- Welcome
- Attendee introductions and goals for being part of the Santee-Lynches Stakeholder workgroup
    - Bennett Williford – landowner in the SL
    - Andy Wachob – DNR Hydro – help people in the group gain a better understanding of groundwater availability in the Area
    - Bill Taylor, Ellis Evans – Town of Turbeville – gain understanding of the process and any associated limitations to water supply systems
    - Billy Timmons – Clarendon County Engineer – Rep for water sewer district interested in the future of groundwater as Manning has experienced water level declines in some wells in recent years
    - Brooke Czwartacki – DNR Hydro – Same reasons as Andy and hope to find more wells to better track the water status in the Area
    - Eric Dusa – Carolina's Golf Course Superintendents Association – provide GC perspective and water usage information
    - Gregory Fox – Senior Natural Resource Manager for Blue Triton – foster science-based approach to GWMP that is protective to the resource and people's way of life
    - John Baker – Formerly International Paper in Eastover – protecting water use for current and future groundwater users
    - Brandon Kienenberger – Blue Triton – see what challenges others are facing and how they align with Blue Triton's challenges while using a science-based approach
    - Dennis Townsend – Environmental Manager at Georgia Pacific Clarendon Plant – gain better understanding of the plans for the groundwater in the Area
    - Walt Beard – City of Sumter – largest GW user for residential and industrial users and hope to protect current use of existing users
- Staff Introductions
    - Rob Devlin – Director of Division, sitting in for Leigh Anne Monroe – Manager
    - Ashley Carothers – Staff Hydro and Coordinator for the Santee-Lynches CUA
    - Bradley Craig – Staff Hydro
    - Andrea Hughes – Staff Hydro and Modeler
    - Jennifer Hughes – Assistant Bureau Chief
    - Courtney Kemmer – Staff Hydro
    - Courtney Milledge – Staff Hydro
- Meeting summary and the presentation will be shared following the meeting
- Rob – History of the Water Quantity Programs
    - *Read slide #4*
    - *Read slide #5* Saltwater intrusion is included because most of the initial CUAs were along the coast. Local groundwater users, local and state governments can push for groundwater management.
    - *Read slide #6* Legislation wants to encourage use to the fullest extent possible while helping to preserve the resource for current and future users. Can implement means of protecting the resource by limiting withdrawal from certain aquifers or areas
    - *Read slide 7*
    - *Read slide 8* Events leading to designation for each of the CUAs:

        - Waccamaw: Tremendous amount of GC and WS water used during summer months due to tourism
        - Lowcountry: City of Savannah and other large industries, and the growth of Beaufort lead to some saltwater intrusion that is still an issue today
        - Trident: Created as a request by Mount Pleasant Water and Sewer District
        - Pee Dee: Florence has a large GW demand and formation of cones of depression
        - Western: Good stakeholder GWMP development committee that we hope to mimic with this group
        - Santee-Lynches: Where we are today, last coastal plain counties not part of a CUA
    - *Read slide 9* If unable to develop stakeholder driven GWMP, the Department must develop one according to the regulation
    - *Read slide 10* Timeline of development for plan consensus and information presented to public for comments.
- Ashley Carothers
    - *Read slide 11*
    - *Read slide 12*
    - *Read slide 13*
    - *Read slide 14*
    - Illustration shows the collaboration between various agencies and groups to develop plans
    - Slide 17 – Left-hand side of the equation must equal the right-hand side of the equation
    - Slide 18 – Illustration of pre-development system
    - Slide 19 – Description of unmanaged system – cluster of wells and over-pumping screened across multiple aquifers
    - Slide 20 – Description of managed system – End result is all users having access to the water they need in a sustainable way
    - Break for Questions – None at this time
    - Slide 23 – Orange is defined in every GWMP plans specific to the area, purple is data provided to and gathered by the Department, DNR, etc. - Blue are items we would like feedback from the stakeholder group on
    - Slide 24 – Description of the various ways the department looks at data
    - Slide 25 – Usually begin the year the report is published and track changes over time
    - Slide 26 – Track how GW level trends change over time to see how effective the plan is or if it needs to be modified
    - Slide 27 – Look at census data and water use data to better understand the current and future needs to the area
    - *Read slide 28*
    - *Read slide 29*
    - *Read slide 30*
    - *Read slide 31*
    - *Read slide 32*
    - All 5 strategies are linked to the 3 components of a CUA
- Kristy – What strategies do you (stakeholders) think would be most beneficial?

    - Designing for future availability and management
    - Science-based approach
    - Accuracy of reporting
    - Agricultural access
    - Well construction – screened in single aquifers
    - Increased monitoring
    - Need more information
- Any of the 5 strategies that jumped out or others that need to be included in the discussions? Might be helpful to hear Andrea's information first…
- Dr. Andrea Hughes
    - Will be going over some of the information available in the Preliminary Report for the Santee-Lynches Area
    - Slide 37 – Right hand side is a map with locations of wells that reported water use in 2020
    - Bar graph shows reported use by use type for 2020, some of the colors are not visible at this scale because the usage is so low.
    - We look at current demand and historic use (2001-2020). The Y axis is the reported use in millions of gallons (8,000 million gallons = 8 billion gallons). The historic use is broken down by county.
    - Slide 39 – This is the same plot as the previous one but is broken down by use type.
    - Slide 40 – When we see a change in water use, we begin by looking at where the change came from. Start with population growth. Bars represent individual counties.
    - Slide 41 – Previously discussed increase in irrigation. Each bar color represents irrigated acreage for each year indicated in the various counties.
    - Slide 42 - Left hand graph is amount of water use reported to us divided by the number of wells in the area to give an "average". In spite of number of irrigation wells and irrigation water use, the use per well has remained fairly steady which speaks to improvements in conservation and efficiency of irrigation systems
    - Slide 44 – Map produced by DNR with locations of GW monitoring wells. Can access map at DNR website. We use the GW measurements from these wells to see how the water levels are impacted by the usage
    - Slide 45 – Marked wells are those with the longest record available from either DNR or USGS from each county. The blue line is the fall line which separates the upstate from the coastal plain.
    - Slide 46 – Chesterfield county well in Crouch Branch Aquifer. Record began in 2008 through Aug 2020. Seasonal variability exists, and the well experiences great deal of recharge due to proximity to fall line. Reflects climatic conditions.
    - Lee County well shows more seasonal variability because it is further from fall line and does not experience as much direct recharge
    - Slide 47 – Red dots are manual measurements; blue portion represents automatic measurements. Sumter well has some seasonal variability. Richland county is "noisy" signal due to proximity to fall line.
    - Slide 48 – Also from DNR we use pot maps. Pot maps are produced each year for various aquifers/areas. Left map is pre-development potentiometric surface, right map is the

most recent pot map from 2016. Elevation lines are relative to mean sea level. Pot surface has dropped by ~50 ft since pre-development

- Slide 49 – Wells screened in McQueen Branch
  - Chesterfield - McQueen Branch signal is noisy but reflects some of the climatic variability in the area
  - Lee – deeper well further from fall lines shows more seasonal variability. Amplitude of drawdowns have increased in recent years
  - Sumter – deeper well shows seasonal drawdown with steady decline (not rebounding to previous levels)
  - Richland – noisier because of proximity to fall line. Remained fairly stable over time
  - Clarendon – Shows seasonal decline that is rebounding to previous levels at this location
- Slide 53 – McQueen branch predevelopment vs 2019 pot map (DNR)
  - Closer to the fall line water levels have remained fairly stable over time, further from the fall line declined ~50 ft +
- Slide 54 – That sums up the data, any questions?

- Questions, comments, concerns?
  - Will this plan be done county by county?
    - Geopolitical boundaries do not necessarily come into play so the GWMP is for the CUA as a whole but there can be smaller portions divided out if needed for managing the resource
  - Is there data available on the deeper aquifers similar to the data that was just presented?
    - The data presented in the report has to do with the aquifers that are currently and historically used in this area. Not all of the aquifers are present in this area. What is presented and looked at in the reports is based on what is available to users in this area. There is data for deeper aquifers but not for this area of the state.
  - Initial GW Assessment for the Santee-Lynches can be shared (in chat), along with the link to the DNR GW monitoring page.
  - Do any of the WS users in the area have any thoughts?
    - Walt Beard – Major concern over time would be to maintain current use, have not had wells experience declines like those seen in Manning. Want to make sure we are being wise with how the resource is being used because Sumter is such a large user.
    - Billy Timmons – As we are installing wells for the Clarendon W&S Dept., how do you address replacement use?
      - Ashley – If you are not doing a true replacement, if you are aiming for a deeper well, you will need to go through the full permitting process with a public notice. We can then issue a Construction Permit. Will need to review plans for installation and review other nearby users in the area prior to construction.

        - Andrea – We do look at taps served to evaluate reasonableness of the withdrawal request
        - Ashley – If wells are being installed over time, you will not have to wait for the next renewal cycle to apply for more water if needed
    - Bill – Good with the way we see things going. Currently replacing a well, a true replacement. Looking into expanding into other areas and are hoping the plan will be accommodating and encouraging for the plan moving forward.
        - Ashley – We aren't looking to discourage water use. As long as the use is reasonable it shouldn't be an issue moving forward.
        - Rob – We also have tools available to help find a suitable location/depth to encourage expansion.
    - John Baker – In the GWMPs in the current CUAs was consideration given, or how were existing users addressed?
        - Ashley – Users who were registered prior to designation as a CUA will be grandfathered in and past use will be considered. Will not need to go through public notice process. Non-registered users will need to go through the full permitting process.
- Kristy read through the 5 Strategies again
- Industrial thoughts?
    - Brandon – Like information on Strategy #3.
    - Greg – I think if there are some articles that the State could recommend about the hydrogeology would help with the science-based approach. Interested in how the remainder of the planning process will continue…
        - Kristy – hopeful to have in person meetings to help facilitate discussion for the remainder of the process.
        - Rob – we had a tremendous amount of information from users in the Western area and ended up coming up with some changes from what we had in coastal CUAs. Had a lot of collaboration. Will discuss information needed for the first 5 main parts and what effects the different users in this area specifically so we can tailor the ways we review data.
        - Kristy – Greg mentioned you've been part of legislative planning processes, our laws and regs say that we need a GWMP for each CUA so we have a little more flexibility in developing the GWMPs.
        - Rob – current regulatory structure says permits are reviewed every 5 years, and we will get into this more in the next meeting and will compare with the previous reports to see what work will need to continue or be changed in the future to help manage the aquifers. Regulations are also reviewed every 5 years. GWMP can be changed at any time. Can provide annual updates to the stakeholder group to better track changes in the area and identify places that need to be addressed further.
- Eric Dusa – Is 3 million gallons per month the minimum statewide?
    - Ashley – Yes that is correct, any user who withdraws 3 million gallons per month from any well system would need to be permitted.

    - Greg Fox – One site developed, one currently being developed, ~8-10 miles apart, is the 3 MGM for the entire statewide well system?
        - Rob – This is for all wells within a 1-mile radius of each other but there are some exceptions such as water suppliers who want the flexibility. In your case you would get separate permits for each.
- Rob – Ashley, when is our next planned meeting?
    - Ashley – I believe the next meeting is the first Wednesday in November, Nov. 3.
    - Kristy – That's right, Nov. 3 and Dec 1 are our next scheduled meetings
- Are these recordings distributed following the meeting?
    - Kristy – The recording can be provided as well but we planned to have the recording as a resource for the team to help develop the summary and the presentation will be posted.
- Kristy – We will continue to try to be as participatory as possible moving forward.
- Rob – Final Thanks and reminder to reach out to section staff with any questions.