Minutes of the August 15, 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, May 16, 2017 in the A-NPDC Conference Room of the Enterprise Building in Accomac, Virginia.

Members Present:
Charles Kolakowski
Daniel Hershey
Elaine Meil
Eugene R. Hampton
Granville Hogg, Chairman
Jim Belote
John Salm
Paul Muhly, Vice Chairman
Robert Meyers

Members Absent:
Grayson Chesser
Mike Mason

Others Present:
Ann Violi, Resident (Harborton)
Britt McMillan, Ground Water Consultant
Carmie Savage, ESSWCD
Curt Smith, A-NPDC
David Liu, NASA
Jay Ford, VES
Jon Richardson, ESHD
Joseph Betit, Resident (Pungoteague)
Kathy Cummings, Resident (Pungoteague/Keller)
Matthew Link, VDEQ
Richard Snyder, VIMS ESL
Shannon Alexander, A-NPDC
Shelly Vallone, A-NPDC
1. **Call to Order**
   Chairman Hogg called the meeting to order at 10:06 AM.

2. **Election of FY 2018 Committee Officers**
   Staff requested nominations for FY2018 Committee Officers from the floor.

   Committee Member Meyers moved to nominate as Paul Muhly Chairman. Committee Member Salm seconded the nomination. Committee Member Meyers moved to nominate Granville Hogg as Vice Chairman. Committee Member Muhly seconded the nomination.

   Paul Muhly was elected as Chairman by acclamation. Granville Hogg was elected as Vice Chairman by acclamation.

2. **Review of the May 16, 2017 Minutes**
   Committee Member Meyers moved to approve the Minutes of the April 18, 2017 meeting. The motion, seconded by Committee Member Belote, carried unanimously.

3. **Financial Status Report**
   The FY 2017 Financial Status Report was presented and questions concerning net surplus origins and destination were discussed and explained.

   Committee Member Meyers moved to approve the FY2017 financial status. The motion, seconded by Committee Member Hershey, carried unanimously.

   **Proposed FY2018 Budget**
   Staff presented an amended proposed FY 2018 Annual Budget, which included the SERCAP funding, with a request to approve. (see attached)

   Committee Member Meyers moved to approve the amended FY 2018 Budget as presented. The motion, seconded by Committee Member Hershey, carried unanimously.

4. **Staff Update**
   The following staff updates were presented:

   **Committee Attendance Record**
   The FY2017 Committee Attendance Record was presented.

5. **Other Items**
   **EVGMAC** – Staff presented that this Committee has concluded and final recommendations will be covered in the Consultant Report.

   **USGS EM-Logging** – Staff reported that Randy McFarland is to present update eon VDEQ research and analysis of the 2017 logging efforts in the coming months.
**Stormwater Management Working Group** – Staff reported that Curt Smith was appointed to this Group to develop recommendations for the General Assembly and thus conclude prior to the end of the calendar year.

**Staff presented the following Public Workshops & Outreach events** – Staff presented progress on the Water Clinic and the Second Annual Well & Septic Forum. Staff will attend the Clinic **Kickoff Meeting** (AREC, Oct. 6), Interpretation and Forum scheduled for Nov. 8 in the evening. SERCAP is to subsidize the cost for households to only $10.00. Staff is to discuss expanding the participant waiver to include address of participant for more complete data acquisition.

**Informational Items**

**Staff presented the following Research and News Articles, no discussion was opened:**

Dewberry Coastal Scientist has incorporated groundwater data into flood inundation forecasts for Hampton Roads, staff will be pursuing such research for the Eastern Shore. [https://pdfs.semanticscholar.org/8c13/456ee54b5a4b1bf1360eb7e0da852b89b283.pdf](https://pdfs.semanticscholar.org/8c13/456ee54b5a4b1bf1360eb7e0da852b89b283.pdf)


Freshwater from salt water using only solar energy – Rice University (attached) [http://news.rice.edu/2017/06/19/freshwater-from-salt-water-using-only-solar-energy/](http://news.rice.edu/2017/06/19/freshwater-from-salt-water-using-only-solar-energy/)

Water Efficiency in Rural Areas is Getting Worse, Even as it Improves in Urban Centers; NC State News [https://news.ncsu.edu/2017/05/nationwide-water-efficiency-2017/](https://news.ncsu.edu/2017/05/nationwide-water-efficiency-2017/)

Critical deadline in groundwater law approaches; AgAlert – California [http://agalert.com/story/?id=10894](http://agalert.com/story/?id=10894)

High-resolution vertical profiles of groundwater electrical conductivity (EC) and chloride from direct-push EC logs [https://link.springer.com/article/10.1007%2Fs10040-017-1587-z](https://link.springer.com/article/10.1007%2Fs10040-017-1587-z)

5. **Consultant Report:**

**Technical/Regulatory/Educational Items**

The consultant reported on the EVGMAC final report recommendations.

The consultant reviewed the USGS Circular 1406: Understanding Nutrients in the Chesapeake Bay Watershed and Implications for Management and Restoration – Eastern Shore. [https://pubs.usgs.gov/circ/1406/](https://pubs.usgs.gov/circ/1406/)

The consultant updated the Committee about status of the NOAA shallow water supply wells and this led to discussion about the importance of use of the Columbia and sustainability and preservation emphasis.
Due to time restraints, the consultant will present the FY 2017 Annual Summary during the September meeting.

6. Other Matters:
Vice Chairman Hogg brought up the following matters:
- **Wagner Borrow Pit** – Any progress on requiring sampling of the pit before/during/after use as spoil site?
- **Rural Health** - Any way to determine if they plan to use the Columbia as the source for their irrigation waters? VDH ODW should be the POC for this project.
- **Storm Water Management and potential credits** – would these be available for local land owners? Curt Smith explained that this is one of the topics being discussed at the Stormwater Management Working Group under HB1774.
- **Bay View update** – USDA is to complete a site inspection soon. Northampton County is completing an analysis of rates and necessary maintenance.
- **CBBT dredge spoil** – Discussion ensued.
  Committee Member Belote made a motion that staff draft a letter, to be refined and approved at the September meeting, to address the need that all spoil from dredging projects be used in a beneficial way, with a focus on Tangier Island needs. The motion, seconded by Committee Member Meyers, passed unanimously.

7. Public Participation:
Mr. Joseph Betit, resident of Pungoteague, presented attendees with a table indicative of estimates of water usage, house footprints, waste/manure production, etc. concerning poultry houses. He also informed the board that residents are working together to develop a website that will function as a culmination of data acquired from the County (lat/long) and citizen science/crowd sourced data base. (see attached)

8. Schedule Next Meeting & Adjournment
The next Committee meeting was scheduled for September 19, 2017 at 10:00 AM in the A-NPDC Conference Room of the Enterprise Building in Accomac.
Chairman Muhly adjourned the meeting at 12:03 p.m.

Granville Hogg, Chairman

Elaine K. N. Meil, Secretary
## EASTERN SHORE OF VIRGINIA GROUND WATER COMMITTEE

### PROPOSED ANNUAL BUDGET  
**FY 18**  
**August 14, 2017**  
**Annual**

### REVENUES:  
**Budget**

**Ground Water Consultant Appropriations:**
- Accomack County $14,251.00
- Northampton County 7,415.00
- FY 2017 Remaining Balances (2/3 and 1/3) 1,332.00
  
  **Subtotal** $22,998.00

**Ground Water Modeling Run Appropriations:**
- Accomack County $1,500.00
- Northampton County 1,500.00
- FY 2017 Remaining Balances (2/3 and 1/3) 6,975.00
  
  **Subtotal** $9,975.00

**Ground Water Committee Staff Support:**
- Accomack County $3,970.00
- Northampton County 3,970.00
  
  **Subtotal** $7,940.00

**USGS Ground Water Model**
- Accomack County $7,500.00
- Northampton County $7,500.00
- FY 2017 Remaining Balances 0.00
  
  **Subtotal** $15,000.00

**Water Clinic:**
- SERCAP $11,000.00

**Household Hazardous Waste Collection:**
- Accomack County--Funds appropriated to County Dept. $0.00
- Northampton County 0.00
- FY 2017 Remaining Balances 7,850.00
  
  **Subtotal** $7,850.00

**Total Revenues** $74,763.00

### EXPENDITURES:

**Ground Water Consultant** $22,998.00
**Ground Water Modeling Run** 9,975.00
**Ground Water Committee Staff Support** 7,940.00
**USGS Ground Water Model** 15,000.00
**Water Clinic (SERCAP Sponsored)** 11,000.00
**Household Hazardous Waste Collection** 7,850.00

**Total Expenditures** $74,763.00

**NET SURPLUS OR (DEFICIT)** $0.00

**OF REVENUES LESS EXPENDITURES**
DISCLAIMER: The following table was supplied by Mr. Joseph Betit during the public participation portion of the August 15th meeting of the Eastern Shore of Virginia Ground Water Committee. It does not reflect the opinion of the Committee or the A-NPDC. The data contained has not been verified or researched by the Committee or staff.

<table>
<thead>
<tr>
<th>NUMBER OF CHICKEN HOUSES and RESOURCE IMPACTS</th>
<th>546</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Draft Estimates (JWBetit Aug 2017) Based on 296 Existing Poultry Houses of All Types and 260 Tyson CAFO Permits Planned or Built</td>
<td></td>
</tr>
<tr>
<td>Number of Crop Cycles</td>
<td>5</td>
</tr>
<tr>
<td>Weight Per Chicken lbs</td>
<td>4</td>
</tr>
<tr>
<td>Number of Chickens in House(s)</td>
<td>131,040,000</td>
</tr>
<tr>
<td>House Footprint Square Feet</td>
<td>21,621,600</td>
</tr>
<tr>
<td>House Footprint in Acres</td>
<td>496</td>
</tr>
<tr>
<td>Multiple House Parcel Size (acres)</td>
<td>120</td>
</tr>
<tr>
<td>Multiple House Complex Per House acres required</td>
<td>2,730</td>
</tr>
<tr>
<td>Parcel Size Acres needed for support operations (litter, storm water, dead bird composting, etc.)</td>
<td>2,234</td>
</tr>
<tr>
<td>Dead Bird Loss per Crop (2 to 5 %) Buried on Site (composted). This number is for birds of all size from 1 day chick to 42 day bird so does not necessarily reflect weight impact on crop.</td>
<td>2,620,800</td>
</tr>
<tr>
<td>Final Crop Number after losses</td>
<td>128,419,200</td>
</tr>
<tr>
<td>Final Crop Weight lbs</td>
<td>513,878,800</td>
</tr>
<tr>
<td>Water drinking gallons over course of flock (most use near end) - 42 day chicken gallons per day</td>
<td>256,838,400</td>
</tr>
<tr>
<td>Water cooling gallons – variable by system type use percentage of drinking</td>
<td>64,209,800</td>
</tr>
<tr>
<td>Water volume total from wells for drinking and cooling</td>
<td>321,048,000</td>
</tr>
<tr>
<td>Waste / Manure per bird in lbs</td>
<td>256,838,400</td>
</tr>
<tr>
<td>Flock Feed total lbs (per lb bird)</td>
<td>224,733,600</td>
</tr>
<tr>
<td>Feed trucks per flock (lbs per truck)</td>
<td>4,495</td>
</tr>
<tr>
<td>Livehaul trucks per flock (lbs per truck)</td>
<td>17,123</td>
</tr>
<tr>
<td>Livehaul trucks by chickens per truck (check calc)</td>
<td>17,123</td>
</tr>
<tr>
<td>Manure Haul trucks</td>
<td>5,137</td>
</tr>
<tr>
<td>Total Trucks by WEIGHT of birds x 2 for round trip count</td>
<td>53,508</td>
</tr>
</tbody>
</table>