

**EASTERN VIRGINIA GROUNDWATER MANAGEMENT
ADVISORY COMMITTEE**

JOINT MEETING #2

**WORKGROUP #1 – ALTERNATIVE SOURCES OF SUPPLY
(MEETING #9)**

**WORKGROUP #2A – ALTERNATIVE MANAGEMENT STRUCTURES
(MEETING #8)**

MEETING NOTES – FINAL

FRIDAY, OCTOBER 7, 2016

DEQ PIEDMONT REGIONAL OFFICE – TRAINING ROOM

9:00 – 12:00

Meeting Attendees

EVGMAC WG #1 & EVGMAC WG #2A	
Elizabeth Andrews – WG#2A - William & Mary	Mike Kearns – WG#1 - Sussex Service Authority
Richard Costello – WG#1 - VA Home Builders	Eric Lassalle – Smithfield Foods, Inc. – WG#1
Larry Dame – WG#1 - New Kent County	Britt McMillan – WG#1 & WG#2A - ARCADIS
Jason Early – WG#1 - CARDNO	Jamie Mitchell – WG#1 & WG#2A - Hampton Roads Sanitation District
Rhea Hale – WG#2A - WestRock	Doug Powell – WG#1 - James City County
Carole Hamner – WG#1 - WestRock	Donald Rice – WG#1 - Newport News Waterworks
Jonathan Harding – VA Agribusiness Council	Erik Rosenfeldt – WG#1 - Hazen and Sawyer
David Jurgens – WG#1 - City of Chesapeake	Andrea Wortzel – WG#2A - Troutman Sanders/Mission H2O
Whitney Katchmark – WG#1 & WG#2A - HRPDC	

NOTE: Advisory Committee Members NOT in attendance: Kyle Duffy – WG#1 - International Paper; Judy Dunscomb – WG#1 - The Nature Conservancy; Katie Frazier – WG#1 - VA Agribusiness Council; Jeff Gregson – WG#1 - VA Well Drillers Association; Bill Gill – WG#1 - Smithfield Foods; Steve Herzog – WG#1 - Hanover County; Brent Hutchinson – WG#1 & WG#2A - Aqua Virginia; Kristen Lentz – WG#1 - City of Norfolk; James Maupin – WG#2A - Maupin’s Well Drilling – VWWA; Paul Rogers, Jr. – WG#1 - Farmer – Production Agriculture; Nikki Rovner – WG#2A - The Nature Conservancy; Rebecca Rubin – WG#2A - Marstel-Day; Gina Shaw – WG#1 - City of Norfolk – Department of Utilities; Kurt Stephenson – WG#2A - Virginia Tech; Wilmer Stoneman – WG#2A - VA Farm Bureau; Thomas Swartzwelder – WG#1 - King and Queen County; Chris Thomas – WG#1 - King George County SA; Eric Tucker – WG#2A - City of Norfolk; Brett Vassey – WG#1 - VA Manufacturers Association; Michael Vergakis – WG#1 - James City Service Authority; Erika Wettergreen – WG#2A- Marstel-Day

EVGMAC STATE AGENCIES WG #1 & WG #2A	
Allan Knapp – WG#1 – VDH	Steve Pelli – VDH-ODW
Scott Kudlas – WG#1 & WG#2A - DEQ	Dwayne Roadcap – WG#2A - VDH-OEHS
Sandi McNinch – WG#2A - VA Economic Development Partnership	

NOTE: EVGMAC WORKGROUP STATE AGENCIES NOT in Attendance: Susan Douglas – WG#2A - VDH-ODW; Drew Hammond – WG#1 - VDH-ODW; Skip Harper – WG#1 - VA Department of Housing and Community Development – State Building Codes Office;; John Loftus – WG#1 - VA Economic Development Partnership

INTERESTED PARTIES ATTENDING MEETING	
Ken Bannister – Draper Aden	Jeff Corbin – Restoration Systems
Preston Bryant – Maguire Woods/James City Service Authority	

SUPPORT STAFF ATTENDING MEETING	
Brandon Bull - DEQ	Mark Rubin – VA Center for Consensus Building
Bill Norris - DEQ	Jutta Schneider - DEQ

HANDOUTS:

- **Draft Meeting Agenda (Emailed and Hard Copy at Meeting);**
- **Meeting Notes – Monday, September 19, 2016 (Emailed and Hard Copy at Meeting);**
- **Revised Combined Strategy Matrix (Emailed and Hard Copy at Meeting);**

1. Welcome & Opening Comments – 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 this, the second joint meeting of the Eastern Virginia Groundwater Management Advisory Committee Workgroups on Alternative Sources of Supply (WG#1) and Alternative Management Structures (WG#2A).

He asked for introductions of those in attendance.

2. Introduction: Revised Scoring Matrix (Andrea Wortzel/Jamie Mitchell):

Mark noted that we have one major task in front of us today and that is to finalize the Combined Strategy Matrices and Scoring Sheet that was introduced and discussed in length at the last joint meeting of the workgroups. He informed the group that Andrea Wortzel and Jamie Mitchell took what we discussed at the meeting on September 19th and used that to develop a revised Strategy Matrix that we have before us today. He noted that even though this is an attempt to incorporate all of the things that were discussed it doesn't mean that there aren't still issues that need to be resolved and things to be discussed.

He asked Andrea and Jamie to give a brief summary of the revisions that they had made to the Scoring Matrix. Their summary presentation included the following:

- At the last meeting, we had one comprehensive table that tried to group different ideas and specific projects and give criteria for evaluating those. The feedback that was received suggested that there was an interest in having a more generic tool for evaluating different options and you would do an “arrow up” or an “arrow down” – which has been changed to either a “yes” or a “no” and also include examples of how the chart might be completed for certain items. A request was also made that the table/matrix should also be searchable. So, for example, if you were looking for a local project you could search by “local” and the projects that would work on a local level come up in the sort. So the matrix we are reviewing today could be used as such a tool.

New Source Project Type	Source of Water	Scale	Current Proposal/Sponsor (see attached)
Aquifer Recharge	purified wastewater	Local	Y
Aquifer Recharge	purified wastewater	Regional	Y
Aquifer Recharge	impoundments	Local	N
Aquifer Recharge	surface water	Local	N
Aquifer Storage and Recovery	surface water	Local	N
Aquifer Storage and Recovery	drinking water	Local	Y
Reservoir	quarries/existing impoundments	Local	Y
Reservoir	surface water	Local	N
Reservoir	surface water	Regional	N
Reservoir	stormwater ponds	Local	N
Reservoir augmentation	purified wastewater	Local	N
Reservoir augmentation	purified wastewater	Regional	N
Desalination	saltwater	Local	N
Desalination	salt/brackish water	Regional	N
Surface Water Withdrawal	surface water	Local	Y
Surface Water Withdrawal	surface water	Regional	N
Non-Potable Reuse	wastewater	Local	N
Non-Potable Reuse	wastewater	Regional	N
Non-Potable Reuse	process water (on-site)	Local	N
Non-Potable Reuse	stormwater ponds	Local	N
Direct Potable Reuse	purified wastewater	Local	N
Inter-connections/redistribution	surface water	Regional	N

- The second chart, that was distributed, lists specific projects. There was a lot of discussion at the last meeting about whether it was our role to provide tools for legislators to use in

evaluating projects or to the agency to use in evaluating specific projects or is it our job to recommend or endorse or reflect discussions of specific projects. The second chart includes the specific project ideas that are currently pending or that have been discussed or presented to the Alternative Sources of Supply Workgroup (Workgroup #1).

Active Proposals	Source of Water	Scale	Partnership Needs (Individual vs Multi)
Hanover County - Local Aquifer Recharge	purified wastewater	Local	Individual
HRSD SWIFT - Regional Aquifer Recharge	purified wastewater	Regional	Multi
New Kent Count - Local Aquifer Recharge	purified wastewater	Local	Individual
Cranston's Mill Pond - Local Reservoir	existing impoundment/surface water	Local	Individual/Multi
James City County - Local Surface Water Intake	surface water	Local	Individual
Contracts for Surface Water	surface water		Multi
South Richmond Quarry (Luck Stone)	surface water	Regional	Multi

- The “grouping” sub-headers have also been removed in the revised matrix as requested by the group at the last meeting. Some of the criteria have either been removed or reworded as per our last discussions. One of the things that was a struggle was trying to address the question of “what need are you meeting through this specific project?” There was a desire raised to reflect whether a given project actually meets an immediate need – so another column was added entitled “Direct Benefit to the Permittee” to try to capture that point. There are some projects that really benefit the aquifer and might be a regional long-term benefit and there are some projects that you just have to do because you are not going to have water if you don’t.

Discussions by the workgroup included the following:

- It was noted that the first two columns in the two tables are worded slightly differently. Would it be of value to have their titles be the same. Right now the Generic listing has the column titles of “Direct Benefit to Aquifer” and “Direct Benefit to User” as the first two columns under Tier 1 while the first two columns under Tier 1 in the Active Proposals table are entitled “Direct Aquifer Benefit” and Direct Benefit to Permittee”. It was agreed that those titles should be the same.
- What does “One Water Management” mean? It is a more holistic viewpoint of considering surface water and groundwater impacts. Is it basically “conjunctive use”, which is making use

of groundwater; reuse and surface water – not the use of just one source? The idea was to look at it from the perspective of environmental benefits and pros and cons related to specific uses – a more holistic approach to water resource use.

3. Issues: Revised Scoring Matrix (Mark Rubin/Workgroup):

Mark asked the workgroup to identify any issues that we still need to work through with this revised matrix proposal. The discussions included the following:

- It was noted that when we started this process, we had folks here from the Health Department really looking at drinking water from two different perspectives – from the regulated public drinking water side and from the unregulated private well side. When you go through the meeting notes and look at the spreadsheets that have been developed based on the discussions of the group – you don't see the word "health" used much. Health is a central piece to drinking water no matter where it comes from. It was strongly suggested that we need to include the words "Public Health" and "Health" in our written materials and to include those concepts in our discussions. In looking over the revised matrix it is unsure where those concepts belong or how to rate them but they need to be included. Most of these things in the matrix will probably have a neutral rating when it comes to health – reservoirs; impoundments; those kinds of things – most of those things are going to run through some sort of treatment before they get used as drinking water. The biggest unknown potential impact is probably "aquifer recharge". We are getting closer to the end of this process, but we do have some mapping and we can show where some of our private wells are located and where some of those wells stand to be potentially impacted by an "aquifer recharge" project. When you look at "aquifer recharge" and think about if we had done that 20 years ago, what would we know today that we didn't know 20 years ago about treating wastewater and treating different kinds of water and the recovering them 20 years later or 100 years later? Over the last several months the Health Department has been dealing with issues of Hexavalent Chromium from Coal Ash Ponds; lead and all kinds of things – those things are pretty well managed in the public drinking water side (there are State standards; there are EPA standards; things are monitored) but when it comes to the private wells – no one is paying to do metal sampling – some of these things that we are now looking at are at very low concentrations and a lot of them are not regulated yet under drinking water standards. A plea was made to somehow incorporate "health" into these discussions and into any strategy evaluation matrix.
- It was noted that a Health Department representative was here at the last meeting and she had raised a similar concern but there was a column that had been added to the matrix to try to address those concerns – it doesn't say "health", but the title "Policy/Regulatory Framework" was included in the matrix originally and the question was raised that while you might have a framework there may be difficulties getting something permitted. Just because there is a framework in place does not mean that you are going to get a project permitted, because there may be questions that come up either through the Health Department review or DEQ's review,

so the column for “Permitting Feasibility” was added to the matrix, which is supposed to get at that issue of “there may be some unknowns; some discomfort on the part of a regulatory agency that may impact a project – but the column title can certainly be tweaked to clarify those types of concerns.

- Will there be a “key” that explains everything that is included in the matrix? The possibility of doing a narrative to try to explain what all these different terms mean was discussed but the ideal would be for that type of discussion to occur with the workgroup members present so that it could be fleshed out properly and with full consideration. There is a possibility that this chart could be a lot larger because potentially what you would have is a bulleted list of things that have been discussed as considerations. It wouldn’t be a simple “yes or no” but would include a list of things that need to be considered for everything in the list. It would include additional information that you need to consider before making a final selection or decision.
- It was noted that one of the points that was made at the last meeting is that under the current “injection” rules (Inject by Rule under EPA Regulations – not managed by DEQ) that if injection is something that is going to be strongly considered we might need to consider what procedure that would that injection permit go through because there isn’t one right now at the state level. We need to make sure that procedure would be protective of the resource because the current method of doing it is not a Health Department related type of issue but probably needs to be.
- The suggestion was made that we need to tweak the title of the column “Permitting Feasibility” to include the word “health”.
- It was suggested that we need to define all of these terms and column titles further. The chart itself is simple and we need to be able to move forward with a simple chart so that we don’t confuse anybody in the future – we need to be able to explain the chart in simple terms. But we need to be able to define these terms where they are unclear. We could include definitions at the bottom of the sheet. It is probably not a good idea to try to define the terms at the top or as part of the chart.
- There had been a lot of discussion at the last meeting about a desire to have a stand-alone tool – that had the projects evaluated separately but a concern was raised that if you look at either of these charts in isolation it really doesn’t give you a path forward or clearly lay out all of the discussions that have taken place both as part of the Alternative Sources of Supply and the Alternative Management Structure workgroups discussions. For example, desalination, when you put it on the generic chart, in a vacuum, and you go through these different criteria that doesn’t necessarily reflect or very well capture the discussion that has taken place about “what would large-scale desalination look like?”; “is it really feasible?”; and “how does it compare to some of the other ideas that are on the table?” There were several presentations on large scale desalination given at the Alternate Sources of Supply Workgroup meetings but at the end of the day the conclusion was “it is probably not a good option for our region.” So when you look at the generic chart it really doesn’t get at a comparison or a contrast of what that would look like compared to other ideas – it is more of a kind of open-ended “if it came in could it do these

things” consideration without an understanding of the context. It was suggested that it is our job to provide the Advisory Committee with recommendations about the types of projects that we think should be encouraged and the types of projects that really don’t make sense for our region – for our management area. That is the concern with separating the two charts like this.

- A preference for replacing the Column in the revised chart that is entitled “Current Proposal/Sponsor (see attached)” with bulleted rows underneath each category that the active proposals should fall under. That way everything is embedded on one chart – if you don’t want to look at that level of detail then you could just collapse the data. If you want to look at the detail, it gives you a good sense of the direction we are going without anyone trying to direct things and that is always useful. Really the only thing that would need to be moved over would be the column entitled “Active Proposals” and the other column entitled “Partnership Needs (Individual/Multi)” from the second chart. Having the project names identified gives a perspective of the magnitude of a specific project and a locational perspective.
- A question was raised as to whether we could sort the current proposals/sponsor column so that those concepts that had an active status would float to the top of the list? Then you could also add the details as to what those projects are. It was suggested that this could also be done as a separate narrative, which would allow for greater detail to be included that a lot of people would like.
- We have done a lot of work and the question is “how much information?” and “what are we providing” to the Advisory Committee and it is almost like we need to put grades on these concepts (A; B; D; C; F), but then of course it is easier to grade the regional concepts/projects than the individual concepts/projects, because circumstances drive regional ones – it is easier to say yes or no on desalination than it is to say yes or no to going to a quarry, because there has to be a quarry in the area to be able to utilize it and you would have to have an idea where the big quarries are located and whether that concept would work for a specific locality. It would be harder to give grades on individual projects versus regional ones – it would probably be relatively easy to give grades on regional concepts. The problem is that this chart doesn’t give answers.
- A concern was noted that folks who are in state agencies can’t sign on or grade something that makes it look like it is something that they are endorsing or something that will get approved or that they would issue a permit for. Their decision making is not out of this document or some similar document they have a lot of other things and information that they have to look at before making that kind of decision.
- It was noted that we spent 2 hours at our last meeting debating whether to “weight or not to weight” each aspect of these concepts. What we are discussing now is valid. By deciding to not put weights on everything, we have now reduced the comparative value of the tool.
- Isn’t it possible to a certain extent to “grade a concept” versus a “specific project”? It is a valid concern because a state agency cannot say that they want “X, Y, Z” project. It was noted that what the group hashed around a lot was that some concepts work great in some locations and in some very specific circumstances and they don’t somewhere else. When we got into the idea of

“weighing” it became impossible to do so we just spun around the axle after a couple of hours of discussion and decided not to assign a “weight” to a concept/project. It was noted that there was some support for the idea of weighting but if we come up with an agreement as to what the appropriate weighting should be then everything is going to be “average” or “circumstantial” – one or the other. The general sense of last meeting’s discussions was not to try to weight them but to get close but not to actually assign “weights”. The idea was to create a potential list and then to “cherry-pick” from that list those that were appropriate or applicable under the circumstances.

- The idea that was raised today was to put those projects that are being actively pursued at the top of the list, which is a weighting by economics of what are people actually considering – that might put an appropriate weight on projects that are out there. That accomplishes both concepts so that things like “large scale desalination” which when considered out of context works but doesn’t work in Virginia, except on a small scale, but “aquifer recharge” does work and it is being actively pursued. It needs to be noted that there are a number of people in Virginia that are utilizing “desalination” on a small scale or in conjunction with another project such as a surface water withdrawal project that are working – it is very situational. Staff noted that the group would probably be having this same kind of conversation regarding the concept of “aquifer recharge” at the scale that HRSD is proposing if there wasn’t already a project on the table.
- It was noted that we could do the “weighting” by simply sorting the list of concepts/projects or just bring those projects over from the other chart to populate that column (Current Proposal/Sponsor) – replace the “yes”/“no” entries with the actual projects.
- At the last meeting it was mentioned that state agencies representatives/regulators at the table noted some hesitancy to weight individual projects – could we insert a caveat somewhere that just simply says that “where we have included active projects the ratings don’t represent any sort of endorsement or lack thereof by the state agencies”? Could this give those state agencies that have participated in this process a sense of comfort? If we get stuck on this and can’t move, we could end up spending another couple of hours on this conversation and still not get anywhere.
- It was suggested that there is some benefit in having the proposals listed, then from the state agencies’ perspective they don’t want someone waving this document around in the General Assembly and saying that a state agency, just because they had a representative on this group, supported a specific project. Listing the projects is important but it is also important to say that just because a specific project is listed doesn’t mean that it is endorsed by any of the state’s regulatory agencies that participated in this process. It was suggested that there is never an actual endorsement until you get a permit.

Mark noted that the outcome of these discussions would be to combine the two revised charts presented this morning by moving the actual active proposals/projects under the “Current Proposal/Sponsor” column in place of the “yes or no” listings and to add a caveat or some narrative that says that by doing so does not mean an endorsement by the state regulatory agencies or the approval or disapproval of any

specific project by a state regulatory agency.

Continued Discussions included the following:

- It was noted that by making this change that when a new project comes up it is easy to add it to the list and when a project drops off it is easy to remove it from the list. Somebody would just need to be in charge of keeping the list up to date.
- One of the directions that we were going towards at the last meeting, which seemed to be reasonable, was that we had a number of considerations/conversations about each of these criteria and from a generic qualitative tool standpoint, the bulleted items should show up in the columns for each of these concepts and then we as a group gave it a consensus based “up” or “down” arrow or a “yes”; “no”; or “neutral” ranking to show whether that particular project would win out in that column. It was noted that there was some support for the “-1; 0; +1” ranking that had been discussed at the last meeting – to illustrate whether a project/concept had a negative impact or a positive impact on the resource – instead of the “yes; no” version.
- The group discussed various options for ranking the concepts/projects. If the idea is that we want to rank what we have and based on our discussions that “large-scale or regional desalination” would be at the bottom of the list, but will the use of the “-1; 0; +1” ranking concept It was noted that the problem seems to occur when you attempt to “sum” the rankings. If you sum these you don’t come up with a realistic total. For the individual categories, saying whether it is positive or negative or neutral is useful – the problem comes when you try to sum them and total up to a total score which makes it hard to distinguish say a 23 from a 24 and be able to say that one is obviously much better than the other.
- One of the things that was raised at the last meeting was some level of discomfort about not knowing enough about specific projects to actually do grading of projects.
- It was suggested that the concept of putting in some bulleted notes for each of these concepts/projects and categories was a good idea. This would allow for the inclusion of some explanation and detail about what was discussed during the workgroup meetings. It was also suggested that we need to have some kind of ranking mechanism and we have to have a “key” to explain what we mean for example when we say “direct benefit to the aquifer” or what we mean by “one water management”. The group agreed that there needs to be a key. Then the question is whether we want to have the bulleted points included in the table that you can maximize or minimize according to the amount of detail that you want.
- It was suggested that you really need to include some “text” to help identify and explain a concept or specific project. But how do we get the point across that we think that large-scale regional desalination is not going to work in Virginia? We just write it in a part of the bulleted information and then if someone wants more information we could have a more detailed “white paper” or something else. We just have to differentiate between local and regional desalination efforts or potentials or active projects.

- The notion then is to put bulleted notes in the chart to provide some context and contrast. In the interest of not making the chart unreadable, you could also do this through the “comment feature” on the spreadsheet. Or just make it collapsible – just so it is “printable”.
- Does this chart need to be accompanied by a narrative? Yes, we discussed that at the last meeting. But we are now talking about summary bullets just to make it clear and then a narrative in addition to the summary bullets. Some of the bullets could be things like: “There is an active aquifer recharge project underway.” And there has to be a bullet included that says: “There are health concerns that need to be addressed.” – So it is clear what the pros and cons are. The narrative could be envisioned basically like a paragraph discussion on that specific concept or project. The bulleted list would be useful to someone who already knows and understands the project so they wouldn’t need to refer to the narrative – but the paragraph could provide needed information on a concept or project to someone who wasn’t familiar with it. So the bulleted list would be included with notes that indicated that for further detail to refer to the attached narrative.
- It was suggested that the bulleted list would be better if it was included at the bottom of the chart with a separate narrative document included. It was suggested that a bigger font size should also be used.
- It was thought that it would be helpful to blend the two charts together, but after today’s discussions maybe not. Thinking about the comment made by staff regarding consideration of the Aquifer Recharge concept outside of having the HRSD project on the table, then there might be a lot more negativity regarding the use of aquifer recharge and people might have only been thinking local scale. So given that, would we want to have a more generic chart. If we did a generic chart the bullets would have to say “this is what would make it a workable project in the Eastern Virginia Groundwater Management Area” or “this precludes this from being a workable project in the Eastern Virginia Groundwater Management Area”. So for large-scale desalination, you could say that “it is incredibly expensive”; “you need a large piece of property”; “you would need regional partners”; all the things that you would have to have and the reason that is probably not happening”. If the HRSD project were to go away and the Advisory Committee had to make some hard decisions then they could go back to the bulleted list to help identify what would make a regional project sufficient to solve the problem with the Eastern Virginia Groundwater Management Area. With respect to the specific projects, you could have a separate chart but it would be reconfigured to not have the same criteria but to say “these projects are on the table”; “here’s who the partners are”; “here is how it is being funded” and a little bit more detail on what it would mean for the Management Area. So, if the HRSD project were to get through all of the hurdles that it is facing – resolve health concerns and get EPA approval/permitting, what does that mean for the Eastern Virginia Groundwater Management Area? The outcome of that would be very significant for growth and economic development. The analysis could look at all of the proposed projects that are on the table and if all of them went forward are we good or are we not? Do we need to do more? If we do need

more than you could go to the generic chart and identify those types of additional projects that we need to consider.

- The generic chart could be considered a reference document and the “Active Proposal” chart could be a path forward as we see it today document.
- We still need more than a “yes or no” identifier included in the chart for the “Current Proposal/Sponsor” category. It is important to know whether there is something that is currently being proposed. Then for the “Active Proposal” chart you could get rid of the Tier considerations and make it more of a narrative.
- The question was raised as to whether this was actually workable as a chart and maybe it needs to be some form of a report where you could talk about each of these things and the criteria? It was suggested that we are trying to force this information into a chart format but it might not be suited for one and may not necessarily be where we need to go. It is almost like it needs to be a table of contents with paragraphs. We almost need this chart as Table 1-1 imbedded in a document. Staff noted that they had always viewed the chart as a useful tool to creating conversation but ultimately the conversation would be too detailed to be represented simply by the chart. A concern was noted that some of the previous conversations would lead one to believe that some of these things were intrinsically better than others. The reason that this is of concern was that the reasoning that was being voiced was that those represented different points of view – some of the things were seen as intrinsically of a higher value because of its individual benefit to an individual but others were perhaps arguing a broader concept that for the entire management area that something was a higher ranking. But we have never resolved in any of our conversations so far as to what really were the criteria with which we would be ranking these concepts/projects. It is very important that we determine what that ranking criteria should be. It was noted that now the tone of the discussions are now that we are not going to try to rank these concepts/projects but are going to try to provide information related to each one that would help people rank them, which is probably the more realistic approach.
- It was noted that now it appears that we are moving from “footnotes and comments” to “paragraphs”. This approach would lead to the creation of a “whitepaper”, because the folks on the committee are less familiar with the water supply end of the business than most of the folks on these workgroups.
- The “whitepaper” would have to be limited in size. When you are dealing with legislators, you present your information to them on one page (8 ½ X 11) – you don’t give them 20 pages – you give them one page – eventually this is going to end up in the hands of the legislators – maybe it is 10 pages; maybe 5 pages, but it needs to be as short and concise as possible – this is a big important thing for the future of Virginia.

Mark Rubin noted that the goal of this workgroup is to give to the Advisory Committee the benefit of the thinking of the workgroup so that they will be able to make decisions. The question really is what is it that we need to give them at their meeting on the 17th of October to provide the benefit them the benefit of our discussions? So we are trying to do the final document at this point we are only trying to provide enough information to illustrate our thought process and to indicate our progress towards

making some recommendations and providing information to the Advisory Committee.

- At minimum we would need to provide them with the chart that we would decide on using with notes related to the projects/concepts. We might not need to have the information in paragraph length but we need to be able to let them know what our thought process was and that this is a work in progress. We definitely need to include some notes about the projects/concepts to reflect our discussions. We need to define the terms at a minimum – need some bullets at least.
- The information that will be presented to the Advisory Committee is going to be essentially the chart with some narrative just to give them the context of the discussions and what the workgroup is trying to do. The materials that will be presented to the Advisory Committee should be to inform them and to get them to give the workgroup some guidance as to how they want to proceed from here – to give them enough information so that they can provide some guidance to the workgroup.
- The chart that we use should not include the “Tier” designations but should include some form of narrative for each project/concept.
- Putting all of the information on one chart would make it clearer.
- The current list includes 22 concepts – so if you want to know exactly where one of the projects fits and you don’t want to have it subject to ambiguity and simply not knowing where it fits – the best way to do that would be to put it in the matrix where it belongs and that way it is crystal clear. If you want people to really know exactly what it is that we are doing and exactly what we are talking about then we need to put these projects exactly where they go. It was suggested that an “asterisk” could be used to indicate that “this project is not necessarily endorsed by the state” – this could be addressed in a footnote at the bottom of the chart.
- We need to number these concepts to add some clarity for discussion purposes.
- Just for clarity, if you want these projects to be associated with one of these concepts then you have to put it there – otherwise someone has to look at two different papers/pages to try to figure out which one belongs where. For report writing, use the concept of “see attached” and then someone can refer to the additional information but for use of a chart the information needs to be clear and readily available and accessible to the reader. We are really trying to push information to the decision makers so we need to be clear and we need to include the information at this stage of the process, where it belongs.
- This may be a “worm or two flopping out of the can” but is there value in this in also identifying with the concepts, not only projects that are proposed but also identifying if this type of project is already being done somewhere in Virginia, because for stormwater detention ponds – there are already places out there that have water systems that use those for irrigation. For desalinization there are several local examples of desalinization working in the state. For injection, there are localities already doing and/or exploring the option of using injection. There may be value in adding this piece of information on not only “is this a possible project/concept” but “it has also been proven at “this location” within the Commonwealth”. This information could be provided as a “bullet”.

- It was suggested that this information could also be provided as an additional column in the chart. It would be useful information, because sometimes there is a perception that nothing is being done, but there are actually a lot of things that are being done or have been done and we are trying to build on that.
- It was suggested that we might also want to consider a segregation of the information into “what is local” and “what is regional”, and what is “existing” and what is “proposed”. Just some way of sorting the information would be useful. It was noted that the original charts that the workgroup looked and discussed at their initial meeting contained this type of sort feature and the group decided that they didn’t want that segregation. The group discussed whether we really wanted to segregate the information or to present it all in one place instead of putting the information in different places.
- The general notion is that we would have one chart which would include but the active proposals - the existing proposals and we would get rid of the “tiers”.
- One other thought was raised about what would be presented to the Advisory Committee: In the Alternative Management Structures Workgroup there have been some discussions about a lot of different ideas about how things should work moving forward and whether any changes are needed. One of the things that was talked about was “how valuable that this Advisory Committee process has been and having these workgroups and being able to share ideas.” The Advisory Committee process is scheduled to end in December of 2017. This meeting today is a combined meeting of the Alternative Sources of Supply and the Alternative Management Structures workgroups. Is it worth raising the question to the Advisory Committee about whether there should be some kind of long-term, maybe not meeting as frequently with all of these different workgroups, permanent advisory committee that helps vet projects management going forward? Maybe some form of “Non-Profit organization” could be created to serve in this capacity.
- One of the work products of this group could be to look at some forum or structure to continue this process long-term.
- The group was referred to the original assignment to the group: HB 1924 & SB 1341

§ 62.1-256.1. Eastern Virginia Groundwater Management Advisory Committee established.

A. The Eastern Virginia Groundwater Management Advisory Committee (the Committee) is hereby established as an advisory committee to assist the State Water Commission and the Department of Environmental Quality in developing, revising, and implementing a management strategy for groundwater in the Eastern Virginia Groundwater Management Area. The Committee shall be appointed by the Director of the Department of Environmental Quality and shall be composed of nonlegislative citizen members consisting of representatives of industrial and municipal water users; representatives of public and private water providers; developers and representatives from the economic development community; representatives of agricultural, conservation, and environmental organizations; state and federal agencies' officials; and university faculty and citizens with expertise in water resources-related issues. The Committee shall meet at least four times each calendar year. Members of the Committee shall receive no compensation for their service and shall not be entitled to reimbursement for expenses incurred in the performance of their duties.

B. The Committee shall examine (i) options for developing long-term alternative water sources, including water reclamation and reuse, ground water recharge, desalination, and surface water options, including creation of

storage reservoirs; (ii) the interaction between the Department of Environmental Quality's ground water management programs and local and regional water supply plans within the Eastern Virginia Groundwater Management Area for purposes of determining water demand and possible solutions for meeting that demand; (iii) potential funding options both for study and for implementation of management options; (iv) alternative management structures, such as a water resource trading program, formation of a long-term ground water management committee, and formation of a commission; (v) additional data needed to more fully assess aquifer health and sustainable ground water management strategies; (vi) potential future ground water permitting criteria; and (vii) other policies and procedures that the Director of the Department of Environmental Quality determines may enhance the effectiveness of ground water management in the Eastern Virginia Groundwater Management Area. The Committee shall develop specific statutory, budgetary, and regulatory recommendations, as necessary, to implement its recommendations.

C. The Committee shall report the results of its examination and related recommendations to the State Water Commission and the Director of the Department of Environmental Quality no later than August 1, 2017. The Director of the Department of Environmental Quality shall issue a report responding to the Committee's recommendations to the Governor, the State Water Commission, the Chairman of the House Committee on Agriculture, Chesapeake and Natural Resources, the Chairman of the Senate Committee on Agriculture, Conservation and Natural Resources.

- The group discussed what information should be presented to the Advisory Committee and in what format. The original structure of the chart that was initially presented was discussed. Related to information and reference to the need for an alternative management structure or whether a project/concept would fit within the existing management structure.

4. Terms - Discussions (Workgroup Members/Mark Rubin/Carole Hamner):

Eric Rosenfeldt mentioned to the group that he had developed a description of some of the terms related to the options for sources that were discussed by the group and that were included in the chart that the workgroup was discussing.

ACTION ITEM: Eric Rosenfeldt will provide the information that he has on the description of terms related to options to Bill Norris for distribution to the workgroup.

Mark Rubin noted that the one thing that we still need to try to do is for the workgroup to try to reach some kind of consensus on what the various terms mean on the document that we have been discussing.

The discussions of the workgroup related to the terms used in the chart included the following:

- **Sources of Water:** It was suggested that for the “sources of water” that we just use “bullets”. These are the sources of water that we considered during our discussions and just list them as “bullets” in the chart. Just include in a note: Sources of Water are: surface water; groundwater; wastewater; stormwater; salt water, etc. They don’t need to be defined.
- **Scale:** Whether it is “local” or “regional” is self-explanatory and needs no further definition.
- **Current Proposal/Sponsor:** That would just be the identifier for the specific project/sponsor if one exists.
- **Direct Benefit to the Aquifer:** This probably needs further explanation. It offsets the withdrawal – it replenishes the aquifer. It improves the sustainability of the aquifer. It puts

water back into the aquifer. It recharges the aquifer is the direct benefit to the aquifer. No need to define it further. It was noted that if you are withdrawing from the aquifer and then you stop withdrawing from the aquifer isn't that a direct benefit? The suggestion is that if you stop withdrawing from the aquifer it provides a direct benefit to the aquifer. We could say that it "recharges the aquifer or lessens withdrawal from the aquifer". It reduces demand. It was suggested that this column in the chart should be renamed "Recharges the Aquifer" instead of "Direct Benefit to the Aquifer". "Recharges the Aquifer" doesn't need to be defined and can be direct or indirect recharge. The group agreed to change the column header to "Recharges the Aquifer". It was noted that there are several items on the far left column that are identified as "Aquifer Recharge" which might be confusing. From the standpoint that that is such an important function for aquifer sustainability that it needs to be a column designation because that is an important consideration. Under "New Source Project Type" a number of sources are listed. One of those is "Aquifer Recharge". It is probably alright because the term of art is "aquifer recharge". "Aquifer Recharge" improves the aquifer.

- **Indirect Benefit to Aquifer:** It was suggested that we should add another column entitled "Indirect Benefit to Aquifer" and then just list what would be "indirect benefits", such as preserving storage". We would need to do that or otherwise people would debate whether it was a direct or an indirect benefit. Do we want to include this as an additional column and define it? That is what we are here for but "some things fill the glass up and some things just keep the glass from being sucked down more." The "indirect benefit to the aquifer" is that it "reduces the withdrawal from the aquifer" or "reduces drawdown from the aquifer" or "reduces groundwater level declines". "Indirect Benefit to the Aquifer" sustains the aquifer.
- **Direct Benefit to User":** It meets a direct users water needs. Discussions of the group included the following: HRSDs injection project doesn't exactly meet another users water needs – it doesn't give them water to drink out of a tap. Chesapeake's ASR system does meet a water need, Chesapeake's and nobody else's. The HRSD proposal improves the aquifer conditions which indirectly allow additional people to use the water but it is not a direct benefit.
- **Time to Realize Benefits:** Shouldn't this have a number instead of a "Y" or "N"? It should or it should have some brackets, like a "1" or "2" or "3" and it would be by decade. Say if the time to realize benefits was within 10 years it would be a "1"; if the time to realize benefits was within 20 years it would be a "2"; or if the time to realize benefits was within 30 years it would be a "3". Since we are not scoring them is there any detriment to saying that the project would be within 5 to 15 years, or this is 5 to 8 years – give an estimated time period? There would be no detriment to taking that approach. The question was asked as to "how long do we include for regulatory approval?" To clarify this information we should probably have a starting point of from completion of construction as the "time to realize benefits" – from the time that a project becomes operational. We need to include that in the definition: "Time to realize benefits from the time it becomes operations".

- **Geographic Extent of Benefits:** That means that the benefits would be on a “regional” or a “local” basis. If we use the terms “regional” and “local” then we don’t need to define it any further.
- **One Water Management:** This refers to a Holistic view of water management – surface water; groundwater; stormwater; wastewater – all water use and management - looking at the resource holistically. How does this concept apply to a specific project? It is a way to look at a project/concept to see if it has an impact on the other available water resources not just groundwater. A way to look at water management on a holistic basis. This is a way to look at whether a project/concept has negative or positive impacts/detriment to non-groundwater related water resources. Looking at the resource holistically. Staff noted that the concept is probably going to be challenging for the main advisory group. It is a noble concept to present to the Advisory Committee and is probably worth presenting to them but they might not embrace the concept. It was suggested that we could provide some specific examples like: “Are there surface water impacts?”; “Are there wetlands impacts?”; “Are there fisheries impacts?”; “Are there downstream user impacts that need to be considered?”; “Does it increase flooding?”; “Does it reduce flooding?”; “Does it impact water quality? It was noted that we could try to break the concept down into more understandable terms but it is important to keep the phrase “one water management”. It will be more understandable if some bullet point examples are provided.
- **Technology:** Does this mean “is there existing technology?” Or a proven technology? Staff noted that this was intended to mean that there was a proven technology. It was suggested that all of these are “proven” technologies. There is nothing in this list that we are in a research and development phase on. It was suggested that this might be a good point to switch to an “already in use in Virginia” designation. Technology then means “currently in use in Virginia”.
- **Grant/Loan Funding Availability:** It was suggested that this category wasn’t needed because it is always going to be “No”. This is information that could be addressed and supplied by the Funding Workgroup in the course of their deliberations. It was noted that this was an important column to leave in to show that currently there is no grant or loan funding available, but here are some recommendations for some things that you could do. It makes the point to the legislators, since they are the target audience that we have all of these wonderful ideas but we currently don’t have any money available to fund them.
- **Infrastructure Costs:** This probably doesn’t need to be defined. The group had discussed the idea of bracketing for another category – we could use a “high”; “medium”; and “low” costs identifier for specific projects/concepts in this category through the use of a “\$” sign or multiple “S” signs to indicate magnitude of costs. It was noted that we are talking at the level of billions with a “B”, not millions with an “M” so there are no low cost alternatives/options because all of the low cost options have been done. Do we need to break this down into “capital” and “O&M” costs? It was suggested that this was probable a valid comment to consider. This could be done by splitting the column for costs into 2 sub-columns.

- **Permitting Feasibility:** We need to include “health” concerns in this category or just retitle the column to “permitting feasibility/health”. This would include “public health concerns” and “environmental concerns/impacts”. The group also discussed the need to include the concept of having the “ability to permit” – having the regulatory authority. This could be defined as the “extent of the regulatory agencies’ ability/capability to permit a project”. Maybe we could say the “ease and availability of permitting” - Ease and availability of permits. Do we need to include something here about “jurisdiction” – “regulatory jurisdiction”? It was suggested that this should maybe be in the “policy/regulatory framework” category. Is the process going to be easy or difficult? Are the permits difficult to obtain?
- **Policy/Regulatory Framework:** This is here to address whether the policy and/or regulatory framework or the management structure is available or not for a specific project/concept. Is it here today or not? This needs to address “regulatory jurisdiction” and whether one currently exists or not. This also includes the question of whether standards are available and are appropriate for the project/concept. This would include “changes to regulations or management structure are needed”. This would also include the consideration of whether the regulatory jurisdiction was “not defined” or was “not ideal”. It could also be identified as “regulatory jurisdiction uncertain” or “ambiguous” or “changes needed”.
- **Public Perception/Outreach:** Does this mean that it would have negative public perception and outreach is needed? Or communication needed? This probably doesn’t need to be defined.
- **Climate Resilience:** Is this trying to get at the effects during a drought? Are we looking at “improving climate resilience” or “is the project itself having an impact”? Are looking at something being resistant and/or robust? For example a large surface water reservoir is more resilient to a drought than a surface water intake. It was suggested that this category should be retitled “Drought Resilience”. With this title, we don’t have to define it.
- **Temporal Availability:** This was there to address the aspect of “seasonal availability”. Is this really a useful metric? Do we really need this category? A suggestion was made to delete the column. It was suggested that the column should be renamed “seasonal availability”. Is something consistently available or intermittently available? Using brackets for the column entries such as “A” for “Annual or Always”; “I” for “Intermittent”; and “S” for “Seasonal” were discussed.

5. BREAK – 10:50 – 10:55

6. Alternative Management Structures – Discussion (Mark Rubin):

Mark Rubin brought the group back to order and noted that what the group needs to address now is what we want to report to the main Advisory Committee about “Alternative Management Structures”. He noted that we had spent a fair amount of time looking at and talking about something like the 501(c)(3) group out of Alabama. What is it that we would like to say about those discussions? The group in Alabama was a 501 (c) (3) organization that was not tied to government but was made up of major users and had participation with government folks but it was not a “permitting” organization. It was more of a forum than anything else for discussions of projects; discussions of permits and also they had

a very strong outreach and educational component in what they did. They also had a research component. We looked at all of the aspects of such a program. The real question is how do we continue something similar to this and our present Advisory Committee and Workgroup structure that would continue to create stakeholder involvement in future decision making. The idea would be for the specific projects to go to such a commission for them to look at and opine about even though they weren't the ones making the final decisions. Their deliberations would be considered by actual permitting agency.

Discussions by the group included the following:

- The group talked about the creation of a 501 (c) (3) style organization and the creation of a “Commission” that would be appointed by the State – both of these approaches have historically worked well in other parts of the country. We probably need to consider recommending one approach or the other moving forward.
- In the group’s discussions of alternative management structures it was obvious that you are never going to create the perfect matrix that is going to tell you what the best project would be. The need you are trying to meet, is a very location specific process. But setting up a standing group perhaps that has that expertise that can evaluate a project that can pull together the benefits and disadvantages of the alternatives available to meet a specific need might be very useful. It is basically a question of efficiency. You want to know as soon as possible what are the justifications for the need – for example, do you really need this much growth for economic development? You want to know how expensive the different choices are. You want to know the environmental impacts. Do the regulators feel that this project is too risky? The sooner you know this kind of information the more you can have a realistic idea of what the viable alternative is.
- The organization in Alabama had a great mechanism for getting information but at the end of the day it was not a regulatory body. The question is who do we feel should have that authority in the state? Where does the buck stop? At the end of the day, it was obvious from our past discussions that we wanted to have the State Water Control Board to have that ultimate authority but we would like to have a committee or a commission in place to provide input to the process. We need to make it clear as to what this kind of organization is and what it isn’t. It isn’t a group to create new regulations. The downside of that is at the end of the day that if water gets tight then they can’t make the tough decisions. Someone has to have the overarching authority and jurisdiction to be able to make the necessary hard calls. What this would provide is a forum to develop public support behind the changes that may need to be made at the State Legislative level – that doesn’t exist right now. It was noted that this sounded very similar to the Chesapeake Bay TMDL Advisory Committee – it is a fairly large stakeholder group designed to provide input to the decision makers. This group is called together by the Secretary of Natural Resources. The type of committee formed would depend on how much separation that you want the group to have from the state. The difference with the Bay committee is that the meetings have morphed into a kind of update report that is provided every six months on “this is how much progress we have made towards reaching our targets” and “this is the type of information

that we are gathering”. It has become more of an informational session. It has gone more from conceptual to become more operational.

- The discussions of the group over the last meetings have reached a conclusion that the permitting system is not really broken but when you are in a time of shortage, especially in an aquifer that is a shared resource, how do you reach decisions on how you are going to manage the resource and try to build into it more opportunities for regional dialogue? As opposed to DEQ deciding that there are 32 different water withdrawals taking place that all have permits and that since DEQ has authority over the permitted withdrawals and that 14 of those withdrawers are the largest by far so we are just going to reduce the top 14 withdrawals and that is how we are going to manage the resource. So each of those individual permittees then go and try to figure out how to live under the new permit limits and kind of in a vacuum evaluate their options. What we are talking about creating is a mechanism/forum that would allow for those options to be discussed and considered on a broader basis where those stakeholders can share ideas and maybe look at building more partnerships rather than trying to solve the problem individually.
- On a longer term basis the group had also talked about a research component for such a forum/organization. We also discussed the planning function that this committee/commission could also perform. We also discussed the possibility that there would be enhanced planning requirements once a management area was designed. We have planning that goes on throughout the state but once you reach a point where you know there is a problem should that planning be enhanced? Would a different set of criteria be needed once a problem was recognized? How would an enhanced planning effort be structured? It could be through a committee or a commission or a forum of some kind. Staff noted that the discussions so far have not come up with anything that sounds like it would make DEQ’s work any easier. The big questions are what would be the expectation for such a group by the agency and how would the deliberations and recommendations of such a group be dealt with by the agency?
- A question was raised as to whether we need to report out the Alternative Management Structure piece of this effort to the main Advisory Group at their next meeting (October 17th)? We don’t have to report out a final decision but it is probably a good idea to tell them the kinds of things that we are thinking about and the types of things that we have been discussing.
- The question then is the type of organization that we have been discussing would be either a committee or a commission and then the big question would be does it need to be governmental or non-governmental. Each would have different levels of authority. The questions come down to “Who needs it?” and “Who funds it?” There are a lot of options. Since the group has not had the time to discuss the particulars for these various types of groups and organizations we need more time to be able to discuss these details and to narrow down the viable options to present as recommendations to the main advisory committee. What role do we want such a group to play in the process is still to be determined.
- The functional pieces of this puzzle that need to be determined and discussed include: the authority; the ultimate authority to make decisions; stakeholder input; and technical

considerations. We need to identify the functional pieces that need to be in place before moving forward – no matter who does it.

- Another aspect that has not been brought up yet is the formation of a regional commission similar to HRSD that would function for water quantity and revisit where the existing infrastructure is and how there could be more integration of the system – this wasn't a very popular concept but it is one that the discussions have not been finalized on.
- We have not really vetted the options fully – we need to start drilling down a little bit more – this committee process has been valuable – it has been an opportunity to share ideas – as conditions evolve there may be projects that make more sense than others or less sense and having the opportunity to discuss it would be useful – it might be useful to raise to the main advisory committee is the option of looking at their mandated timeline and whether there is a need or justification to try to continue the process and the committee structure past the December 2017 deadline. The other approach might be to just inform the committee that we will be bringing some ideas and proposal for extending this process beyond the 2017 end-date to them for their consideration.
- The main goal of this process was to get broader stakeholder involvement.

7. Flip Chart Notes (Mark Rubin):

Alternative Management Structures:

- **Stakeholder involvement to evaluate options to meet a need – early in the process**
- **Not a regulatory or a permitting body**
- **Develop public support**
- **At the call of the Secretary of Natural Resources; commission; independent; 501 (c) (3)**
- **Focus on shortages**
- **Regional holistic perspective**
- **Building partnerships**
- **Connect planning to permitting**
- **Research**
- **Regional Commission concept**

8. Final Thoughts – Wrap-Up – Questions (Mark Rubin/Workgroup):

Mark Rubin noted that we could say that the goal of this process is to have a forum for stakeholder involvement on evaluating options and doing it as early as possible in the process but as far as what the structure of the forum is still needs to be discussed and worked out. One of the problems that the group has noted is that if each of the localities is making their own individual decisions on permits the question is how do you get to a regional perspective – we don't have a structure – a regional funding structure – a regional commission – a regional mechanism in place that is invested with the authority to

look at regional projects. These things that the workgroups are trying to deal with should be presented to the Advisory Committee.

He asked the group whether they thought that it would be useful for the two workgroups to continue to meet together. It was noted that it was useful to have both of the workgroups meeting together. It is helpful to have the expertise available at the table.

Discussions and Questions from the group included the following:

- What is the basic message to the Advisory Group on the 17th? The basic message is “here is where we are in our discussions” and “here are the things that we are talking about” and “we are not done yet”.
- Isn’t one of the messages to the committee is that we actively have these projects that might fulfill some of these needs however there are unresolved issues that relate to regulatory; permitting; funding; and so forth that need to be resolved.
- We are probably aren’t at the stage of being able to recommend specific projects but would it be possible to put some “mgd” figures on any or all of these projects and say that this is a goal that DEQ has? This is the timeline for the projects? This gets you 90% of the way there? Can we provide a list of Pros and Cons for the Advisory Group to consider? We have never talked to the Advisory Committee as to what the number is. It is probably not a bad idea to give them information on what each of these projects would do for us in managing the resource. It would be important for the committee to hear. They won’t understand how important it is pursue some of these projects without some idea of the numbers. The idea is to provide the Advisory Committee with a broad pathway of how the workgroups are working and what they have been identifying as means to manage the resource. Staff noted that in regard to identification of the “mgd” related to a specific project, we may only be able to identify what a project’s goal is but would not know until the project is in place as to what they will actually be able to achieve. We should be able to provide to the Advisory Committee the best data that we have available on a specific project/concept even if it is just an estimate or a goal. The committee needs some idea of how far does a specific project get us if that data is available. The question is whether a specific project has potentially a big impact or a little impact. Staff noted that they are not able or prepared to say the “this certain number is the number that is the issue” and these specific projects get us to a certain percentage there. It was agreed that we don’t know what those specific numbers are, but we can say what goals specific projects have as their starting points.
- The question to the Advisory committee is if you have these specific projects currently being considered – they currently have a champion and are going to go forward and we are going to have a “go – no go” decision on all of them by a specific date (2018/2019) what does that mean for our management program?
- It was suggested that what we need to end up with is a general analysis of the options – we need to have a basic analysis of our available options.

- It was suggested that the structure is the problem. We always knew that there were all these different alternatives. That is nothing new. Yes, it is nice to have a matrix and have more people trying to vet what the issues are and define it and maybe put it in a way that is a little bit more accessible to a broader audience. That is not the problem – we have always known that there were lots of options, there are just a lot of trade-offs. The question is how do you make the structure better so that those trade-offs are maybe more visible so that people can assess where they should spend their time. Isn't that part of the concept of analyzing general approach rather than specific projects, the structure in general? A concern was raised that we are spending a lot of time on alternatives but not much time on structure. The structure is the weak link in this process. If we are not going to fix the structure then we ought to just go to the specific projects because that is the pragmatic solution. This is the engineering solution – just do these X number of projects. It is easier to get someone to buy on a couple of projects that are well defined or how you evaluate projects need to be totally different.
- Another question is how are we going to marry up the work from the different workgroups? Some of the previous discussions in the Funding Workgroup was the concept of considering two different options, one if the HRSD project moves forward (Option A) or doesn't move forward (Option B). If you go down this path and you have an Option A and an Option B then there is a date certain where you know or decide which option you are pursuing. There is a time-line component to all of these discussions too that needs to be taken into consideration. If we know that there is a date certain when we will know what projects are moving forward then you have to know how those projects affect the aquifer and then where do we go from there versus if those projects don't move forward and you have to start with a clean slate – what do you then want to incentivize and fund?
- We also probably don't want to look at putting all of eggs in one basket in this process. We may have one big funding project but we should also have lots of little funding projects. To do that we need to incentivize concepts, such as incentivizing the reduction of groundwater consumption and conversion to surface water consumption – and that might need to be an overarching concept that gives guidance on high to decision making
- It was suggested that Trading and Management might need to be integrated because it becomes another regulatory function. Or is the trading concept going to go totally “free market”? Management is going to be a big deal. You have to have proposed solutions and ways that you can go. We have reached a point where we have some possible solutions to consider now we need a management structure within which to evaluate them. If we didn't have solutions, we wouldn't need a management structure.

Mark Rubin noted that yes, the management structure discussions need to go further. What we have done is that we have generally said that in times that there is plenty of water that the current permitting process is working ok. It is the time of shortages where it is not and we also have talked about the fact that the planning function needs to connect up with the permitting function in a more robust way. The planning function needs to be more robust. Those are also pieces of the structure piece. We have not tackled the question of if a jurisdiction controls certain pieces of the water and they are very dependent on the revenue from those waters, then how do you create a regional concept/structure that would work

and would be acceptable to the parties involved?

Continued discussions included the following:

- It was suggested that the workgroup has focused on several large concepts like the “one water approach”; we need to consider all sources of water, not just groundwater; we need to set up a 3rd party advisory committee to help inform all of the processes; we need a more robust comprehensive planning; planning should drive the permitting not permitting driving planning. We have these big concepts, so are we ready to get really detailed now on the “how”? Who is going to have jurisdiction? How is it going to work? How is it going to be funded?
- For the funding piece, if there is money coming in, who decides where the money goes? We have not decided the management piece but we are not behind on that because we had to get to a point in the process where we could see the bigger picture and realize that we do need a management concept/structure to move forward. And now we need to figure out what we need to manage. The big question is “how” are you going to manage the process?
- It was suggested that there is a fundamental question that we are circling around but not really attacking and that is “Where do we want the ultimate decision making authority to be? Right now it is the State Water Control Board. Do we want it to be somewhere else? The buck stops here role is with the State Water Control Board and the group agreed that was where it should be. The role of this commission in whatever form was as a forum for input and for enhanced stakeholder involvement.
- A question was raised about the existing Planning District Commissions and whether they were there to serve in this input and stakeholder involvement role and as the regional planning mechanism. It was noted that they are but they are not there for the Coastal Plain wide. It was suggested that you could create another Planning District, a Coastal Plain PDC or multiple PDCs to address the needs of stakeholder involvement.
- Staff noted that there is already the ability to use the mandated Water Supply Planning process to regionalize along the lines of the Groundwater Management Area if people wanted to. It sounds like from the discussions of the group that you want someone to tell them or create some vehicle to make them talk to each other.
- It was suggested that there is a thornier question that needs to be addressed. From a policy perspective, the permitting system works and the “buck stops at DEQ” in terms of looking at the aquifer and knowing how much water there is to withdraw and when is the aquifer being adversely impacted and when does something need to happen. But should those actions be taken on an individual permittee basis, meaning permit by permit, or should there be some kind of structure to look at things on a more regionalized basis. There is nothing currently in place that requires any kind of regional look. For example, it would make more sense to do a large scale desalination project and it would satisfy the needs of the 8 largest users as opposed to having those 8 users go an invest \$30 million to do their own thing (build their own river intake or build their own reservoir, etc.). How do we create a structure that forces more discussion on this type of policy question? What makes more sense for the Commonwealth?

- The question is do you want those kinds of entities and structures to be advisory in nature to the State Water Control Board or do you want them to carry some weight and be binding in some fashion on the State Water Control Board? Right now the State Water Control Board doesn't have the authority to require this kind of regional collaboration. The framework may work for them to be the authority or do they have the authorities or are their other tools that they need to be given for this to work. Right now the only tools that DEQ has are the use of "individual permits".
- Regulatory versus management are two different concepts.
- It was suggested that the creation of an overarching Planning District Commission for the entire Groundwater Management Area/the entire Coastal Plain would slow down permitting decisions dramatically. Depending on how it was structured it may or may not make the permitting process any better. If you are going to have the aspect of not making decisions on a permit by permit basis and do it in some other fashion where they are considered on a larger scale (regional basis) then that consideration is going to have to happen before the permitting decisions come along.
- The group discussed various options for the role that DEQ should plan and currently plans in the permitting process and the limits of a permit by permit approach. It was suggested that the mission of DEQ should be to optimize the use of the available resource and there should be the ability to encourage and or require some level of regional or multi-county cooperation and coordination. It was suggested that this sounded like the current California Water Board style structure. The California model works basically on the wastewater side but includes several (5 or 6) different jurisdictions and they are each independently responsible and have that authority but they look at the entire area and it imposes a regional approach just by the structure. Florida also has a structure that does essentially the same thing – they have Water Management Districts.
- At the PDC level it would be great in terms of planning. The question is: "Is the permitting system broke or is the planning system broke?" If the permitting system is not broke then we don't need to fix it. The permitting system is being used as a tool (for resource management) to catch up and deal with the resource after the fact instead of the planning process. PDCs today don't issue permits – it would take a shift in thought for them to do that.
- The discussions within the Alternative Management Structures Workgroup was for this commission or whatever form it takes was to be advisory in nature only – no permitting authority for such a group was anticipated. The main purpose of the group was for stakeholders to have a seat at the table and would have a mechanism to provide input to the process. They would have an opportunity to look at the resource holistically so that there could be some good planning for the future of the resource.
- It was noted that the Alternative Management Structures Workgroup struggles because "change is hard". When you start looking at those wholesale changes it is a fundamental shift and it is scary. The question that was posed to the Advisory Committee at their last meeting was "What is your appetite for change?" The answer was that they have a huge appetite for change, so you

have our blessing to look at wholesale changes. The workgroup has not met since then except in these joint meetings. If that is the case then all options are on the table. What would we do? Would we create some kind of commission with regulatory authority that could force some of those discussions? Would we change the planning regulation for management areas and how would we do it? The workgroup has not really gotten into those scenarios in any detail.

Mark acknowledged that the workgroup still had a lot to discuss but that they had come to a consensus in general that the permitting system worked well when there is plenty of water and that the idea would be to retain those types of decisions in DEQ. The group did agree that there was a need for stakeholder involvement and that there was very much a need for improving the planning process to better inform the permitting process.

Continued Discussions included the following:

- The mechanism for issuing a permit or not issuing a permit is not broken – the planning needed to make everything smooth and effective within the regional sense is not there. The ability to look at the bigger picture is not there. The ability for the final decision maker to be looking at the whole matrix not just the permit proposal is missing – this could be fixed with addressing the authority issue.
- The big question is “How do you put one entity in charge of all the water?”
- Need to also keep in mind the issue of overlapping authorities, i.e., the authority of the Corps of Engineers and the Clean Water Act and the concept of the “least environmental damaging feasible alternative”. It was noted that we could probably never fix this piece of the puzzle because it comes down from the federal level, but that we can work at fixing the state level piece where there is currently a disconnect between the planning and permitting processes.
- Ideally we would have a very robust planning process and then give DEQ the authority to use that plan in order to make the permitting decisions for withdrawals. It was noted that when the original planning regulation was made, the fear of local governments about even providing information was enormous – that is why the planning process is as restricted as it is now – because that was the best that we could do to get a consensus around the lowest common denominator at that point. It has turned out that that process was not enough – this really wasn’t planning as much as it was data collection – but it was forcing at least the localities into some level of regionalization – to start looking at things in a more regional way in terms of planning.
- The workgroup discussed the local water supply planning process and the need for additional stakeholder involvement in the process.

Mark noted that we still need to decide on whether the two workgroups should continue to meet jointly. The general consensus was that the group is making progress during these joint meetings and that they should continue to meet jointly if possible.

ACTION ITEM: A revised matrix will be distributed to the group as soon as it is available.

9. EVGMAC and Workgroup Meeting Schedule (Bill Norris)

The currently scheduled meeting schedule for the balance of 2016 is as follows:

- Monday, October 17th – EVGMAC – 1:00 – 4:00 at the DEQ PRO Training Room;
- Friday, October 21st – Workgroup #3 – 9:00 – 12:00 at the Virginia Housing Center;
- Friday, October 21st – Workgroup #4 – 1:00 – 4:00 at the Virginia Housing Center;
- Friday, November 18th – Workgroup #3 – 9:00 – 12:00 at the DEQ PRO Training Room;
- Friday, November 18th – Workgroup #4 – 1:00 – 4:00 at the DEQ PRO Training Room;
- Tuesday, December 13th – Workgroup #4 – 1:00 – 4:00 at Troutman Sanders;
- Tuesday, December 15th – Workgroup #3 – 1:00 – 4:00 at Troutman Sanders

ACTION ITEM: A Doodle Poll will be sent out to determine the next Joint Meeting date.

10. Public Comment: No public comment was offered.

11. Meeting Adjournment:

The meeting was adjourned at approximately 4:00 P.M.