



Eastern Shore of Virginia Ground Water Committee
July 20, 2021 10:00a.m.
Barrier Islands Center
7295 Young Street
Machipongo, VA 23405

Translation services available: Call 1-718-838-9317... #6980900. Press 1 for Spanish. Press 2 for Haitian Creole.

Servicios de traducción disponibles: Llame al 1-718-838-9317 ... # 6980900. Presione 1 para español.

Sèvis Tradiksyon Disponib: Rele 1-718-838-9317 ... # 6980900. Peze 2 pou kreyòl ayisyen.

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MEETING AGENDA

1. Call to Order
2. Public Participation

3. Minutes of the May 18th, 2021 Meeting 5
4. June 2021 Financial Status Report..... 12
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 - Environmental Reviews and Permits 14
 - Other Items..... 14
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9. FY 2021 ATTENDANCE RECORD 23

10. Other Matters
11. Schedule Next Meeting (August 17, 2021 at 10:00AM at the A-NPDC Enterprise Building, Accomac) **NOTE: NO DECEMBER 2021 MEETING**
12. Adjourn

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Minutes of the May 18th, 2021 Meeting
Eastern Shore of Virginia Ground Water Committee

The meeting of the Eastern Shore of Virginia Ground Water Committee was held at 10:00 AM on Tuesday, May 18th, 2021 in the hybrid format – virtually on the Zoom Platform and in person – at the Sawmill Park Pavilion in Accomac, VA.

Virtual Attendance:

For Joining via Computer:

1. Click this link:

<https://zoom.us/j/7577872936?pwd=QTNJdmhCc3pWdVNUZ0ZWYnVjdWpWUT09>

2. If prompted, enter the Meeting ID: 757 787 2936

3. If prompted, enter the Passcode: 7577872936

For joining via Phone (calling in):

1. Dial 1-646-558-8656

2. When prompted for meeting code enter 7577872936#

3. When prompted to identify as host or participant, enter #

4. When prompted for password, enter 7577872936#

<u>Members Present</u>	<u>Members Absent</u>	<u>Others Present</u>
Paul Muhly, Chairman	Charles Kolakowski	Jessica Steelman, A-NPDC
John Coker, Vice Chairman	Taylor Dukes	Jason Pope, USGS*
Daniel Hershey		Joe Grist, VDEQ*
Jackie Phillips		Britt McMillan, ARCADIS
Michael Mason*		Bill Savage, ESSWCD
Roberta Kellam		Scott Kudlas, DEQ*
Grayson Chesser		Richard Snyder, VIMS*
Paul Grossman		Matt Kearns, USGS*
		Curtis Consolvo, Geo Resources
		David Reddinger*
		757-787-5850*

**signifies Zoom participant*

Call to Order

Chairman Muhly called the meeting to order at 10:06 AM.

Public Comment

None.

Review of the April 20, 2021 Minutes

The draft minutes of the April 18th, 2021 meeting were presented. Committee Member Grossman requested the amendment be made under Other Items: *Critical Resources Area* – where it states “... goes to the Upper Yorktown-Eastover, >1% to the Middle YE, and <15% to surface water” be amended to read “...goes to the Upper Yorktown-Eastover, <1% to the Middle YE, and <15% to surface water” also noting this was inaccurately reflected in the complementary report.

Committee Member Hershey moved to approve the Minutes of the April 20, 2021 meeting with amendments. The motion, seconded by Committee Member Grossman, carried unanimously.

FY 2021 Financial Status Report

The FY 2021 Financial Status Report as of April 2021 was presented. Total Bills Payable equaled \$7,647.75; total revenues received equaled \$13,156.75.

Vice Chairman Coker moved to approve the April 2021 Financial Status Report. The motion, seconded by Committee Member Phillips, carried unanimously.

Vice Chairman Coker moved to request an additional \$50,000 total from the counties (1/3 Northampton; 2/3 Accomack) for the FY23 budget. The motion, seconded by Chairman Muhly, carried unanimously.

Vice Chairman Coker moved to request an additional mileage reimbursement budget from the counties (per Committee member rate) for the FY23 budget. The motion, seconded by Chairman Muhly, carried unanimously.

Vice Chairman Coker moved to alternate meeting locations between the two counties moving forward. The motion, seconded by Chairman Muhly, carried unanimously.

Staff was asked to seek alternative meeting spaces in each county. Staff was asked to develop a draft budget for mileage reimbursement fund. Staff was asked to develop preliminary working draft for budget request of the FY23 budget to be developed further and fully over the next several GWC meetings.

Staff Update

Committee Attendance Record

The FY2021 Committee Attendance Record was recorded.

Environmental Reviews and Permits

VA Pollutant Discharge Elimination System Program –
None.

VA Pollution Abatement Program –
None.

Consent Orders –

Tyson Farms Inc. Consent Order #TR15-1026. 5/5/2021 response from John Brandt (TRO): *“All CAP Appendix A requirements have been completed. It is accepted in all orders for CAP requirements to be completed, where possible, prior to effective date of a consent order. In the case of this Tyson Order, there was a long lead time, and some subsequent changes, between the draft Order to Tyson and the final effective date such that Tyson began work, and completed many of the Appendix A CAP items prior to the effective date (signature date).*

All CAP Appendix B requirements have been completed with the exception of Appendix B.3.a (rate of water conservation). COVID affects have delayed this and remains a work in progress... at this point, there is not a timeline to complete Appendix B.3.a., since the completion was interrupted by COVID, no one knows when things, including chicken production, will return to 'normal', and the Order is silent past "through 2020".”

Groundwater Withdrawal Permits –
None.

Environmental Impact Reviews –
None.

Water Quality –

Draft 2022 Water Quality Assessment Guidance Manual

Virginia’s 2022 Water Quality Assessment Guidance Manual contains the assessment procedures and methods to be used for the development of Virginia’s 2022 §305(b)/ §303(d) Integrated Report. The guidance seeks to address all key elements of the U.S. Environmental Protection Agency 2006 Assessment Guidance and subsequent updates current to December 2020, in addition to the assessment methodology for Chesapeake Bay Water Quality Standards.

- Public comment period: **Jan. 19, 2021 – Feb. 18, 2021**
- View [draft manual](#)
- See Town Hall [notice](#)
- A public webinar will be held on Feb.11 from 2 - 4 p.m. Registration link [here](#)
- Link to [2020 WQA information](#)

Contact: [Amanda Shaver](#), Water Quality Assessment Coordinator, (804)698-418, [DEQ Central Office](#)

How to submit comments:

Section 62.1-44.19:5 C of the Code of Virginia requires DEQ to develop and publish the procedures used for defining and determining impaired waters and provide for public comment on the procedures. The public is invited to submit written comments until Feb. 18,

2021. Comments should include the name, address, telephone number and, if applicable, the e-mail address of each person and/or organization submitting comments. Comments and related correspondence should be addressed to Amanda Shaver. Responses to comments received will be made collectively, via a response document. The response document will be posted on the assessment webpage along with the final guidance manual.

Other Items

GWC Statement of Principal –

Mr. Scott Kudlas of DEQ led discussion with input from DEQ with regards to the GWC Draft Statement of Principle. A subcommittee was established to review and develop final draft of the Statement of Principle. The subcommittee includes: Chairman Muhly, Vice Chairman Coker, Committee Member Kellam, and GWC Consultant McMillan.

Marshall Johnson Grapeland Complex –

Tyson –

Research & News

VIMS Study Shows No Significant Water Quality Changes From Poultry Operations, by Carol Vaughn <https://www.easternshorepost.com/wp-content/uploads/2021/04/04.23.2021.pdf>

CBF Tyson Permit Reissuance Comments May 7, 2021 were included in the GWC Meeting Packet for the May 18th, 2021 meeting.

Ground Water Consultant Report

Technical/Regulatory/Educational Items

1. Review Final Kuzzens Marshall Johnson Grapeland Complex Groundwater Withdrawal Permit (GW0070100). DEQ revisions to the Draft Permit (February 2021) addressed the most significant concerns / comments expressed by the Groundwater Committee:
 - a. The requested amount greatly exceeds historical use. The amount requested in the Draft Permit was based on irrigation of all available land and simultaneous maximum use of the greenhouses. The rationale was that, given the 15-year term for the permit, the owner should have the opportunity to use all available land if there was the demand. The Groundwater Committee recognized it is highly unlikely the property would irrigate at the full amount for all 15-years.
 - b. Originally, the Groundwater Committee expressed concern that there was no specific requirement in the permit to use the surficial aquifer to the maximum extent possible. Based on use from an existing surficial aquifer well that exceeded 100 gpm yield on average, increased use of the surficial aquifer for irrigation water appears likely. The draft permit included provisions for testing the surficial aquifer but no provision to increase use.
 - c. The model used to evaluate potential impacts found that there is a potential for saltwater intrusion. The draft Permit included collecting samples from two on-site irrigation wells. The Groundwater Committee was concerned if this testing would be sufficient.

The Final Permit included the following Special Conditions that addressed these concerns:

- a. The Final Permit was restructured into two tiers:
 - i. Tier 1: Years 1-5
 - ii. Tier 2: Years 6-15
 - b. Tier 1 includes the following provisions:
 - i. Total withdrawal amounts are set a little higher than historical field plus greenhouse irrigation amounts ($\approx 1/3$ for annual and $\approx 2/3$ for monthly). This amount is substantially lower than the Draft Permit amounts.
 - ii. Separate withdrawal amounts from the surficial aquifer and Yorktown-Eastover aquifers is set. The amount assigned to the Yorktown-Eastover aquifers is set approximately equal to historical amounts.
 - c. Tier 2 includes the following provisions:
 - i. Total withdrawal is increased to the full requested permitted amount (assumes all fields and greenhouses are irrigated in the same season).
 - ii. The increased use has to be supplied by the surficial aquifer. Use from the Yorktown-Eastover aquifers is held effectively the same.
 - d. The overall effect of the tiered structure is limit use of the Yorktown-Eastover aquifer to historical levels and to require use of the surficial aquifer to supply additional demand.
 - e. Additional water quality monitoring is required:
 - i. Two on site monitoring wells must be constructed. These wells are to be used only for water quality sampling and will not be used as production wells.
 - ii. Residential supplies within the model predicted area of impact will need to be assessed (water quality sampled).
 - f. Alternate sources of water will need to be evaluated, including the feasibility of additional surficial irrigation ponds and recycling greenhouse irrigation water.
- 2) Review the existing Tyson Virginia Pollutant Abatement (VPA) permit. The VPA permit is in the process of reapplication and there was interest in how the solids application to the land is managed to reduce the potential for impacts to groundwater in light of the groundwater issues found at Montaire, Maryland. The following are the principal findings:
- a) Tyson does not use an onsite farm. Application is principally addressed in the Permit's Special Conditions:
 - i) The solids are applied to local farms. There is a discrete list of farms that the solids can be applied.
 - ii) On the individual fields application "*...shall be on an infrequent (one per three-year) basis.*"
 - iii) The rate of application for each field is set.
 - iv) Sludge application rates, plant available nitrogen (PAN) rates, and dosage rates must be established for each field.
 - v) A Nutrient Management Plan that includes all field must be established and re-evaluated at least once/three years.
 - vi) There are minimum buffer zones for application as well as seasonal restrictions.
 - b) The above conditions, in particular the limitation to one-application every three years to a field, provides considerable protection from potential groundwater contamination.
 - c) The draft VPA permit and associated Fact Sheets will be reviewed when available, likely 3rd quarter of this year.

- 3) DEQ significantly improved public access to information with the new Virginia Environmental Data Hub (April 2021). Two key features are easy-to-access Open Data Portal and the new GIS tool: Environmental Data Mapper (EDM). The tools provide basic information on many permits and data collected in the State and are a great resource for general information or for providing the basic information helpful in FOIA requests if more detailed information is needed. The sites can be accessed from the following links:
- a) [Virginia Environmental Data Hub](#)
 - b) [Environmental Data Mapper](#)

Other Items:

- i. Additional FY2021 Groundwater Committee activities. Continue update of the Eastern Shore Groundwater Protection Plan.

Upcoming Events/Meetings

REGULAR MEETINGS OF STATEWIDE AUTHORITIES, BOARDS, COMMISSIONS, AND COMMITTEES –

Technical Advisory Committee Meeting - General Permit for Use of Surficial Aquifer in a Groundwater Management Area

June 10, 2021 10:00AM

GoToWebinar Registration –

URL:<https://attendee.gotowebinar.com/register/1319826683690561036>. To join the meeting access the website by using the link, telephone number, access code and audio pin provided with the meeting confirmation. Webinar ID 217-549-571.

Eastern Virginia Groundwater Management Advisory Committee (EVMAC)

June 28, 2021 10:00AM

GoToWebinar - register at <https://attendee.gotowebinar.com/register/7262368174020637966>.

To join the meeting access the webinar by using the link, telephone number, access code and audio pin provided with the meeting confirmation. Any updates to the details/final arrangements to be announced through the Virginia Regulatory Town Hall.

MEETINGS ABOUT TOTAL MAXIMUM DAILY LOADS (or TMDLs) for IMPAIRED WATERS –

For more information about TMDLs in Virginia, click here for the [Virginia Department of Environmental Quality TMDL Web site](#). TMDL reports are available at <http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/ApprovedTMDLReports.aspx>.

VIRGINIA GENERAL ASSEMBLY WATER-RELATED MEETINGS –

For meetings of legislative committees and commissions, see <http://lis.virginia.gov/cgi-bin/legp604.exe?191+oth+MTG>. Links to information about General Assembly commissions, councils, and special interim committees coordinated by the Division of Legislative Services are available online at <http://dls.virginia.gov/commissions.html>. The Virginia General Assembly Web site is <https://viriniageneralassembly.gov/>.

Schedule Next Meeting & Adjournment

The next Committee meeting was scheduled to be in Northampton County (location TBD) for July 20th at 10:00 AM.

Vice Chairmain Coker made a motion to adjourn at 11:54 AM. The motion, seconded by Committee Member Phillips, carried unanimously.

Chairman Muhly adjourned the meeting at 12:00 PM.

Copy test:

Paul Muhly, Chairman

Elaine K. N. Meil, Secretary

MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee
FROM: Jessica Steelman
Coastal Planner
Accomack-Northampton Planning District Commission
DATE: July 20, 2021
SUBJECT:

June 2021 Financial Status Report

The FY 2021 Financial Status Report is attached.

TOTAL BILLS PAYABLE **\$1,613.86**

Revenues Received:	Accomack County	\$0.00
	Northampton County	\$0.00

TOTAL REVENUES RECEIVED **\$ 0.00**

Staff requests the Committee review and consider approving the June 2021 Financial Status Report.

EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE

Financial Statement--June 2021

Fiscal Year 2021

	Annual	Current Period	YTD		
REVENUES:	<u>Budget</u>	<u>Activity</u>	<u>Activity</u>	<u>Balance</u>	<u>% of Budget</u>
Ground Water Consultant Appropriations:					
Accomack County	\$ 14,251.00	\$ 0.00	\$ 14,251.00	\$ 0.00	100.00%
Northampton County	7,415.00	\$ 0.00	\$ 7,415.00	0.00	100.00%
Subtotal	\$ 21,666.00	\$ 0.00	\$ 21,666.00	\$ 0.00	
Ground Water Modeling Run Appropriations:					
Accomack County	\$ 1,500.00	\$ 0.00	\$ 1,500.00	0.00	100.00%
Northampton County	1,500.00	\$ 0.00	\$ 1,500.00	0.00	100.00%
Subtotal	\$ 3,000.00	\$ 0.00	\$ 3,000.00	\$ 0.00	
Ground Water Committee Staff Support:					
Accomack County	\$ 6,770.00	\$ 0.00	\$ 6,770.00	0.00	100.00%
Northampton County	6,191.00	\$ 0.00	\$ 6,191.00	0.00	100.00%
Subtotal	\$ 12,961.00	\$ 0.00	\$ 12,961.00	\$ 0.00	
USGS Ground Water Model:					
Accomack County	\$ 7,500.00	\$ 0.00	\$ 7,500.00	0.00	100.00%
Northampton County	7,500.00	\$ 0.00	\$ 7,500.00	0.00	100.00%
Subtotal	\$ 15,000.00	\$ 0.00	\$ 15,000.00	\$ 0.00	
Total Revenues	\$ 52,627.00	\$ 0.00	\$ 52,627.00	\$ 0.00	100.00%

Ground Water Modeling Run Appropriations:	
Remaining Balance FY2020	\$ 9,000.00
Total Revenues/Remaining Balance	\$ 61,627.00

EXPENDITURES:					
Ground Water Consultant	\$ 21,000.00	\$ 0.00	\$ 21,000.00	\$ 0.00	100.00%
Ground Water Modeling Run	6,000.00	\$ 0.00	\$ 0.00	6,000.00	0.00%
Ground Water Committee Staff Support	14,627.00	\$ 1,613.86	\$ 4,369.12	10,257.88	29.87%
USGS Ground Water Model	14,000.00	\$ 0.00	0.00	14,000.00	0.00%
Total Expenditures	\$ 55,627.00	\$ 1,613.86	\$ 25,369.12	\$ 30,257.88	45.61%

NET SURPLUS OR (DEFICIT) \$ 6,000.00
 OF REVENUES LESS EXPENDITURES -\$ 1,613.86 \$ 27,257.88

* Deposits for the period include:

As Summarized \$ 0.00

\$ 0.00

** Expenditures for the period include:

Payables (previous month) \$ 1,613.86

Total Expenditures \$ 1,613.86

Bills Payable as of June 30, 2021

<u>DUE TO</u>	<u>DESCRIPTION</u>	<u>DATE</u>	<u>AMOUNT</u>
ANPDC	Staff Support	30-Jun-21	\$ 1,613.86
Total Bills Payable			\$ 1,613.86

MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee
FROM: Jessica Steelman
Coastal Planner
Accomack-Northampton Planning District Commission
DATE: July 20, 2021
SUBJECT:

July 20, 2021 Staff Report

Committee Attendance Record

The FY2020 Committee Attendance Records are [attached](#).

Environmental Reviews and Permits

VA Pollutant Discharge Elimination System Program –

Wastewater Treatment, Accomack County

Permit Number: VA0090875

Notice Purpose: To seek public comment on a draft permit that will allow the release of treated municipal wastewater into a water body in Oak Hall, Virginia.

Public Comment Period: June 30, 2021 to July 30, 2021

Applicant: Oak Hall LLC, 655 Fox Run Road, Suite B, Findley, OH 45840

Facility: Oak Hall Shopping Center Wastewater Treatment Plant, SE Corner of Hwy 13 and Rt. 175, Oak Hall, VA. 23416

DEQ Contact:

Robert E. Smithson, [Tidewater Regional Office](#)

Phone: 757-518-2106; Fax: 804-698-4178

Email: Robert.SmithsonJR@DEQ.Virginia.gov

VA Pollution Abatement Program –

None.

Consent Orders –

None.

Groundwater Withdrawal Permits –

None.

Environmental Impact Reviews –

None.

Other Items

GWC Statement of Principal –

Date TBD for subcommittee meeting with Scott Kudlas. Members in subcommittee are: Paul Muhly, John Coker, Roberta Kellam, & Britt McMillan.

Water Clinic –

Staff gained consent from Theresa Pittman & Ursula Deitch of Virginia Tech to include a data share release letter in the testing kits for release of 911 address of the water tested with the A-NPDC for further assistance in monitoring and improving the water quality on the Eastern Shore (Attachment A).

Additional GWC Funding –

Draft letters for Accomack and Northampton counties (Attachments B & C). Staff has been advised by the A-NPDC Director of Administration that in order to request mileage reimbursement, it must be in the Committee By-Laws (Attachment D).

Research & News

Site Investigation Report for Per- and Polyfluoroalkyl Substances by Goddard Space Flight Center Wallops Flight Facility Wallops Island, Virginia

Highlights from Jeremy L. Eggers, Associate Chief, Office of Communications at Goddard Space Flight Center:

- The Wallops and Town of Chincoteague finished drinking water continues to be nondetect (or very low detects – i.e., less than 1 part per trillion) for PFAS
- The NASA-funded/operated Granular Activated Carbon (GAC) Water Treatment System is now operational and connected to the Town’s water system—this allows the town to use its three shallow and one deep well that had been off-line previously due to impacts from PFAS
- With the GAC now in place, Wallops is no longer supplementing the Town’s water, though we maintain the capability to do so if ever needed
- We’ve completed a new well for the Wallops main base that replaces a well that was poorly constructed (and had PFAS hits); we’re in the final design phase of the infrastructure design for connecting the new well to our existing field
- We’ve released the final Main Base PFAS [Site Investigation Report](#) in this update
- Information Sheet (Attachment E)

Supervisors Approve Northampton Comp Plan Update with Changes by Stefanie Jackson, Eastern Shore Post, p. 1

<https://www.easternshorepost.com/wp-content/uploads/2021/06/06.11.21.pdf>

Of Note: Article section on the Columbia Aquifer and BOS Betsy Mapp comments.

Bundick Well & Pump Company Flyer (Attachment F).

Email Response to Bundick Well & Pump Company Flyer by Ken Dufty (Attachment G).

Upcoming Events/Meetings

REGULAR MEETINGS OF STATEWIDE AUTHORITIES, BOARDS, COMMISSIONS, AND COMMITTEES –

None.

MEETINGS ABOUT TOTAL MAXIMUM DAILY LOADS (or TMDLs) for IMPAIRED WATERS –

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VIRGINIA GENERAL ASSEMBLY WATER-RELATED MEETINGS –

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MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee
FROM: Sam Caldwell, Hydrologist, USGS VA/WV Water Science Center
DATE: July 20, 2021
SUBJECT:

USGS EM-Logging 2020 Presentation

Sam Caldwell with USGS to present on findings.

MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee
FROM: Britt McMillan, Principal Hydrogeologist, Arcadis
DATE: July 20, 2021
SUBJECT:

Ground Water Consultant Updates

Technical/Regulatory/Educational Items:

1. The Technical Advisory Committee, administered by DEQ, for the General Permit for Non-Agricultural Surficial Aquifer Withdrawals concluded their work on June 22 with draft regulations as 9VAC25-920. The next steps are to submit the draft regulation to the State Water Control Board, public review, and a final presentation of the regulation to the Board. A copy of the draft regulation has been requested and will be presented at the meeting.
2. NASA completed a (final) Site Investigation Report for Per- and Polyfluoroalkyl (PFOS and PFOA) Substances for the Wallops Flight Facility. A summary presentation of results, findings and recommendations provided in the report will be provided. This is an example of emerging contaminants in the groundwater on the Shore and potential risks to the groundwater resource.

Other Items:

1. Additional FY2021 Groundwater Committee activities. Continue update of the Eastern Shore Groundwater Protection Plan.

MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee
 FROM: Britt McMillan, Principal Hydrogeologist, Arcadis
 DATE: July 20, 2021
 SUBJECT:

Ground Water Consultant Quarterly Report, Q3 (April 2021 – June 2021)

Eastern Shore of Virginia Ground Water Committee Contract Year Oct. 1, 2020 – September 30, 2021 (2021 Project Year) Consultant Progress Summary		
Task 1 - Committee Meetings (2021 Project Year Goal = 5)		
% Completion	>100%	
Date	Activity	Additional Comments
10/20/2020	Wrote Memo; Attended Meeting	
11/17/2020	Meeting cancelled	Meeting cancelled due to Covid 19
12/15/2020	Meeting not held	Meeting not normally scheduled
1/18/2021	Meeting cancelled	Meeting cancelled due to Covid 19
2/16/2021	Wrote Memo and technical documentation; Attended Meeting	None
3/16/2021	Wrote Memo and technical documentation; Attended Meeting	None
4/20/2021	Wrote technical documentation; Attended Meeting	None
5/18/2021	Wrote Memo and technical documentation; Attended Meeting	None
6/15/2021	Meeting not held	Meeting not normally scheduled
Task 2 – Technical Documentation (i.e. memos & additional documents as needed)		
Date	Document	Additional Comments
10/20/2020	Summary proposed General Permit for Surficial Aquifer Use	None
10/20/2020	Summary – proposed modifications to 2013 Groundwater Protection Plan	None
2/16/2021	Detailed review of Marshall-Johnson-Grapeland Complex. Discussed alternate sources (surficial aquifer), historical and proposed withdrawal amounts, and historical water level changes	Groundwater Committee recommended development of a Statement of Principles outlining need to encourage use of the more sustainable surficial aquifer over the Yorktown-Eastover aquifer.
2/16/2021	Brief review of the recharge dynamics to the aquifer systems	Provide a more detailed review at a future meeting.
3/16/2021	Developed Statement of Principles for the Groundwater committee	Draft reviewed and distributed to Groundwater Committee
4/20/2021	Critical Resource Area (“Spine Recharge”) presentation. Reviewed the history, development, and use of various Critical Resource	The review discussed applicability, use, and limitations of the various designations. Also discussed were

	Area / Spine Recharge Areas developed for the Shore from the original 1992 Groundwater Supply Protection and Management Plan to the present.	principal "data gaps" needed to better refine the areas.
4/20/2021	Presented preliminary results of data compiled from the comprehensive DEQ groundwater use database. Discussed ways the compiled data will be used, including integration in a GIS database.	Discussed data processing needs necessary to rectify the data for use.
5/18/2021	Reviewed the final Kuzzens Marshall Johnson Grapeland Complex Groundwater Withdrawal Permit (GW0070100). The final permit included several additions that addressed some comments and concerns expressed by the Groundwater Committee, including: 1) restricting use of the confined aquifer to historical use and requiring additional withdrawals from the surficial aquifer; 2) additional water quality monitoring, including neighboring wells; and 3) requirement to evaluate expanding irrigation ponds and recycling greenhouse irrigation water.	The revised permit addressed many of the Groundwater Committee's comments and concerns. The Committee commended DEQ on these changes and requested implementation of similar conditions on future permits, where appropriate, recognizing there may be circumstances where the provisions should not be applied.
5/18/2021	Reviewed the existing Tyson Virginia Pollutant Abatement Permit (VPA) from the context of groundwater protection. There are a number of provisions that reduce the potential for excess leaching of nitrogen to groundwater, including a requirement to rotate application between fields on a minimum 3-year basis, limits to the loading, and requirement to update the plans and field testing at a set schedule.	Many of the requirements in the VPA permit significantly reduce the likelihood that excess nitrogen will leach to groundwater as had been reported for a different poultry land application operation in an adjoining State.
5/18/2021	Presented the new Virginia Environmental Data Hub, that became publicly available April 2021. The data hub significantly improved access to basic information retained by DEQ through tools such as the easy to access Open Data Portal and the Environmental Data Mapper (EDM).	While not all information retained by DEQ is available through this tool, it provides a good source of basic information on permits and monitoring information maintained by DEQ. Where more detailed information is necessary, this tool provides the means to research and request additional information from DEQ through FOIA.

Task 3 - Groundwater Permit Review

<u>Applicant</u>	<u>Permit Status</u>	<u>Aquifers</u>	<u>Annual Amount (Gal)</u>
GW0071600 Kuzzens Mappsville	Public Comment Complete	MYTEO	4,800,000
GW0070100 Kuzzens Marshall-Johnson-Grapeland Complex	Public Comment	COL, UYTEO	129,500,000

Task 4 – Implement Committee Work Plan

<u>Date</u>	<u>Activity</u>	<u>Outcome/Additional Comments</u>
-------------	-----------------	------------------------------------

Work with the GWC and the A-NPDC to implement the approved Work Plan based on the Preservation Plan:		
Monitor and review Federal and State regulations		
12/09/2020	SWCB adoption of 9VAC25-910 (General Permit for Surficial Aquifer use)	Attended meeting
12/15/2020	Track new General Assembly Bills	(no relevant bills)
3/16/2021	Develop draft Statement of Principles outlining the Groundwater Committee desire to increase use of the more sustainable surficial aquifer in preference to the Yorktown-Eastover.	Draft Statement of Principles prepared and distributed to Committee
4/20/2021	Presented an update of the comprehensive water use records provided by DEQ from their database that was recently upgraded. Information from the database will be used to update the Resource Plan document.	In addition to incorporating the information into the Resource Plan document, the information will be integrated in a GIS for future access. The data currently needs to be reviewed and some records rectified. USGS has indicated they are working on a similar task and we may be able to consolidate efforts.
Coordinate and/or track independent research on the Eastern Shore		
Provide technical assistance to A-NPDC staff.		
2/16/2021	Provided information on historical Eastern Shore Seafood withdrawal	Information for potential future development
3/16/2021	Developed Statement of Principals	Draft Statement of Principles prepared and distributed to Committee
Work with the GWC and A-NPDC to develop funding mechanisms and to coordinate with local, state, and federal agencies and institutions to implement these objectives.		
October	Eastern Shore Surficial Aquifer General Permit Regulatory Advisory Panel	Final meeting, developed consensus on proposed language for the regulation (9VAC25-610). The proposed regulation will be presented to SWCB in December for approval
Task 5 – Quarterly Progress Reports		
% Completion	75%	
<u>Due Date</u>	<u>Additional Comments</u>	<u>Date Presented to GWC</u>
1/18/2021	None	Provided as summary table
4/20/2021	None	Provided as summary table
7/20/2021	None	Provided as summary table



A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION
 P.O. BOX 417 • 23372 FRONT STREET • ACCOMACK, VIRGINIA 23301
 (757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221
 WEBSITE: www.a-npdc.org

EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE FY 2021 ATTENDANCE RECORD

Members	Term Exp.	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Accomack Co.													
Grayson Chesser	June 2023	*	*	*		*	*	*	X	X	X	X	*
Jackie Phillips	NA	*	*	*	X	*	*	*	X	X	X	X	*
Daniel Hershey	June 2022	*	*	*	X	*	*	*	X	X	X	X	*
Paul Muhly	Chairman 2021 – 2023 Next vote: July 2023	*	*	*	X	*	*	*	X	X	X	X	*
Northampton Co.													
Paul Grossman	March 2024	*	*	*		*	*	*	X	X	X	X	*
John Coker	Vice Chairman 2021 – 2023 Next vote: July 2023	*	*	*	X	*	*	*	X	X	X	X	*
Roberta Kellam	March 2024	*	*	*	X	*	*	*	NA	X	X	X	*
Taylor Dukes	January 2022	*	*	*		*	*	*		X			*
Non-Voting Ex-Officio Members													
Michael Mason	NA	*	*	*		*	*	*				X	*
Charles Kolakowski	NA	*	*	*		*	*	*					*
Elaine Meil	NA	*	*	*	X	*	*	*	X	X	X		*

- Indicates not a member. X Indicates member present.
 * Indicates no monthly meeting held. NA Not Applicable () Indicates an alternate present





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EMAIL: anpdc@a-npdc.org • WEBSITE: www.a-npdc.org

Dear Water Testing Clinic Participant,

The Accomack-Northampton Planning District Commission (A-NPDC) administers the work conducted by the bi-county Eastern Shore of Virginia Groundwater Committee, whose mandate is to assist local governments and residents of the Eastern Shore in understanding, protecting, and managing groundwater resources. This role includes serving as an educational and information resource to local governments and residents concerning the protection and management of the Eastern Shore groundwater resource. A component of this educational and information resource role is compiling available information on the groundwater for use by researchers, local governments and residents. The information collected by the Virginia Household Water Quality Program provides an important source for better understanding how the groundwater quality varies across the Shore.

With your approval, the information provided in the attached survey and your water quality test results will be provided to the A-NPDC for incorporation with other existing water resource data retained for the Groundwater Committee. *To protect your identity, your name, telephone number, and e-mail and mailing address will not be provided to the A-NPDC.*

Yes, I agree to share my water quality test results and questionnaire answers with the A-NPDC to incorporate into existing water resource data for the Groundwater Committee. I understand that my 911 address of the tested well (where the water was sampled from) will be shared in order to receive further assistance in monitoring and improving water quality on the Eastern Shore.

No, I prefer not to share my water quality test results or questionnaire answers with the A-NPDC.

Printed Name	Signed Name	Date
--------------	-------------	------

If you have any questions about the option to share your data, please contact:

Jessica Steelman, Coastal Planner
Accomack-Northampton Planning District
Commission
P.O. Box 417, 23372 Front Street
Accomac, VA 23301
757.787.2936 x114
www.a-npdc.org
jsteelman@a-npdc.org

Erin Ling, Program Coordinator
Virginia Household Water Quality Program
Virginia Tech/ Virginia Cooperative Extension
155 Ag Quad Lane--Seitz Hall Rm 400
Blacksburg, VA 24061
540.231.9058
Website: www.wellwater.bse.vt.edu
Email: wellwater@vt.edu



A-NPDC

Accomack-Northampton Planning District Commission

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(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221

WEBSITE: www.a-npdc.org

Date

Accomack County Board of Supervisors

23296 Courthouse Ave.

Accomac, Virginia 23301

RE: Ground Water Committee of the Eastern Shore of Virginia FY23 Budget Increase Request

Dear Accomack County Board of Supervisors:

On behalf of the Ground Water Committee of the Eastern Shore of Virginia, the Accomack-Northampton Planning District Commission (A-NPDC) would like to request an increase in the annual budget for fiscal year 2023 (FY23) from Accomack County. Please see the table below:

Line Item	FY22 Original Budget Request	FY23 Requested Increase	Total
1 Increased Funds for Studies pertaining to Groundwater	\$30,021	\$33,334	\$63,355
2 Mileage Reimbursement	\$0	\$	\$
			\$

The Ground Water Committee is requesting an increase in funds for Line Item #1 under the FY23 Budget Call Request *Performance Measures Outcome #3: We Initiate Studies and Maintain Models Concerning Water Supply* to support the management and implementation of additional groundwater research studies. The Ground Water Committee is currently in the process of prioritizing groundwater projects, with a large focus on studying the quality of water from the surficial (Columbia) aquifer.

This effort will aim to determine if the surficial aquifer water quality is sufficient for both residential well water use and for agricultural purposes. Partners in this effort would include, but not be limited to, the United States Geological Survey (USGS), the Ground Water Committee consultant, localities, and local farmers with currently functioning surficial aquifer wells.

Additionally, the Ground Water Committee is requesting an increase in funds for Line Item #2 under the FY23 Budget Call Request *Performance Measures Outcome #1: We assist and educate local governments and residents* to support Committee member attendance at public Committee meetings.

Your approval of these budget increase requests would bring the total Accomack County contribution to the Ground Water Committee of the Eastern Shore of Virginia to \$_____ annually.

If I may be of further assistance or if you have any questions, please do not hesitate to contact me at 757-787-2936 x 114 or jsteelman@a-npdc.org

Sincerely,

A handwritten signature in black ink that reads "Jessica Steelman". The signature is written in a cursive, flowing style.

Jessica Steelman
Coastal Planner
Accomack-Northampton Planning District Commission

Cc: Paul Muhly
Chair, Ground Water Committee
pmuhly@co.accomack.va.us

Cc: John Coker
Vice Chair, Ground Water Committee
jcoker@co.northampton.va.us

Cc: Elaine Meil
Secretary, Ground Water Committee
emeil@a-npdc.org



A-NPDC

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WEBSITE: www.a-npdc.org

Date

Northampton County Board of Supervisors
PO Box 66
Eastville, Virginia 23347

RE: Ground Water Committee of the Eastern Shore of Virginia FY23 Budget Increase Request

Dear Northampton County Board of Supervisors:

On behalf of the Ground Water Committee of the Eastern Shore of Virginia, the Accomack-Northampton Planning District Commission (A-NPDC) would like to request an increase in the annual budget for fiscal year 2023 (FY23) from Northampton County. Please see the table below:

Line Item	FY22 Original Budget Request	FY23 Requested Increase	Total
1 Increased Funds for Studies pertaining to Groundwater	\$22,606	\$16,666	\$39,272
2 Mileage Reimbursement	\$0	\$	\$
			\$

The Ground Water Committee is requesting an increase in funds for Line Item #1 under the FY23 Budget Call Request *Performance Measures Outcome #3: We Initiate Studies and Maintain Models Concerning Water Supply* to support the management and implementation of additional groundwater research studies. The Ground Water Committee is currently in the process of prioritizing groundwater projects, with a large focus on studying the quality of water from the surficial (Columbia) aquifer.

This effort will aim to determine if the surficial aquifer water quality is sufficient for both residential well water use and for agricultural purposes. Partners in this effort would include, but not be limited to, the United States Geological Survey (USGS), the Ground Water Committee consultant, localities, and local farmers with currently functioning surficial aquifer wells.

Additionally, the Ground Water Committee is requesting an increase in funds for Line Item #2 under the FY23 Budget Call Request *Performance Measures Outcome #1: We assist and educate local governments and residents* to support Committee member attendance at public Committee meetings.

Your approval of these budget increase requests would bring the total Northampton County contribution to the Ground Water Committee of the Eastern Shore of Virginia to \$_____ annually.



A-NPDC

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If I may be of further assistance or if you have any questions, please do not hesitate to contact me at 757-787-2936 x 114 or jsteelman@a-npdc.org

Sincerely,

Jessica Steelman

Coastal Planner

Accomack-Northampton Planning District Commission

Cc: Paul Muhly
Chair, Ground Water Committee
pmuhly@co.accomack.va.us

Cc: John Coker
Vice Chair, Ground Water Committee
jcoker@co.northampton.va.us

Cc: Elaine Meil
Secretary, Ground Water Committee
emeil@a-npdc.org

BY-LAWS

EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE

AMENDED May 15, 2018

ARTICLE I - AUTHORIZATION

- 1-1. This Committee is established in conformance with the Joint Resolution creating an agreement between the County of Accomack, Virginia and the County of Northampton, Virginia, to jointly promote the management and protection of ground water within the counties of Accomack and Northampton and the establishment of the Eastern Shore of Virginia Ground Water Committee, hereinafter referred to as the "Joint Resolution."
- 1-2. The official title of this body shall be the Eastern Shore of Virginia Ground Water Committee, hereinafter referred to as the "Committee."

ARTICLE II - PURPOSE

- 2-1. The primary purposes of the Committee are to serve as a viable committee to assist local governments and residents of the Eastern Shore in understanding, protecting, and managing ground water resources, to prepare a ground water resources protection and management plan, to serve as an educational and informational resource to local governments and residents of the Eastern Shore, and to initiate special studies concerning the protection and management of the Eastern Shore ground water resource.

ARTICLE III - MEMBERSHIP

- 3-1. The Committee shall consist of eleven (11) members appointed by Accomack County and Northampton County as specified in the Joint Resolution.
- 3-2. The terms of office for the members shall be as specified in the Joint Resolution.
- 3-3. Vacancies shall be filled as specified by the Joint Resolution.

- 3-4. Members of the Committee shall be eligible for reappointment, as specified by the Joint Resolution.
- 3-5. Terms of Committee members shall expire immediately before the beginning of the regular meeting at which their successors' terms of office begin.

ARTICLE IV - SELECTION OF OFFICERS

- 4-1. Officers of the Committee shall consist of a Chairman, Vice Chairman, and Secretary. The positions of Chairman and Vice-Chairman shall each be filled by a member of the Committee and shall be elected by the Committee membership. The members filling the positions of Chairman and Vice-Chairman shall alternate between Accomack County and Northampton County, with neither position representing the same county at the same time and with a two (2) consecutive term limit. The Secretary shall serve at the request of the Committee and may be a member of the Committee or the Executive Director of the Accomack-Northampton Planning District Commission.
- 4-2. Nomination of officers shall be made from the floor at the July meeting each year. Election of officers shall follow immediately. A candidate receiving a majority vote of the entire membership shall be declared elected.
- 4-3. Terms of office shall be for one year or until a successor takes office.
- 4-4. Vacancies shall be filled as specified by the Joint Resolution.

ARTICLE V - DUTIES OF OFFICERS

- 5-1. The Chairman shall:
 - 5-1-1. Preside at meetings.
 - 5-1-2. Appoint sub-committees.
 - 5-1-3. Rule on procedural questions (subject to reversal by a two-thirds majority vote of the members present).
 - 5-1-4. Report official communications at the next regular Committee meeting.
 - 5-1-5. Certify official documents involving the authority of the Committee.

- 5-1-6. Certify minutes as true and correct copies.
- 5-1-7. Carry out other duties as assigned by the Committee.
- 5-2. The Vice-Chairman shall:
 - 5-2-1. Assume the full powers of the Chairman in the absence or inability of the Chairman to act.
- 5-3. The Secretary shall:
 - 5-3-1. Record attendance at all meetings.
 - 5-3-2. Record the minutes of the Committee meetings.
 - 5-3-3. Notify members of all meetings.
 - 5-3-4. Maintain a file of all official Committee records and reports.
 - 5-3-5. Certify records and reports of the Committee.
 - 5-3-6. Give notice and be responsible for publishing public notices of all Committee public hearings and public meetings.
 - 5-3-7. Attend to the correspondence necessary for the execution of the duties and functions of the Committee.

ARTICLE VI - MEETINGS

- 6-1. Regular meetings of the Committee shall be held on the third Tuesday of each month at 10:00 a.m. Special meetings shall be called as needed. When a meeting date falls on a legal holiday, the meeting shall be held on the day following unless the Committee selects an alternate day.
- 6-2. Special meetings may be called by the Chairman or by two members upon written request to the Secretary. The Secretary shall mail a written notice to all members, at least five days before a special meeting, stating the time, place and purpose of the meeting.
- 6-3. All meetings of the Committee shall be open to the public.
- 6-4. Committee members who are unable to attend a regularly scheduled meeting of the Committee should notify the Chairman or the Secretary prior to the meeting. If any

member of the Committee misses three (3) consecutive regular monthly meetings, the Committee shall send a letter to that member advising them of their absence and requesting their regular attendance at future meetings. This letter shall be also copied to the member's appointing body. If, after this action, the same member misses the next regularly scheduled meeting, the Committee may send a letter to the appointing body requesting that it name a replacement as soon as possible.

ARTICLE VII - VOTING

- 7-1. A majority of the members shall constitute a quorum.
- 7-2. No action of the Committee shall be valid unless authorized by a majority vote of those present and voting.

ARTICLE VIII - ORDER OF BUSINESS

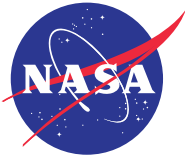
- 8-1. The order of business for a regular meeting shall be:
 - 8-1-1. Call to order.
 - 8-1-2. ~~Approval of minutes.~~ **Public participation.**
 - 8-1-3. Approval of minutes.**
 - 8-1-~~34~~. Staff Report.
 - 8-1-~~45~~. Unfinished business.
 - 8-1-~~56~~. New business.
 - ~~8-1-6. Public participation.~~
 - 8-1-7. Consultant Report**
 - 8-1-7. Adjournment.
- 8-2. Parliamentary procedure in Committee meetings shall be governed by Robert's Rules of Order.
- 8-3. The Committee shall keep minutes of each meeting, and these minutes shall become a public record. The Secretary and Chairman shall sign all minutes and, at the end of the year, certify that the minutes of the preceding year are a true and correct copy.

ARTICLE IX - PUBLIC HEARINGS

- 9-1. In addition to those required by law, the Committee may hold public hearings on any matter which it deems to be in the public interest, upon approval of Accomack County and Northampton County.
- 9-2. Notice of a public hearing shall be published once a week for two successive weeks, in a newspaper of general circulation in the area, at least ten days before the day of the public hearing. Such notice shall specify the time and place of hearing, which cannot be held less than six or more than twenty-one days after the second newspaper advertisement.
- 9-3. The Chairman shall summarize the matter before the Committee, allow interested parties to speak, and accept written statements and other documentation pertinent to the matter being addressed.
- 9-4. An accurate, written record shall be made of the proceedings of a public hearing and maintained as a part of the Committee's files.

ARTICLE X - AMENDMENTS

- 10-1. These By-laws may be amended by a majority vote of the entire membership after thirty days prior notice.



Information Sheet on Per- and Polyfluoroalkyl Substances (PFAS) At NASA's Wallops Flight Facility

As of May 20, 2021

Current Status and Actions

This information sheet is an update on our ongoing efforts related to Per- and Polyfluoroalkyl Substances (PFAS) at NASA's Wallops Flight Facility. Wallops is in Stage 3 of NASA's coronavirus (COVID-19) response [framework](#). Although Stage 3 limits onsite work activities to those that are mission critical, our work on PFAS continues.

We continue to conduct ongoing monitoring of Wallops' drinking water and the Town of Chincoteague's drinking water. Water is sampled monthly and all results are shared with federal and state health and environmental agencies. Sampling results for Wallops' and the Town of Chincoteague's drinking water continue to show no detection or detections of less than one part per trillion of PFOA or PFOS, the two substances the U.S. Environmental Protection Agency (EPA) directed facilities to test for. Additionally, we are analyzing samples for 18 PFAS compounds with established laboratory methods, and these analyses have shown sporadic, low-level detections of some of these PFAS compounds. As additional analytical methods of detection are established and approved by the EPA, we will include them in our sampling and analysis efforts. All tests are done using an independent certified laboratory for analysis using EPA-approved methods, and the results are reviewed by state and federal health agencies.

Water Production

NASA began supplementing the Town of Chincoteague's drinking water with water from Wallops' finished drinking water in the summer of 2017 while at the same time exploring groundwater treatment. NASA has now developed and installed a groundwater treatment system that enables the Town of Chincoteague to use its shallow wells and an additional deep well for production. Before connecting the system to the Town's water supply, NASA conducted operational tests running the system and sampling the

Background

Since 2016, NASA, in collaboration with local, state, and federal agencies, has routinely conducted testing of the facility's groundwater monitoring wells and drinking water wells and the Town of Chincoteague's drinking water wells for the presence of per- and polyfluoroalkyl substances (PFAS). These tests are being done because of historic fire training activities, dating from the late 1970s to 1988 located on the north-central portion of Wallops' mainbase. Firefighters conducted training with a commonly-used firefighting foam that contained PFAS compounds. The firefighting foam was also used to extinguish fires from an aircraft crash that occurred at Wallops in 1998.

To date, there are no federal or state drinking water, groundwater or surface water standards for PFAS. In May 2016, the EPA issued updated Lifetime Health Advisory (HA) level guidelines for two PFAS compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), because they have been more widely studied.

treated water for PFAS. The tests showed the system was effective in removing the PFAS compounds that have established, certified laboratory methods for analysis. Results of the system's performance were shared with the Town as well as federal and state health agencies. Based on the system's performance, the Virginia Department of Health issued an operations permit for the system in March 2021, and the system went into operation at the end of April 2021.

The system has a 410-gallon-per-minute capacity and removes PFAS using granular activated carbon (GAC), a proven technology for PFAS removal. The system has four tanks set up in pairs, and each tank contains 10,000 pounds of GAC, the material that adsorbs the PFAS. Each tank pair is set up in what's known as a "lead-lag configuration." The lead tank removes PFAS and the lag tank provides a final finishing step. The lag tank also provides redundancy. Over time as the GAC in the lead tank needs replacement, the lag tank will become the lead tank to remove PFAS. The former lead tank is then equipped with fresh GAC and placed in the lag position. With this configuration, PFAS will always be able to be removed. NASA is responsible for operating and maintaining the system.

Now that the Town is once again using all its deep and shallow wells for production, there is no longer a need for NASA to supplement the Town's water. Regardless, the capability for NASA to supplement the Town's water remains in place if ever needed.

NASA is also installing a new well on the Wallops main base to supplement the existing well field that serves NASA and its tenant organizations on the main base. The well replaces Well #5, which was shut down in January 2019 after tests showed detections of PFAS, attributed to the age of the well and historic construction methods used. The new well installation is complete and work is underway on the infrastructure design to connect the well to the main base water system.

Groundwater Monitoring

As part of NASA's ongoing investigation and response efforts, and in coordination with federal and state agencies, we installed a number of monitoring wells (not for drinking water) in both the shallow and deep groundwater along the perimeter of the facility. Monitoring these wells helps to ensure a better understanding of the groundwater quality at those locations. In addition, six observation wells were installed around the Wallops drinking water supply wells. Since October 2017, NASA has sampled a total of 23 wells quarterly, except for the period between March to June 2020, when onsite work was temporarily suspended under NASA's COVID-19 response framework. Sampling results are reported to the appropriate federal, state and local agencies.

Site Investigation Activities

Following initial testing in 2017, which showed the presence of PFOA and PFOS in shallow and deep wells, a site investigation was conducted to determine the nature and extent of PFAS in the environment at Wallops, including possible source areas. The site investigation efforts are based on a [comprehensive work plan](#) that was approved by federal and state health and environmental officials in March 2019.

Samples collected during the investigation confirm the presence of PFAS in areas of past use, such as the former firefighter training area and the site of an airplane crash at the facility. PFAS was also detected in outfalls and tributaries of Little Mosquito Creek and Jenney's Gut within the main base. In July 2019, NASA presented initial site sampling results to federal and state environment and health officials and discussed next steps. As a result, NASA conducted additional sampling of surface water and sediment in mid-July 2019. The additional samples showed some PFAS in low levels in surface water samples in Little Mosquito Creek and Jenney's Gut near Wallops' main base boundary. NASA briefed federal and state health officials on all sampling results, and with their concurrence, determined that the next appropriate step was to conduct quarterly sampling to monitor surface water, which is not a source for drinking water. Quarterly sampling continued through February 2020 and was temporarily suspended as part of NASA's COVID-19 response framework. NASA restarted quarterly surface water sampling in July 2020. While there are no existing federal or state surface water standards, NASA is evaluating actions to limit PFAS migration to surface water.

NASA submitted a draft site investigation report for the main base to federal and state environmental and health agencies in May 2020 for review and comment. NASA reviewed the comments and recommendations received and, with concurrence from federal and state health agencies, finalized the report, which is available for review [here](#). NASA is now developing a workplan to implement agency recommendations contained within the report.

In addition to sampling on Wallops' main base, NASA is developing a workplan to expand site investigation sampling on Wallops Island. Initial sampling conducted near the former fire station on Wallops Island showed detections of PFAS. The workplan will be given to federal and state health and environmental agencies for review and approval; sampling will begin once the plan is approved and the plan will be posted on the Wallops website for public review. Importantly, there are no private wells or drinking water sources on Wallops Island.

NASA continues to share all sampling results with local officials, EPA, the Agency for Toxic Substances and Disease Registry (ATSDR), Virginia Department of Environmental Quality (VDEQ) and the Virginia Department of Health (VDH) to determine the need for any additional actions. Planned in-person public information meetings were suspended in March 2020 due to NASA's COVID-19 Framework for onsite work; public meetings will resume once NASA is in Stage 1 of its Framework. Meanwhile, we will continue to provide updates on our website as new information becomes available.

To read past Wallops' updates on PFAS Testing and additional background information, see: <https://www.nasa.gov/content/information-on-wallops-pfas-testing>

For more information on NASA's ongoing efforts, contact Jeremy Eggers, Wallops Office of Communications, at 757-824-2958 or via email at Jeremy.I.egggers@nasa.gov.

Additional Information, Fact Sheets, and Health Information

There are reports of up to 49 states having some PFAS in drinking water systems. EPA has indicated they are proceeding with the regulatory process and studies to determine

if drinking water standards for PFOA and PFOS will be set. EPA updated its [PFAS Action Plan](#) and indicated they will be developing new methods to characterize PFAS in the environment. NASA will continue to track EPA's work and apply methods as they become available. We will also continue to track EPA's progress toward establishing interim clean up levels for groundwater and their drinking water standard determination process. In December 2019, EPA issued its [Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS](#), which provides cleanup guidance including a recommended screening level of 40 parts per trillion for federal cleanup programs.

NASA will continue to track [ATSDR's work on a multi-site sampling study](#), which was temporarily placed on hold due to COVID-19 but has now resumed, at sites located near Department of Defense facilities. Additionally, NASA will continue to track various state agencies as they work to develop guidance on levels of PFAS in the environment.

ATSDR evaluated information on the potential health effects for exposures to perfluoroalkyls and released a final toxicological profile in May 2021, available here <https://www.atsdr.cdc.gov/toxprofiledocs/index.html>.

In response to a request, ATSDR agreed to develop a health consultation document to estimate potential historical PFAS exposure levels for the Town of Chincoteague. According to ATSDR, that draft health consultation is expected to be completed sometime in 2021, at which time ATSDR will share the results with the public for comment. For more information on their efforts, contact Dr. Karl Markiewicz, Senior Toxicologist, at 215-814-3149 or via email at kvm4@cdc.gov

Additional information on PFAS is available from the Agency for Toxic Substances and Disease Registry at: <https://www.atsdr.cdc.gov/pfas/index.html>.

For more information on PFAS, visit the EPA's dedicated website at: <https://www.epa.gov/pfas>.

For information about health effects of PFAS, contact:

- Dr. Karl Markiewicz, Senior Toxicologist, Agency for Toxic Substances and Disease Registry, Philadelphia, PA, at 215-814-3149 or via email at kvm4@cdc.gov
- Dr. Dwight Flammia, Virginia Department of Health, Division of Environmental Epidemiology, at 804-864-8127 or via email at Dwight.Flammia@vdh.virginia.gov
- Jon Richardson, Eastern Shore Health District, Virginia Department of Health, at 757-302-4271, or via email at jon.richardson@vdh.virginia.gov

“Let our Experience Solve Your Water Problems”

Bundick Well & Pump Company

35162 Lankford Highway P.O. Box 15 Painter, Virginia 23420
757-442-5555

Residential Customers with Alternative Onsite Sewage Systems (AOSS)

Thank you for giving us the opportunity to be part of your Virginia Health Dept Maintenance Report for your sewage system.

The inspection of your system will include checking the sewage pumps, control panel, filters and compressor as needed based on the type of system. We will also check the effluent in the pump station to see if solids are present. If we find anything that needs to be corrected we will let you know and give you an estimate for the repair. Then you can decide if you want the repair completed before we file your report. Pumping and cleaning of the tanks may not be necessary as part of the inspection. If we find that it needs pumping, we will let you know that also.

No one will need to be home in order for us to complete the inspection, however, we will need the electricity on. Alternative sewage systems require electricity and we need it on in order to ensure all of the components of the system are working properly.

The health dept has sent letters to all of the property owners with alternative sewage systems at one time. We have had a high volume of calls because of this. We request that you email, mail or bring in a copy of the letter that you have received so we can report our findings correctly in the manner the health dept requires. I have included our email, mailing and physical address at the bottom of this letter.

The cost of our inspections for a single family sewage system is \$290.00. After we are in receipt of a copy of your letter from the county as well as the inspection fee of \$290.00 we will be able to inspect your system and file your report with the Virginia Health Dept. It could take approximately 90 days to complete because of the high volume of inspections that have to be performed.

Sincerely,



Jimmy Bundick

Email: bundickwellpump@verizon.net

Mail: Bundick Well & Pump
PO Box 15
Painter, VA 23420

Office Location:
Bundick Well & Pump
35162 Lankford Hwy
Painter, VA 23420

Attachment G

From: wentwent <northamptonissues@aol.com>

Date: June 3, 2021 at 8:38:44 AM EDT

To: vzerm5fw@verizon.net, johncoker@aol.com, dixon@seasidehops.com, david_kabler@hotmail.com, Paul Muhly <pmuhly@co.accomack.va.us>, alankippy@gmail.com

Subject: Mandatory Sewage Inspections

Reply-To: wentwent <northamptonissues@aol.com>

As you well know, Shore Septic does a lot of work on the Shore. They do all my inspections and pump outs, and are significantly lower in cost and higher in professional services than the other lower Shore companies, to the best of my knowledge.

I have received this flyer from several different people....none of them happy. The flyer is from Bundick and informs that mandatory inspections of alternative wastewater systems is required and will cost \$290.00.

One note. Last year I rehabbed my 3259 Wardtown Road rental and put it on the market in the fall. It went under contract for \$117,500 in a week. I had paid \$80 grand for it in 2010 and rented it out for \$650/month (in the spirit of providing affordable housing in our area). I think the real estate agent called in Bundick to do a septic inspection, a system that was older but always worked superbly. Bundick failed the system and said it would be over \$8 grand to replace. Having been in the septic system repair and replacement business for a decade in a former life, I inspected the system and dug out the laterals where they intersected the D box....because they were packed with dirt and pieces of cement from the cover,,,after Bundick inspected the system. The laterals easily passed the pressure test, running our well water into each for over an hour on each one. There was nothing wrong, although the septic tank was old, but still working as it should. I called in Shore Septic and Ron spent about 3 hours inspecting the system, giving the leach field a stellar grade. He did recommend that we replace the cement block septic tank, giving it an upgrade. I worked with a local contractor to do that, and the prospective owner and I split the \$3 grand cost for a new 1000 gallon fiberglass tank, excavation and regrade included.

So we saved over \$5 grand....and I am casting no aspersions on Bundick, but I am saying that there may be options on this mandatory inspection for alternative wastewater systems....and I was thinking it should go out to bid, as I am sure Shore Septic would enjoy the work, and is very capable of handling this task.

Thank you as always for your attention to this matter.

Ken Dufty

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