



## Eastern Shore of Virginia Ground Water Committee

October 16, 2018

10:00 a.m.

Enterprise Building, Accomac

### MEETING AGENDA

1. Call to Order
2. Public Participation
3. Minutes of the September 18, 2018 Meeting..... 3
4. Financial Status Report ..... 7
5. Staff Update ..... 9
  - Legislative Subcommittee Update* ..... 9
  - Desalination Options* ..... 10
  - FY 2019 ATTENDANCE RECORD ..... 12
6. October 2018 Ground Water Consultant Report ..... 18
  - Draft Information on Columbia (Surficial) aquifer Yield and Quality Summary.* 18
7. Other Matters
8. Schedule Next Meeting & Adjourn

**This page intentionally left blank.**



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

### Minutes of the September 18, 2018 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 18, 2018 in the A-NPDC Conference Room of the Enterprise Building in Accomac, Virginia.

#### Members Present:

Daniel Hershey

Elaine Meil

Eugene R. Hampton

Grayson Chesser

Jim Belote

John Salm

John Coker, Chairman

Michael Mason

Paul Muhly, Vice Chairman

Robert Meyers

#### Members Absent:

Charles Kolakowski

#### Others Present:

Barbara Baker, Accomack Citizen

Betsy Sweigard, Accomack Citizen

Carmie Savage, ESSWCD

Curt Smith, A-NPDC

Holly Porter, Delmarva Poultry Industry Inc.

Janet Sturgis, Northampton Planning Comm.

Jeff Poulterer, Eastern Shore Locavores

Joe Valentine, Clean Water Council

Joseph Betit, Accomack Citizen

Linda Cicoira, Eastern Shore Post

Mathew Link, VDEQ-OWS

Shannon Alexander, A-NPDC

Sue Mastyl, CBES

1. Call to Order

Chairman Coker called the meeting to order at 10:02 AM.

2. Public Participation

*None.*

3. Review of the August 21, 2018 Minutes

The draft minutes of the August 21, 2018 meeting were presented.

**Committee Member Meyers moved to approve the Minutes of the August 21, 2018 meeting as amended. The motion, seconded by Vice Chairman Muhly, carried unanimously.**

4. FY 2019 Financial Status Report

The FY 2019 Financial Status Report was presented. Brief discussion ensued with regards to the way in which the budget Report is presented.

**Committee Member Meyers moved to approve the FY2019 financial status report. The motion, seconded by Committee Member Belote, carried unanimously.**

5. Staff Update

The following staff updates were presented:

Committee Attendance Record

The FY2018 Committee Attendance Record was presented, a request was made to have the attendance record made into a rolling record, so that the last 12 months could always be seen. The FY report would still need to be maintained, as this is what must be supplied to the Counties.

Environmental Reviews and Permits

Staff reported that there were no current public notices from VDEQ, but provided an update on outcomes of the public information session and comment period for the Consent Order for the poultry facilities.

Other Items

*Household Hazardous Waste Collection*

Staff reported that the contract with VDH has been signed and that staff is working with Accomack County Department of Public Works towards implementation and will be providing an update during the September 19<sup>th</sup> Accomack County Board of Supervisors' meeting and the November Northampton County Board of Supervisors' meeting.

*Potential Legislative Initiatives*

Staff presented some VDEQ statements and USGS resources. Staff presented seven potential options of varying degrees of likelihood of success and level of protection, all to be bound to the Eastern Shore of Virginia Groundwater Management Area only, for discussion. Some ideas were not supported by the Committee and some new ideas were raised. The table below summarizes the options that are to be explored.



# A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

<u>Title</u>	<u>Details</u>	<u>Likelihood of Success</u>	<u>Level of Protection</u>
Simple Permit C	Streamline the process for the Columbia, speeding up the permitting process	M	M
Testing Wells Appropriation C	Request an appropriation for installation of a series of Columbia testing wells.	L	L
Incentives & Cost-Share C	Create a state-funded grant program to convert existing wells from the Yorktown-Eastover to the Columbia. Create a cost-share program for new wells in the Columbia.	L	H
Saltwater Intrusion	Amend regulations that DEQ shall issue a permit unless the 80% drawdown is modeled to also include if salt water intrusion is modeled.	M	H
Model Update Appropriation	Request funding for updating the VDEQ groundwater model for the ESVA aquifer system (C & all 3 Y-E)	M	H

*Note: Level of Protection and Likelihood of Success are ranked High, Medium, or Low (H, M, or L) and are subjective and may change.*

**Chairman Coker moved to establish a Subcommittee made up of the Chair, Vice Chair, Committee Member Salm, and Committee Member Chesser to work with staff and stakeholders (industry, VDEQ, and well drillers) to draft legislation to improve sustainable management of the groundwater resources on the Eastern Shore of Virginia. The Committee delegates authority to this Subcommittee to move forward with developing draft legislation associated with the 5 option titles discussed (*see table above*). The motion, seconded by Vice Chairman Muhly, carried unanimously.**

During discussion it was agreed that this draft legislation would also be presented to each County Board, to elicit support prior to moving forward with state elected representatives.

Staff is to request a SOW and cost estimate for what is needed to fill data gaps concerning Columbia quality and quantity from the consultant.

Staff is to develop a draft presentation concerning options for desalination that may be appropriate for coastal communities such as Chincoteague and Cape Charles.



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

Staff is to request the most up-to-date shape file outlining the recharge area from the consultant to supply to Accomack County staff.

6. FY2018 Annual Summary Ground Water Consultant Report:

The consultant was unable to be present as he was presenting to the Department of Defense.

Staff briefly presented the Draft Supplemental Water Quality Information for Columbia and Yorktown-Eastover Aquifers presentation created by the consultant. Committee Members raised concerns about the acidity of the Columbia and potential industrial use conflicts. There was also discussion about the slides reflecting sodium and chloride data with regards to the high levels found in several of the Columbia samples.

7. Other Matters:

None.

8. Schedule Next Meeting & Adjournment

The next Committee meeting was scheduled for October 16<sup>th</sup>, 2018 at 10:00 AM in the A-NPDC Conference Room of the Enterprise Building in Accomac.

Chairman Coker adjourned the meeting at 11:58 p.m.

Copy test:

---

John Coker, Chairman

---

Elaine K. N. Meil, Secretary



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

### MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee  
FROM: Shannon Alexander  
Coastal Resources Program Manager  
Accomack-Norhampton Planning District Commission  
DATE: September 18, 2018  
SUBJECT: Financial Status Report

### Financial Status Report

The FY 2019 Financial Status Report is attached.

Bills Payable:	<i>ARCADIS – 1<sup>st</sup> Qtr. Professional Services</i>	<i>\$5,250.00</i>
	<i>A-NPDC – 1<sup>st</sup> Qtr. Staff Support</i>	<i>\$1,985.00</i>
	<b>TOTAL BILLS PAYABLE</b>	<b>\$7,235.00</b>

Revenues Received:	<i>Accomack County Qtrly</i>	<i>\$6,805.25</i>
	<b>TOTLE REVENUES RECEIVED</b>	<b>\$6,805.25</b>

**Staff requests the Committee review and consider approving the FY2019 Financial Status Report.**

# EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE

Financial Statement--September 2018

Fiscal Year 2019

	Annual	Current Period	YTD		
<b>REVENUES:</b>	<u>Budget</u>	<u>Activity</u>	<u>Activity</u>	<u>Balance</u>	<u>% of Budget</u>
<b>Ground Water Consultant Appropriations:</b>					
Accomack County	\$ 14,251.00	\$ 3,562.75	\$ 3,562.75	\$ 10,688.25	25.00%
Northampton County	7,415.00	0.00	1,853.75	5,561.25	25.00%
FY 2018 Remaining Balances	1,998.00	0.00	1,998.00	0.00	100.00%
Subtotal	\$ 23,664.00	\$ 3,562.75	\$ 7,414.50	\$ 16,249.50	
<b>Ground Water Modeling Run Appropriations:</b>					
Accomack County	\$ 1,500.00	\$ 375.00	\$ 375.00	1,125.00	25.00%
Northampton County	1,500.00	0.00	375.00	1,125.00	25.00%
FY 2018 Remaining Balances	9,975.00	0.00	9,975.00	0.00	100.00%
Subtotal	\$ 12,975.00	\$ 375.00	\$ 10,725.00	\$ 2,250.00	
<b>Ground Water Committee Staff Support:</b>					
Accomack County	\$ 3,970.00	\$ 992.50	\$ 992.50	2,977.50	25.00%
Northampton County	3,970.00		992.50	2,977.50	25.00%
Subtotal	\$ 7,940.00	\$ 992.50	\$ 1,985.00	\$ 5,955.00	
<b>USGS Ground Water Model:</b>					
Accomack County	\$ 7,500.00	\$ 1,875.00	\$ 1,875.00	5,625.00	25.00%
Northampton County	7,500.00	0.00	1,875.00	5,625.00	25.00%
FY 2018 Remaining Balances	1,000.00	0.00	1,000.00	0.00	100.00%
Subtotal	\$ 16,000.00	\$ 1,875.00	\$ 4,750.00	\$ 11,250.00	
Total Revenues	\$ 60,579.00	\$ 6,805.25	\$ 24,874.50	\$ 35,704.50	41.06%
<b>EXPENDITURES:</b>					
Ground Water Consultant	\$ 23,664.00	\$ 0.00	\$ 0.00	\$ 23,664.00	0.00%
Ground Water Modeling Run	12,975.00	0.00	0.00	12,975.00	0.00%
Ground Water Committee Staff Support	7,940.00	0.00	0.00	7,940.00	0.00%
USGS Ground Water Model	16,000.00	0.00	0.00	16,000.00	0.00%
Total Expenditures	\$ 60,579.00	\$ 0.00	\$ 0.00	\$ 60,579.00	0.00%
NET SURPLUS OR (DEFICIT)	\$ 0.00	\$ 6,805.25	\$ 24,874.50		
OF REVENUES LESS EXPENDITURES					

\* Deposits for the period include:

As Summarized      \$ 6,805.25

\$ 6,805.25

\*\* Expenditures for the period include:

Payables (previous month)      \$ 0.00

Total Expenditures      \$ 0.00

## Bills Payable as of October 10, 2018

<u>DUE TO</u>	<u>DESCRIPTION</u>	<u>DATE</u>	<u>AMOUNT</u>
Arcadis	First Qtr. Professional Services	30-Sep-18	\$ 5,250.00
A-NPDC	First Qtr. Staff Support	30-Sep-18	\$ 1,985.00
<b>Total Bills Payable</b>			<b>\$ 7,235.00</b>





# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

### MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee  
FROM: Shannon Alexander  
Coastal Resources Program Manager  
Accomack-Northampton Planning District Commission  
DATE: September 21, 2018  
SUBJECT: Staff Update

#### Committee Attendance Record

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

#### Environmental Reviews and Permits

*VA Pollutant Discharge Elimination System Program* - October 18, 2pm, VDEQ Public Hearing on reissuance and possible amendments to the VPDES general permit for pesticide discharges, Piedmont Regional Office, Glen Allen. [More Info](#).

*VA Pollution Abatement Program – Regulation and General Permit for Poultry Waste Management* Oct. 1 – Oct. 31 Public Comment Period

*Notice – Environmental Project* – None.

*Consent Orders* – None.

*Eastern Shore Poultry – Consent Special Orders Update*

The State Water Control Board approved the orders on September 20, 2018.

#### Other Items

*Legislative Subcommittee Update*

USGS Professional Paper (PP) 1772 here: <https://pubs.usgs.gov/pp/1772/>

Data from USGS Monitoring Wells on the Shore can be found:

[https://maps.waterdata.usgs.gov/mapper/nwisquery.html?URL=https://waterdata.usgs.gov/va/nwis/current?type=gw&format=sitfile\\_output&sitfile\\_output\\_format=xml&column\\_name=agency\\_cd&column\\_name=site\\_no&column\\_name=station\\_nm&column\\_name=site\\_tp\\_cd&column\\_name=dec\\_lat\\_va&column\\_name=dec\\_long\\_va&column\\_name=agency\\_use\\_cd](https://maps.waterdata.usgs.gov/mapper/nwisquery.html?URL=https://waterdata.usgs.gov/va/nwis/current?type=gw&format=sitfile_output&sitfile_output_format=xml&column_name=agency_cd&column_name=site_no&column_name=station_nm&column_name=site_tp_cd&column_name=dec_lat_va&column_name=dec_long_va&column_name=agency_use_cd)



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
 (757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
 WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

The ideas in the table below were those agreed upon during the September meeting. Please note, these ideas are to be considered and further refined with geographic specificity ONLY for the Eastern Shore of Virginia Groundwater Management Area (Accomack and Northampton Counties and jurisdictions therein).

<u>Title</u>	<u>Details</u>
Simple Permit	Streamline the process for the Columbia, speeding up the permitting process
Testing Wells Appropriation	Request an appropriation for installation of a series of Columbia testing wells.
Incentives & Cost-Share C	Create a state-funded grant program to convert existing wells from the Yorktown-Eastover to the Columbia. Create a cost-share program for new wells in the Columbia.
Saltwater Intrusion	Amend regulations that DEQ shall issue a permit unless the 80% drawdown is modeled to also include if salt water intrusion is modeled.
Model Update Appropriation	Request funding for updating the VDEQ groundwater model for the ESVA aquifer system

Staff and Subcommittee members will present a brief summary of the Subcommittee meeting.

**Staff requests a motion to determine the next steps for the Subcommittee.**

### *Desalination Options*

Staff will present research to-date concerning desalination options that may be viable in the region.

### *News Articles*

Bay Journal - [\*VA poultry groundwater fight escalates as crackdown looms, Withdrawal permits designed to ensure aquifer's supply will meet demand\*](#) by Jeremy Cox. [See attached.](#)

### *Research & Publications*

None.

### *Upcoming Events*

October 18, 10am, VDH Waterworks Advisory Committee/Safe Yield Subcommittee, Troutman Sanders, 15<sup>th</sup> Floor, 1001 Haxall Point, Richmond

October 18, 2pm, VDEQ Public Hearing on reissuance and possible amendments to the VPDES general permit for pesticide discharges, Piedmont Regional Office, Glen Allen



# A-NPDC

---

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

October 26, 1-4pm, VESLT Stream and Buffer Walk, Jacobus Creek, Northampton County. RSVP required, [director@veslt.org](mailto:director@veslt.org) or 757-442-5885

November 6, 12-1pm, CBP/B4B Conserved Lands Webinar. [Registration required.](#)



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

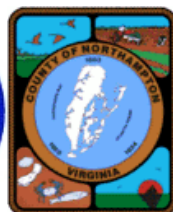
P.O. BOX 417 • 23372 FRONT STREET • ACCOMACK, VIRGINIA 23301  
 (757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
 WEBSITE: www.a-npdc.org

### EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE

#### FY 2019 ATTENDANCE RECORD

Members	Term Exp.	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
<u>Accomack Co.</u>													
Jim Belote	June 30, 2019	*	X	X			*						
Grayson Chesser		*	X	X			*						
Daniel Hershey	June 30, 2019	*	X	X			*						
Paul Muhly		*	X	X			*						
<u>Northampton Co.</u>													
Eugene Hampton	October, 2019	*	X	X			*						
John Coker		*	X	X			*						
Robert Meyers	December, 2019	*	X	X			*						
John Salm	January, 2020	*	X	X			*						
<u>Non-Voting Ex-Officio Members</u>													
Mike Mason	NA	*	X	X			*						
Charles Kolakowski	NA	*					*						
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





## Bay Journal A poultry groundwater fight escalates as crackdown looms

Withdrawal permits designed to ensure aquifer's supply will meet demand

By Jeremy Cox *on* October 10, 2018

Large poultry farms on Virginia's Eastern Shore have been pumping groundwater from the region's fragile aquifer for years with no oversight from the state Department of Environmental Quality, which is charged with protecting drinking water supplies.



*Chickens take turns at the yellow automatic water dispensers at Eddie Kelley's farm in New Church, VA. (Dave Harp)*

Now the agency is taking steps to regulate the withdrawals, issuing orders to 57 poultry operations. The orders approved by the State Water Control Board in September would allow those farms to continue tapping into the Shore's primary drinking water reservoir, consuming a total of nearly a half-billion gallons a year, until final permits are issued.

The orders set maximum monthly and yearly withdrawal limits for each of the facilities, but those thresholds are just a temporary measure, said Drew Hammond, who oversees the DEQ's water withdrawal permitting program. Each operation will still need to get a final permit, hinging on the results of a new state monitoring program that will establish its actual water consumption and on computer-modeling that will determine whether enough supply is available to meet demand.

"Any water withdrawal limits that may have been requested may be adjusted," Hammond said at a public hearing recently in Accomack County, home to all but one of the unpermitted farms.

Concerned neighbors and environmental advocates say they aren't out to shut down poultry farms. Many hope the ordeal will lead farmers and the Eastern Shore's two





# A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

agribusiness giants, Tyson Foods and Perdue Farms, to reduce their dependence on the upper portion of the Yorktown-Eastover aquifer.

The U.S. Environmental Protection Agency has designated the Yorktown-Eastover as a “sole-source aquifer” because no other significant source of drinking water exists in the region.

“I don’t think anyone wants to stop anything. We want them to go where there is water,” said John Coker, a member of the Northampton County Board of Supervisors and chairman of the Eastern Shore’s groundwater advisory committee. “This is not about poultry. This is about anyone who wants to withdraw water in the future.”

The Eastern Shore water battle centers on a state law, [enacted in 1992](#), that requires any entity wanting to consume at least 300,000 gallons of groundwater per month to get DEQ approval first. The law applies to users in two parts of the state: the Eastern Shore and a portion of the mainland east of Interstate 95.

But until recently, chicken operations hadn’t been requesting permits, and no one at the DEQ was asking for them. Farmers had been registering their wells with the local health department, but that information was not being relayed to the DEQ, officials said. (As a result of the current groundwater controversy, the two sides are now talking, they said.)

Eddie Kelley, who tends eight chicken houses in New Church just south of the Maryland border, wants to maintain his groundwater access now and in the future — after he retires in a few years and his son takes over. His consent order would allow him to use up to 3 million gallons of water per month, but he said that his actual usage is usually far less.

“The existing wells should be grandfathered, not have to apply for a permit and then be subject to [the DEQ’s] idea of how much water you should be able to withdraw,” Kelley said. “To be threatened with my livelihood and my son’s livelihood, it’s scary.”

At the heart of the dilemma lies an irony: The Eastern Shore is surrounded by water, with the Chesapeake Bay to the west and Atlantic Ocean to the east.



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)



*Eddie Kelley stands in one of eight chicken houses on his farm in New Church, VA. Perdue varies the flock sizes but this house contains approximately 21,000 two-week old chickens. (Dave Harp)*

And rainfall is plentiful. But of the 44 inches of annual rain, only about a half-inch seeps into the Yorktown-Eastover aquifer, scientists have found. The rest winds up elsewhere — taken up by plants, evaporated into the

atmosphere or washed off the land into the sea.

State water managers fear that wells may start going dry or saltwater will invade the groundwater. Over the last 20 years, water levels in some wells have dropped by an average of more than 20 feet, particularly in deeper portions of the aquifer, according to measurements taken by the U.S. Geological Survey at observation wells. While the salt concentration has been stable in the upper Yorktown-Eastover aquifer, it is increasing at lower groundwater levels, [according to the groundwater committee's materials.](#)

If their permits are approved, poultry farms would be the most numerous category of large water users on Virginia's Eastern Shore, accounting for 57 of the 119 DEQ permittees. But their 1 million gallons a day of total permitted withdrawals would represent only about 10 percent of the amount set aside for that 119, according to Britt McMillan, a consultant working for the groundwater committee. The other users include crop farmers, heavy industry and municipal water systems.

The overall amount being used appears sustainable for now, said Scott Kudlas, DEQ's director of water supply.

"We don't see evidence in our monitoring wells that alarm us," he said.

But McMillan has calculated that [the current use](#) from all wells — farms, chicken operations, heavy industry, private homes on well water — exceeds the aquifer's ability



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

to recharge by 1 million gallons a day. Kudlas, for his part, argues that recharge rates and usage vary up and down the Eastern Shore, so a single number doesn't represent the whole picture.

Jay Ford, the Chesapeake Bay Foundation's Virginia Voices outreach coordinator, said the state's groundwater regulations are too weak to protect a resource as vulnerable as the Yorktown-Eastover aquifer. Permitted users can draw down the water level beneath their wells by as much as 80 percent without sanction.

"Drawing down the aquifer doesn't seem to be sustainable," Ford said.

He supports the groundwater committee's efforts to persuade policymakers and the agricultural industry to pump from a different reservoir — the Columbia aquifer, just beneath the land's surface — for some of their water needs. Currently, poultry operations use the Yorktown-Eastover aquifer to pipe in slightly less than half of the water they use for their chickens to drink and the rest for cooling the long, shedlike buildings that house them. Ford and other critics say farmers should use the Yorktown-Eastover, which has better quality drinking water, solely for watering their birds while tapping into the Columbia for cooling.

"If we don't get the state to make this happen, I have lost confidence that we won't have a major disaster at some point in the future," said Elaine Meil, a groundwater committee member and executive director of the Accomack-Northampton Planning District Commission. She is pushing for the state to streamline the application process for using the Columbia.

The idea hasn't caught on yet. None of the 42 final poultry farm permit applications analyzed by McMillan as of mid-August had proposed drilling into the Columbia.

Virginia's water regulations require withdrawal applicants to use the "lowest quality water for the proposed activity." But it's up to the applicants, not the DEQ, to judge which water source best fits their needs, Kudlas said.





# A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

“We can’t upfront say, ‘You can only use the Columbia aquifer for cooling.’ They’re allowed to apply for the water they wish,” he said.

Poultry farmers repeatedly argue in permit applications that they shouldn’t be required to use the Columbia aquifer because its water quality is substandard and it lacks a reliable supply.

Water monitoring results tell a different story, McMillan said. There’s no reason to believe the Columbia wouldn’t yield enough water, he told the groundwater board recently.

As for the quality, he said, the two aquifers each present pros and cons. The Columbia contains more nitrates, which pose potential health hazards to humans, and it’s more susceptible to contamination because it lies just below the land surface. Meanwhile, the Yorktown-Eastover is saltier, making it more corrosive to cooling equipment parts. And, because it’s slower to recharge, the Yorktown-Eastover aquifer is more at risk for overpumping and saltwater infiltration.

Kelley, the New Church farmer, said some of the wells he uses have been in operation for decades without a quarrel from anyone, so he and many others were caught off guard by the state’s demand for permits.

His chicken houses are older than many of his fellow contractors’ facilities, putting him at a disadvantage in the industry’s “tournament system” of compensation, which bases a grower’s pay on how well it performs against similar operations. The last thing he needs is to have to spend thousands of dollars drilling new wells, he said.

“I live here, too. I’m not crazy,” said Kelley, a fourth-generation farmer. “I want to have water, too, just like everybody else. But unfortunately, my livelihood depends on the water.”



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

### MEMORANDUM

TO: Eastern Shore of Virginia Ground Water Committee  
FROM: Britt McMillan  
Principal Hydrogeologist  
Arcadis  
DATE: October 16, 2018  
SUBJECT: October 2018 Ground Water Consultant Report

#### Technical/Regulatory/Educational Items

1. Draft Information on Columbia (Surficial) aquifer Yield and Quality Summary: To establish a baseline of information for the Columbia aquifer, available information on yield, aquifer properties, and water quality for the Columbia (surficial) aquifer will be reviewed. Principal sources of this information are:
  - a. DEQ database
  - b. USGS Professional Paper 1772

Supplemental information from other sources include Household Water Quality Monitoring Program, special studies conducted by Universities and A-NPDC. This information will be used to identify principal data gaps and guide identification of measures that can be implemented to address these data gaps.

In addition to the above information presented in the Summary, the following information has been requested from DEQ:

- a. Aquifer test reports for the Columbia aquifer
- b. For permitted wells screened shallower than 90-feet below ground surface, yield, water quality, well construction, and geophysical logs.

The information is currently being processed and to the extent possible this information will be incorporated in the Columbia aquifer summary prior to the Groundwater Committee Meeting.

#### Other Items:

1. Columbia (surficial) aquifer research. Based on the principal data gaps identified from the Columbia aquifer summary, suggested research needs for the Columbia aquifer will be identified and potential methods that can be used to provide the information will be discussed. Focus will be on methods that provide the greatest cost/benefit. Pros and cons for the proposed methods will be identified and discussed.



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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

WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

2. Additional FY2019 Groundwater Committee activities. Activities in addition to routine Committee matters will be discussed. Two additional activities to complete in FY2019 are:
  - a. Update information for the DEQ Water Supply Plans. Information specific to the Northampton County Water Supply Plan and Accomack County Water Supply Plan will be prepared and submitted to DEQ.
  - b. Update the Eastern Shore Groundwater Protection Plan. It has been five years since the plan was prepared. The plan included a 5-year review and update as necessary. There have been substantial research and regulatory activities over the past 5-years that warrant updating the plan. In addition to updating research and regulatory activities, updating the sustainability metrics is recommended. The need for more discrete sustainability metrics was discussed in prior meetings, and these metrics should be incorporated in the plan.
3. HB 1036 Groundwater Trading Work Group meeting on October 22. The Eastern Shore of Virginia Groundwater Committee is a member of the Work Group, represented by Mr. McMillan. The agenda for the October 22 meeting is:
  - a. HB 1036 overview / Trading Work Group organizational matters
  - b. Trading Work Group member's thoughts on needs, goals and concerns (including discussion of the DEQ trading comments in response to the GWAC report)
  - c. City of Chesapeake ASR experience
  - d. Discussion on identification of additional technical and legal details from other programs that would help Work group efforts.
  - e. Discuss identification of technical experts willing to support work group efforts.



# A-NPDC

## ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

P.O. BOX 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301  
 (757) 787-2936 • TOLL FREE (866) 787-3001 • FAX: (757) 787-4221  
 WEBSITE: [www.a-npdc.org](http://www.a-npdc.org)

Eastern Shore of Virginia Ground Water Committee FY 2019 Consultant Progress Summary			
Task 1 - Committee Meetings (FY19 Goal = 10)			
<b>% Completion</b>		<b>20%</b>	
Task 2 - Technical Documentation			
No.	Activity	Month	
1	Review DEQ Consent Orders for unpermitted poultry houses that appear to require a groundwater withdrawal permit.	Aug	
2	Review draft poultry house Groundwater Withdrawal Applications for 41 applications provided to the Groundwater Committee. The review focused on location of the proposed withdrawals, target aquifers, requested amounts, and considerations for the groundwater resource.	Aug	
3	Reviewed proposed additional activities for the Groundwater Committee to consider for FY2019.	Aug	
4	Supplemental Water Quality information on Columbia aquifer and Yorktown-Eastover aquifers	Sep	
Task 3 - Groundwater Permit Review			
Applicant	Permit Status	Month	Annual Amount (Gal)
None			
Task 4 - Implement Committee Work Plan			
Activity	Month(s)	Outcome	
Task 5 - Progress Reports			
<b>% Completion</b>		<b>20%</b>	