

**EASTERN VIRGINIA GROUNDWATER MANAGEMENT
ADVISORY COMMITTEE**

WORK GROUP #2A – ALTERNATIVE MANAGEMENT STRUCTURES

MEETING NOTES – MEETING #1 - FINAL

FRIDAY, OCTOBER 23, 2015

DEQ PIEDMONT REGIONAL OFFICE – TRAINING ROOM

Meeting Attendees

EVGMAC – WORKGROUP #2A	
Rhea Hale - WestRock	Wilmer Stoneman – VA Farm Bureau
Whitney Katchmark – Hampton Roads PDC	Eric Tucker – City of Norfolk
James Maupin – Virginia Water Well Association	Erika Wettergreen – Marstel-Day
Britt McMillan – ARCADIS – Eastern Shore Groundwater Committee	Andrea Wortzel – Troutman Sanders/Mission H2O
Nikki Rovner – The Nature Conservancy	

EVGMAC – WORKGROUP #2A – STATE AGENCIES	
Elizabeth Andrews – DEQ – Central Office	Sandi McNinch – VA Economic Development Partnership
Susan Douglas – VDH - ODW	Dwayne Roadcap – VDH - OEHS

NOTE: Advisory Committee Members NOT in attendance: Brent Hutchinson – Aqua Virginia, Inc.; Janet Pawlukiewicz – Citizen; Rebecca Rubin – Marstel-Day; Kurt Stephenson – Virginia Tech

INTERESTED PARTIES ATTENDING MEETING	
Robert Bohannon – Hunton & Williams/FCWA	Jamie Mitchell – Hampton Roads Sanitation District
Robert Crocket – Advantus – City of Chesapeake	Jeff Scarano – Brown & Caldwell
Barrett Hardiman – Luck Companies	

SUPPORT STAFF ATTENDING MEETING	
Elizabeth Andrews - DEQ	Craig Nicole - DEQ
Sharon Baxter - DEQ	Bill Norris - DEQ
Brandon Bull - DEQ	Mark Rubin – VA Center for Consensus Building
Scott Kudlas - DEQ	

MEETING HANDOUTS:

- A. Draft Meeting Agenda;**
 - B. EVGMAC Draft Ground Rules – August 18, 2015;**
 - C. List of EVGMAC Members and Work Groups #1; #2A; & #2B Members;**
 - D. Balance of Meeting Schedule**
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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 if the solution is in the public interest. It is easier for them to work with a consensus solution that 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 (EVMAC). 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 #2B – Trading; and Work Group #1 – Alternative Sources of Supply.
- 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. Elizabeth Andrews 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. 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 management structures”- 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:

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.

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.

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.

- 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.

- 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.
- He reviewed the Freedom of Information Act (FOIA) requirements with the group and noted the following: There have been recent court cases addressing the use of emails among and between 3 or more members of a public body and the potential appearance of “meetings of a public body via email”. In order to avoid that appearance members of the Advisory Committee as well as members of the Workgroups should not “email the group” but should instead send any communications pertaining to the work of the advisory committee or the workgroups direction to Bill Norris for distribution to the entire group. Bill serves as the point of contact for all communications related to this process.
- 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.

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.

- The work group is not authorized to make decisions for the EVGMAC. They are to provide support and recommendations related to the special topic area that they have been assigned, which in the case of Work Group #2A is “Alternative Management Structures”.
- 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.

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.

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 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.

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.

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.

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.

- 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.

Scott Kudlas noted that it is important for this workgroup to work at a comfort level that will allow the members to brainstorm on the specific topic area of this workgroup, alternative management structures, as well as any other topic that is of interest or more appropriately addressed by one of the other workgroups or in the main Advisory Committee. He asked that all of the workgroup members and the meeting attendees feel free to communicate broadly on any and all topics related to the groundwater resource because there is definitely overlap among the workgroups.

A question was raised as to how this workgroup could become more informed about the actions of the other workgroups. A need for a briefing on what the other workgroups were discussing and the status of those discussions was noted. How can this group get information regarding the actions and discussions of the other groups? Staff discussed the posting of materials on Townhall (meeting agendas and meeting notes) and on the DEQ Webpage for the Eastern Virginia Groundwater Management Advisory Committee (all agendas, meeting notes, as well as copies of the presentations and other meeting handouts).

ACTION ITEM: Bill Norris will distribute the link to the DEQ Webpage for the Eastern

Virginia Groundwater Management Committee and its associated Workgroups.

<http://www.deq.state.va.us/Programs/Water/WaterSupplyWaterQuantity/EasternVirginiaGroundwaterManagementAdvisoryCommittee.aspx>

ACTION ITEM: Staff will look at preparing a briefing or summary of the activities and discussions of the other workgroups for presentation to the other workgroups and to the Advisory Committee as information to add to their discussions.

5. Presentation – Current Virginia Legislative/Regulatory Framework (Andrea Wortzel – Troutman Sanders LLP):

Andrea Wortzel, with Troutman Sanders LLP and the Coordinator for Mission H2O, gave a presentation on the Current Virginia Legislative/Regulatory Framework to the workgroup. She noted that this presentation is not a Mission H2O presentation but is a bigger picture overview presentation of how we are currently managing groundwater in Virginia and a couple of examples of programs in other states.

She provided an overview of the following:

- Current Virginia Legislative/Regulatory Framework
 - State Water Commission
 - VA Department of Environmental Quality/State Water Control Board
 - VA Department of Health
 - Permitting and Planning
- Current Virginia Statutory Framework – Groundwater
 - Basis/Need
 - § Continued, unrestricted usage of groundwater is contributing to pollution and shortage of groundwater
 - § Groundwater resources belong to the public
 - § Provision for management and control of groundwater resources is essential
 - Permits for Groundwater Withdrawals
 - § Applies to withdrawals of 300,000 gallons per month or more
 - § Initial permits issued based on historic usage
 - § Issued for a 10-year term
 - Permitting Criteria
 - § Nature of the proposed beneficial use
 - § Proposed use of alternative or innovative approaches
 - aquifer storage and recovery systems
 - surface and groundwater conjunctive uses
 - climatic cycles
 - unique requirements for nuclear power stations
 - economic cycles

- population projections
 - status of land use
 - adoption and implementation of a water conservation and management plan
- § When there is a conflict among competing uses, human consumption is given preference
- § Board shall ensure that the maximum possible safe supply of groundwater will be preserved and protected for all other beneficial uses
- Current Virginia Statutory Framework – Beyond Groundwater
 - Surface Water Management Act
 - Significant Difference: provides for voluntary agreements among persons withdrawing surface water
 - § Subject to approval by the Board following public notice and a hearing
 - § Agreement controls in lieu of formal permits
 - § DEQ is a party to the agreement
 - § Includes provision for amendment/termination

Questions Raised/Discussions included the following:

- RE: The Surface Water Management Act: Wasn't there a Middle James River Surface Water Management Area including the City of Richmond and Henrico County? Scott Kudlas noted that there was a proposal for a Middle James River Surface Water Management Area that is still pending before the State Water Control Board but that it has never been acted on. The final results of that effort was that the parties (including DEQ) couldn't agree on the nature of the voluntary agreement so the entities went it alone and exercised their own agreement without DEQ as a party, so it didn't go through the formal State Water Control Board formal notice and approval process. It has worked pretty well. The Surface Water Management Act is designed to deal with low flow conditions primarily. Perhaps the drought triggers for this agreement may be set too high – they go into drought conservation sooner than they may need to – but that is what they agreed to do. The agreement does not work in lieu of the permits from DEQ.
 - RE: Criteria for permits – surface water management areas versus groundwater management areas: The criteria are the same – 300,000 gallons per month withdrawal. There is also the VWP Permitting program for withdrawals as well – all of the thresholds were made consistent in 2007 – with some unique characteristics for withdrawals from tidal waters that are different than those in the Surface Water Management Act as low flow conditions don't apply in tidal waters. But other than those minor exceptions the limits are uniform across the permitting programs in terms of the thresholds.
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Presentation (Continued):

- Current Virginia Statutory Framework – Beyond Groundwater (Continued)
 - Planning District Commissions – established for planning purposes
 - § Boundaries established by the Department of Housing and Community Development
 - § Purpose is facilitation of regional solutions
 - § No regulatory authority; more of a planning role
 - § Most of the discussions focus on transportation
 - Water Supply Planning
 - § Can be done on a locality or regional basis
 - § Projections of supply and demand
 - § Must include potential alternative sources if insufficient supply to meet demand
 - § Not self-implementing
 - § DEQ approval is not endorsement of alternative sources
 - § Considered during permitting
 - § State Water Resources Plan is a compilation of the local/regional plans
 - § Identifies challenges
 - § Includes recognition of need for more water storage sites
 - § NOTE: Contrast with Regional Waste Management Planning Process – The Governor designates the regions for purposes of waste management planning as opposed to in the water supply planning context it is up to each individual locality to go it alone or to choose who they want to partner with. Also in the Waste Management Planning context no permit can be issued for any landfill site unless there is a plan that has been approved by DEQ, but you are also required to get a certification of consistency with ordinances from the local planning body before a permit can be issued – we don't have any similar requirement on the Water Supply Planning side.
 - River Basin Commissions
 - § Roanoke River Basin Bi-State Commission
 - § Rappahannock River Basin Commission
 - No legislative/regulatory authority
 - Can conduct studies
 - Can provide guidance
 - § Interstate Commission on the Potomac River Basin
 - Can reach agreements regarding low flow conditions and management of water resources in the Potomac River

Questions Raised/Discussions included the following:

- RE: Interstate Commission on the Potomac River Basin: The interstate commission was formed under the Federal statute and involves multiple states. While the commission was formed under a federal compact – all of the member signatory states had to adopt in their state codes the language associated with participation in the compact – so each state has similar but not exactly the same language in Code. In Virginia Code Title 62.1 there is a section that addresses the Virginia Potomac River Interstate Commission:

§ 62.1-64. Authority to execute compact to create Potomac Valley Conservancy District and Interstate Commission on the Potomac River Basin.

The Governor is hereby authorized and directed to execute, on behalf of the Commonwealth of Virginia, a compact with the states of Maryland and West Virginia, the Commonwealth of Pennsylvania and the District of Columbia, or with such of the same as shall, by their respective legislative bodies, enact legislation with like provisions to those of this chapter, but not with such of the same as shall not so enact such legislation, which compact shall be in form substantially as set out in [§ 62.1-65](#).

Presentation (Continued):

- Examples from Other States
 - Florida – Water Management Districts – Have their own staffs and operate independently
 - § 9 member governing board; 4 year terms
 - § Appointed by Governor, confirmed by Senate
 - § Executive Director appointed by the Board, confirmed by the Senate
 - § Funded by State as well as from ad valorem taxes and timber sales

Questions Raised/Discussions included the following:

- RE: Water Management Districts and Planning District Commissions or Sanitation District, etc.: How do the Water Management Districts in Florida compare with the Planning Districts in Virginia? How do they compare in form and structure? Conceptually the Florida Water Management Districts are not unlike the Hampton Roads Sanitation District (HRSD) – they are separate political subdivisions. Some parallels could be drawn between the two different

structures. There are a number of different examples in the Code that are like that – we have "industrial development authority"; "public water authority"; & "wastewater authorities", etc. All of which have some elements that are similar to this kind of concept. The way they operate is a lot different. Do any of them have their own revenue sources? The Soil and Water Conservation Districts have the authority to do it but they have not ever exercised that authority. HRSD does have their own revenue source.

Presentation (Continued):

- Examples from Other States
 - Florida – Water Management Districts (Continued)
 - § Administer flood protection programs
 - § Perform technical investigations
 - § Develop water management plans for water shortages
 - § Acquire and manage lands for water management purposes under the Save Our Rivers program
 - § Delegated authority to manage consumptive use of water, aquifer recharge, well construction and surface water management
 - § Administers stormwater management program
 - Florida – Southwest Florida Management District
 - § Reservoir and desalination plant owned by regional water supply wholesaler, Tampa Bay Water
 - § Reclaimed water facilities, treatment plants, interconnect pipelines, and distribution pipelines owned by the individual city and county wastewater utilities
 - § Once operational, the Water Management District reimburses Tampa Bay Water and the utilities for half the cost of their design, permitting, and construction costs
 - § The water developed from these projects is then factored into the District's water supply plan – no project can be done unless it is included in the water supply plan

Questions Raised/Discussions included the following:

- RE: Geographic extent of Florida's Water Management Districts: What is the geographic coverage of these districts? Is all of Florida covered by districts and how many are there? There are 5 water management districts that cover the whole state of Florida but each district operates independently and very differently. There is one statute that established the districts but the way that they have evolved has been different. They all have initial standards that they are supposed to implement in terms of ensuring appropriate flows and levels. Each district has the ability to

establish minimum instream flows for the water bodies within their region. Each area has its own unique problems.

Presentation (Continued):

- Considerations from Groundwater Management Studies – Mission H2O documents/articles distributed to the group via email prior to the meeting
 - Other Models – Based on Studies
 - § Study by the World Bank – identified the need for
 - Structure that incorporates stakeholder involvement
 - Water user associations
 - Aquifer management organizations
 - § Study from 2013 – Survey Results in Appendix B – Responses from all the states that participated in the survey
 - Differing regulations for different user types
 - Voluntary measures to address groundwater issues/allocations – examples of voluntary groundwater allocation system that get fed into their regulatory program
 - Alabama Clean Water Partnership
 - Kansas Local Enhanced Management Areas
 - Indiana Water Rights: Emergency Regulation Statute

Questions Raised/Discussions included the following:

- RE: Voluntary measures: How do you go from a voluntary system into a regulatory program? It would likely work similar to what Virginia has under the Surface Water Management Area Act. You have a group of users that would get together and negotiate among themselves – then you would have a regulatory agency that would ultimately endorse that and make sure that it is protective of the environment and achieves the goals of the Commonwealth as well.
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Presentation (Continued):

- Features of the Eastern Virginia Groundwater Management Area
 - Water Supply Plans There are a number of plans that exist – many of which contain alternative sources
 - § Individual
 - Charles City County

- King George County
- New Kent County
- City of Richmond
- § Regional
 - Cumberland, Goochland, Henrico, Powhatan
 - Hampton Roads PDC Plan
 - Hanover County and the Town of Ashland
 - Middle Peninsula
- Map of Drinking Water Reservoirs and Intakes for Selected Wastewater Treatment Plants and Discharge Rates – A larger version of this map will be made available for use by the Advisory Committee and Workgroups. (The map will be posted as part of the presentation on the EVGMAC webpage.)
- There are also a number of Planning District Commissions that are involved in the Eastern Virginia Groundwater Management Area
 - § Hampton Roads Planning District Commission
 - § Middle Peninsula Planning District Commission
 - § Crater Planning District Commission – in the Fall Zone
 - § Richmond Regional Planning District Commission
 - § Rappahannock River Basin Commission – most of the member localities did not regionalize on their water supply plans

Questions Raised/Discussions included the following:

- RE: Commissions: Do any of the Commissions have the authority to raise funds? No – the Commissions have the ability to apply for funds but they don't have taxing authority. They can go for grants but can't raise funds on their own.
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Presentation (Continued):

- Food for Thought:
 - Is there a need for change? Is the current structure working?
 - Can the current system be tweaked?
 - § Regional designations
 - § Coordination of planning and permitting
 - § Support for alternative sources
 - § Identification of new storage sites
 - § Opportunity for greater private sector participation
 - § Incentives
 - Is there an opportunity to create something new?

- § Explore regional opportunities
- § Integrating the different types of water/permitting programs

Questions Raised/Discussions included the following:

- RE: Commissions: How are the existing commissions organized? Are they organized around surface water? How can they put together plans without coordinating? The Planning District Commissions look at a lot of regional planning and they were traditionally focused more on transportation and shared resources in that arena. Through this water supply planning process – for example when the water supply plan was put together in the Hampton Roads Planning District Commission area because they are in the Eastern Virginia Groundwater Management Area their plan does talk extensively about groundwater but in other areas the focus is more on surface water because most of their participants rely on surface water as their primary water source.

Presentation (Continued):

- The articles that were circulated and discussed from Mission H2O were groundwater specific – so the models that were referenced were groundwater specific.

Questions Raised/Discussions included the following:

- RE: Water Management Districts – Florida Examples: PRO: They are a very good source for accumulating funding for beneficial projects for the region that help supply water for the region – primarily through their ability to raise fees and funds. CON: When you go from one district to another you get the feeling that some of the decisions may be more politically-made than normally DEQ decisions are made. Given the amount of authority that they have in terms of enacting regulatory based decisions, in some cases there seems to be more politically guided decisions being made than most would be comfortable with. It is hard to believe that the 5 districts in Florida are so disconnected and different and that they can have that much autonomy. The districts are very disconnected. They are very disconnected and very complex.
- RE: Other examples: Florida was used as the example in this presentation, are their other states with other approaches/models that might be useful to consider? Similar to Florida or similar to Virginia? Alabama; Kansas and Indiana may have programs that would be useful to consider. These were highlighted because they seemed to have some sort of voluntary negotiation built into their regulatory programs. Don't know how similar those programs would be to those used in Florida versus Virginia. They all have permitting programs that have an element allowing for a voluntary allocation system. A recent article in the American Water Works Association magazine regarding the Arizona Water Banking Authority was referenced.

- RE: Are there other states out there that are similar to Virginia – that have similar rainfall, that have water management planning districts, etc.? Florida is the obvious one. Indiana’s program may be the only other state with a similar program. North Carolina has a “capacity use area” that addresses different conditions than in Virginia. It is closer to our designation of a groundwater management area. It is more like what we already have in place in Virginia than a new approach to look at. Most of the states along the East Coast have programs that are similar to what we already have in place. Maryland and New Jersey’s programs are very similar to Virginia’s current program. The program in Georgia was referenced as one that was possibly looking at a slightly different approach. With the other east coast states there is either much more direct involvement on the part of the Governor’s Office or the General Assembly and there is “real money” associated with the implementation of their efforts and programs to solve the problems.
- RE: Concerns about the Florida model/example: They are not bashful in saying that in Florida that you are in essence dealing with 2 or 3 “states” within one geographic area. The different districts are totally different and approach things entirely differently from any of the other districts. With these differences how would you decide which of the 5 models was the best one for Virginia to use? Is there a state that has a comprehensive program that we could follow instead? No one could think of a single state that had a comprehensive program that might serve as an example for Virginia to follow. In any of the states west of the Mississippi there are a number of examples of management kinds of districts but the rights have already been adjudicated. Everybody knows what the “pie” is that they are working with. There is a lot of flexibility available when that is already predetermined in allowing people to spread out what is already predetermined in an area of geographic users.
- RE: Status: Are we ahead of the curve in states like ours? Are we middle of the curve? Where do we stand? It was suggested by those that have worked with groundwater supply issues in most of the states along the east coast that Virginia is ahead of the curve in terms of proactively regulating groundwater withdrawals to avoid over allocation. A lot of states wait until they are over allocated and then try to adjust their program – North Carolina is a prime example – Maryland is doing it – they are there at the over allocation point. A lot of states wait until they have already damaged the aquifer before they start trying to put fixes in – that leads to a more draconian approach.
- RE: Last Question on Slide: Are we there? Are we right? That is a good question to start with. Is something needing improvement? Is there something that needs to be fixed? What other models are out there? Form follows function. What is the "form follows function" that fits Virginia? Are we able to do the things that we need to do properly now and if not what needs to change? We have in place well the tools and regulations to determine if we have a problem and where we need to start correcting that problem. What we don't have are the tools in place for developing regional solutions to correct that problem. The Florida Water Management Districts have the tools necessary for developing and implement regional solutions. Right now in Virginia the solutions are the purview of the individual users (a groundwater withdrawal permit

user or other interested stakeholders). Whether we want the solutions to be all done by individual users or whether we want to encourage regional solutions becomes one of the bigger questions. The availability of funding for regional solutions is always an impediment that would have to be addressed if we were to seek and implement regional solutions.

6. 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 “an alternative management structure”? What criteria need to be met? What is important? The group discussed a number of concepts and thoughts to refine a list of options and issues that were considered as important considerations for "an alternative management structure". The following items were identified by the group (taken from meeting slip chart notes):

- Ability to have/to encourage regional solutions;
- Responsibility and capacity to identify resources;
- Responsibility and capacity to identify problems;
- Identify the resources and responsibilities – capacity to do it;
- Have an agreement that human consumption needs are agreed upon – human consumption is a preference from a health standpoint;
- Identification on what is a "basic need";
- Ability to set priorities – how much water do you need to meet your health needs?
- Even with regional solutions, the science stays at a higher state wide level versus uncertainty;
- Based on agreement of priority of uses (needs more definition);
- Consistency in application – predictability – know what the rules are;
- Equitable – fairness;
- Comprehensive – integrated water management;
- Economics – Whatever solutions we come up with need to be economically viable – "no pie in the sky";
- Beneficial use – fair share – agricultural versus municipal credits – everyone gets their fair share;
- Integrated – coordinated models and tools – suite of tools;
- Protect resource – maximizing beneficial use – balance needed – needs work;
- Clarity on rights to water – what is the basis – Riparian Rights System (Riparian Doctrine) – reasonable right to use water – difference of opinion of how that system applies to groundwater (South Carolina has substituted a permit system for the riparian system – the permit tells you what your rights are.);

- Property rights – Under the American Rule you have the right to use the water – you can withdraw water but can't impact anyone beyond your property line – regulations attempt to balance;
- With surface water you can see what you are impacting – you can see what you are doing – under the riparian doctrine you have the right to the reasonable use of the water as long as you don't adversely impact the water quantity and quality that diminishes what is available for other users downstream;
- Clarity on people's rights to the water;
- Clarity on priority on "human consumption" – priority on clarity of uses – there is a definition of "human consumption" in the groundwater regulations but what we don't have is an idea of how to prioritize that. (9VAC25-610-10 Definitions. "Human consumption" means the use of water to support human survival and health, including drinking, bathing, showering, cooking, dishwashing, and maintaining hygiene.)
- Protect the resource – sustainability – balance the use – long term ability to use the resource;
- Applicable to the whole state;
- Adaptability based on science – conscience;
- Stakeholder involvement;
- Funding

The group discussed the concept of "desalination" that had been covered in the October 15, 2015 meeting of the EVGMAC Workgroup #1 – Alternative Sources of Supply meeting and the presentations that had been given related to the use of desalination and the concept to use "brackish" water in lieu of "sea water".

7. Discussions related to the current structure - Audience Participation (Mark Rubin – Members of the Work Group – Stakeholders):

The group discussed the current management structure and noted the following:

- The current structure does not encourage regional solutions (now individual permits) – no definition of regions (there is an ability to create regions) – it doesn't impede regional solutions – there is nothing that explicitly sets up the mechanism to create a regional solution.
- A mechanism is missing that would provide for the management of funding for regional solutions.
- A regional solution could be structured on a Planning District Commission (PDC) basis; a critical area basis; a water basin concept; or some other variation – the big "region" could be the Eastern Virginia Groundwater Management Area "District".
- Is there a way to have a more regional dialogue on how to manage the resource? Do we need to have a multiple permit holder dialogue?
- There is an economy of scale that needs to be considered.

- Everything is currently being handled through individual permits – the use of individual permits does encourage the development of cooperative or regional efforts or unified solutions.
- Does the current structure have the responsibility and capacity to identify resources and problems? YES
- It is hard to regulate something after it is already in place.
- DEQ does have the responsibility and capacity to identify resources and problems – VDH does not – issue is that of the "unregulated users". The issue of "unregulated users" has been identified as an issue/concern in all of the EVGMAC Workgroups.
- DEQ is looking at the "impacts to the resources"; they are just currently not regulating those impacts.
- Modeling is done on a state-wide basis. The science is at the state-wide level.
- 10-year permit term – consistency of keeping the water identified in the permit in terms of planning.
- Questions regarding the term of the permit – Not a permit term concern but one of how long do you get to keep the allocation? (predictability)
The uncertainty is the allocation amount.
- There are some unresolved issues related to the aquifer – those are not strictly allocation based because we are not strictly a water level based system; we need to consider salt water intrusion; land subsidence; aquifer compaction; etc. in any evaluations of the resource and its use – all of these could impact the allocation of the resource over time.
- There is uncertainty in the science behind the resources – we don't know everything about it.
- Fairness
 - Expectation is that you keep the allocation – whether you use it or not;
 - Permits issued in staggered fashion rather than all at once;
 - Not comprehensive and that creates inequitable program – free vs. not free water;
 - Inadequate incentives for efficient use.
- The things that are inherently inequitable are that: 1) there is an expectation that if you get the water and you don't use it in 10 years even though there is a mechanism in the program to take that allocation back – that mechanism is not typically exercised so you could conceivably on a regional scale allocate all of the water that is available but that water is not being used to benefit the region economically (some of the economic development opportunities that present themselves in a given region are in a locality that doesn't currently have the allocation – someone else may have it but they are holding it because they don't have anything to use it for); and 2) in terms of issuing a permit, someone always left holding the bag in the end – because we don't consider issuing permits at the same time and to all users at once – because permit issuance occurs in a staggered fashion based on the date they were applied for – when they come up for renewal there may not be enough water for you to keep what you have – because we have allocated it to someone else. Even if DEQ made the decision to issue all 147 permits (mainland – coastal plan permits) every ten years – you still have to account for those people that need water during that period who are new – some of them may be able to get the water but

because they do get it – at the end an analysis may show that some users may have to ratchet back their allocation amount in order to accommodate all of the permits that have been issued.

- "Don't need the water until you need it."
- Does DEQ deny requests (permits) for water? Part of the reason that this group is here today is that DEQ has not done that yet but we see a need/a time in the near future when we may need to. Trying to come up with a better solution to this resource issue – a better way to manage the resource. The reality is that at some point in the future we probably won't have a choice. If we can avoid it for a significant period of time – it is all the best for all of us. We certainly have had applicants come in and say that they want "X" amount of water and we have told them that amount of water is not available in that area/location in the aquifer that they want to take it from. We have not denied a permit because it was not a formal permit application – it was just discussions about a possible permit application.
- There are inadequate incentives for the efficient use of water.
- It is not always equitable.
- Do we have an Integrated Water Management System? NO
- Does the management structure take into account economic viability? NO – "Economic viability is in the Eye of the Beholder".
- Consideration of economic factors.
- The discussions of the "Trading Workgroup" and the "Alternative Sources of Supply Workgroup" were briefly discussed.
- Should use the resource in a sustainable manner.
- Protection of the resources versus maximum beneficial use.
- There are different opinions about what constitutes "beneficial use".
- How do you maintain a sustainable resource?
- Need to have adaptability.
- Need stakeholder involvement – need a feedback mechanism.
- There is still a lot of work that has to be done.
- Is funding an issue for a management structure? YES

The group raised the following questions:

- Do we want to keep the system we have right now? It could be worse.
- Do we need to tweak the existing system or start from scratch?
- Do we need to overlay or supplement the current structure?
- Do we keep what we have and create an overlay – a regulatory structure that does some "stuff" and doesn't do "other stuff"?
- What are the gaps? Lack of user group – lack of regions.
- What is the best structure? Are there advantages to a smaller regional approach?
- What is the optimum size for a region? What is the size of the region?
- What is the best management structure for a region and what is the optimum size for a region?

8. What do we want to do at our next meeting? (Members and Mark Rubin):

The group discussed options for what we need to cover at our next meeting. Are there subjects that we need more information on? The discussions included the following:

- Look at discussions from other workgroups;
- Flesh out the "gaps" in our current system;
- What additional information do you need to proceed? Is there some body of information that this group needs to proceed?
- Construct an ideal structure and then identify the gaps with the present structure.
- A summary of "where the other groups are in their deliberations" was requested. Can we summarize where the other groups are?
- Don't have total clarity on the management structure – how would you describe the management structure? Think in terms of "who; what; where; & how". Need to have a clear picture of what a management structure might look like.
- What is it about the current system that we like – what is working and what don't we like – what isn't working? Need to look at the "pluses" and "minuses".
- Who are we like? We are like ourselves. The language is similar to that used in the Maryland program but the way we approach it is different/unique.

ACTION ITEM: Staff will prepare a broad summary of the deliberations of the other workgroups as an information resource for the groups.

9. Scheduling and Next Steps (Mark Rubin):

Mark Rubin reviewed the remaining meeting schedule for this Work Group and outlined the “next steps” in the process.

- **EVGMAC – 2nd Meeting of Work Group #2A – Thursday, November 5, 2015 – DEQ PRO Training Room – 9:00 – 12:30.**

Meeting materials will be provided to the work group and will be posted to the web page – an agenda will be distributed prior to the next meeting.

It was noted that the next meeting of Work Group #2B is scheduled for:

- **EVGMAC – 2nd Meeting of Work Group #2B– Thursday, November 5, 2015 – DEQ PRO Training Room – 1:00 – 4:30.**

Staff will get the materials on Trading Programs that has been provided by Mission H20 posted on the webpage as information to the group for the next meeting.

10. Public Comment:

Scott Kudlas informed the group that DEQ has been working closely with the HRPDC on the development on a research agenda. HRPDC has been a very active partner in this effort for the program. DEQ has a very active relationship with the USGS – they do a lot of the basic research for the DEQ programs. They help with some of our applied tasks. Recently one of the issues that have been a topic of conversation since a peer review that we had in 2009 is a need for a "better understanding of how to measure the movement of salt water within our aquifer system". We have vertical and horizontal movement – how much do we have and where is it occurring and how is it related to the various pumping centers we have? Scott reported that for the first time, Virginia now has a recommended monitoring strategy that includes locations of where these monitoring wells ought to be in reference to those pumping centers. It is hot off the presses and is on line. It is on the front page of the USGS website.

ACTION ITEM: Staff will provide a link to the report on the EVGMAC Webpage.

11. Balance of Meeting Schedules:

- **Tuesday, October 27th – EVGMAC Work Group #1 – Alternative Sources of Supply (9:00 – 12:30);**
- **Thursday, November 5th – EVGMAC Work Group #2A – Alternative Management Structures (9:00 – 12:30)**
- **Thursday, November 5th – EVGMAC Work Group #2B – Trading (1:00 – 4:30); &**
- **Thursday, November 19th – Eastern Virginia Groundwater Management Advisory Committee (1:00 – 4:00)**
- **Monday, December 14th – Eastern Virginia Groundwater Management Advisory Committee (1:00 – 4:00)**

Scott Kudlas noted that one of the opportunities that this group has on November 5th would be to stay for the afternoon meeting of Workgroup #2B – Trading and to sit in on their discussions.

12. Meeting Adjournment: Mark Rubin thanked everyone for their attendance and participation in today's meeting. The meeting was adjourned at **11:45 P.M.**