

**EASTERN VIRGINIA GROUNDWATER MANAGEMENT  
ADVISORY COMMITTEE**

**WORK GROUP #1 – ALTERNATIVE SOURCES OF SUPPLY**

**MEETING NOTES - FINAL**

**THURSDAY, SEPTEMBER 17, 2015**

**DEQ PIEDMONT REGIONAL OFFICE – TRAINING ROOM**

**Meeting Attendees**

<b>EVGWMAC – WORKGROUP #1</b>	
Jay Bernas - HRSD	Mike Kearns – Sussex Service Authority
Richard Costello – VA Home Builders	Kristen Lentz – City of Norfolk
David Creason – VWWA – Creason Well Service	Britt McMillan – International Paper/ARCADIS
Larry Dame – New Kent County	Dave Morris – City of Newport News
Jason Early – Consulting Hydro-Geologist	Ram Natarajan – Aqua Virginia
Bill Gill – Smithfield Foods	Paul Rogers, Jr. – Farmer – Production Agriculture
Carole Hamner – WestRock	Erik Rosenfeldt – Hazen and Sawyer
Steve Herzog – Hanover County	Thomas Swartzwelder – King and Queen County
Gregg Jones – Cardno	Christopher Thomas – King George County SA
David Jurgens – City of Chesapeake	Mike Vergakis – James City County
Whitney Katchmark – Hampton Roads PDC	

<b>EVGWMAC – WORKGROUP #1 – STATE AGENCIES</b>	
John Aulbach – VDH - ODW	Scott Kudlas - DEQ
Skip Harper – VA Department of Housing Code Development – State Building Code Office	Aileen Martz – VA Economic Development Partnership
Allen Knapp – VDH - OEHS	

NOTE: Advisory Committee Members NOT in attendance: Kyle Duffy – International Paper; Judy Dunscomb – TNC; Katie Frazier – VA Agribusiness Council; Jeff Gregson – VA Well Drillers Association; Bryan Hill – James City County; John Loftus – VA Economic Development Partnership; Jamie Mitchell – Hampton Roads Sanitation District; Mark Sauer – DEQ; Brett Vassey – VA Manufacturers Association

<b>INTERESTED PARTIES ATTENDING MEETING</b>	
Mike Atler – Clear Creek Associates	Craig Maples – City of Chesapeake
Preston Bryant – James City Service Authority/McGuire Woods Consulting	Jeff Scarano – Brown and Caldwell
Robert Crockett – City of Chesapeake/Advantus Strategies	Gina Shaw – City of Norfolk
Ted Henifin - HRSD	Wilmer Stoneman – Farm Bureau
Daniel Holloway – CH2M	Chris Tabor – Hazen & Sawyer
Ken Lin – International Paper	John Voorhees – Cardno

<b>SUPPORT STAFF ATTENDING MEETING</b>	
Elizabeth Andrews - DEQ	Bill Norris - DEQ
Scott Kudlas - DEQ	Mark Rubin – VA Center for Consensus Building

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**MEETING HANDOUTS:**

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- A. Draft Meeting Agenda;**
  - B. EVGMAC Draft Ground Rules – August 18, 2015;**
  - C. List of EVGMAC Members and Work Groups #1; #2A; & #2B Members**
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**1. Welcome & Introductions (Mark Rubin – Meeting Facilitator)**

Mark Rubin, Executive Director of the Virginia Center for Consensus Building at VCU, opened the meeting and welcomed everyone to the meeting.

He asked for introductions of those in attendance and asked for the organizations that they represented.

**2. Review of Agenda; General Sense of the Process and Introductory Comments (Mark Rubin):**

Mark Rubin reviewed the agenda for the meeting and the plan for conducting the meeting and then went through some general meeting and location logistics. Mark discussed the process and the ground rules. He noted the following:

- The members of the interested public are invited to participate in the process during the course of the meeting by either working through a member of the Work Group or by coming to an “Open Chair” temporarily and being recognized to share their comments or recommendations.
- The Virginia Center for Consensus Building is about a year old. The reason that the Virginia Center for Consensus Building was formed was that the legislative process and regulatory process is not often the best way to solve complex problems. The issue that causes the most problem in the process is "time and resources". The resources that legislators have to solve these types of problems are pretty limited. The other piece is "time". Nobody can be an expert on everything that is coming through the legislative process.
- When you bring the stakeholders together and create a space where they can talk to each other and listen to each other productively that those produce the best agreements. The best solutions to problems.
- The problems that we are looking at in this process, require a lot more time and a lot more expertise than are available in the normal process.
- The process that we are following is the process that DEQ has been using. The object is to get the stakeholders together, tap into your expertise because you are closest to the problem and hopefully to come up with the resolution and then give it to the legislators. Typically they take it. Then they have the duty to look at the solution that has been presented and determine how to implement it. It is easier for them to work with a consensus solution than

solves the problem rather than through a piece of legislation that gets drafted and thrown into the process outside of a consensus process.

- The Legislature created the Advisory Committee, the Eastern Virginia Groundwater Management Advisory Committee (EVGMAC). That committee is advisory and they are going to develop a report that will go to Dave Paylor, Director of DEQ. Under the statute, he is supposed to write a report based on the report from the Committee and to present that to the Governor, the Chairmen of the relevant committees and to the Water Commission.
- The idea is to be able to spend a lot of time up front in a very productive way to come to result that will be legislation that will be brought to the General Assembly.
- The Legislature identified the categories of stakeholders that needed to be represented on the Advisory Committee. The idea was for the members of the Advisory Committee to be the decision-makers in their respective organizations. The decision was then made that it would be a really good idea to have work groups to support the Advisory Committee. These work groups are to be made up of stakeholders who are even closer to the problem, who have the expertise to be able to work through specific issues and to be able to make recommendations or at the very least be able to present a set of options to the EVGMAC who will be the final decision makers.
- This is your opportunity to come to a consensus so that we have a large group of influential people that support a recommended solution that can be taken to the General Assembly for action and implementation. The work groups have the hardest job in this process – that of figuring out “what to do”.
- Currently there are plans for 5, maybe 6 workgroups to assist the EVGMAC in their work. It is likely that for the balance of 2015 that there will be 3 active workgroups. These include this work group – Work Group #1 – Alternative Sources of Supply; Work Group #2A – Alternative Management Structures; and Work Group #2B – Trading.
- In most facilitated processes and in most mediations the thing that is most important is the notion of control. The notion that this group has an opportunity to be able to come up with a solution that hopefully then will go through the rest of the process that will result in legislation. What we are going through here is a supplement to the legislative process.
- Mark is a paid by DEQ to be an impartial Facilitator – a neutral facilitator - for this process.
- DEQ’s role in this process is to serve as one of the parties at the table – one of the stakeholders. Scott Kudlas is here as a member of this Work Group. Dave Paylor is the member of the EVGMAC. DEQ has interests as the regulator just as you have interests in this process – so they are one of the affected stakeholders in this process. DEQ is also providing staff support for the group.

### **3. Description of Interest Based Problem Solving Process and Discussion of Ground Rules (Mark Rubin):**

Mark discussed the process and the ground rules. He noted the following:

- This is an Interest Based – Consensus Process.
- We are talking about water – we are talking about a resource and the fact that the resource is diminishing at this point. So there is no question that not everyone has exactly the same position with regard to water. In fact there may be some fairly significant conflicts with how we deal with water. We are here to try to work through those conflicts.
- There is a difference between “positions” and “interests”. Everyone walks into a negotiation with a position – “I want the water.” The question really is “why”. What is important to you about the water? If we can identify what the interests are, the idea here is not so much to resolve the conflicts but to get folks to get as many of their interests met as possible through this process.
- The story in the book “Getting to Yes” – is that mommy walks into the kitchen and her two daughters are fighting over the last orange in the refrigerator. Taking the “King Solomon” approach – she cuts the orange in half and tells them both to go off and be happy. If she had asked them why they wanted the orange – what was important about each of them having the orange, she would have found out that one wants the inside of the orange to eat and the other wants the outside to grate up and put into some cookies. “I want the orange” is the position. “I want the water” is the position. What is important to you about it is the “interest”.
- We are going to spend some time today talking about “what is important to you in terms of alternative sources of supply”- so we can get a sense of where everyone is sitting in terms of “interests”.
- You are all here as members of this work group because you all have specific interests – you are all stakeholders. You are also here because the notion is that you are capable of doing two things at once – looking out for your interests and looking out for the interests of the Commonwealth as well.
- It is a problem. There is a problem to be solved here and it is a problem that clearly affects your region but also affects the Commonwealth as a whole.
- In this process we are looking for a “wise agreement”. A “wise agreement” meets the legitimate interests of each party to the extent possible; resolves conflicting interests fairly; it is a durable agreement (we are looking at a long time horizon); and it takes into account community interests. It is efficient; understandable and predictable. In conversations with folks on the EVGMAC, it was clear that the notions of predictability and efficiency are really important. The decisions that are being made are going to govern decisions that are going to be making over a number of decades, so it needs to be predictable.

- Last but not least, a “wise agreement” should improve or at least not harm the relationship between the stakeholders.
- One of the goals of good negotiator is to leave the table with as good a relationship as they started with – but hopefully with a better one.
- Out of this process – the idea is to memorialize the work of the group in legislation – in statute – you all are going to be involved in the implementation part of the process. The hope is that we all will be able to work together – have good relationships with each other when we leave that we will be able to use in the implementation of whatever strategy results from this process.

#### **4. Ground Rules (Mark Rubin):**

Mark reviewed the "Draft Ground Rules" document that had been approved by the EVGMAC at their meeting on August 18, 2015. The general hope of the EVGMAC is that the Work Groups will be governed by essentially the same ground rules.

The following components of the "Ground Rules" were discussed:

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#### **MISSION STATEMENT**

The Eastern Virginia Groundwater Management Advisory Committee (Committee) will develop a consensus strategy, including legislation for the implementation of the strategy, for the management of groundwater and other alternative sources in the Eastern Virginia Groundwater Management Area (EVGMA). The goal is to create a clear, consistent and understandable framework for the management of the water resource so that local and state regulators, those whose activities are regulated by the law, and consumers, both human and industrial, can guide their actions in accordance with a strategy to sustain the water resource. The intent is to manage the resource so that it is productive and available to meet the human, industrial and environmental needs of the EVGMA.

Every effort will be made to develop a consensus draft strategy and legislation by August 1, 2017, which will be reported to the State Water Commission and the Director of the Department of the Department of Environmental Quality as required by Code of Virginia Section 62.1-256.1.

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A question was raised as to what was the extent of the “management area”? What area of Virginia does this group represent? The Eastern Virginia Groundwater Management Area includes all of the area on the mainland part of Virginia, excluding the Eastern Shore that is East of Interstate 95, up to Fairfax County and down to the North Carolina line.

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#### **PARTICIPATION**

The Committee is comprised of members with the authority to recommend actions within their respective organizations. The membership is representative of industrial and municipal water users, public and private water providers, developers and the economic development community, agricultural, environmental and conservation organizations, state and federal agencies and university faculty. Individuals with experience with groundwater management issues have been selected to participate on the Committee and others will be drawn upon through a work group structure.

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## **PARTICIPATION**

If a Committee member becomes unavailable or otherwise unable to serve, the Director of the Department of Environmental Quality (DEQ) shall determine whether that member should be replaced. If the decision is to seek a replacement, the Director shall appoint a replacement.

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- This statement applies to the EVGMAC but not to the Work Groups. If you are unable to attend a meeting, you are encouraged to send an alternate or proxy to represent your organization or locality so that all stakeholders are involved throughout the process. It is always better to have continuity in the process but it is also important that all positions and interests are represented at all the meetings.

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## **PARTICIPATION**

Committee meetings are subject to the requirements of the Virginia Freedom of Information Act will be open to the public and public notice will be provided on the Virginia Regulatory Town Hall website of the date, time and location of Commission meetings. During Committee meetings, one chair will be left open at the negotiating table where a member of the public can sit temporarily to present information or comment on any given topic. Members of the public will be encouraged to communicate their concerns through a member of the Committee who represents their interests but the open chair is available if the member of the public feels it necessary to address the Committee directly to add information that has not been considered. Members of the Committee will not ask members of the public to sit at the table with them during discussions, in order to ensure that representation remains balanced in the Committee.

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- This portion of the "Ground Rules" addresses the requirements under the Freedom of Information Act (FOIA). This committee is subject to the Freedom of Information Act. One of the challenges of doing a negotiation under FOIA is that you have to do it in public.
- Notices of the meetings of this work group will be posted on the Town Hall site. Meeting materials; agendas, meeting notes, work group member list and copies of presentations, etc. will be posted on the DEQ webpage that has been established for the EVGMAC. Notices of meetings and meeting materials will also be distributed by Bill Norris via an email distribution so it is important for everyone to make sure that they sign in at each meeting and provide a legible email address for follow-up correspondence.

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## **DECISION MAKING**

The Committee will make every effort to reach unanimity on all issues related to the proposed strategy, meaning that there is no dissent by any member. However, if the facilitator determines that additional discussions are not likely to lead to unanimous consent, the Committee will consider consensus to have been reached when there is no dissent by more than two members.

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- The work group is not authorized to make decisions for the EVGMAC. They are provide support and recommendations related to the special topic area that they have been assigned, which in the case of Work Group #1 is Alternative Sources of Supply.
- We will use the same notion of consensus as approved by the EVGMAC – if we have no more than 2 members who dissent than we will consider it a consensus recommendation of the work group. If we don't have a consensus then we are still going to present the work that we have done it may just not have that designation as a consensus recommendation.

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## **DECISION MAKING**

During the course of the facilitation, the facilitator may propose a test for consensus on any given issue or on the entire proposal utilizing a 4 level scale to determine gradients of agreement. The scale to be used is as follows:

1. I fully agree and support the proposal.
  2. I can live with the decision. It is okay and I can support it.
  3. I have reservations but will not oppose the proposal.
  4. I think there are major problems with the proposal and am unable to live with it or support it.  
More work is needed
  5. If consensus is not present, the Group's discussion continues to determine if the interests of those who could not support the proposal can be met.
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- Sometimes in these processes there are a lot of discussions going on and sometimes there is a feeling that everyone is probably okay with a thought or a concept but there may be a need to take an advisory vote to get a sense of the group and where the discussions are at a given point in the process. The questions that would be posed to determine the pulse of the group are included as items 1 through 5 in this section of the document.

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## **AGREEMENT**

If the Committee develops a consensus strategy and draft legislation, the Committee members agree to support the strategy and legislation as it was presented to the Governor and other persons and entities set forth in Code of Virginia Section 62.1-256.1.

In the event that amendments are offered to such legislation during the executive branch review or the legislative process, Committee members agree to reconvene as quickly as possible to review the proposed amendments and submit comments to DEQ and the patron of the legislation for consideration. Committee members may speak as individuals to any such amendments.

If a Committee member dissents from the final consensus strategy and legislation, such Committee member may express the dissent during any future consideration of the strategy and if the EVGMAC develops a consensus strategy and draft legislation then they have will agreed to support it in any other places that it would go. This work group will not be making those decisions so this probably doesn't apply to the work groups.

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## **GROUP MEETINGS**

The facilitator will prepare an agenda for each meeting and distribute it to the Committee prior to each meeting along with any documents that may be proposed for discussion.

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## **OBLIGATIONS OF COMMITTEE MEMBERS**

Committee members will communicate their interests and concerns to each other and be accountable for points of disagreement. They will present proposals and counterproposals which will be designed to address points of disagreement. Members will not block consensus unless they have serious reservations with the approach or solution proposed for consensus.

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## **OBLIGATIONS OF COMMITTEE MEMBERS**

Members shall act in good faith and in a respectful manner in all aspects of these discussions whether during meetings or during communications with others, including the media outside of meetings. They shall also keep the long term interests of the Commonwealth in mind as they participate in the process. If an article appears in the media that misquotes or inaccurately represents an individual's position, that individual should inform the Committee members of it.

Members will maintain contact with constituencies throughout the process to obtain feedback on proposals and to provide information about tentative agreements reached.

Any member may withdraw from the process at any time by notifying the facilitator in writing.

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- While you as a member of this committee have your own interests, the hope is that at the same time you are going to be looking out for the long term interests of the Commonwealth. You essentially sit with two hats on throughout this process.
- It is very important that you maintain contact with your constituencies throughout the process to obtain feedback on proposals and to provide information about any tentative agreements reached. The notion is that folks will keep their organizations and constituencies advised and informed throughout the process.
- We don't want you to get too far ahead of your constituencies during the process. It is very important to keep who you are representing informed of the process and efforts of the work group on a regular basis.

### **5. Identification of Problems that need to be solved to meet interests – Audience Participation (Mark Rubin – Members of the Work Group – Stakeholders):**

Mark asked for members of the Work Group and Stakeholders to identify the range of problems that need to be addressed by this group and that need to be solved to meet the interests of the stakeholders represented. What is important to you about “alternative sources of supply”? If you want something to be considered as a “viable alternative” – what criteria need to be met? The following “items of interest” were identified by the group:

- Protect public health – maintaining an adequate sustainable water supply;



- Protect quality and integrity of our products – need quality water to produce a quality food product – there are also issues about how we are regulated – alternative sources – waste water reuse;
- Reliability and Consistency – If you need 5 mgd then you have 5 mgd when you need it – consistency of available water quality;
- Ease of monitoring – with the engineering for a given source – how complicated do you want it to be – how simply can you quantify the source as far as quality and quantity – consideration of capital infrastructure needs;
- An alternate needs to be practicable – it needs to be available and feasible as well as affordable;
- Affordability or Cost – it was suggested that this might as well be number one;
- Assurance of safety to the public - Viable means to assure the public that what we are doing is safe;
- Availability during emergencies – sustainability;
- Adequate quantities into the future to meet current needs and future growth – to sustain current use – to meet future needs;
- Regulatory consistency – state versus federal – agriculture – consistency in regulatory requirements;
- Regulatory impediments – identifying the regulatory expectations;
- Rural sensitivities – small localities – areas of the Commonwealth that currently don't have public water – feeling that the smaller localities may be left out of the picture because “everyone else already has their straw in the ground” – localities that may be behind in the development of needed infrastructure – don't want to be penalized for not being in pace with other larger communities and localities;

A question was raised regarding the use of brackish water by any of the stakeholders represented by the group. All of the discussions have been related to fresh water. Can brackish water be used in any applications represented by the stakeholders around the table? Response: Yes, brackish water is already being used in some applications. The brackish water has to be treated. Once treated it has essentially the same impacts to groundwater as the use of fresh water in an application does. Ocean water could be used if desalinated but it does not meet the cost criteria.

Mark asked for additional options and ideas for consideration. The following additional items were noted:

- Effective waste management for the process of treating and purifying water;
- Most of the discussions have been from the perspective of the public water system – but the private well owners also need to be included as a consideration – there are still many thousands of people in the Commonwealth (25% of the population) who draw water from private wells – their interests need to be considered and addressed through this process;

- Unpermitted uses - Unpermitted sources that impact the aquifer – now and in the future – need to be taken into consideration;
- Allow citizens of the Commonwealth to build homes and live where they want – a rural issue;
- Ensure that we can balance the needs of the current users with future needs – protecting and maintaining the viability of the resource for future generations;
- Minimizing the stranding of already developed/existing infrastructure;
- Water reuse considerations;
- Where do we put the water back into the ground to have the most benefit to recharge of the resource;
- Consistency in design standards;
- Optimize demand management to the greatest extent practicable – where practicable;
- Consistency in consumption standards that are used – they currently vary geographically;
- Encourage small scale alternative sources of supply – encourage the development of a framework for small scale alternative sources to supplement other sources of supply, such as gray-water use and rain water harvesting and their use for flushing.

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Mark summarized the discussions of the group into the following range of options and items for consideration:

- Affordability;
- Protect public health;
- Adequate/sustainable supply;
- Protect the quality and integrity of products that rely on water;
- Reliability and volume;
- Consistency of quality;
- Ease of monitoring as to quantity and quality;
- Practicable – available – affordable – feasible;
- Assurance of safety to the public;
- Availability during emergencies;
- Adequate quantities in the future for both current needs and growth;
- State and Federal regulatory consistency;
- Regulatory impediments and expectations;
- Rural and small locality sensitivities
- Effective waste management from the purification process;
- Protect the interests of private well owners;
- Look into unregulated sources/unpermitted users;
- Allow citizens to build and live where they want;
- Insure a balance between the needs of current users with future needs;
- Minimize the stranding of existing infrastructure;

- Think about where to put the water back in the ground, either through water reuse or other (injection);
- Consistency in design standards;
- Optimize demand management where practicable;
- Look at consistency in consumption standards;
- Encourage the development and use of small-scale alternatives

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**5. Identification of Options – Audience Participation (Mark Rubin – Members of the Work Group – Stakeholders):**

Mark noted that this item brings us into the beginning of the discussion of “what are the options that we want to look at and consider as part of our “alternative sources of supply” that this group should consider.

The group discussions included the following:

- VDH just approved the first “Rainwater Harvesting” permitted water works in the country – that is not just for toilet flushing but is also designed for domestic use.
- The Virginia 2012 Plumbing Code contains chapters on reclaimed grey-water; rainwater and stormwater use. That is in place in the current Building Code.
- It was suggested that even though these options are currently available that we have not done a good job of publicizing those options or opportunities. More public outreach is needed.

**Options that were raised by the group to potentially explore included:**

- Framework for “small” projects;
- Rainwater harvesting;
- Grey water; rainwater reclaiming; stormwater reuse;
- Development and use of reservoirs; storage facilities; impoundments; quarries; and sand pits – creating surface water – alternative sources of water;
- Aquifer recharge with treated wastewater;
- Use of brackish water – desalination;
- Effective water trading programs;
- Converting stormwater BMPs – stormwater ponds;
- Demand management – feasibility;
- Aquifer storage and recovery (ASR);
- Direct potable reuse;
- Indirect potable reuse;
- Increased use of surface water in lieu of groundwater;
- Alternate use of wetlands – enhance to create impoundments;
- Importing water;

It was suggested that the option that needs to be looked at and considered is “What happens when there is no option?” It was noted that it is important for this work group consider that “option”. This is an issue of practicability in specific areas.

The list of options - continued:

- “No Option”;
- Interconnections between localities – communities - regions;
- Salt water intrusion barriers;
- Price – demand management;
- Collaborative infrastructure maintenance – aging infrastructure can be the biggest issue/concern;
- Tax credits for upgrades of infrastructure;
- Reclaim water unused/underutilized under a permit – both surface water and groundwater permits – permitted capacity versus actual utilization;
- Conservation.

It was noted that this list will be included as part of the meeting notes and will be reviewed and reconsidered and revisited by the group, as needed.

**6. HRSD Presentation – Sustainable Water Recycling Project – Aquifer Replenishment System (ARS) (Ted Henifin; Dan Holloway; Jay Bernas):**

Representatives of HRSD provided a briefing and presentation of their Aquifer Replenishment System (ARS) project.

**7. Hanover County Aquifer Replenishment Analysis (Steve Herzog; Mike Adler; Jason Early)**

The Hanover County project team provided a briefing and presentation of their Prospective Aquifer Replenishment Project.

**8. Issues/Wrap-up (Mark Rubin):**

Mark Rubin reviewed the “options” list with the group and noted that we would be revisiting and refining the list as needed.

**ACTION ITEM: The power point presentations will be made available on the DEQ Webpage established for the EVGMAC. Bill Norris will distribute the meeting notes as well as the link to the webpage in the next distribution to the work group.**

**9. Next Meetings related to the EVGMAC and its Workgroups:**

- **EVGMAC – Work Group #2A – Alternative Management Structures – Friday, October 2, 2015 – DEQ PRO Training Room – 9:00 – 12:30;**
- **EVGMAC – Work Group #2B – Trading – Friday, October 2, 2015 – DEQ PRO Training Room – 1:00 – 4:30;**
- **EVGMAC – Work Group #1 – Alternative Sources of Supply – Monday, October 5, 2015 – DEQ PRO Training Room – 1:00 – 4:30.**
- **EVGMAC – Work Group #2A – Thursday, October 15, 2015 – DEQ PRO Training Room – 9:00 – 12:30;**
- **EVGMAC – Work Group #2B – Thursday, October 15, 2015 – DEQ PRO Training Room – 1:00 – 4:30;**
- **EVGMAC – Eastern Virginia Groundwater Management Advisory Committee – Friday, October 23, 2015 – DEQ PRO Training Room – 1:00 – 4:00.**

**10. Anything for the Good of the Order/Public Comment:**

**No public comment was offered.**

**11. Meeting Adjournment:**

Mark Rubin thanked everyone for their attendance and participation in today's meeting.

The meeting was adjourned at 4:15 P.M.