



## **Eastern Shore of Virginia Ground Water Committee**

October 17, 2017

10:00 a.m.

Enterprise Building, Accomac

### **MEETING AGENDA**

1. Call to Order
2. Presentation via Webinar from VDEQ: Hydrogeologic framework and hydrologic conditions of the Eastern Shore Aquifer System, Randy McFarland, USGS
3. Minutes of the September 19, 2017 Meeting..... 3
4. Financial Status Report ..... 7
5. Staff Update ..... 9
- FY 2018 ATTENDANCE RECORD ..... 11
6. October 17, 2017 Ground Water Consultant Report ..... 12
7. Technical/Regulatory/Educational Items..... 12
7. Other Matters
8. Public Participation
9. Schedule Next Meeting & Adjourn



# A-NPDC

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### Minutes of the September 19, 2017 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, September 19, 2017 in the A-NPDC Conference Room of the Enterprise Building in Accomac, Virginia.

#### Members Present:

Daniel Hershey  
Elaine Meil  
Eugene R. Hampton  
Granville Hogg, Chairman  
Grayson Chesser  
Jim Belote  
Paul Muhly, Vice Chairman  
Robert Meyers

#### Members Absent:

Charles Kolakowski  
Mike Mason  
John Salm

#### Others Present:

Ann Violi, Person of concern  
Britt McMillan, Ground Water Consultant  
Cole Charnock, ESSWCD  
Curt Smith, A-NPDC  
Jay Ford, VES  
Jon Richardson, ESHD  
Pat Heggoy, Accomack County resident  
Matthew Link, VDEQ  
Roberta Kellam, State Water Control Board  
Shannon Alexander, A-NPDC  
Wes Meyers, Arcadis



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1. Call to Order

Chairman Muhly called the meeting to order at 10:04 AM.

2. Review of the August 15, 2017 Minutes

**Committee Vice Chairman Hogg moved to approve the Minutes of the August 15, 2017 meeting, amended to correct the Committee officer positions established in the August meeting. The motion, seconded by Committee Member Meyers, carried unanimously.**

3. Financial Status Report

The FY 2018 Financial Status Report was presented.

**Committee Member Meyers moved to approve the FY2018 financial status. The motion, seconded by Committee Member Hampton, carried unanimously.**

4. Staff Update

The following staff updates were presented:

Committee Attendance Record

The FY2017 Committee Attendance Record was presented.

Other Items

*Emphasizing the Importance of Utilizing the Columbia Aquifer* – Staff presented that representatives from ESRH and GMB, the contracted architecture and engineering firm, have been contacted. Concerns about damages to well and irrigation system from high iron content water was expressed as a primary concern for avoiding use of the Columbia Aquifer. Discussion ensued. The Committee Members and staff are to research any data from surrounding wells or sampling (i.e. VDEQ tank removal data) and moving forward will strive to work with well drillers and irrigation system installers to address this sometimes unwarranted concern, stressing that water quality is a very site specific issue and thus samples must be acquired prior to dismissing the Columbia as a viable and suitable water source.

*Wagner Borrow Pit* – Staff reported that according to presentation and discussion from the September 12 Northampton County Board of Supervisor meeting, both DMME and VDEQ are actively inspecting, sampling, and researching the site and the CBBT project. Discussion ensued. It was decided that staff would develop a standard form for release of data and participation in the VT water quality clinic program (with appropriate disclaimers, etc.) and Committee Member Meyers would work with the members of the community in homes adjacent to the Wagner Borrow Pit to ensure that they are aware of the program and increase participation, with hopes to sample directly from the well (versus from inside taps), when possible.

**Committee Member Belote moved to make a budget amendment that would reallocate up to \$500.00 from the Groundwater Modelling appropriations to be used to cover the cost for properties adjacent to the Wagner Borrow Pit to participate in the 2017 Water Clinic. The motion, seconded by Committee Member Meyers, carried unanimously.**



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*Chincoteague Wells* – Mr. Matthew Link of VDEQ presented an update from meeting with the Town of Chincoteague representatives as to the status of siting replacement wells for the wells contaminated on NASA property. Discussion ensued. Staff informed the Committee about the Town's progress in updating to a water meter system that should improve efficiency and accountability.

*VDEQ Groundwater Withdrawal Permit Compliance Initiative* – Mr. Matthew Link of VDEQ presented an update, including informing the Committee that there are CAFOs in the pre-application process and that DEQ anticipates approximately 82 permits for such operations to be needed. Jay Ford, Eastern Shorekeeper, provided an update as to the status of mass balance research, new appointments and subcommittees of the Delmarva Land & Litter Challenge, ammonia discharges and associated water quality impacts, and possible changes in the administration of some of our processing plant(s). Discussion ensued. Staff presented five additional VDEQ Public Notices for VPDES pending permits, one for Shore Memorial Hospital wastewater treatment facility in Nassawadox and four for CAFO poultry house operations.

*Staff presented the following Public Workshops & Outreach events* –Staff presented progress on the Water Clinic and the Second Annual Well & Septic Forum; and that they will be sharing groundwater information with the public at MarshFest on Saturday, September 23, at the CBFS.

### Informational Items

*Staff presented the following Research and News Articles:*

Magna Imperio Systems' World-Changing Water Purification Process, by Jamie McAllister  
<http://www.covabizmag.com/uncategorized/magna-imperio-systems-world-changing-water-purification-process/>

Staff pointed out that this was discovered by a local eastern Virginian, but that only large scale application trials are currently being developed.

### 5. Consultant Report:

#### *Technical/Regulatory/Educational Items*

The consultant introduced a new employee with Arcadis and current PhD candidate at ODU, Mr. Wes Meyers.

The consultant revisited a discussion initiated during the August meeting about sustainable groundwater research management on the Eastern Shore. Discussion ensued. With both Counties in the process of updating their comprehensive plans, it was decided that providing comments was necessary, the deadline for Northampton County is September 25, 2017. Additionally, with the turnover on each Counties' Boards, it was decided that an early 2018 presentation to each Board on groundwater resources should be organized.

**Committee Member Hampton moved to task the Consultant with developing a fact sheet focusing on the Columbia Aquifer (including short & long-term**



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**financial relevance) to share with both Counties in time to be referenced in their respective Comprehensive Plan updates. The motion, seconded by Committee Member Meyers, carried unanimously.**

The Consultant presented the ESVA Groundwater Use Summary (2009-2017) with the Committee, discussion ensued.

**Chairman Muhly moved to have staff develop and issue a Press Release for the Groundwater Use Summary report. The motion, seconded by Committee Member Meyers, carried unanimously.**

The Consultant presented the ESVA Water Resources Video concept, including a digital presentation. There was overall engagement and approval of this mode of presenting information to the public.

### 6. Other Matters:

- Vice Chairman Granville Hogg initiated a brief discussion about overall insufficient collaboration and understanding between the County Board of Supervisors and various subcommittees, workgroups, and advisory committees, such as this one. This was requested as an item to be on the agenda for the October meeting to allow more thorough discussion. Staff is to develop comments for the Northampton County draft Comprehensive Plan update and circulate to the Committee members in time for the September 25 deadline.

### 7. Public Participation:

As there was public participation during earlier parts of the meeting, there was no additional public participation at this time.

### 8. Schedule Next Meeting & Adjournment

The next Committee meeting was scheduled for October, 2017 at 10:00 AM in the A-NPDC Conference Room of the Enterprise Building in Accomac.

Chairman Muhly adjourned the meeting at 12:14 p.m.

Copy test:

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Paul Muhly, Chairman

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Elaine K. N. Meil, Secretary



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### MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee  
FROM: Shannon Alexander  
Coastal Resources Program Manager  
Accomack-Northampton Planning District Commission  
DATE: September 19, 2017  
SUBJECT: Financial Status Report

### Financial Status Report

The FY 2018 Financial Status Report is attached.

#### Bills Payable:

Due to:	Description	Amount
Arcadis	1 <sup>st</sup> Qtr Professional Services	\$5,250.00
A-NPDC	1 <sup>st</sup> Qtr Staff Support	\$1,985.00
<b>TOTAL BILLS PAYABLE</b>		<b>\$7,235.00</b>

**Staff requests the Committee review and consider approving the FY2018 Financial Status Report.**



# **EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE**

Financial Statement--September 2017

## **Fiscal Year 2018**

	<u>Annual Budget</u>	<u>Current Period Activity</u>	<u>YTD Activity</u>	<u>Balance</u>	<u>% of Budget</u>
<b>REVENUES:</b>					
<b>Ground Water Consultant Appropriations:</b>					
Acomack County	\$ 14,251.00	\$ 0.00	\$ 0.00	\$ 14,251.00	0.00%
Northampton County	7,415.00	0.00	1,853.75	5,561.25	25.00%
FY 2017 Remaining Balances	1,332.00	0.00	1,332.00	0.00	
Subtotal	\$ 22,998.00	\$ 0.00	\$ 3,185.75	\$ 19,812.25	13.85%
<b>Ground Water Modeling Run Appropriations:</b>					
Acomack County	\$ 1,500.00	\$ 0.00	\$ 0.00	1,500.00	0.00%
Northampton County	1,500.00	0.00	375.00	1,125.00	25.00%
FY 2017 Remaining Balances	6,975.00	0.00	6,975.00	0.00	100.00%
Subtotal	\$ 9,975.00	\$ 0.00	\$ 7,350.00	\$ 2,625.00	73.68%
<b>Ground Water Committee Staff Support:</b>					
Acomack County	\$ 3,970.00	\$ 0.00	\$ 0.00	3,970.00	0.00%
Northampton County	3,970.00	0.00	992.50	2,977.50	25.00%
Subtotal	\$ 7,940.00	\$ 0.00	\$ 992.50	\$ 6,947.50	12.50%
<b>USGS Ground Water Model:</b>					
Acomack County	\$ 7,500.00	\$ 0.00	\$ 0.00	7,500.00	0.00%
Northampton County	7,500.00	0.00	1,875.00	5,625.00	0.00%
FY 2017 Remaining Balances	0.00	0.00	0.00	0.00	0.00%
Subtotal	\$ 15,000.00	\$ 0.00	\$ 1,875.00	\$ 13,125.00	12.50%
<b>Water Clinic</b>					
SERCAP	\$ 11,000.00	\$ 0.00	\$ 0.00	11,000.00	0.00%
<b>Household Hazardous Waste Collection:</b>					
Acomack County-appropriated to Public Works	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
Northampton County	0.00	0.00	0.00	0.00	#DIV/0!
FY 2017 Remaining Balances	7,850.00	0.00	7,850.00	0.00	
Subtotal	\$ 7,850.00	\$ 0.00	\$ 7,850.00	\$ 0.00	100.00%
Total Revenues	\$ 74,763.00	\$ 0.00	\$ 21,253.25	\$ 42,509.75	28.43%
<b>EXPENDITURES:</b>					
Ground Water Consultant	\$ 22,998.00	\$ 0.00	\$ 0.00	\$ 22,998.00	0.00%
Ground Water Modeling Run	9,975.00	0.00	0.00	9,975.00	0.00%
Ground Water Committee Staff Support	7,940.00	0.00	0.00	7,940.00	0.00%
USGS Ground Water Model	15,000.00	0.00	0.00	15,000.00	0.00%
Water Clinic (Sponsored by SERCAP)	11,000.00	0.00	0.00	11,000.00	0.00%
Household Hazardous Waste Collection	7,850.00	0.00	0.00	7,850.00	0.00%
Total Expenditures	\$ 74,763.00	\$ 0.00	\$ 0.00	\$ 74,763.00	0.00%
NET SURPLUS OR (DEFICIT) OF REVENUES LESS EXPENDITURES	\$ 0.00	\$ 0.00	\$ 21,253.25		

\* Deposits for the period include:

As Summarized \$ 0.00

\$ 0.00

\*\* Expenditures for the period include:

Payables (previous month) \$ 0.00

Total Expenditures \$ 0.00

### **FY 2018 BILLS PAYABLE DETAIL:**

<u>DUE TO</u>	<u>DESCRIPTION</u>	<u>DATE</u>	<u>AMOUNT</u>
Arcadis	First Qtr. Professional Services	30-Sep-17	\$ 5,250.00
A-NPDC	First Qtr. Staff Support	30-Sep-17	\$ 1,985.00
<b>TOTAL ADD'L BILLS PAID FOR FY 2018</b>			<u>\$ 7,235.00</u>





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### MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee

FROM: Shannon Alexander  
Coastal Resources Program Manager  
Accomack-Northampton Planning District Commission

DATE: October 17, 2017

SUBJECT: Staff Update

#### Committee Attendance Record

The FY2018 Committee Attendance Records are [attached](#).

#### Environmental Reviews and Permits

##### *VA Pollutant Discharge Elimination System Program*

- Discussion concerning CAFOs & VPDES vs. VPA.

##### *VA Pollution Abatement Program*

- None

##### *Total Maximum Daily Load/Implementation Plans*

- None

##### *Public Notice – Environmental Project*

- None

##### *Consent Orders*

- None

#### Other Items

##### *USGS EM-Logging*

Randy McFarland to present results and update during November meeting and at the Mid-Atlantic Water Resource Conference in WV in October.

*Emphasizing the Importance of Utilizing the Columbia Aquifer*  
Language discussion.

##### *Chincoteague Update*

Mr. Matthew Link will provide any new information concerning replacement well plans.

##### *VDEQ Groundwater Withdrawal Compliance Initiative*

Mr. Matthew Link will provide an update on progress of this effort.



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### *Public Workshop & Outreach*

- The Second Annual Well & Septic Forum will be held November 8<sup>th</sup> at the ESCC in conjunction with the Water Clinic interpretation meeting. The Water Clinic *Kickoff Meeting* was Oct. 6<sup>th</sup> at the AREC, samples were delivered to Extension Agents Tuesday, October 10. About 160 participants signed up to participate.
- Master Gardeners – Staff will present February 28 at 9:00am in AREC in Painter.

### Informational Items

#### *Upcoming Events*

- October 12-13 – [Mid-Atlantic Water Resources Conference](#), Shepherdstown, WV
- October 28 – 10:00am-2:00pm: Prescription Drug Take-Back Event at the Northampton County Sheriff's Office
- November 3-5 – [Chesapeake Watershed Forum](#), Shepherdstown, WV
- November 8 – Water Clinic Interpretation and Annual Well & Septic Forum, ESCC



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### EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE FY 2018 ATTENDANCE RECORD

Members	Term Exp.	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
<u>Accomack Co.</u>													
Jim Belote	NA	*	X	X									
Grayson Chesser		*		X									
Daniel Hershey	June 30, 2019	*	X	X									
Paul Muhly		*	X	X									
<u>Northampton Co.</u>													
Eugene Hampton	October, 2019	*	X	X									
Granville Hogg		*	X	X									
Robert Meyers	January, 2019	*	X	X									
John Salm	May, 2018	*	X										
<u>Non-Voting Ex-Officio Members</u>													
Mike Mason	NA	*											
Charles Kolakowski	NA	*	X										
Elaine Meil	NA	*	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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## MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee  
FROM: Britt McMillan  
Principal Hydrogeologist  
Arcadis-Malcolm Pirnie  
DATE: October 17, 2017  
SUBJECT: October 17, 2017 Ground Water Consultant Report

### Technical/Regulatory/Educational Items

1. Eastern Shore of Virginia Groundwater Use Summary. A two page summary document presenting permitted and actual groundwater use on the Shore over the past 8 years (2009 to 2017) is provided.
2. Columbia Aquifer Sustainable Use White Paper: Similar to the two page summaries developed for 1) Groundwater Use Summary; 2) Paleochannels; and 3) Saltwater Intrusion a draft 2 page white paper has been developed for the Columbia aquifer. The principal focus of the water paper is to differentiate this aquifer from the more commonly used Yorktown-Eastover aquifer and highlight beneficial aspects for this aquifer:
  - a. The unconfined Columbia aquifer is a far more sustainable supply of groundwater, albeit more susceptible to contamination from land use practices.
  - b. The confined Yorktown-Eastover aquifer is replenished at a much lower rate, and is more susceptible to contamination from saltwater intrusion resulting from over use.

This white paper will augment a presentation that will be prepared for a later Committee meeting and would be available for presentation at public meetings such as County Board of Supervisor meetings.

Other Items: None



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### Eastern Shore of Virginia Ground Water Committee FY 2015 Consultant Progress Summary

#### Task 1 - Committee Meetings (FY15 Goal = 10)

% Completion

20%

#### Task 2 – Technical Documentation

No.	Activity	Month
1	Summarize findings from the Eastern Virginia Groundwater Management Advisory Committee. Included in the findings was the recommendation for regional planning efforts through EVGMA Planning District Commissions with specific reference to the Eastern Shore of Virginia Groundwater Committee as an example to be emulated.	Aug
2	Present information from USGS Circular: <i>Understanding Nutrients in the Chesapeake Bay Watershed and Implications for Management and Restoration – The Eastern Shore</i> . The circular provided a synopsis of research completed on nutrient contribution to the Chesapeake Bay from the Eastern Shore along with target reductions in nutrient loading necessary to meet the TMDL requirements.	Aug
3	Presented the draft Groundwater Use Summary and discussed groundwater use trends over the past 8 years.	Sep
4	Presented three-dimensional perspectives of the Eastern Shore Groundwater Resources using the Eastern Shore Model and well and water quality data from DEQ. The information ultimately will be developed into a short video to support understanding of the groundwater resources on the Eastern Shore	Sep
5	Discussed recent events that potentially conflict with the goal of increasing use from the more sustainable Columbia aquifer on the Eastern Shore. The Groundwater Committee requested preparation of informational materials, in the form of a two-page summary and presentation suitable for public meetings such as County Board of Supervisors. These informational materials would focus on the importance of the Columbia aquifer as part of the Columbia aquifer and Yorktown-Eastover aquifer Sole Source Aquifer System.	Sep

#### Task 3 - Groundwater Permit Review

Applicant	Permit Status	Month	Annual Amount (Gal)
None			

#### Task 4 – Implement Committee Work Plan

Activity	Month(s)	Outcome
Present information on the Sole Source Aquifer; recent challenges for the Columbia aquifer; and maintaining the goal to promote sustainable use of the combined Columbia and Yorktown-Eastover aquifer systems.	August	A brief discussion on the dual-sole source aquifer system was initiated at the August meeting, however time limitations restricted the discussion.

#### Task 5 – Progress Reports

% Completion

20%