

**EASTERN VIRGINIA GROUNDWATER MANAGEMENT
ADVISORY COMMITTEE**

WORK GROUP #4 – FUNDING

MEETING NOTES – MEETING #3 - DRAFT

**FRIDAY, OCTOBER 21, 2016 – 1:00 – 4:00
VIRGINIA HOUSING CENTER**

Meeting Attendees

EVGMAC – WORKGROUP #4	
Jay Bernas – Hampton Roads Sanitation District	Doug Powell – James City Service Authority
Robert Carteris – City of Norfolk – Utilities	Chris Tabor – Hazen and Sawyer
Richard Costello – AES Consulting Engineers	Matt Wells – WestRock
Whitney Katchmark – Hampton Roads PDC	Andrea Wortzel – Troutman Sanders/Mission H2O

EVGMAC – WORKGROUP #4 – STATE AGENCIES	
Lance Gregory – VDH/OEHS	Sandi McNinch – Virginia EDP
Scott Kudlas - DEQ	Steve Pellei – VDH/ODW

NOTE: Advisory Committee Members NOT in attendance: Howard Eckstein – VDH/ODW/DWSRF; Eric Gregory – King George County; Barrett Hardiman – Luck Stone; Mike Lang – New Kent County; Britt McMillan – ARCADIS; Jeff Scarano – Brown and Caldwell; Kurt Stephenson – Virginia Tech; Brett Vassey – VMA; Michael Vergakis – James City County

INTERESTED PARTIES ATTENDING MEETING	
Shawn Crumlish – Virginia Resources Authority	Mike Polychrones - VML
Rhea Hale - WestRock	Sheryl Stephens – Draper Aden

SUPPORT STAFF ATTENDING MEETING	
Brandon Bull - DEQ	Bill Norris - DEQ
Walter Gills - DEQ	Mark Rubin - VCU
Craig Nicol - DEQ	

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

He noted that workgroup had requested that we have some presentations on the various currently available funding sources including the Clean Water Revolving Loan Fund: the Virginia Revolving Loan Fund and the Virginia Resources Authority (VRA). The plan for today’s meeting is to hear presentations on each of those programs; to discuss the pertinent recommendations from the JLARC Report; and continue the group’s funding discussions.

2. Funding Source Presentations: Virginia Clean Water Revolving Loan Fund – Walter Gills – DEQ:

Walter Gills, with DEQ's Clean Water Financing Assistance Program provided a brief summary of the Virginia Clean Water Revolving Loan Fund. His presentation included the following:

- The Virginia Clean Water Revolving Loan Fund was created in 1987.
- It is co-managed by DEQ and the Virginia Resources Authority (VRA). DEQ is the program manager and VRA is the Financial Administrator of the fund.
- When it was first created it was basically solely loaning money for projects for wastewater collection and treatment – that lasted through about the year 2000.
- Since 2000 there have been a few other areas have been added by the General Assembly to the list of projects that the program can fund. These include agricultural best management practices; brownfield loans; brownfield remediation; land conservation; stormwater management; and most recently Living Shorelines.
- Basically the mission of the Virginia Clean Water Revolving Loan Fund is to protect and cleanup of the surface water and groundwater quality of the Commonwealth.
- There is a separate Clean Water Revolving Loan Fund that is run by the Virginia Department of Health – that program is managed by Steve Pellei for Drinking Water projects. That program is separate and distinct from the DEQ program. Both funds are somewhat seeded in funding by the Environmental Protection Agency's (EPA) federal funding with a state match. The intent is for these to become perpetual funds to last in perpetuity to provide funding for these types of projects.
- As it was originally created the Wastewater Loan Program was Publicly Owned Treatment Works only at both the federal and state level. In 1999, the state statute was changed to allow the funding of private entities but the feds still prohibited that. Actions taken in 2014 expanded the eligibility to certain types of private entity projects, but not every private project.
- The Stormwater Management Loan Program is specifically local governments only – public only.
- Wastewater Loans can be public and private.
- The program has been operating for almost 30 years now – it is a very large capacity fund – we are over \$3 billion in projects funded to date. There is a capacity for approximately \$100 million per year. The program could actually fund greater than that if needed because VRA can leverage those funds in the market and expand that fund even further. Roughly the program has over \$100 million per year available for funding projects.
- The benefits of the program are that it provides low interest rates – current rates are 0% up to 1% below the AA Bond market. For wastewater projects, it is actually a point and ½ below the AA Bond market. For Stormwater projects the rate is 1% below the AA Bond market. The program has very favorable security arrangements. VRA works very closely with local governments to match up good security arrangement for them. The program has very low closing costs.

- There is an annual solicitation process – they receive applications in July. The State Water Control Board reviews and approves the funding list. They receive and review the funding list at their September meeting and approve it at their December meeting.
- Relative to the discussions of the workgroup, the program has done and can do water reuse and recycling projects – there have not been that many done through the program until the American Resource Recovery Act came out and then the program funding a fairly large number of water reuse projects – funding the treatment and/or transport of reused water for recycling and reuse.
- One of the project types that has been opened up for funding private entities by the federal government has been water reuse.

Questions/Discussions by the workgroup included the following:

- Aside from the portfolio limitations on an entity borrowing from the program is there any other limitation on an entity trying to seek additional funding to take advantage of the subsidized rate? The limit that VRA imposes is 20% of the total portfolio – so if the portfolio is \$1.5 billion, the maximum would be \$300 million – if there is a current outstanding amount of \$150 million then they could only go another \$150 million - that is from how it would impact and affect VRA’s rating and their bonds – this limit is imposed so that VRA makes sure that it maintains its credit rating. VRA is exploring ways to basically come up with a second bond program where HRSD would be on its own – but those efforts are still underway.
- When you go to the State Water Control Board with your funding list, what are the criteria they use to approve or disapprove a project? Have they ever disapproved a project? There are ranking criteria that are used – all the projects are rated and ranked. They have been able to manage the fund to be able to match the supply with the demand. Over the course of the history of the program, they have received some applications that were not exactly directed towards the program’s mission – there have been a few that have not been funded over the years, but not that many. They work with localities up front in the application process to make sure that there are good quality projects that match the program’s mission. They look for projects that are going to improve water quality – treatment plant upgrades; collection systems to areas that public health hazard issues.
- If it is an eligible project they do have capacity within the program to fund it. There was a peak demand when the Chesapeake Bay Program was moving in terms of wastewater treatment plant upgrades – one year about \$350 million worth of projects were funded – they leveraged the available fund for 4 or 5 years to generate the capacity to fund those projects.
- Most, if not all of the applications for funding over the past few years have been approved.
- The low interest rate through the program is outstanding.
- In terms of private entities, does the program fund many of those? No – basically on the wastewater side they really have not been eligible until 2014 and there have been no real request of interest in seeking funding from any private entity since then. The program does have some private entities on the land conservation program funding program. The brownfields

remediation program can be used by private entities/private corporations. The agricultural BMP program can go to private farmers; agricultural producers in Virginia. So there is some private activity within the program but in terms of the wastewater and stormwater side it all goes to local governments.

- Is this lack of participation by the private sector because of a lack of awareness? The program has been so geared to the public sector that they have not reached out to the private sector regarding the availability of funding for specific types of projects from the private sector.
- It was noted that the traditional program criteria has been focused on water quality projects, specifically wastewater plant upgrades. How flexible is that criteria? In the current circumstance we have water withdrawal or water supply projects but the driver for those projects is a need to protect the water quality of the groundwater aquifer – so it has water quality benefits – even though it is not a traditional wastewater treatment plant type project. How are the criteria described? Is there a way that you could characterize a water withdrawal or a water supply project or a drinking water treatment facility as a water quality project because of the benefits that it has for the aquifer? It would probably be tough to do that, because there is already a revolving loan fund for drinking water through VDH, so these types of projects have always been considered to be outside of the purview of the Clean Water Revolving Loan Fund handled by DEQ and VRA.
- Can the private sector access the VDH drinking water fund?

3. Funding Source Presentations: Virginia Department of Health Clean Water Revolving Loan Fund for Drinking Water – Steve Pellei – VDH:

Steve Pellei with the Virginia Department of Health’s Office of Drinking Water provided the group with a brief overview of the VDH Drinking Water Revolving Loan Fund. His presentation included the following:

- The VDH program has been modeled after the Clean Water Revolving Loan Fund that DEQ and VRA run/administer. The VDH program came into existence 10 years after that program.
- There are some significant differences between the two programs. The amount of funds that are available is a lot less – the market capacity is around \$20 to \$30 million dollars per years. VDH manages the program with VRA serving as the Financial Administrator. The focus of the VDH program is narrower than “clean waters”, it has to be geared towards drinking water initiatives. They look for projects that are in compliance with the Safe Drinking Water Act and compliance with the Waterworks Regulations. Then the projects are ranked as required by EPA based on ranking criteria. Tier I criteria projects are those that are “Acute Public Health Challenges Faced by Waterworks” which are cases where there are primary maximum contaminant level/limit issues and there is a violation and the effort is to get the waterworks back into compliance. Tier II criteria projects are more of those cases where there are chronic public health challenges and Tier III is all others projects related to drinking water.

- During the past couple of years all of the eligible projects that applied with complete applications have been approved.
- The deadline for applications is April 1st.
- The key challenge to getting funding is that there has to be a direct linkage to drinking water.

Questions/Discussions by the workgroup included the following:

- Why does it need to be so different between the two funds? EPA generally funded the Clean Water Revolving Loan fund under DEQ and VRA at a higher level and since it was started 10 years earlier the capitalization was higher. In terms of requirements there is a lot of similarities – with regard to federal requirements.
- The Clean Water Program has received \$1.1 Billion in federal and state capitalization while the Drinking Water Program is probably in the \$400 million range.
- In the Drinking Water Program, would you characterize the program as fixing efficient systems? Do you go out where there is not a problem and provide grants? One of the requirements is that VDH has to fund in “priority order”. Establishing the priority list is key to where you fall on the funding list. The most serious risks to public health would be at the top of the priority list. But then the projects are funded in priority order by the way they are ranked on the list. If you can show some kind of linkage to “drinking water” that opens the door to getting on the funding priority list. It is a competitive process so a lot depends on the number of applicants seeking funding as to whether a specific project would be funded.
- For the private sector, obviously they are not providing the water for drinking water purposes, they are providing the water for industrial operations, so they wouldn’t be eligible for the Drinking Water funds, so that brings us back to the question of flexibility on the Wastewater side where the projects that are being driven in the private sector are requiring them to develop an alternative water supply source in order to protect water quality in the aquifer. So is there any discretion or flexibility in how the criteria are applied, where they might be able to get funds from the Wastewater “Drinking water” fund? It was noted that if there was a specific application that could be evaluated then staff might be able to look at the project – the question of using wastewater loan funds for drinking water applications has not been asked before – on the face of it, it probably would not be approved for funding, but it has never been evaluated before – they would be willing to look at a specific example to make that kind of determination. Under a hypothetical example, say a company was required to or needed to find 7 mgd not from the groundwater aquifer anymore, because DEQ has said that it harms the water quality in the aquifer, therefore they need to build a project to find that 7 mgd – the driver for this need/for this project is water quality – but the project is not actually a water quality project. It was noted that without being knowledgeable of all of the issues involved, that would need to be researched quite a bit to determine whether there would be a possibility of funding such an application – not going to say that it would not be possible but it is a concept and an approach that has never been considered since the inception of the program.

- Aren't these funding programs required to set their benchmarks by what the federal government will allow to be funded? With some of the latest amendments there is some additional flexibility that is available but those requirements have not been fully examined to see what if anything would apply to applications of this nature.
- As a workgroup, we are going to make a recommendation to the main Advisory Committee and then they are going to make a recommendation to the General Assembly, so this might be one of the questions or recommendations that this group might make, is that we recommend that the General Assembly allows this use of the Clean Water Funds. As the interest rate is set for these types of loans, is it more administrative in setting the interest rate or is it more of a case of the General Assembly saying that they are okay with an applicant getting a 1% interest rate or something that is even more subsidized. Is that something that would be palatable recommendation to the General Assembly from this group as to how an applicant can save money on project costs? The General Assembly directed the State Water Control Board to establish guidelines for distribution of funds under this program. The Water Control Board is actually the ones who set the interest rates and there are Board guidelines to do that – at this point those rates are related to what the user charges are because they are driven to lending money to localities – so what are the user rates for the localities relative to the medium household income? The workgroup discussed user rates and relative interest rates. The State Water Control Board currently sets those rates on the basis of “need” and “affordability of the users”. A question was raised as to whether it would be unpalatable for this group to recommend a lower interest rate that could help a local project? The General Assembly can do what the General Assembly can do. The group discussed the impact of a project such as the HRSD SWIFT project and the possible guidelines for establishment of rates and interest rates.
- The concern is that the intent is for the funds to be available in perpetuity and to the extent that you drive the rates down you are not going to have a fund for very long.
- In terms of capacity, the state match to the fund is 20%. Is there a capacity to go with a higher match? The actuality is that we are currently underfunded by the state match to the point that they are having to borrow money for the state match amount. They are using program interest that is generated from the existing loans as the state match. There is an appropriation but it is less than the 20% state match.

4. Funding Source Presentations: Virginia Resources Authority – Shawn Crumlish:

Shawn Crumlish with the Virginia Resources Authority provided a brief overview of the Virginia Resources Authority. His presentation included the following:

- VRA has relationships with VDH and DEQ for these two programs as we have discussed this morning.
- VRA also co-administer other revolving loan funds such as the Airport Revolving Loan Fund and the Transportation Infrastructure Bank. These two programs are federal and state

capitalized. The Airport Fund is state-only funded – there was a single appropriation back in 2000 for \$25 million and with that \$25 million they issued bonds and leveraged it and were able to make to date about \$90 million in loans. These are called “below market rate programs”, because the borrower is getting a rate that is typically going to less than what is typically available in the market, but you do need capitalization to be able to do so. By providing this interest rate subsidy you either keep rates affordable for the rate payers or you can do more projects with the same amount of money.

- VRA also has what they call a “market based program”, where three times a year they solicit applications throughout the Commonwealth for various projects – there are 18 specific project areas that are eligible; it can be public safety; water and wastewater; land conservation; etc. – they issue bonds and then turn around and add .125 to the rate and loan it to the local government. In this program the borrower must be a political subdivision of the Commonwealth – VRA cannot loan to any private entities.
- If you have a lower credit rating than VRA (VRA has a bifurcated rating, AAA/AA) then you get to borrow using that rating. So any locality that is lower rated than VRA gets the benefit of borrowing at the AAA/AA rating.
- It also creates efficiencies, so that if you have a smaller project, to can go into the capital markets with \$5 million is a hassle, versus going with \$100 million with 20 other borrowers so that everyone shares in the costs. That program is pretty robust.
- The key to these discussions is that under the VRA program you are talking about all loans and you have to repay the loan. So the key question is “how are you going to repay the loan?” What is the reliable revenue stream that is going to be used to pay back the loan?
- When VRA is looking at the revenue streams that would be used to pay back the loan they would consider the fees that are being charged to customers/users of the system. They evaluate each separate revenue streams if individual ones are being proposed as the revenue source rather than a system’s total revenue stream. As a lender, you want to see a little bit of history of the revenue stream of collections – most revenue streams that are proven to be “payable and enforceable” are great to make loans against.
- Has VRA ever been approached about loaning money to help move people off of private wells onto the public water system? Has VRA ever been approached regarding a program that would do that? VRA does that type of program funding on a regular basis. The types of things that there have been loans for is “extending water lines” into underserved areas; into areas where the water quality of the private wells is not that good; where the quantity produced from the private wells is not sufficient. VRA does loan funds for these types of projects but it has not been on a large scale. Currently it is more for the replacement of aging water lines and water mains rather than line extensions. But yes, it is an eligible activity.
- Would requests from a locality to replace leaking water lines be something that VRA would loan funds for? Absolutely, that is one of VRA’s prime types of projects – the goal is to make the water lines and water mains in particular more secure – eliminating the older pipes – eliminating the old cast iron pipes. Controlling water lose is something that they try to direct the

available funds to. It was noted that those types of projects do fall squarely in the area of drinking water and drinking water infrastructure improvement.

- When there is a water line extension to an area for the purpose of replacing private wells does there have to be some level of groundwater contamination or can the water line be extended for the sole purpose of replacing the private wells and taking them off of the groundwater source and still be funded? Yes you actually can. Consolidation is one of the goals of the program. If you can prove contamination; if you can prove that there are problems with the private wells, the project would rank higher and get more points. It is a competitive program – the better that you can document that you are correcting a public health problem related to drinking water the more likely will be that you will be towards the top of the list.
- If more money was made available by the state could the VRA be used as a conduit for those additional funds as well? VRA has never turned down extra money. VRA could serve as a conduit for those additional funds. There is an advantage if it was state money, because the reality is that once you include federal dollars, there are federal requirements that come into play – there are strings that come with those federal funds.
- When you receive applications for replacement of a water line or for new drinking water projects is any of the criteria that you use to evaluate the project, the efficiency of replacing that line as opposed to combining other existing lines even if they were in two different localities? If you had two localities that are serving areas and their lines cross each other or are right in the vicinity of each other and one is proposing to install a brand new line but there is an existing line already there that could easily be integrated into their system and would allow for the sharing of assets – do you ever look at that kind of efficiency question? Coupled with that – a similar question – do you ever look at that once a drinking water system is put in place what rates they plan to charge people for that water. VRA looks at all of these aspects in their evaluation of a project. However, typically service areas don't overlap. There has been one situation where there was an expansion of a publically owned system to try to address a failing privately owned system and VRA chose not to participate in that project because part of the VRA program is that they want to promote capacity (that includes technical; managerial; and financial capacity) of every waterworks – so they wouldn't want to disadvantage one waterworks by assisting another waterworks. The normal response for this type of request would be that problem needs to be resolved before it can come to VRA and before they made an offer. VRA wants the problems with the failing system to be resolved before coming to them for possible funding. VRA does look at rates as part of the application – they look at the current average users rates as it relates to the medium average income of the service population. The emphasis is on sustainability. VRA with any kind of loan is going to do a credit review. For project planning, typically a preliminary planning and engineering report is requested so that each applicant has evaluated all of the different options and they reserve the right to select the most cost affordable option – it doesn't mean that you have to choose that one but they reserve the right to just fund to that lower level. If you want to put in a project that is more expensive, they may limit their participation in terms of funding. The program is essentially a construction

assistance program. Normally operation and maintenance items are not eligible for funding. EPA's program is pretty much set up as a construction assistance mechanism.

- Are there any criteria that would reward regional projects over purely local projects? Those types of projects would be awarded a couple of more points in the ranking evaluation. Would that move a project from the bottom of the ranking to the top of the list? No, but it would be a tie-breaker between two similar types of projects.

Other Comments/Thoughts/Recommendations:

Mark asked if there were any other comments/thoughts/recommendations that the group wanted to make at this time. Offered were the following:

- For our deliverable - for whatever recommendations that this workgroup has to offer the main advisory committee related to financing that we work with VRA and vet any recommendation with them on those recommendations to make sure that we offer something that is feasible.
- The group discussed various rates; subsidized rates; borrowing concepts/rates and funding approaches.
- It was noted that with a loan program like the VRA program that the lender is looking not only at the revenue stream but also who controls the assets that produce that revenue stream. They want to lend money to an entity – who is that entity?
- It was noted that the Water Quality Improvement Fund is all General Fund funded. The Code requires that a certain percentage of any surplus go into that fund.

5. Summary Bulleted Notes:

Funding Discussions

DEQ - VA Clean Water (waste water) Revolving Loan Fund
Improve Water Quality in primary focus

- 1.1 billion dollar portfolio
- Max for individual bond for no more than 300 million
- Can apply to GW
- Money is available for Reuse (SWIFT Program)
- Private is now eligible since 2014
 - Wastewater and Storm water has all been PWS

Questions

How flexible? Can SW or GW withdrawals be classified as water quality if they do not meet requirements of drinking water fund requirements?

VDH – Drinking Water revolving loan fund

- 20-30 million dollar portfolio
- Drinking water initiatives only

- Safe Drinking water Act and VDH Water Regulations
- Acute public health issues (getting them back into compliance)

VRA – Airport/Transportation etc.

- Below Market Rate programs (still need capitalization to do so)
- Market Based programs (18 Specific areas)
 - Issue Bonds Add 1.25 to the rate
 - Borrower cannot be private

6. JLARC Recommendations: (Mark Rubin)

Mark introduced the recommendations from the JLARC Report that were pertinent to the Funding Workgroup. He noted the following:

RECOMMENDATION 21: The General Assembly may wish to consider including language in the Appropriation Act directing the Virginia Department of Environmental Quality to develop a proposal for providing additional water planning assistance, to include (i) planning and policy guidance for projects with cross-jurisdictional impact and (ii) technical assistance for localities that lack technical resources and expertise in project identification, planning, and construction. The proposal, which should include an assessment of the feasibility of and resources needed to perform this new function, should be submitted to the State Water Commission and House Appropriations and Senate Finance Committees no later than July 1, 2017 (Chapter 6, page 60).

Discussions by the workgroup included the following:

- This recommendation seems to try to get at that we need more regional – more cross-jurisdictional planning – there is a need for more cooperation among the localities in the region. The question in reading this recommendation is would providing additional planning assistance be a benefit? Is it that there is a lack of assistance for planning that is the issue? Or is it more kind of the way that things are structured now that inhibits the regionalization concept? Staff noted that it probably a combination. Certainly in the more urbanized areas there is plenty of good planning that goes on – the implementation of that becomes more of a political matter perhaps than just a planning matter. However, most of the Groundwater Management Area is very rural and what you have there are jurisdictions where one person is the County Administrator; the Planning Director and the Board of Zoning Administrator. They have to hire a consultant, if they have the ability to do so, in order to do a good job with their planning. Sometimes that is the PDC, sometimes it is a private consultant. Early on in the Water Supply Planning Program, there was some seed money that we could give out every year in grants to help cover that cost, but that funding got eliminated after three years. There were also staff for every DEQ region to assist with the Water Supply Planning effort and to help facilitate those types of regional conversations and to target the allocation of those funds but those positions are no longer available. This recommendation is an effort to try to provide some seed money or

incentives to promote those regional conversations and to the extent possible to restore some of that capacity at the state level that was lost through a series of budget cuts over the last decade. There is some language in the recommendation that is somewhat concerning – DEQ does not want to be perceived to be competing with the private sector but would like to collaborate with the private sector as well as those localities to try to achieve that goal. It is not an “in-lieu-of” thing. It should be a collaborative process. A greater than the sum of its parts thing!

- When something like this comes out of JLARC, does DEQ look at it and figure out how much money would be needed to address the recommendations? Staff noted that they will probably wait to see what the Water Commission does before they invest too much time and effort in it or until they get a recommendation from the Advisory Committee to do it. DEQ has not, internally, set up a process for evaluating which of these recommendations they would want to get a head start on, if any of them, but at some point they are likely to.
- It was noted that part of what the workgroup has been struggling with and what JLARC was struggling with in their report is that it is sort of easy in the abstract to say that it would be great to fund planning and it would be great to provide technical expertise and it would be great to fund these projects, but in the absence of a specific plan that you are trying to implement you don’t know how to prioritize or how to get more specific in what you are seeking to fund. It was suggested that there is probably no problem with the JLARC recommendations that they made with respect to funding, but there is not enough specificity to know what you are actually asking for or to quantify it.

RECOMMENDATION 22: The General Assembly may wish to consider including language in the Appropriation Act directing the State Water Commission to evaluate the establishment of a fund to provide (i) incentives for regional collaboration in water planning and (ii) financing for regional water projects (Chapter 6, page 60).

Discussions by the workgroup included the following:

- It was suggested that this sounded like the “Go-Virginia” program. The “regional model” that “Go-Virginia” set up might be a good model to use for this new separate fund.
- It was suggested that this seemed to be duplicative of what the Advisory Committee and its Workgroups are charged to do.

OPTION 1: The General Assembly could amend the Code of Virginia to establish statutory authority for a user fee for water withdrawn from the coastal aquifer (Chapter 5, page 45).

Discussions by the workgroup included the following:

- Mark noted that the Alternative Permitting Criteria workgroup had met this morning and had spent a fair amount of time on the topic of “unpermitted users” and one of the options is a “fee”. The question is “what is the responsibility of unpermitted users towards the replenishment and protection of the aquifer?” There were various options raised, but one of those was a “fee” that would go to replenishment of the aquifer.

- It was suggested that the Home Builders might be willing to discuss the restriction of lawn irrigation if the choice is between that and being able to continue to build homes.
- In a previous meeting it was mentioned that if you start talking about charging a fee for use that you have to take into account the scale of that use. You need to consider the volume. Maybe there might be a willingness to pay a fee on the part of some users if for example, for those in the agricultural community that there is a recognition of the benefits that they provide to the Commonwealth. You can't have uniform rate scales for this approach to work.
- For household water use, it was noted that for the ERU – Equivalent Residential Household Unit – that they took “households” and pretended that they were all the same – they were all the same size and moved on. There is no logic to the actual water use for individual homes.
- If there is going to be a user fee it has to be applied to all levels of use and has to be tied to the volume of those individual uses.
- The recommendation from JLARC is for the establishment of a “user fee”. In order to set up a “user fee” you have to first know what the value of that the value of that entity is. What is that water worth? It was suggested that you probably couldn't afford to pay for the water if you calculated the actual value.
- What is the purpose of the user fee? Is it to offset the price of the HRSD SWIFT project? Is it to provide disincentives to people to waste their resource? It has to be linked to something that is tangible – something that you can measure. So you want to set the user fee at what level?
- The JLARC Report mentioned the creation of a “Water Replenishment Fund”, which is a pretty broad notion. Could the fund be used to fund DEQ's Water Management Program?

7. Break: 2:30 – 2:42

8. Continued Discussion from Previous Meeting: Funding - What needs to be funded and how do we fund it? (Mark Rubin/Andrea Wortzel)

Mark Rubin noted that Andrea Wortzel had put together a discussion document related to our funding discussions that we are going to spend some time going over this afternoon.

Andrea Wortzel introduced the following “problem statement”; “task identification” and “Options for Funding Scenarios” to the workgroup as a way to frame the discussions:

Problem: Groundwater has been over-allocated.

Task: Make recommendations on how to protect the aquifer and ensure sufficient water supplies for all users.

Subtask: Make recommendations on how funding can be used to solve the problem.

(Language from Virginia Code: “potential funding options both for study and for implementation of management options”.)

Option 1 – With HRSD SWIFT:

- **Funding needed for capital costs associated with project?**
- **Funding needed for O&M costs associated with project?**
- **Does the project solve the problem?**
 - **If, not, what other projects are needed?**
 - **Funding needed for those other projects?**
- **Is a new UIC permitting program needed?”**
 - **Will that need funding?**
- **Are other management options needed?**
 - **Will funding be needed?**

Option 2 – Without HRSD SWIFT:

- **What projects are needed to solve the problem?**
 - **How would those be funded?**
 - **Are there management changes that would solve the problem?**
 - **Trading?**
 - **Interconnections among municipalities?**
 - **Creation of a regional body/commission?**
 - **How would those be funded?**
 - **Are other management options needed?**
 - **Will funding be needed for those?**
-

Her presentation included the following:

- This list of items is an attempt to try to figure out what the framework is that we are dealing with in regard to “funding” and what it is that we are trying to fund.
- The first thing to consider is “what is the problem?” The problem is that groundwater is over allocated.
- The second thing to consider is “what is our task?” The task of the overall Advisory Committee is to make recommendations on how to protect the aquifer and to ensure that there is sufficient groundwater supplies for the future for all users. The subtask of this workgroup is to make recommendations about how funding can be used to solve that particular problem. The actual language from the VA Code is that we are to identify “potential funding options both for the study and for implementation of management options”. This doesn’t actually say anything about projects but we have the liberty to infer that by “management options” that we might say that in order to manage it that these projects need to go forward.
- A couple of meetings ago the idea of trying to come up with two frameworks to look at potential funding options. The first is that if you assume that the HRSD project is going to move forward then what would we fund in order to solve the problem under that scenario? The second scenario would be that if the HRSD project, for whatever reason, does not move forward or wasn’t part of the solution, then what would be the solution that we would be trying to fund?

- You could even come up with an option #3 that would be the formation of a regional commission to manage water in Eastern Virginia. You could list out the questions that would be needed to follow through on that type of option.
- The impetus for creation of this approach was that the Alternative Source Workgroup and the Alternative Management Structures Workgroup have been putting together a chart that identifies and may eventually be ranking some of the different project ideas that are out there and how they might solve the problem or not solve the problem or how far do they go towards solving the problem. So if we have that type of tool being presented to the Advisory Committee then it would be make sense to have some kind of funding options that match up with those different options.
- This is a way to possible frame our discussions today.

Discussions by the Workgroup included the following:

- Under Option One – Would funding be needed for the Capital Costs associated with the project? The answer is “No”, at least not from this workgroup because based on our understanding of the project is that HRSD has already done the analysis and figured out how they are going to handle those costs. It was noted that from a funding perspective that we need to think of it from two dimensions. There is “organization funding” and there is “rate payer funding” or “citizen funding”. It ends up getting paid back by the citizens one way or another. Obviously this would probably be a public project. Yes, HRSD does have the funding for the “capital costs” but they would also be interested in a lower cost of capital – a low interest loan. At the end of the day, not only would it be cheaper for HRSD from an organizational standpoint but also from a rate payer perspective, because the total overall costs would be lower and that savings would be passed on to the rate payers.
- The use of low interest rate loans and various payback options that would lower the overall cost of the project were discussed by the workgroup as they related to the HRSD project.
- One task that would need to be completed is to determine whether HRSD would in fact have access to low interest loan monies or not. HRSD does have access to the low interest funds through the VRA program but their access is limit by the total amount of monies that are available for a single entity thorough that program. They are already discussing the cap on the available funds and whether there is a way that they would have access to additional funding. At the end of the day, one of the hopes is that under this option and under this framework that one of our recommendations is to work with DEQ and VRA on trying to utilize or get access to the Clean Water Revolving Loan Funds to help subsidize some of the interest rates. Is anyone opposed to this approach? This seems like this would be an easy recommendation. It was noted that this approach sounds feasible based on the discussions that have already taken place, but it would probably carry more weight if it came through as a recommendation of the workgroup and ultimately the Advisory Committee.
- It was noted that there may be some push-back because the HRSD project would absorb so much of the funds that are available.

- If there was a user fee, as we discussed earlier, could that revenue stream be included in the considerations with regard to the current cap on funding? Yes, potentially, you can direct where the money goes.
- The workgroup discussed the use of fees and the ramifications of potentially having the majority of the available funds tied up with a single borrower and the impacts on the loan program.
- Would it be more politically correct to not refer to a specific project (HRSD) but refer to it generically? You could call it a “Replenishment Fund”. It was noted that you have to have an option that addresses HRSD specifically, because the full Advisory Committee has heard presentations on it and is expecting recommendations that include consideration of that specific project.
- It was noted that if you pledge the user fee revenues in addition to HRSD’s financial standing, you could probably increase HRSD’s financial rating.
- The concept of a regional organization was discussed by the workgroup. This regional entity would deal with the funding and they would pay HRSD for Operations and Maintenance or something. It was suggested that there should be a regional entity that would be responsible for handing out the money – they would have a contract with HRSD, eventually, because HRSD would be providing water.
- It sounds like it would be nice to have a separate entity whose responsibility was water supply (water quantity) and not have to jump through the hoops of trying to address the water quality issues. On the other hand, you miss out on the opportunity for a federal match if you are not using the Clean Water revolving fund.
- The workgroup discussed the possible make up and responsibilities of an independent regional entity (commission).
- One of the topics in the Alternative Management Structures workgroup has been whether the region would benefit from the formation of some kind of regional commission, or 501(c)(3), or new arm of DEQ , or something that would be focused on water supply management more globally; the funding piece and the modeling piece.
- DEQ is seen as a regulatory agency more than a planning agency. They have done both and have done then well, but in the long term, the Commonwealth would be better served by having a separate regional commission dealing with water supply issues – it is a long term problem.
- With the operations and maintenance funding there are a couple of options that could be considered. One is the idea of a user fee that someone manages. The other is to have some kind of banking or trading program. It was suggested that the trading program would be a very viable options. Is a trading program more useful than the use of a user fee? It was suggested that you are likely to need both. Who is going to buy these credits? How much are they going to cost? When you look at nutrient credits, \$10,000 a pound is an awful lot of money. If you have a permit for a certain volume, could you purchase credits to get more water? Maybe, it depends on how the program is structured. When does that credit become cost prohibitive?

- One of the questions that got asked at the Advisory Committee meeting was “What is broken?” One of the things that is broken is that if you had the ability to inject water to replenish the aquifer right now what would be the incentive to do that? Once you inject water into the aquifer, anybody can use the water. That is what is broken and maybe a trading concept fixes that. Staff noted that one of the concerns is that everybody is talking about how much they are going to sell but nobody is offering to buy the credits. Nobody is saying that if the price was “X”, I might be willing to buy it, but if the price gets above “Y” it is cheaper for them to do it themselves. We are all assuming that this is how this is going to work. Is there no way that someone can inject water and make it cheaper than other projects, such as a surface water project? We don’t know, because we do not know what the cost of the credits is going to be. It was suggested that the cost of the credit would likely be market-driven. Everyone seems to think that the cost of the credits is going to be fairly cheap but that may not be the case. It was suggested that it might be cheaper than the permit that you can’t get. It was noted that might not be a good presumption.
- It was suggested that the use of “trading” seems to work best if the HRSD SWIFT project moves forward, because you are creating a market and HRSD has an incentive to price the credits at a price where they will sell, because otherwise, they get nothing back. The market concept in some ways, if we were going to recommend it, you have to assume that the HRSD project is going to move forward. One way to do that is to tie it to the permits, but there is also a user fee for unpermitted users. For all of those people out in the countryside “sucking water” then maybe they should pay something for that water even if it is only \$50 per year.
- We need to convey that your choice is that you either hook up a public system that has pipes and you pay or you hook up to the aquifer through a private well and you pay – but you have to make the fee reasonable. If you don’t pay then the state shouldn’t be regulating and there shouldn’t be a groundwater management area. It should be that you are on your own – you take the risks.
- The concern is that you don’t want to charge the rate payers twice for the same water use – there should be no double paying.
- The tough question is “Does the project solve the problem?” Longer term the analyses show that it might solve the problem but in the short term other options/projects would be needed. Potentially we would still need some projects along the fall-line area, either way. So, if other projects are needed, how would those projects be funded?
- If there are no other projects, are there permit reductions/regulatory cuts that would be needed in addition to the HRSD project that would be used to off-set any other project that might be needed/anticipated? DEQ’s goal was to stabilize head declines within 10 years and then eliminate all critical cells within 50 years that were “eliminatable”. The problem with comparison to the HRSD project is that the timing is not equivalent in terms of the accomplishment of those objectives. The permit reductions in some parts of the aquifer are achieved faster through the cut-backs than they are with the HRSD project. In other places, the HRSD project accomplishes the objective faster.

- If you stop irrigating lawns through the use of a private groundwater well and connect to the public system that would cut usage of the resource.
- Over a 50 year period it appears that the permit reductions and the HRSD SWIFT project potentially accomplishes the same objectives but the timing is different – the timelines are different.
- The workgroup discussed localities approaches to control/management of lawn irrigation and the use of public water versus the use of individual private wells.
- The group discusses the timing and scheduling of various ongoing or planned water supply projects – there are different solutions and different time tables involved.
- If you are talking about the permit actions that are in play right now –of those ten permits, six or seven of those are really aimed at closing the gap between permitted withdrawals and actual withdrawals – three or four of them are cuts that would lead to actual impacts on withdrawals and to capital projects to have enough water – those capital projects are going to cost those users over \$20 million – the question is do you proceed with those projects when potentially if the HRSD SWIFT project is successfully implemented and would solve the problem they might not be needed? Do you wait and use that money for something else?
- Staff raised a word of caution: if you focus too much on using the HRSD SWIFT project to deal with the current reductions, what happens is that you take that off of the top of future water availability. The HRSD SWIFT project over time is going to reach a law of diminishing returns, whether it is from the aquifer itself or whether it is from increasing the head over time gets to be too much and you are going to need a “relief valve”. You can’t think of the HRSD SWIFT project as an unlimited future source that is going to meet all of our needs now and all of our future needs. People need to appreciate that fact before they get too far down the line in this thought process. It is one of those things that you are still going to have to come up with some diversification at some time to deal with the future growth and future demand. Do you want to assume that future diversification 25 years out instead of 10 years out is going to be cheaper than it is now? Probably not.
- It was suggested that the amount of water that the HRSD SWIFT project is proposing to inject into the aquifer seems to be a lot. We don’t have a huge crisis right now in terms of water levels being below the top of the aquifer. It seems like you might be able to withdraw a good portion of whatever gets injected. What is the level that can be withdrawn? Is it 50%? Given that it is hard to say that this is not a major solution to the problem. It seems that it should be significant.
- Staff noted that part of the group’s charge is to deal with the long-term – that is what DEQ committed to. The concern is that there continues to be all of this focus on “let’s find an alternate to the permit reductions/cuts and HRSD SWIFT is the solution.” That approach may be short-sighted.
- Isn’t it a question of trade-offs and costs? Let’s do HRSD SWIFT and do all of the surface water projects that we can think of then we will have lots of water. It is hard to decide what the right mix is – what is the right solution set?

- From a technical perspective, if you get up to 2030 and everything is perfect you are pumping 120 mgd into the aquifer. The permit cuts are only going to get you 50 mgd. Then there is 70 mgd available. But that is not going to get everywhere in the system. And it is not going to get everywhere in that period of time. But the problems aren't everywhere. The workgroup discussed the potential impacts of the HRSD SWIFT project versus those of the permit reductions and the timing of those impacts/benefits.
- It was noted that we are making some broad assumptions on the effectiveness and the impacts and benefits of the various options.
- Two things: realistically, we are not going to be able to fund a number of options at the same time so we are looking at some trade-offs – both on a short-term and on a long-term basis. On the long-term side – what other management options are needed? Would we need some kind of enhanced planning structure? How would you fund that? Do we need some kind of additional project to in 15 years and how would we manage that? That is all part of the equation. For HRSD SWIFT to happen as soon as everyone wants it to there may be some of these surface water projects that don't happen or that happen 15 years from now or happen in a different form or in a different location, based on how well the HRSD SWIFT project performs.
- It was noted that right now there is still no guarantee that the HRSD SWIFT project will end up moving forward. It is likely but there are no guarantees. That is why in this evaluation that there is an option that looks at the funding needs without consideration of there being a HRSD SWIFT project. We need to be able to consider as many viable options as possible. Everything is still on the table for consideration at this stage of the process. It is not likely that a locality/ a permittee will be able to do a major project and contribute to the HRSD SWIFT project. At some point someone will have to make the decision as to which projects/options to pursue.
- Without the HRSD SWIFT project, what projects would be needed to solve the problem? Currently, the solution that is on the table for the short-term is that there are 4 permittees who have to do projects to find alternative water sources. The question is would we want to say that without the HRSD SWIFT project that these 4 individual permittees/entities have to do these projects and that we try to assist with the options for funding of those alternative water sources or offset the costs? Or do we want to make a recommendation that there be some kind of other regional approach?
- It was noted that we could do an Option 3 which would be the formation of some form of regional authority or commission – a regional water management district that looks at integrating both surface and groundwater resources and infrastructures. It was noted that this would be a political monster to put such a commission in place.
- If there is no HRSD SWIFT project then there is a need to address unpermitted users/unpermitted withdrawals.
- The over-arching question in a non HRSD SWIFT universe is whether there is a way to make the groundwater resource bigger by replenishing the aquifer through a different regional style project. The group discussed the options for moving forward if HRSD SWIFT didn't move forward. If the focus then is on the 4 permittees needing to find/develop alternative sources,

those localities are not located geographically close to each other and are likely when faced with developing a solution are likely to focus on their problem and their needs and not seek to be a provider of water for other users.

- Staff noted that in terms of absolute costs from the 4 permittees having to find alternatives is that the cost is far less than \$1 Billion and after 50 years you achieve the same end.
- It was noted that while the HRSD SWIFT project would help with the subsidence problem but going just with the individual projects by the individual permittees would not.
- If you look at the HRSD SWIFT project in isolation, it is more expensive, then the combined total of all of those projects, but the benefits of it are far greater than the combined total of those projects. Those individual projects don't do much more than maintain the status quo. They don't create new water in the aquifer for new economic development or new growth – they just achieve the proposed reductions – they aren't sufficient to correct the issues that we have in the aquifer or to allow for growth and expanded economic development. The HRSD SWIFT project is spending money that goes beyond these 4 entities projects and solves problems for every user in the aquifer because it allows localities to grow and to get permits for new users in the future.
- The concern that was restated was that these 4 entities/permit holders who were faced with the development of alternative water supply sources in order to meet their permit reductions and having to pay for those alternatives should not also have to pay for the HRSD SWIFT project. How would these permittees be paying for SWIFT on top of paying for their individual projects? Probably through the user fees and the trading program – it was also noted that there would likely be some form of solicitation to help/money somehow to pay for SWIFT.
- There are enough uncertainties out there that it was noted that if a permittee who is currently seeking a permit gets that permit that they would likely be willing to pay more money for their needed project (alternative source) just to have the certainty of having a solution moving forward.
- Staff noted some level of un-comfort with just looking at this from a “With HRSD SWIFT” or “Without HRSD SWIFT” perspective, because SWIFT is great but there is still an awful lot that we have to figure out in the next 10 years about whether it is really going to do what we all hope that it is going to do. If you are going to accept the level of uncertainty that currently exists with the HRSD SWIFT project then you probably also need to hedge your bet at the same time. The answer is to do more projects that don't have that level of uncertainty and that are not SWIFT.
- Do we want to just create excess water?
- The notion of having planning with triggers was discussed by the group. It was suggested that a “decision tree” could be developed to possible answer this question.
- The problem is that there is a long timeline involved before you know whether a project or a solution does what you hoped that it would or what it said it could do. Even the alternative source projects for the 4 permittees take 10 to 20 years. So if 4 of the HRSD SWIFT wells work or if 3 of the wells work the way that we anticipate but the other wells don't and we don't have

something else already on the timeline then we could be right back here again with the same problem all over again.

- The idea and the concept has to be that the HRSD SWIFT project is on the table as well as other options and projects – this shouldn't be an either/or discussion.
- The question then becomes when is the decision point, the trigger, for deciding what you need to go forward with – it depends on where you are in the system. There need to be planning triggers built into the process. It was also noted that there should be some regulatory triggers.
- There needs to be a planned approach to which projects need to be in place when. There needs to be an enhanced planning approach with triggers.
- We need to be careful through this process not to lose the diversification – if we do and only focus on one project (HRSD SWIFT) then we lose diversification and any additional options that might be needed to address the problem. There needs to be a planned approach. This is a concept that the workgroup could propose to the Advisory Committee.
- We need an enhanced planning process that looks at things in a regional way and it is going to have some good information about what the costs are. You need to know the costs so that you can make informed decisions about where you are going to spend your limited funds – because there are always limited funds.
- We need to consider the development of a “timeline with triggers”. Can the existing models look at conditions over time using different variables? Yes, to some extent. It might be possible to look at a baseline condition for the HRSD SWIFT project and then project it into the future based on certain assumptions and the development of alternative projects? The workgroup discussed the possible modeling efforts that might be developed and run as a way to develop triggers for the planning process.
- The concept of the need for regulatory certainty was discussed by the workgroup.

9. Homework Assignment:

Mark Rubin noted that we would be sending out the materials presented by Andrea Wortzel during today's meeting with modifications based on today's discussions as a homework assignment to the group for further discussion at the next meeting of the workgroup. The assignment will be to answer the questions that are contained on the document.

ACTION ITEM: Bill Norris will distribute the homework assignment out to the group and will set a deadline for submittal of the comments for discussion at the next meeting of the group.

Mark also asked for input from the group on what a timeline might look like (a template or a timeline) that would have projects and trigger points. He asked to that to also be submitted if anyone was willing to offer up an example.

ACTION ITEM: Whitney Katchmark indicated that she would make an attempt at the development of a timeline with projects and triggers and submit it to Bill for consideration by the group.

10. Public Comment: No public comment was offered.

11. Meeting Adjournment:

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

Mark noted that the next meeting of this workgroup is scheduled for November 18th from 1:00 – 4:00 at the DEQ Piedmont Regional Office Training Room.

The meeting was adjourned at approximately 3:58 P.M.