-256.2.

⁴ 9VAC25-600-20 A (“The board hereby orders the declaration of the eastern part of Virginia as a groundwater management area. This area shall be known as the Eastern Virginia Groundwater Management Area. This area encompasses the counties of Charles City, Essex, Gloucester, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Prince George, Richmond, Southampton, Surry, Sussex, Westmoreland, and York; the areas of Caroline, Chesterfield, Fairfax, Hanover, Henrico, Prince William, Spotsylvania, and Stafford counties east of Interstate 95; and the cities of Chesapeake, Franklin, Hampton, Hopewell, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg.”).

⁵ 2015 Va. Acts Chs. 262 and 613.

MEMBERSHIP

Members of the Eastern Virginia Groundwater Management Advisory Committee (EVGMAC) are appointed by the Director of the Department of Environmental Quality (DEQ) pursuant to § 62.1-256.2 of the Code of Virginia. Membership of the EVGMAC is to “be composed of nonlegislative citizen members consisting of representatives of industrial and municipal water users; representatives of public and private water providers; developers and representatives from the economic development community; representatives of agricultural, conservation, and environmental organizations; state and federal agency officials; and university faculty and citizens with expertise in water resources-related issues.”⁶

Pursuant to § 62.1-256.2 of the Code of Virginia in September 2020 the DEQ Director appointed the following persons to serve as members of the EVGMAC:

Martha Moore – Farm Bureau

Stephen Schoenholtz – Virginia Water Resources Research Center

Kurt Stephenson – Virginia Tech

Hope Cupit – Southeast Rural Community Assistance Project, Inc.

Robert Wayland – Citizen at large

Robert Pickett – Virginia Association of Soil and Water Conservation Districts

Keith Martin – Virginia Chamber of Commerce

Anna Killius – James River Association

Peggy Sanner – Chesapeake Bay Foundation

Nina Butler – WestRock Company

Steward Leeth – Smithfield Foods, Inc.

Andrea Wortzel – Mission H2O

Jessica Steelman – Accomack-Northampton Planning District Commission

David Jurgens – City of Chesapeake

Neiman C. Young – King George County

Doug Powell – James City Service Authority

Al Moor – Western Tidewater Water Authority

⁶ Va. Code Ann. § 62.1-256.2.

Ted Henifin – Hampton Roads Sanitation District

John Aulbach – Aqua Virginia

John O’Dell – Virginia Water Well Association

Chief Stephen Adkins – Chickahominy Tribe

Dr. Norman Oliver – Virginia Department of Health

Mark Bennett – U.S. Geological Survey

John Loftus – Virginia Economic Development Partnership

MEETINGS

The Department of Environmental Quality (DEQ) is to convene meetings of the Eastern Virginia Groundwater Management Committee (EVGMAC) at least four times each fiscal year.⁷ During each meeting, DEQ is required to “(i) update the [EVGMAC] on activities pertaining to groundwater management in the Eastern Virginia Groundwater Management Area and (ii) [to] solicit members to present topics and analysis for examination at future meetings.”⁸ The first meeting of the EVGMAC took place on October 22, 2020 and additional meetings were held on March 19, 2021, April 27, 2021, and June 28, 2021.

The first meeting of the newly constituted EVGMAC was held on October 22, 2020. First, the committee’s purpose and ground rules for meetings were established. The primary agenda item for the meeting was a comprehensive presentation on expected aquifer conditions based on simulations from the DEQ Coastal Plain and Eastern Shore models by Todd Wood of AQUAVEO (DEQ’s modeling contractor). These simulations evaluate the areas that fall below the regulated water level in each aquifer in an aquifer system (for each Groundwater Management Area) based on both the current use and the full permitted use of groundwater. These simulations evaluate the aquifer’s ability to sustain the respective groundwater withdrawal scenario for the next 50 years. Following the presentations, committee members discussed modeling assumptions and data uncertainty, interstate coordination, groundwater withdrawal volumes, and poultry operations. The meeting concluded with a request for committee members to provide ideas for future topics at subsequent meetings. This discussion allowed DEQ to establish priorities for future work of the committee.

The March 19, 2021 meeting was comprised of a comprehensive presentation from Ted Henifin, Jamie Heisig-Mitchell, Dan Holloway, and Charles Bott of the Hampton Roads Sanitation District (HRSD). The presentation outlined the genesis, objectives, and latest activities under the Sustainable Water Initiative for Tomorrow [SWIFT] project, highlighting the

⁷ *Id.*

⁸ *Id.*

multitude of benefits the project would provide to the Chesapeake Bay and to the aquifer system. SWIFT is a project that would take HRSD's effluent, treat it to drinking water levels, and then inject the treated water into the Potomac Aquifer. Information was provided to the committee regarding current modeling of the anticipated injection volumes and the potential regional benefits that would be associated with improving aquifer water levels. Some simulations indicated that expanded groundwater withdrawals may be necessary to offset improvements to water levels by the end of this decade. The latest information was presented related to permitting injections at multiple locations, the estimated timeline for permitting the project, and the role of the Potomac Aquifer Recharge Oversight Committee in safeguarding public health and the environment. Additional information on the constituents in the injected treated water that are being monitored and under which regulatory oversight mechanism each constituent would be regulated was also described. A technical overview of the treatment processes used to treat the injected water and the project team's experience with the different processes tried at the Nansemond Demonstration Facility was discussed.

The April 27, 2021 meeting explored the status of recommendations in the 2017 EVGMAC Final Report. Scott Kudlas presented the twelve recommendations from the 2017 committee report, including updates on the status of agency or legislative actions taken to address them. Following the presentation, there was a discussion related to three prompts regarding what aspects of the 2017 committee report's recommendations should be carried forward into the work of the current committee. The committee indicated an interest in further discussing the status of the maintenance of monitoring wells, impacts from the SWIFT program, water quality and potential contaminants, and unregulated groundwater use.

The final EVGMAC meeting of the 2021 Fiscal Year, held on June 28, 2021, engaged the committee on the topics identified in the previous meeting. To address concerns raised previously by committee members regarding Per- and Polyfluoroalkyl Substances (PFAS), its potential presence in the aquifer system, and its potential impact on drinking water and public health, a presentation was made on state efforts to address PFAS contaminants by Jeff Steers from DEQ and Tony Singh from the Virginia Department of Health (VDH). Following the presentation, the committee members' discussion examined the future of funding for monitoring PFAS and protections of public drinking water from PFAS and PFAS-type contaminants. The committee also discussed proposed topics for future meetings of the EVGMAC. The committee determined that in the next Fiscal Year the committee will engage in further discussion related to groundwater monitoring, funding and ongoing modeling activities, and updates of the findings from the 2017 final EVGMAC report.

APPENDIX A - § 62.1-256.2 OF THE CODE OF VIRGINIA

§ 62.1-256.2. (Expires July 1, 2025) Eastern Virginia Groundwater Management Advisory Committee established; sunset.

A. The Department of Environmental Quality (the Department) shall establish the Eastern Virginia Groundwater Management Advisory Committee (the Committee) as an advisory committee to assist the State Water Commission and the Department in the management of groundwater in the Eastern Virginia Groundwater Management Area. Members of the Committee shall be appointed by the Director of the Department and shall be composed of nonlegislative citizen members consisting of representatives of industrial and municipal water users; representatives of public and private water providers; developers and representatives from the economic development community; representatives of agricultural, conservation, and environmental organizations; state and federal agency officials; and university faculty and citizens with expertise in water resources-related issues. The Department shall convene the Committee at least four times each fiscal year. Members of the Committee shall receive no compensation for their service and shall not be entitled to reimbursement for expenses incurred in the performance of their duties.

B. During each meeting of the Committee, the Department shall (i) update the Committee on activities pertaining to groundwater management in the Eastern Virginia Groundwater Management Area and (ii) solicit members to present topics and analysis for examination at future meetings. The Committee may develop specific statutory, budgetary, and regulatory recommendations, as necessary, to enhance the effectiveness of groundwater management in the Eastern Virginia Groundwater Management Area.

C. The Department shall annually report the results of the Committee's examinations and related recommendations, and any responses from the Department, to the State Water Commission, the Governor, and the General Assembly no later than November 1 of each year.

D. The provisions of this section shall expire on July 1, 2025.