



Stafford County Utilities Commission
May 13, 2025

- I. Call to Order– Mr. Gundersen, Acting Director of Utilities , called the meeting to order at 7:00 pm.
- II. Roll Call – Those present at the meeting were; Mr. Greg Cox; Ms. Tiffany Epple; Mr. Alan Glazman; Mr. Nathan Reese; Ms. Nancy Sullivan; Mr. Greg Cox; Mr. Floyd Bundrant; and Mr. Ben Litchfield. Staff members present were Mr. Mark Gundersen, Acting Director of Utilities , Mr. Chris Edwards, Acting Chief Operating Officer; Jon Brindle, Acting Utilities Assistant Director of Operations; Mr. Charles Grant, Utilities Data Manager; Mr. Chris Lee, GIS Analyst; Mr. Josh Batton, Business Information Systems Analyst; Ms. Tanya Close, Asset Protection Program Manager; Ms. Tyler Girsham, Administrative Specialist and Ms. Tyra Fisher, Procurement and Finance Specialist.
- III. Approval of Meeting Minutes – Ms. Sullivan motioned, seconded by Mr. Glazman, to approve the minutes from the January 14, 2025 meeting as presented. The motion passed 7 – 0.
- IV. Presentations by the Public – Ms. Kirsten Maxon from 1816 Richmond Highway was present. Ms. Maxon stated that her understanding is there was no Utility Commission meeting on March 11, 2025. She went on to state that SCADA is closely tied to the Fountain Park and there was no mention in the town meeting for Route 1 and Courthouse Intersection Town Hall but it is in the Agenda for today's meeting but is dated for March 11, 2025 and that it should be today's date. She continued by discussing Resolution 25-111 concerning the Smith Lake Grant Loan and the 25 minutes missing from the video and that sound ran out at 1 hour and 30 minutes with no adjournment so the public is confused. She discussed the water supply emergency ordinance R 25-116, the data centers were approved with the utility management plan and it's now 2 years later and that it was voted in. She stated April 1, 2025 that the public will be paying for the electrical use for the data center and that was 3 hours and 54 minutes into the video so the public taxpayer might not benefit. The financial model is unknown for both electrical and water. She continued that Item 27 April 1, 2024 the vote was taken but no resolution concerning the water agreement, page 218 of 508 likely the water agreement is not finalized and the public is left uneasy. Government and essential businesses are exempt from excess water use fines. She asked how is this defined and stated it could cause question in the future. The June 5, 2018 Stafford water County Water and Sewer master plan is now available and it wasn't available earlier

Ms. Epple asked Mr. Gunderson if he can address Ms. Maxson's concerns. Mr. Gunderson said concerning Smith Lake Grant, that was needed to complete that for the Virginia Department of Health submission for the 3rd of May, which was time sensitive, which the board does allow to have votes on and take action on when situations like that arise. He stated that we apply for funding so we can offset potential costs. Looking for loan forgiveness and potentially grants to help us with a number of projects at Smith right now. Concerning the April 1st meeting with the paying electric service and water agreement, he could not comment without looking at notes. Mr. Gunderson stated that yes, the water service super master plan was provided out to the public.



No questions by the Commission.

- V. Public Hearing – Proposed Ordinance O25-01: Mr. Brindle gave this presentation on O25-01. He explained that after he presented this to the Commission in January, the Department took it to the Board, requesting some updates before approval. Mr. Brindle explained the edits made, and they were presented to the Board in a work session. Tonight, the Department is looking for the Commission's recommendation again with these edits in place. He explained the different penalty changes that were made to the plan. Mr. Brindle asked the Commission if anyone had any questions.

Mr. Reece asked what kind of businesses use, or do any use 10,000 gallons, just on a normal basis, data centers? Mr. Brindle responded that the data centers, with a few exceptions of single-use potential, and the possibility of someone filling a swimming pool or something like that. Outside of that, there are maybe half a dozen users who would have the ability to use that volume of water. Mr. Reece asked if data centers that use the reuse water does not necessarily count to the 10,000 gallon. Mr. Brindle replied No, this is only for potable use and only during a drought emergency.

Mr. Bundrant asked Mr. Brindle if data centers are part of the commercial users, and Mr. Brindle confirmed that yes, they are. Mr. Bundrant then asked why there is not a distinction between data centers and business users which would be commercial users and why are they kind of equated. Mr. Brindle stated that would be a rate structure issue for Mr. Edwards or Mr. Gunderson but the simple answer is with the plan that no data centers will use potable water except for a very brief condition, and any data centers that are using water for cooling are going to be put on reclaimed water. Mr. Bundrant continued that there was a position that there's a period of time when data centers could possible be using potable water. Mr. Brindle stated that there will be a bridging condition while the reuse system is being build. During that time, the amount of water and the number of facilities being built on the data center campuses is extremely limited, and you actually have a step procedure for each additional water meter that they are going to receive during that time. We have the ability to very tightly control the amount of water they are using. Mr. Gunderson added that this is all based on our water services agreement, that each provider has entered into agreement with us, to prevent that no more domestic use is needed until build out. So there are conditions in place like Mr. Brindle indicated to prevent that, and that's something that we are going to be monitoring with the issuance of water meters as we go so there are checks and balances in place. Mr. Bundrant stated so this basically comes under the auspices of public water. Mr. Brindle stated this still relates back to our drought management plan, which is going to be under extreme conditions where the state has declared a drought issue is in existence and our reservoirs are getting low. We have a progressive system of water use curtailment that will first effect commercial users then residential users in a staged sort of step system, the last stage of it being a water use emergency and that's when the fines and penalties will be imposed and Stafford County has never had a drought emergency declared. Mr. Bundrant stated that the restrictions were basically just standards of change in terms of what the fines would drop to. Mr. Brindle stated that was correct that the Board requested the changes. In 2023,



when the Lake Mooney permit was issued by the state there was a requirement to develop this drought management plan. We have been in process since then in a couple of iterations that we presented to the board, but we're now hoping we have the final version in front of you. With any luck and for any proceeding condition, we do not expect to ever have to implement the drought management plan. Mr. Bundrant asked if the water services agreements were available to the public. Mr. Gundersen and Mr. Edwards both said they don't believe they were posted publicly and would have to see if they would be available to share due to non disclosure agreements that were signed.

- VI. Public Comment on O25-01— Ms. Maxon came forward and thanked Mr. Brindle for the presentation. She stated that people trespass on properties and open water spigots. She asked what is to prevent somebody from doing that to target people within the targeted TGA area. She also spoke about trick-or-treaters being out there. She mentioned that essential businesses and government is exempt from these fines and so the public would need to know how to when a drought situation is upon them. She stated that the June 5, 2018 Stafford County Water and Sewer plan was recently put online and the water supply stated was adequate through 2030 and even if there was a major new water user, it was adequate. It also stated water wastewater treatment capacity is also adequate. Projected near term growth of 2028. The 2018 Master plan included 47 million for near term infrastructure projects to support planned economic development. Page 7 of 11 revised May 14, 2018, on data centers was stated there was little or no impact to the public. The public has tentatively been and heard repeated information that the data centers presented that there is no impact. We have been told that there's 26 data centers in the pipeline, and the Board of Supervisors has stated that they did not have a list and asked for this list to be presented to the Board at the time when there was a list of 26. She asked why the transparency of these procedures two years later, since March of 2023. Why we were at this point, there was no water plan when the data centers were presented back in 2023. She said she appreciated their time.

Ms. Eppler asked if Mr. Brindle or Mr. Gunderson would like to address Ms. Maxon's questions. First, how do we address the hypothetical of what happens if someone decides to trick or treat from fire hydrants? Mr. Brindle stated that the utilities department has no ability to police malicious actors. That would be a call to the Sheriff's Department. Ms. Eppler stated Ms. Maxon's second question was how will residents of the county be notified in the event that the county is in a drought? How do you all plan on sending out that notification. Mr. Brindle stated that we have several methods of public service announcements, both on social media, reverse 911, as well as a utility-specific messaging service that he couldn't remember the name of, that people could sign up for, and that they would use all methods at their disposal in order to notify customers. Ms. Eppler stated Ms. Maxon's final question was about the data centers and the lag in notification. Mr. Brindle stated we are working closely with all the data centers that are going to use water for cooling. There are several additional campuses that are planned that will not use water beyond domestic office space, and we are considering those as any more impactful than any other business on the water side. The ones that will use water for cooling will be on reclaim water.



Mr. Reece asked about the notification piece and wanted to know if there was an expectation of time between when the notification goes out and when the drought condition goes into effect. He asked should I expect to get notification seven days beforehand or 14? Or is there an expectation at all? Mr. Brindle responded that it is written into the code as 48-hour notice.

Mr. Litchfield asked if Mr. Brindle could explain how you arrived at the \$1,000 number for commercial users and if he thought it was sufficient to deter bad actors. Mr. Brindle explained that there was no metric used to calculate that. It was requested by the board that you have something more significant as a deterrent on the commercial side versus the residential, which was the number that seemed fitting and was agreed upon by the Board. Mr. Litchfield stated that it seemed random to him, and why not ratchet it up to \$2,500, or he just didn't know where the Board was on that.

Ms. Epple motioned, seconded by Mr. Bundrant, to send the recommendation to the Board. The motion passed 7-0.

VII. Reports by Commission Members – No reports given.

VIII. Director's Report – Mr. Gundersen stated there would be two (2) presentations. The first presentation would be by Chris Lee of the GIS group to talk about one of the newest tools which is the outage map. Once Mr. Lee is finished, Mr. Gundersen will introduce the second presentation.

Mr. Lee stated that he is a GIS Analyst with Stafford County Utilities and would be speaking about the Stafford County Utilities outage map, which was created to provide real time updates to customers on any water outages and ongoing repairs. Demonstrating the map, he noted that on the right of the map there is an interactive table showing basic information about any active outages. There is a map showing the location of the outages in the county. On the right side there is more specific information about the outage, specifically if it's a water main break, water service repair, if any roads are going to be affected by the outage or repair, and an estimate of homes and businesses that may be affected by the ongoing outage. This is embedded into the Stafford utilities web page. It is a dashboard that our team updates with as close to real time data as possible when repairs are ongoing. Once the repairs are completed and service is restored, the outage will disappear from the map. And when no outages are ongoing, this will just display that there are no outages currently in any place.

Mr. Glazman suggested that you would want to put in an estimated time to repair or would you consider something like that. Mr. Gundersen stated that this is the first stage of being more transparent with what we do. He said until we get into it we're not going to know if there is a time limit to this. If it's more than 12 hours additional notifications can happen and a lot of our notification practices will continue by knocking on doors and informing customers who are really affected. We are just trying to provide another communication tool, because we understand a lot of people aren't home and they do check other social media accounts and other things while they are not



at home to see what's going on. The customer can say "Hey I got an alert for this or I have a smart sensor what's going on? Oh, I can pull up the web page and look." What Mr. Lee presented today is kind of our first step in really trying to get into a more transparent methodology of communicating with the public when we do have a service outage. Mr. Glazman stated he thinks it's a great idea.

Mr. Reece asked if the data that feeds the system is from the technicians like apps that they have or is that data that says hey there's an outage on white oak road. Are you getting that data from a call from them or message from them, or does it come from the actual app that they use when they are logging issues? Mr. Lee responded that typically the outage is reported from the public, we respond for service, and then we have configured a field app that's usable on a mobile device or on a tablet by our field staff that would be supervising the actual work. Mr. Reece asked, so you get when it's resolved from that as well? Mr. Lee replied yes they would update their original issue. Mr. Reece then stated that it is pretty close to real time as things happen. Mr. Lee replied that yes.

Ms. Eppler asked when you anticipate longer closures, like Butler road when that's shut down, will there be up to date information provided to the public, letting them know the status of it, or the anticipated reopening. Will that be something that's constantly updated, or will it just be a general this is going to be down. Mr. Gunderson replied that for larger projects this wouldn't affect. For larger projects, a capital project, a three-hour project, we're actually going to set up project-specific pages for that. Now, if there is something that happens to go wrong, we may use the website to help communicate that, along with our communications team to make sure the message gets out to the public. Mr. Lee then gave a video demonstration using an outage, then clicking on the map to see that it is a water service repair that does not affect the roadway and it's estimated to affect 20 residential customers. He stated he could interact with the table, zooming in to the outage, panning the map to see what's in the immediate vicinity, what could potentially be affected, and then zooming back out to search for his address. He used 1300 Courthouse Road, zooming to that address, he was able again pan the map and see that there are no active outages in his vicinity.

Ms. Eppler then asked if this allowed folks to report outages to this app? Mr. Lee stated no, this is not intended for data collection from the public. They would still go through the customer service department. Mr. Gunderson added that we always ask people to call our customer service phone line just to make sure that we do get your call, even our Ask blue line refers you to call our customer service or our after hour services that is on the staff that gets to our technicians, so we can make sure that we get out, we can take a look at what's going on, and we can help the customer in a quicker amount of time. Mr. Lee then continued that, as we all mostly interact with the internet through our phones, the app also works on a mobile device. You're able to, once again, zoom to an outage, see any details about it, and then can also pan your map and search your own address to see if you have any outages that may be ongoing in your immediate vicinity. Once again, we pan to the Government Center and no immediate outages. So the goal of this project was just to provide a simple interface that our customers can use to get real-time data about how any outages and repairs may affect them. There were no other questions.



Mr. Gundersen then introduced the second presentation, which is a SCADA presentation, from a previous conversation with Mr. Clay in some of our earlier Board sessions. He introduced Josh Batton, Cyber Information Analyst, and Tanya Close, Asset Management Program Manager. Ms. Close stated she had been in her position since April and was previously in insurance technology, and has over 25 years of leadership experience and over 13 years of leadership experience in the IT field. Mr. Batton stated he had been in the department since December and had previously worked in Cyber Security and Information Technology for over 10 years.

Ms. Close said we are here to introduce you to SCADA, which it seems like many of you are already aware of what it is. SCADA is supervisory control and data acquisition. SCADA is used everywhere. If you go to the grocery store, it does the temperature control. If you go into a business, it controls the AC in different zones. If you go to the gas station, it will tell you how much gas is pumped at every single pump so no one has to do anything manually in the water and wastewater industries. Helps us be more efficient and helps with the decision-making process and what changes or adjustments we need to make. How SCADA works. SCADA is basically a communication system. You have the RTUs that do the monitoring, the PLCs that are able to do the controls. HMIs are the screen or the television display, so that you can see if there are any problems that need to be addressed. An example of this process, you know, I'm thinking of like our home alarm system, where the RTUs are the sensors that you put on your doors or windows, the PLC, is the arming based on the condition and the communication network, or the sensors talking is the sensors talking back and forth to the base and the HMI is looking at your keypad. Or now a lot of us look at our mobile device to see the status and to see if anything needs to be addressed.

Mr. Batton explained how Stafford County is utilizing SCADA. He stated that we're using SCADA to inform us of issues at pump stations, so we're able to monitor when we're having issues with pressure or things of that nature, also at water treatment plants and our wastewater treatment plants as well. Next he discussed Stafford utilizing a SCADA system to control water quality. Mr. Batton talked about how SCADA to monitor the different levels at the pump stations and also use it to change dosage of chemicals at our water treatment centers. He then discussed how the current SCADA system is going through upgrades such as the network and the equipment that is being used with the actual SCADA system itself. Finally, talked about cyber and SCADA, as I know, cyber-attacks are really a hot topic. He provided an example about a cyber-attack that was experienced last year in Kansas City, The Arkansas city plant had an attack to their SCADA system, which required them to switch to manual operations. Them switching to manual operations, they were basically just turning off the automation there and having their crew basically control the pumps, dosage, things of that nature. Homeland Security and the FBI, they investigated the incident. They did deem that there was no issues with the water quality. The only issues were with the pumps that were altered to basically cause water pressure issues. Mr. Batton gave a warning that CISA, the cyber security infrastructure agency, and EPA put out tying back to this attack and others that we've experienced. Their biggest takeaway is to secure your HMI with a lot of SCADA attacks. A lot of these attacks are done physically. There is the cyber aspect where they can be manipulated, but most of these attacks are from USB drops or somebody gaining access to a water treatment facility and getting up to one of these HMIs to manually manipulate it. Mr. Batton stress that exposed HMIs are one of the biggest vulnerabilities, as they basically control all



of the operations at the water treatment facility, and malicious actor could lock out other operators and make it harder revert to manual controls if you're locking out the HMI. He stressed that past attacks, they really been more of a nuisance in having plants go to manual operations, causing for additional manpower to help things stay afloat while the system is down. He then asked if anyone had any questions.

Mr. Cox asked if there was a future vision of putting critical equipment inside the water treatment facility, like the pumps or motors, to feed into SCADA in case one was getting ready to take a dump? Mr. Gundersen indicated that we are continuously looking at our upgrading our systems. And as we do right now, we're in another new phase of implementation, of upgrading our existing SCADA system from a radio base to a cellular migration system through a security network. Can't say a whole lot about it just because of security issues around that, but that would be a next step that we'd be looking at is doing some more telemetrics, some more intelligent smart metering, start monitoring pieces around those pieces of the equipment that can report back. Mr. Cox stated various analyses that can be done. Mr. Gundersen said we're looking a lot of that with asset management as well, as we continue to upgrade that program of what else can we look at to put enhanced practices in place to make us more resilient. Mr. Edwards stated that we do especially for our water plants. Our newer water plant, Lake Mooney, has full SCADA. Actually, I think this Paxon referenced your Smith Lake upgrades. One of the upgrades that we're going to do at Smith Lake is do a retrofit install speed there, so we have a little SCADA from some of the pumping operations, most of the chemical feeds there are still pretty much manual. Mr. Cox if they were programmed remote or on-site. Mr. Edwards confirmed it was on-site.

Mr. Reese asked about switching from RF to cellular and the security concerns related to that switch and that RF is kind of a pain to work with, but it's harder to infiltrate. Then the second thing he addressed is the HMIs are kind of that touch point that is most vulnerable, how are we managing those in the facility? Do we have heightened security around those. Mr. Gundersen stated that security begins at the gate for a lot of those places and making sure there is physical security as well. He continued that there have been EPA regulated studies that we're required to do. So we go through that process, making sure we're not getting into them, making sure the system is locked out those weak passwords. Make sure that you just can't go up to a control panel if some unauthorized person would be able to gain access to those. We do have the new monitoring system. We have intrusion alarms, we have other security methods that I'm not going to talk about just due to security and safety for the public, just keeping our system safe, but we do have means to protect as the first layer, if there is there's notifications that obviously go out, and then we would go and address those quickly. There were no other questions.

IX. Unfinished Business – there was no Unfinished Business Discussed

X. New Business – Mr. Cox inquired about the ground tank being washed and asked if we were keeping it. Mr. Gundersen stated right now we are keeping it in service about we are going to be looking at doing some pressure zone manipulation. So, we are keeping that one active for the time being, as we work through the engineering of that we'll make a determination of what's



going to come with that one in the future. Mr. Cox reiterated that it was just routine maintenance. Mr. Edwards added that the whole goal with trying to keep it online as long as possible is building, as you're kind of facing over to the right of the pump station, and that allows us to either come back towards Lake Cowan or back towards 17. And so, coming out of the plan, two main lines either go towards those two directions. So by leaving that tank in service, it gets it gives us water withdrawal from so we can, you know, if we have a pump failure up to 17, we can use the pumps at the plant that go to Falmouth, then pump that over to 17, so it gives us some redundancy. So until we kind of come up with another solution, we will find that leaving that tank in service gives us some redundancy. Ms. Epple asked if that was to help support the new schools or just because it is there and you are utilizing what you have. Mr. Edwards replied that because it is there and also that part of the water sewer master plan, and was included in the capital improvement plan, was to build another pump station to kind of put water into the very Northwestern zone. This actually accomplishes that. So we're trying keep costs down for the time being, especially with some of the work at Smith Lake, because it keeps us from having to build a new water booster station. Ultimately, that's what we want to do, but right now we're going to continue to utilize that so we're actually a little bit of money back into that area or back into that system make sure that it's a little bit more reliable. Mr. Cox inquired if it was on Berka Church road. Mr. Edwards stated that the first part that they did is it was really weird. I think that line, I think, was originally up a Berea Church road. So what they end up doing is relaying that entire line, going from a plastic pipe to duct iron pipe. The reason we kind of did is we would have to, like, move half that pipe out of the way. So what the utilities department did is we just paid for the remainder of that so we could just get them to build a whole brand new line. That was the first thing they finished that that's done. So that was just road widening.

Mr. Bundrant wanted to return to the discussion of data centers and asked if there are any in the pipeline that have not been made public yet. Mr. Edwards stated that he would answer that question a little bit differently, as far as ones that are not publicly known, hard to say, first, say some of the ones that have been submitted, I think a lot are on people's radar. There is a data center in for rezoning. It's along route three and Kings highway, probably on half a mile to a mile east of Duff Green Park. And that's going to be probably the largest one, probably a little bit larger than Stafford Technology campus, which is the one that's on Eskimo Hill road. And that type of time we'll have to explore that there is a wastewater plant right across the street there. So, you know, long term, look to see if there are opportunities. Actually, we're already looking to see if there's opportunities that will reduce water. So that would be, you have a plant just north here, I think that's the one you took the tour of. There's some type that's very similar right along route 3 discharges into the Rappahannock River. So the hope there is to be able to reuse water there, just like we are at all these sites. Mr. Bundrant asked to confirm the location. Mr. Edwards stated it's about a half mile east of Jeff Green Park. Some of this farmland and I know there's one piece just to the south of Route three.

Mr. Cox then asked how the search was going for the new building and land that the data center reclaimed water building is going to take the place of. Mr. Edwards stated that it's actually one of the things that we are still looking for piece of property. There's part two that we're looking at that hopefully will be a little bit more centralized than where we're at right now, especially going



down Coal Landing Road, trying to get heavy equipment going south on Route three or south on route one. There's not but so many that can make it through that light across the median there. So we're also trying to find somewhere that is a little bit more centralized. One of the things that we're finding a little bit is a lot of the big commercial properties are now being taken up by data centers, so we're kind of dealing with them. One of the good things that was in the last water services agreement. There is a provision in there where they'll pay like 80 to 90% of our relocation costs. So that is something to get that will consider as we move forward. The biggest thing for us is big doors that we can pull into.

Mr. Reece inquired about tariffs and how the county working through possible significant price increases for chemical purchases and all those extra purchases, or is it even affecting you guys at this point? Mr. Gundersen replied that chemical contracts, a number of our contracts are long term, and we have those stabilized right now. We're in the process of negotiation with some extensions and from the vendors of the hearing they're holding prices relatively steady and not going up as we predicted. We've been having conversations with number of our vendors over the last eight months based on potential increases, and we've made necessary adjustments to our upcoming budget in July. We have received since January, a number of tariff related letters from our vendors. We've been working with them to minimize the cost that we'll have. They've been working with us just to make sure that we're well informed of what we do. So it's a little bit of back and forth. It's a lot based on relationship. It's going to hurt at the end of the day, depending on what it is, but we are trying to manage the price increases. Mr. Reece asked if those price increases are ultimately going to be large enough to affect the ratepayers? Mr. Gundersen said we just don't know yet unfortunately. We'll know more as our suppliers continue to inform us, and we'll go back and we'll continue to make adjustments in the budget, which we're constantly looking at and constantly making fruit so to prevent service. Mr. Edwards said he thinks the one place we'll see it, not necessarily, is operational possible but possibly see it in construction costs and some of the projects we can defer other projects are to be regulatory compliance schedules. So for those projects we can't we'll just have to move forward with those if there is a price increase, that will be passed on to the water store customer.

Mr. Gundersen then asked if there had been any talks about the power of data centers. Mr. Edwards stated that there have been one or two articles by JLARK, the agency does all the judicial reviews, but they also review stuff like that. I know they, they completed a study we actually participated in that for water. What ended up happening is, actually it was a much bigger review of electrical power. And one of the things that you know, they kind of came to is that Dominion Power, whoever the power provider is, is going to have to ramp up production, ramp up the transmission. And so that will potentially increase the cost to the consumers. Mr. Cox asked if anybody had told Dominion that because they're tearing down not putting them up. Mr. Edwards stated that about two or three years ago, right before the first rezoning. They actually came to a town hall. They stood and told us that they have plenty of power.

- XI. Adjournment – Mr. Glazman motioned, seconded by Mr. Cox and approved unanimously to adjourn the meeting at 7:49 p.m.