

Albemarle County Service Authority Board of Directors

1 The Board of Directors of the Albemarle County Service Authority
2 (ACSA) met in a regular session on February 15, 2024, at 9:00 a.m. at the
3 Administration and Operations Center at 168 Spotnap Road in
4 Charlottesville, Virginia.

5 **Members Present:** Mr. Richard Armstrong; Dr. Lizbeth Palmer; Mr. John
6 Parcels (remotely); Mr. Clarence Roberts; Ms. Swanson; Mr. Charles
7 Tolbert, Vice-Chair.

8 **Members Absent:** None.

9 **Staff Present:** Kenny Barrow, Mike Derdeyn, Terri Knight, Quin Lunsford,
10 Jeremy Lynn, Alex Morrison, Gary O’Connell, Emily Roach, Sabrina Seay,
11 Danielle Trent, April Walker.

12 **Staff Absent:** None

13 **Public Present:** Shannon Glen, Validos; Andre van Honschooten, Validos.

14
15 1. Call to Order and Establish a Quorum – Statement of Board Chair

16 The Chair called the meeting to order. He then read the opening
17 Board Chair statement (Attached as Page _____), and a quorum was
18 established. He noted that ACSA Board member John Parcels would be
19 joining the meeting electronically. He mentioned that Mr. Parcels notified
20 him in advance of the meeting that he would be joining the meeting
21 electronically due to a family vacation. He added that Mr. Parcels was joining
22 the meeting from his hotel room in Sturbridge, Massachusetts.

23 ***Dr. Palmer moved to approve Mr. Parcell’s remote participation***
24 ***in the meeting, seconded by Ms. Swanson. All members voted aye.***

25
26 2. Approve Minutes of January 18, 2024

27 Mr. Parcels stated that there were a couple of small, typographical
28 errors to be corrected. He stated that on page 18, line 28, the word should
29 be "as" instead of "are." He stated that on page 30, lines 8 and 9, the word
30 "spend" should be "spent," and "continue" should be "continues."

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1 Ms. Swanson stated that on page 12, “Green” should be changed to
2 “Greene.”

3 ***Dr. Palmer moved to approve the minutes of January 18, 2024,***
4 ***as amended, seconded by Mr. Tolbert. All members voted aye.***

5
6 3. Matters from the Public

7 There were no matters from the public.

8
9 4. Response to Public Comment

10 There was no response to public comment.

11
12 5. Consent Agenda

- 13 **a. *Monthly Financial Reports*** – Mr. Roberts stated that he had a question
14 about RWSA’s invoice shown of \$2.2 million on page 35. He asked how
15 the metered water relates to the invoice, and if the ACSA has to pay for
16 water lost in the system. Mr. Lunsford replied that the ACSA and the City
17 are billed for what RWSA produces and treats. He stated that the RWSA
18 calculates what the ACSA is charged based on ACSA reported billed
19 consumption and the City’s reported billed consumption. Mr. Lunsford
20 stated that there was a great chart on page 52 to illustrate this. He stated
21 that the red line is what RWSA bills the ACSA for that month, and the
22 blue line is what was billed to ACSA customers for that month. He noted
23 that when RWSA charges are more than what the ACSA is selling, most
24 of the time it is due to water loss in the system or meter calibration
25 issues. He stated that one must also consider that when RWSA bills for
26 Q1 of the calendar year (January, February, March), they are using the
27 ACSA’s billed consumption from the previous quarter (October,
28 November, and December) to calculate the amount for the current
29 quarter.

30 Mr. Parcels stated that in his mind, the closer the two lines on the
31 graph are, the more accurate the correlation between what RWSA says

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1 they are sending the ACSA and what it is really being charged for. Mr.
2 Lunsford replied that, generally speaking, that is accurate, but
3 percentage allocations can be misleading when looking at the previous
4 quarter to determine the current quarter. He stated that the other variable
5 is the accuracy of billed consumption reported from the City. Mr. Parcels
6 stated that he would have to think more about it, but he feels that the two
7 lines should be closer. Mr. Lunsford stated that water loss in the system
8 is something the ACSA will be looking at closely over the next two years
9 as part of the water audit, in an attempt to reduce the gap between the
10 two lines.

11 Ms. Swanson asked if there was a way to determine where the water
12 loss is coming from, and if either the City or the ACSA has any strategic
13 plans to reduce that loss. Mr. Lynn replied that the ACSA is currently
14 beginning that process with an Urban water audit, in collaboration with
15 the City and RWSA. He noted that this will be the first time they have tried
16 to tackle this. He stated that because the Urban water system is so
17 interconnected with the City and RWSA, it is difficult to pinpoint where
18 the leaks are occurring. He stated that there will be a collective approach
19 to tackle this issue, to determine where leak detection needs to occur and
20 try to reduce non-revenue water.

21 Ms. Swanson asked if most of the water loss is coming from the
22 private service line side, such as a toilet leak. Mr. Lynn replied that they
23 would not consider that to be water loss because it is still metered, and
24 the customer is being charged for it.

25 Dr. Palmer stated that a lot of money was spent installing meters to
26 determine what each entity was using in terms of water consumption.
27 She stated that prior to that, she does not know if there is a good way to
28 coordinate with all three entities. Mr. Lynn stated that the wholesale
29 meters that Dr. Palmer is referring to will be very important. He stated
30 that once AMI is fully deployed, the ACSA can look at RWSA's wholesale
31 meters and aggregate all ACSA customers beyond that meter. He added

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1 that the system can then be broken down into areas, to better detect
2 leaks in certain parts of the system. Dr. Palmer asked if the City was
3 using AMI. Mr. Lunsford replied that they are still using the drive-by
4 system for meter reading.

5 Dr. Palmer asked if the ACSA has coordinated with RWSA or has
6 knowledge of what RWSA is doing in terms of PRV maintenance. Mr.
7 Morrison replied that they have not coordinated with RWSA on
8 preventative maintenance activities. He stated that he will be meeting
9 with their director of operations and one of their engineers in the coming
10 months. He mentioned that one of the items that will be discussed is
11 communication and collaboration between the two agencies.

12 Dr. Palmer stated that she had one request. She asked if when staff
13 is answering questions from Board members, if they could reiterate the
14 question and give the page number. She stated that she is using the
15 electronic version of the Board packet, which does not coincide with the
16 hard copy.

17 **b. Monthly Capital Improvement Program (CIP) Report** – Mr. Parcels
18 stated that under item 2 on page 69, there is a remark about easement
19 language changing. He asked how the language is changing and if it will
20 affect the timing or cause issues with the project. Mr. Lynn replied that a
21 portion of the project will replace an existing RWSA water main. He
22 stated that the new easement will be granted to both RWSA and the
23 ACSA, so they have had to work with RWSA’s legal counsel on a
24 revised, standard deed of easement. He noted that this will allow them
25 to acquire one easement that will serve both entities.

26 Mr. Parcels asked if this meant that the cost of the easement would
27 be shared as well. Mr. Lynn replied that in this case, all of the costs
28 related to the Scottsville water system are paid by the ACSA. He stated
29 that the ACSA would be covering the cost of the easement acquisition
30 as well as the design work.

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1 Mr. Parcels stated that on page 80, item 25, there is a change order
2 because of insufficiently sized conduit between the Ashcroft pump
3 station and the pressure reducing valve (PRV). He asked if the retrofit is
4 because the original conduit was put in not considering the idea of the
5 new wire for the SCADA system. Mr. Lynn replied yes. He stated that
6 the existing conduit is 1” in diameter and is not capable of handling the
7 additional wire. He stated that the contractor looked at two options –
8 either install new conduit to handle the increase in wiring or pursue a
9 wireless alternative, which is cheaper. He stated that the pump station
10 and PRV are fairly close in proximity, so it is more cost effective to use
11 a wireless option.

12 **c. CIP Authorizations** – Mr. Parcels stated that with the Townwood
13 Project, there is mention of issues with doing test holes and running into
14 gravity-fed sewer pipe. He stated that he wanted to ensure this is not
15 expected to occur. Mr. Lynn replied that the test holes they are looking
16 at are other utilities. He noted that there is a 6” gas main that runs
17 through the Townwood neighborhood and there are multiple crossings
18 of that utility they want to check out and confirm the depth. He noted that
19 there are no conflicts with the sanitary sewer.

20 **d. CIP Close-Outs** –

21 **e. Monthly Maintenance Update** – Mr. Parcels asked how many
22 hydrants, valves, and manholes have to be inspected, how often, and
23 how the numbers in the monthly memo compare to the averages. Mr.
24 Morrison stated that he would have to get back to Mr. Parcels to provide
25 that information. He stated that with regard to fire hydrants, they move
26 through the system strategically. He noted that generally, every hydrant
27 is being inspected every 10-11 months. He stated that they take a
28 different approach with manholes and valves. He stated that the staff will
29 usually determine which ones need more routine inspection and which
30 ones do not.

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1 Mr. Parcels asked if the valves being inspected were just PRVs or
2 larger, gate valves as well, and if they are being moved when inspected
3 to ensure operation when needed. Mr. Morrison replied that the valve
4 inspections that are shown in the monthly maintenance report are
5 related to the ACSA's gate valves and a handful of butterfly valves in the
6 system. He stated that in most cases, the staff is accessing the valve
7 and ensuring that the valve box is at the proper level, centered above
8 the operating nut, and clean. He noted that they are also physically
9 operating that valve, taking it from fully open to fully closed. He
10 mentioned that the GIS does indicate valves that should not be fully
11 closed, such as feed valves on pump stations or fire line valves, thus
12 these valves are not fully closed. He stated that the inspections do not
13 include any PRVs. He added that the Maintenance staff is currently
14 working with the Facilities group and CMMS Coordinator to get those
15 inspection activities fully documented in the Cityworks system and
16 included in the monthly update.

17 Mr. Parcels stated that in his previous profession, a lot of the PRVs
18 that protected equipment had bi-annual inspections depending on the
19 rating of the vessel. He asked if the PRVs would be inspected on an
20 annual basis or some other frequency. Mr. Morrison replied that with the
21 PRVs, the staff is looking at annual inspections which would include
22 isolating the valve, cleaning the internal components, and determining if
23 any other maintenance is required. He stated that with Phase 3 of
24 SCADA, the staff is also looking to analyze that data to identify any
25 trends with the PRVs. He noted that this would include the domestic 2"
26 valves, as well as the 6"-8" fire flow valves.

27 Mr. Parcels shifted to the reported history of leak repairs over the
28 last six months, noting that there were none in August 2023. He asked
29 how the leaks have been progressing over time, as he hopes they are
30 going down in number. Mr. Morrison replied that the number has held
31 fairly steady, trended over a six-month period, for water mains and water

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1 services. He stated that there are obviously additional repairs during
2 winter months, as freezing conditions begin. He noted that the repairs in
3 January 2024 were all water service lines and in areas that are on the
4 CIP list for replacement, like Scottsville and Townwood. He mentioned
5 that in Townwood, the staff noticed that there was some corrosion on
6 the copper pipe, causing the failure. He stated that in coordination with
7 the Engineering department, they will be looking at corrosivity in that
8 area through soil borings as part of the CIP project, which should
9 address any future issues.

10 Mr. Parcels stated that his final questions was about installations.
11 He asked if the installations listed in the summary memo referred to
12 irrigation or new service and irrigation. Mr. Morrison stated that the
13 installations refer to both domestic and irrigation services. He stated that
14 these are installations that the Maintenance department completes. He
15 stated that in most new developments, the developer has their
16 contractor install the new services, thus it would not show up on this
17 report. He noted that these installations refer to situations where there
18 was a new lot created or an infill where the ACSA needs to install
19 domestic service on behalf of the customer. He added that the majority
20 of installations done by ACSA staff are irrigation. He stated that those
21 installations will pick up in April/May, hold steady through the summer,
22 and then begin to drop as we enter the fall season.

23 Ms. Swanson stated that she had a question about the valve covers
24 in the roadway. She stated that she does seem them flipped up
25 sometimes, and she recalls there being some issues with the covers not
26 staying place. She asked if there is a strategy to keep tabs on those
27 covers. She added that she has found broken ones walking through her
28 neighborhood, which seems like a road hazard. Mr. Morrison replied that
29 the ACSA has a valve technician that is fairly aware of areas that have
30 this issue. He stated that the staff attempts to strategically schedule
31 replacements or adjustments to the valve boxes to prevent the issue. He

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1 mentioned that most of these issues occur after snowstorms, due to
2 impact from the snowplows. He noted that the goal is to have the valve
3 box at grade or slightly lower, so there is less chance that the snowplow
4 blade will hit it.

5 ***f. Rivanna Water and Sewer Authority (RWSA) Monthly Update –***

6 ***g. ACSA Board Policy Future Issues Agenda 2024 –***

7 ***Mr. Tolbert moved to approve the consent agenda, seconded by***

8 ***Ms. Swanson. All members voted aye.***

9

10 6. Customer Information Systems (CIS) Project Update

11 Mr. Lunsford stated that joining him today were Shannon Glen and
12 Andre van Honschooten from Validos to provide an overview of the CIS
13 project scope, goals, and roadmap. He stated that this project is unique in
14 that it will impact every single customer in a positive way when it is done. He
15 mentioned that one of the huge goals is to provide service that is tailored to
16 the individual customer’s preferred manner. He stated that the new
17 interfaces will be intuitive and modern, and will assist with account review,
18 bill payment, and consumption information. He added that the ACSA is also
19 looking to improve some other business operations as well, to ensure the
20 organization’s other stakeholders are able to interact with the ACSA quickly
21 and efficiently.

22 Mr. Lunsford stated that there is a huge focus on ensuring that the
23 customer experience work done through customer surveys and different
24 projects is incorporated into this process. He stated that they are absolutely
25 looking through the customer lens in all aspects. He stated that the project
26 is organizational-wide, as there have been representatives from every
27 department involved from procuring the consultant to the onsite meetings
28 this week.

29 Shannon Glen and Andre van Honschooten came forward to address
30 the Board. Ms. Glen stated that since this was the first time meeting the
31 Board, they would give a quick overview of Validos before diving into the

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1 project. She stated that Validos is a woman-owned business that focuses
2 solely on the utility industry, which both her and her colleague have spent
3 their careers working in. She stated that, more specifically, they specialize
4 in the meter-to-cash business processes that directly or indirectly impact the
5 customer. She noted that they work with both providers, as well as utilities
6 across the United States, with the goal to create a positive impact on the end
7 customer/ratepayer. She noted that the best way to make that positive
8 impact is to leverage technology to improve processes.

9 Ms. Glen stated that Validos began working the ACSA last month, with
10 the objective to improve the customer experience and customer service. She
11 stated that she knows the experience can be improved by creating
12 efficiencies in business processes, and automation or “less clicks” in the
13 system through technology. She stated that the scope of the project will
14 include CIS, which is the Customer Information System that determines
15 things like how bills are disseminated and how customer information is
16 managed. She mentioned that it will also include the ACSA website and
17 phone system. She stated that they will not only be looking at the technology,
18 but also the various business processes that are completed throughout the
19 day. She noted that there was a survey done this month, and Validos worked
20 with ACSA staff this week, to identify those processes and all the technology
21 that is involved.

22 Mr. van Honschooten stated that in terms of what success looks like, it
23 is important to create a seamless transition for customers. He stated that
24 currently, ACSA customers receive an accurate bill on time. He stated that
25 there will be some fundamental changes to the ACSA’s technology and in
26 doing so, the team must ensure that the change is seamless to the customer
27 and that they still receive those accurate bills on time.

28 Mr. van Honschooten stated that secondly, the project is more than just
29 a change in technology. He stated that if the technology is replaced and
30 nothing else is changed, then the project will not be successful. He stated
31 that technology is a tool that will be used to transform the business. He

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1 mentioned that they do not want to recreate what is already being done today
2 on new technology, but rather use technology to transform what is being
3 done.

4 Mr. van Honschooten stated that thirdly, it is important to make a
5 targeted investment in the technology. He stated that it is a journey, and the
6 ACSA cannot just buy technology that meets customer needs today. He
7 stated that they need to invest in technology that can meet customer
8 expectations as they evolve. Finally, he stated, there must be organizational
9 alignment for the project to be successful. He stated that every ACSA
10 employee and stakeholder has an impact on the customer, and everyone
11 must be involved and aligned in this technological transformation.

12 Mr. van Honschooten reiterated that this will be a journey and not a
13 destination. He stated that the ACSA has technology that was designed
14 when the relationship was between the meter and the premise, and the
15 customer just happened to be an attribute. He noted that now, however, the
16 utility needs to determine a relationship with the customer as well to
17 determine how and when they want to interact. He mentioned that the ACSA
18 must have the proper technology to enable that relationship with the
19 customer.

20 Dr. Palmer asked Validos if the Board an example of how the customer
21 experience is currently lacking, and how that will change after this project.
22 Ms. Glen stated that she would use the ACSA website as an example. She
23 stated that the website can be looked at from two perspectives – a non-
24 logged in view and a logged in view. She stated that currently, when
25 customers visit the ACSA website, they can get a lot of information without
26 a username or password. She mentioned that this user experience could be
27 improved with a more modern look and feel, as well as better navigation, but
28 the area that needs the most improvement is the logged in experience. She
29 stated that this is when customers need a username and password to log in
30 and perform tasks like viewing or paying a bill or submitting a service
31 request. She stated that the goal is to create a single sign-on, or one

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1 username and password, for customers to access their accounts and
2 manage things like payments, bill history, and consumption usage. She
3 added that this provides a streamlined manner for customers to interact with
4 the ACSA online in a self-service manner.

5 Dr. Palmer asked what the current process was. Ms. Glen replied that
6 currently, there are at least three different usernames and passwords that
7 customers need to access different logged-in components of the website.
8 She noted that the goal is to reduce those three usernames and passwords
9 to one. Mr. van Honschooten added that the goal is not only to reduce the
10 username and password to one, but also to create more ways in which to
11 engage with the ACSA and make it easier for the customer to pay the way
12 they prefer to pay. He mentioned that some utilities Validos works with send
13 customers a text message when their bill is ready, and they can pay the bill
14 through that text message. He noted that many customers prefer using text
15 messaging to pay their bill, while some prefer to log-in and look at their
16 account balance or enroll in autopay. He stated that the goal is to meet the
17 customer where they want to be met and make it an easy interaction.

18 Dr. Palmer asked if the ACSA used Paymentus or some sort of third
19 party for credit card payments and are customers going to be allowed to
20 make a credit card payment without a surcharge. Ms. Glen stated that there
21 are many options for payment provider services in the industry, but
22 Paymentus is one of the leaders. She stated that they have many different
23 ways that a customer can pay. She mentioned that for credit card payments,
24 there will always be a surcharge regardless of the payment provider. She
25 noted that there is always the option of either charging that to the customer
26 or absorbing the fee.

27 Dr. Palmer asked if the ACSA had to use a payment provider. Ms. Glen
28 replied yes. Mr. Lunsford added that the ACSA has to use a payment
29 provider if they want to accept credit card payments. Dr. Palmer asked if
30 customers will be able to have payments debited directly from their checking
31 account without a surcharge. Mr. Lunsford replied that the ACSA currently

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1 uses Paymentus and there is a small charge for customers that choose to
2 have their payments debited from their bank account, but this charge is
3 absorbed by the ACSA. He stated that this is different from the surcharge for
4 credit card payments. Dr. Palmer stated that some businesses do not require
5 the customer to pay a service charge if the payment is deducted directly from
6 their bank account. Mr. Lunsford noted that currently, the ACSA is absorbing
7 all of those fees. Mr. O’Connell added that the ACSA is billed for the charges
8 but does not pass that on to the customer. Dr. Palmer asked if the ACSA is
9 planning to change that in the future. Mr. Lunsford replied no. He stated that
10 the decision to absorb the charges was a decision that was made, in part,
11 based on feedback from customers. He noted that as a result, the
12 organization has seen incredible growth in the number of customers paying
13 electronically, which is a benefit to the customer and the organization.

14 Dr. Palmer stated that her other question is about setting up bill pay
15 through a checking account. She asked if the ACSA is going to have that
16 option, because it seems to create problems with some utilities. Mr. Lunsford
17 replied that the ACSA does currently have that option, and customers can
18 set it up through Paymentus or their individual banks.

19 Ms. Swanson asked, with all the changes, if the ACSA would still be
20 mailing paper invoices. Mr. Lunsford replied yes, for those customers that
21 prefer one. He stated that organizationally, the goal is to serve the customer
22 the way they prefer to be served. He stated that if the customer prefers a
23 paper bill, the ACSA will absolutely provide it to them. He stated that there
24 are cost savings with electronic billing, but if someone wants a paper
25 statement, they will receive it. Mr. O’Connell added that there are customers
26 that still want to pay in person, and they will be able to do that as well. He
27 stated that the ACSA is dealing with 40-year-old technology in a modern
28 world that is changing every day. He stated that the goal is to get the ACSA
29 in a position to offer customers various options and be able to change as the
30 world changes.

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1 Ms. Swanson stated that the idea of three logins is madness and
2 precisely the reason why she does not use online bill payment. She stated
3 that writing a paper check is much easier than having to manage multiple
4 log-ins. She stated that if the ACSA can somehow find a way to get those
5 multiple logins down to just one, that would at least help her move past
6 writing a paper check. Dr. Palmer added that some people have one
7 checking account and pay all of their bills from that account, which works
8 well with some companies. She stated that she tried this method with
9 Dominion Energy, but they enrolled her in autopay, and she was getting
10 double billed until she figured out what was going on.

11 Dr. Palmer stated that her other question was about the ACSA's
12 collection of customer data. She asked if customers would have to manage
13 cookies when they go online. Ms. Glen replied that there are security
14 protocols that the ACSA will want to put in place to ensure the website and
15 customer account information is secure. Dr. Palmer asked how much
16 information the ACSA will be collecting on customers that try to log in to their
17 account, aside from their names, addresses, and account information. Ms.
18 Glen stated that just contact information will be collected, and there will be a
19 secure way to capture payment information as there is now. Dr. Palmer
20 asked if there would be a pop-up message to manage cookies or that
21 requires a customer to accept cookies in order to access the site. Mr. van
22 Honschooten replied that Validos will work with leaders in the field that meet
23 the customers' needs but also comply with regulatory requirements. He
24 noted that the cookies messaging, although annoying, is a federal
25 requirement as that information must be disclosed to the customer. Dr.
26 Palmer asked if a customer would have to go through that process every
27 time they log in. Ms. Glen replied that it depends on how they are logging in,
28 but the goal is to create a better customer experience with less clicks.

29 Mr. Parcels asked for clarification on the cookies messaging being
30 federally mandated. Ms. Glen replied that there are requirements about
31 adding cookies, however it is just a standard not a federal mandate. Mr.

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1 Parcells stated that what he is hearing from Dr. Palmer is the desire to
2 minimize any cookie requirement as much as possible, allowing the ACSA
3 to control the amount of data being required from customers. Mr. Lunsford
4 added that the ACSA has not given Validos any direction on this topic yet,
5 but the intent is not to collect any customer information that is not requested
6 through the website. He stated that the ACSA has no intent of using any
7 information such as browser history to advertise, like a lot of cookies are
8 used for.

9 Ms. Swanson asked how many other communities and what size systems
10 Validos has worked with in the past, and if they had success making this
11 transition with those organizations. Ms. Glen replied that Validos has worked
12 with organizations that have had anywhere from 20,000 to 1,000,000
13 customers. She stated that they have worked specifically with various CIS
14 solutions that have catered to both small and large utilities. Mr. van
15 Honschooten added that Kim Shannon, one of the partners at Validos, has
16 over 25 years of experience working with meter-to-cash processes with
17 different utilities. He stated that he has over 20 years' experience and Ms.
18 Glen has 13 years of experience. He mentioned that they have worked as
19 system integrators, providing customer related solutions for utilities. He
20 stated that they took this experience and formed Validos, to really address
21 and help utilities make decisions that ultimately help the ratepayer.

22 Ms. Swanson asked, in terms of the website experience, if the customer
23 would still have access to some of the resources that are currently available
24 such as the CIP map, without it being buried behind a login. Ms. Walker
25 replied that it would only be the payment portion of the website that would
26 require a login. Mr. Lunsford added that the intent is to continue to improve
27 the non-logged-in portion of the site even further.

28 Mr. O'Connell asked Ms. Glen and Mr. van Honschooten if they had a
29 slide in their presentation that shows the project schedule, to give the Board
30 a feel of when things will be happening. Ms. Glen referred to the slide titled
31 "Project Progress-Timeline." She stated that the slide outlines a high-level

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1 project plan that Validos established coming into this week. She stated that
2 the plan is to deliver a roadmap in March, for the next few years to replace
3 the technology and improve customer experience. She stated that they
4 would then begin a competitive procurement process to evaluate different
5 technologies, using a phased approach.

6 Mr. Lunsford added that the ACSA has leveraged its current billing
7 system to serve many different needs, both operationally and
8 departmentally. He stated that this project is a huge shift because it is much
9 broader than just a new billing system. He stated that it will impact people in
10 different ways and ensure that customers have the highest level of service.

11
12 7. Advanced Metering Infrastructure (AMI) Project Update

13 Mr. Lunsford stated that he would move rather quickly through the
14 presentation, but there were a few aspects of the project that he would like
15 to cover in a bit of depth with his presentation (Attached as Pages_____).
16 He stated that he would first look at the AMI project milestones, followed by
17 a brief update of the current status of the project and next steps.

18 Mr. Lunsford moved the first slide showing a timeline of the major
19 project milestones and noted that the project began with the feasibility study
20 in 2018. He stated that Phase I consisted of a small-scale deployment in
21 2021, followed by Phase II in 2022. He stated that Phase II was larger and
22 addressed all of the ACSA's large meters and a group of residential ¾"
23 meters. He stated that the final deployment began in April 2023, as they were
24 able to accumulate inventory for the bulk of the system.

25 Mr. Lunsford moved to the next slide outlining the current AMI
26 updates. He stated that currently, the ACSA has completed 19,465 meters,
27 all of which are communicating with the ACSA every six hours. He noted that
28 there are about 3,000 meters left to retrofit, which means the meters are in
29 the ground and just need the radio component to be fully operational. He
30 mentioned that one of the things the staff is doing every day, is analyzing the
31 high-flow and continuous flow alerts to determine whether it is a normal

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1 range of consumption for that customer or a possible leak. He added that
2 the hydrant meter flushing devices are being monitored daily as well, to
3 check for any anomalies.

4 Mr. Lunsford stated that the map on the next slide was put together
5 by Justin Ray in the IT department and is a beautiful representation of the
6 AMI deployment and remaining meters. He noted that the red dots signify
7 areas where there is still work to be done, which will be completed over the
8 next few months.

9 Mr. Lunsford stated that he wanted to take a moment to talk about
10 the continuous flow review that the staff performs every day. He stated that
11 the illustration on the next slide is an example of information that the team
12 receives daily through an alert process. He stated that the data shown on
13 the graph is from an actual customer and he wanted to share the feedback
14 from the customer after the ACSA contacted her. He then read the email
15 from the customer, which praised the customer service they received. He
16 noted that this email shows how AMI has created a paradigm shift in the way
17 the ACSA communicates with its customers. He stated that in the past, the
18 staff would not have seen the high consumption until a month later and the
19 customer would have had a huge bill. He stated that instead, the ACSA was
20 alerted of the continuous flow, and able to contact the customer before it had
21 a dramatic impact on her bill.

22 Mr. Lunsford moved to the last slide to discuss next steps. He stated
23 the hope is to have the installation contracts, PMI, back on site by the end of
24 March to complete the remaining 3,000 meters by the end of May. He stated
25 that after those meters are done, they will work to optimize communications
26 and ensure there is the collection infrastructure to pick up those areas that
27 were possibly problematic during the propagation study in 2018. He noted
28 that system performance is currently great. He mentioned that the ACSA will
29 be developing and configuring a customer portal for customers to review
30 their consumption information, which is somewhat related to the CIS work
31 being done. He stated that some CIS solutions have consumption portals

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1 built in, and some partner with other organizations. He added that there are
2 additional tools and technology that can be leveraged to help obtain data in
3 different ways.

4 Mr. Lunsford stated that, lastly, he has a meter and a radio with him
5 today, if any of the Board wanted to see what a retrofit looks like. Ms.
6 Swanson replied sure. Kenny Barrow, Meter Operations Supervisor, came
7 forward to show the unit to the Board. He stated that it was a typical ¾" iPerl
8 meter. He stated that previously, the meter was attached to a touch pad and
9 the meter technicians would have to physically touch the pad to get the
10 reading. He stated that now, the radio is mounted to the meter lid through
11 the same hole the touch pad was attached through. He stated that the retrofit
12 process involved attaching the radio to the lid and reprogramming the
13 existing meter to go from reading hundreds of gallons to a single gallon. He
14 noted that they then plug it in, and it is ready to go.

15 Mr. Barrow stated that on a few occasions, the staff has seen the
16 tops of the units shaved off from lawnmowers. He stated that the meter lid
17 specs were changed so the meter has a recessed lid, allowing the radio unit
18 to sit flush with lid to avoid that.

19 Ms. Swanson stated that her question is about the battery life of the
20 radio unit. She stated that the radios are transmitting every six hours, all day
21 long. She asked Mr. Barrow what the life expectancy is for the batter. He
22 stated that it is 20 years. Ms. Swanson asked, reading every six hours, will
23 the battery last for the full 20 years. Mr. Barrow replied yes, for typical use,
24 meaning reading every six hours, it will last the full 20 years. He mentioned
25 that once AMI is fully deployed and everything is fine tuned, the staff will be
26 able to send out a signal and retrieve a meter reading in real time, as
27 opposed to waiting for the six-hour cycle. He stated that every time the meter
28 is interrogated for data, it uses a little of the battery life. He added that
29 depending on how often that has to be done, it could decrease the battery
30 life, but he does not know how much. He added that the radios have a 10-
31 year full replacement warranty, and a pro-rated replacement cost after that.

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1 Ms. Swanson asked if the ACSA would be able to do the
2 replacements going forward without hiring an outside contractor. Mr.
3 Lunsford replied absolutely, barring thousands of them failing at one time.
4 He stated that Mr. Barrow's team has been installing all of the components
5 on anything that is new or has failed in the last three years, so they are fully
6 capable of making the replacements. Mr. Barrow added that each meter has
7 an expiration date. He stated that the meter he has with him today was
8 manufactured in July 2016, and has a replacement date of July 2036. He
9 stated that the idea is not to have thousands of meters die in the span of a
10 couple months, so they need to come up with a strategic plan for
11 replacement. He added that they will get a better idea of the life span once
12 they have been in the ground for a while. Mr. Lunsford pointed out that when
13 the meters communicate during the day it is for a fraction of a second, so the
14 energy use is very minimal.

15 Mr. Tolbert asked how the homeowner knows that the new meter has
16 been installed. Mr. Lunsford replied that the ACSA was sending mailers and
17 postcards to customers early on in the project but had a difficult time making
18 sure customers received them and the installers were having to move cycles
19 as well. He stated that when there is a retrofit, it is a seamless process and
20 no interruption to the customer. Mr. Tolbert asked if one could look at the top
21 of the meter and tell if it was a new AMI meter or not. Mr. Barrow replied that
22 a person could tell the difference if they knew what they were looking for. He
23 stated that the old touch pad was flat, but the new meters have a slight
24 mushroom shape on the top of it.

25 Mr. Tolbert asked when customers are notified of how to take
26 advantage of the new AMI meter. Mr. Lunsford replied that currently, the
27 benefit to the customer is when ACSA staff is able to contact them about
28 abnormal consumption. He stated that the customer portal, which is a major
29 component of the AMI project, will probably be 12-16 months down the road.
30 He mentioned that it has been recommended that every customer have at
31 least 12 months of readings in the system before the data is available to

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1 them. He noted that it is better for customers to have that pattern rather than
2 using a small sample set of data to make assumptions.

3 Mr. Tolbert asked if neighborhoods are done all at once, or how it is
4 determined when and where the installations are done. Mr. Barrow replied
5 that the work is being done by billing cycle thus essentially yes, they are
6 done by neighborhoods. He stated that the only areas left, which are shown
7 on the map Mr. Lunsford shared, are clusters of subdivisions that have a lot
8 of townhomes. He noted, for example, one of these areas is Briarwood. He
9 stated that it would take 700 radios to impact a small area. Mr. Tolbert asked
10 about the red dots sprinkled around the map. Mr. Barrow replied that some
11 of those are in the same billing cycle as those clusters he mentioned. Mr.
12 Lunsford added that some of the one-offs could have been a return to utility,
13 meaning that the ACSA needs to go out and do some work first.

14 Ms. Swanson stated that this project is an amazing and seamless
15 transition to a whole host of new technologies being used at one time. She
16 stated that there no moving parts anymore at the meter, which is remarkable.
17 She asked about software updates, and if there was one scheduled for the
18 meters and how that works. Mr. Barrow replied that the firmware updates for
19 the radio units will happen over the air, but he is not sure when. He noted
20 that they do not have to do anything physically with the meter. Ms. Swanson
21 asked if the staff would be notified when those updates take place. Mr.
22 Lunsford replied yes. He stated that they will be notified when there are
23 changes with the system which, frankly, are quite technical. He added that
24 the ACSA has contracted with PMI to ensure the system is working well and
25 does not expect that to be an issue.

26 Mr. Parcels asked if making the customer portal available to
27 customers after 12 months of history meant that is how the ACSA is planning
28 to work through all of the logistics that would be presented to the customer.
29 He stated that based on what has been described, it seems to him that a
30 customer should know within six months what their history looks like so they
31 can report concern to the ACSA sooner. Mr. Lunsford replied that in full

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1 transparency, the customer portal cannot be ready in six months. He stated
2 that Sensus Analytics had a customer portal in 2018, but since made the
3 decision to get out of the customer portal business. He noted that it was
4 disappointing to hear, but fortunate that the organization did not expend time
5 and money setting up that customer portal. He stated that the ACSA started
6 to research different customer portals that directly interface with Sensus
7 Analytics. He stated that they are working through this process, and the CIS
8 project is an incredible opportunity to ensure a good decision is made for
9 AMI, the billing system, and the payment system. He added that regardless
10 of the portal being available to customers, the ACSA staff will continue to
11 review those daily reports, and not rely on customers to identify leaks on
12 their end.

13 Mr. Parcels stated that as it stands, most customers are aware of
14 the daily monitoring, they just cannot see the data themselves and the ACSA
15 is picking up on issues and alerting customers. Mr. Lunsford replied yes. He
16 stated that he is not entirely sure if most customers are aware, but they have
17 been provided that information.

18
19 8. Rivanna Pump Station Update

20 Mr. O'Connell stated that he wanted to follow-up from last month and
21 give an update on the flooding event at the Rivanna Pump Station. He stated
22 that Jeremy Lynn and one of his engineers had an opportunity to take a tour
23 and take some pictures, which he felt would help the Board to understand
24 the magnitude of the situation. He added that he would also talk about what
25 RWSA will be facing from here forward. He noted that most of the slides in
26 the presentation were recently taken photos that RWSA has shared with the
27 ACSA.

28 Mr. Lynn stated that the goal of this presentation is to give the Boad
29 a glimpse of the magnitude and scope of the efforts that have been underway
30 at the Rivanna Pump Station since the flooding event on January 9th. He
31 stated that RWSA did provide a majority of the slides and David Tungate and

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1 Jennfier Whitaker gave a site tour at the end of January. He moved to the
2 first slide to give the Board some perspective on the sewer system as a
3 whole. He stated that RWSA has two pump stations at the Moore’s Creek
4 Wastewater Treatment Plan. He stated that one is the Moore’s Creek Pump
5 Station, which collects flow from the Crozet area and the southside of the
6 Charlottesville, depicted by blue on the map. He stated that the Rivanna
7 Pump Station is on the Woolen Mills side of the plant property, and it collects
8 all wastewater flow from the northern side of the City, 29 North, all the way
9 to the North Fork Regional Pump Station area. He noted that the Rivanna
10 Pump Station is the largest and serves approximately 60% of the system.

11 Mr. Lynn moved to the next slide, giving a deeper look at the plant.
12 He stated that the two pump stations he mentioned, Moore’s Creek and
13 Rivanna, are visible in the aerial photo. He stated that the Rivanna Pump
14 Station was constructed in 2017 and has a pumping capacity of 53 million
15 gallons pe day (mgd). He mentioned that the purpose of the pump station is
16 to lift the wastewater flows 100 feet to the headworks of the plant for
17 treatment.

18 Mr. Lynn stated that the next slide shows an aerial view of the
19 Rivanna Pump Station, taken on January 10th immediately after the flooding
20 event. He stated that the station was constructed with a wet well in the
21 middle, which is where the flow comes in. He noted that the arrow to the right
22 indicates where the tunnel comes in underneath the station from East Market
23 Street and Riverview Park and into the wet well. He mentioned that the
24 station was built with two dry pumping rooms, and the next slide will show
25 the pumps themselves.

26 Mr. Lynn moved to the next slide, showing a picture of one of the dry
27 pump rooms. He mentioned that each pump room has three pumps for a
28 total of six at the station, with four 13 mgd pumps and two 7 mgd pumps. He
29 noted that this is the area that was flooded. He stated that these pumps are
30 not designed to be in a wet environment, but rather to remain dry. Dr. Palmer
31 asked if they were underwater. Mr. Lynn replied yes and said that there was

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1 about 60ft of water above the pumps. He stated the pumps did work
2 intermittently for a number of days, until the bypass pumps were installed
3 and operational.

4 Mr. Lynn stated that the next slide was another aerial view of the
5 pump station, which really shows the magnitude of the operation to get the
6 bypass pumps set up. He stated that the goal was to get a 50 mgd bypass
7 pumping system set up, which does not happen overnight. He stated that
8 this photo was taken January 23rd, at which point they were at a pumping
9 capacity of about 8 mgd. He stated that this could handle the normal dry
10 flow, but not a rain event. He stated that he feels this slide sums up the
11 remarkable effort by RWSA, their contractors, and consultants, to quickly set
12 up a 24/7 bypass pump operation. He noted that since January 18th, there
13 have been no overflows in the system. He stated that the January 18th
14 overflow was an intentional bypassing of the pump station, and a direct
15 discharge into Moore’s Creek to get ahead of things. He mentioned that the
16 discharge was coordinated with the Department of Environmental Quality
17 (DEQ), and RWSA has been working in conjunction with them the entire
18 time.

19 Mr. Lynn moved to the next slide, which was a collage of photos
20 showing a 36” valve replacement on the upper portion of the force main. He
21 stated that this slide also shows the tremendous effort involved and the
22 various tasks necessary to get the bypass pump set up. He mentioned that
23 most of this work is happening at night when the flows in the system are at
24 their lowest.

25 Mr. Lynn stated that pictures of the inside of the wet well are shown
26 on the next slides. He stated that the Board can see in the first photo on the
27 left, how the well has been pumped down but is not clean by any means. He
28 stated that the grey pipes running vertically are the discharge pipes. He
29 stated that the photo to the right in the next slide shows the four steel support
30 beams that had to be installed to support the future bypass pump piping,
31 which he will show in the next slide.

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1 Mr. Lynn stated that the next slide shows the Phase II bypass, as
2 RWSA refers to it, which will get the pump station up to the 50 mgd pumping
3 capacity. He stated that seven pumps will be put in the wet well to bypass
4 the pump station and get the flow to the headworks.

5 Dr. Palmer asked where the old pumps would be in this picture. Mr.
6 Lynn stated that looking at the photo on the left, there is the wet well of
7 standing wastewater. He stated that on the left and right sides of those walls,
8 about three stories down, are the dry pump rooms where the pumps are
9 located. He noted that the pumps are not at surface level, but rather several
10 stories below grade.

11 Dr. Palmer asked if she was correct in hearing Mr. Lynn say that the
12 dry pumps were still working intermittently, even after having been
13 submersed. Mr. Lynn replied that she was correct. He stated that the pumps
14 would run for about 15-30 minutes and then short out, and that is how
15 RWSSA pumped the wet well until the bypass pumping was set up.

16 Dr. Palmer stated that, looking back at the picture of the pumps, it
17 looks like there is an air intake or fan on them. She asked what was
18 happening with the sewage if those were being covered. Mr. Lynn replied
19 that it was remarkable that the station kept limping along the way it did. Dr.
20 Palmer asked if air was coming in or out of the pumps. Mr. Lynn replied that
21 air would be coming into the pumps and when they were submerged, there
22 was sewage all over the pumps and its electrical components.

23 Mr. Lynn continued with the next slide. He stated that once the sewer
24 is pumped out of the wet well, it has to go to the force main to be conveyed
25 to the headworks. He noted that this slide shows the force main being dug
26 up and the installation of bypass pump connections to allow the wastewater
27 to go from the suction side of the pump station to the headworks of the plant.
28 He noted again that this is happening at night when flows are the lowest.

29 Mr. Lynn stated that the next slide shows a daytime picture. Ms.
30 Swanson asked who was doing this work. Mr. Lynn stated that Faulconer
31 was the contractor that RWSA initially called in. Ms. Swanson asked if they

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1 had enough personnel to handle the work. Mr. Lynn stated that they have
2 been remarkable in their response to helping with this challenge. He stated
3 that RWSA has also called in MEB, which is another contractor. He
4 mentioned that Faulconer is doing more of the piping work, while MEB is
5 doing a lot of the station work. He noted that Xylem has provided pumps,
6 and there is probably a slew of other contractors and consultants.

7 Dr. Palmer asked once this is all completed, will the bypass pumping
8 be left in place for future emergencies, or will it need to come out. Mr. Lynn
9 replied that he is not sure if RWSA has made that decision yet. He stated
10 that he does not know if all of the bypass pumping can remain given the
11 scale of it, but that has yet to be determined at this point.

12 Mr. Lynn moved to the next slide, which shows the clean wet wells
13 and the multiple bypass pumps. He stated that the following slide shows an
14 aerial view of the entire work site, labeled by letters. He stated that the letter
15 A on the map marks the emergency pump connection, and letter B is one of
16 the two 36" bypass pump headers which can be seen wrapping around the
17 right side of the building. He mentioned that keeping those in place could be
18 a challenge. He stated that letter C on the map is a bank of generators and
19 fuel that runs all of the pumps. He noted that RWSA is currently going
20 through about 1,000 gallons of diesel fuel per day. He added that one of the
21 next steps is figuring out how to get those bypass pumps on the electrical
22 grid as opposed to relying on generators. He stated that letter D is the other
23 36" header, and letter E is the Phase I bypass pump lines, which is in the
24 way of the parking lot and will need to be removed. He stated that E was the
25 initial attempt to get the flow around the station, but B is the more long-term
26 solution. He added that letter F marks the pump connections and G is the
27 backup pump connections.

28 Mr. Lynn stated that the next slide is his last photo of the wet well.
29 He stated that pumps 1,2, and 3 in the photo are connected. He noted that
30 pumps 4,5, and 6 will go on the other side and pump 7 will go where the grey
31 valve is seen. He stated that in terms of next steps, the flooding damage is

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1 now being assessed and RWSA is conducting investigations. He mentioned
2 that the costs are beginning to accumulate, which will be handled through
3 the operating budget for now. He noted that RWSA's insurance provider has
4 been in the mix and performed several site visits. He stated that early
5 indications suggest that insurance may cover some or all of the costs. He
6 stated that due to the backup and flooding that occurred at the pump station,
7 the ACSA did have a sewer overflow in its system at the end of East Market
8 Street. He stated that maintenance has been working very closely with the
9 four impacted property owners, and the area has been fenced off to keep
10 people and pets out of the area.

11 Dr. Palmer stated that RWSA is about to build a huge pump station
12 for raw water and asked if any thought had been given to installing an
13 alternative pumping situation for extreme failures like the one at the Rivanna
14 Pump Station. Mr. Lynn replied that he cannot speak to what RWSA does,
15 but the ACSA does have pumps, bypass pump connections, generators, and
16 transfer switches and connections for portable generators. He stated that
17 ACSA's pump stations are much smaller, and he does not know if it is
18 standard to have a bypass system for one the size of RWSA's.

19 Mr. O'Connell stated that the layout of the pumps at Rivanna was
20 meant to be redundant, so they were not all going at the same time. He
21 stated that there were a number of built-in redundancies, so that is why it is
22 so unclear as to why this happened. Mr. Lynn stated that some pump
23 stations, like North Fork for example, have pumps that are designed to be
24 submerged. He stated that it is a challenge to maintain those pumps, as they
25 have to be pulled out as opposed to being worked on in the pump room. He
26 mentioned that there are different designs, and the Rivanna Pump Station
27 was well thought out.

28 Mr. O'Connell stated that there are a couple of things going on, from
29 his perspective, the first being an investigation into what happened. He
30 stated that they were just able to get into the pump rooms this week, so
31 sorting through everything may take some time. He stated that the other

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1 thing is thinking long-term about what to put back. He stated that RWSA has
2 the original design engineer for the pump station, as well as a second
3 engineering firm that had nothing to do with the design, to evaluate
4 everything. He added that one of the bigger issues is the lead time on the
5 pumps, which can be 6-12 months if available. He added that he wanted to
6 reiterate the unbelievable effort on the part of RWSA to set up the bypass
7 pumping, which is fully operational now. Dr. Palmer asked how old the
8 Moore’s Creek Pump Station was. Mr. O’Connell replied that he was no sure,
9 but maybe about 30 years old.

10
11 9. Items Not on the Agenda

12 Mr. O’Connell stated that ACSA staff will be presenting the proposed
13 CIP program, followed by budget discussions in April, May, and June. He
14 stated that they will look at the wholesale rate increase from RWSA, which
15 is 13%, as well as ACSA rate options. He added that he also sent the Board
16 an email about all of the water supply reservoirs being 100% full, with more
17 rain coming.

18
19 10. Executive Session – Personnel Matter

20 Ms. Trent read a Resolution to enter Executive Session
21 pursuant to Virginia Code §2.2-3711 A (1) to discuss a personnel matter
22 (Attached as Page_____).

23 ***Mr. Tolbert moved to approve the Resolution as presented***
24 ***to the Board; seconded by Dr. Palmer. The Chair asked for a roll-call***
25 ***vote: Mr. Parcels, aye; Dr. Palmer, aye; Mr. Tolbert, aye; Mr. Armstrong,***
26 ***aye; Mr. Roberts, aye.***

27 The Board of Directors came back into regular session. Ms. Trent
28 read into record a Resolution stating that only matters so previously stated
29 and exempted from open discussion in regular session were discussed in
30 Executive Session (Attached as Page _____).

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1 *Dr. Palmer moved to approve the Resolution as presented*
2 *to the Board, seconded by Mr. Tolbert. The Chair asked for a roll-*
3 *call vote: Mr. Parcels, aye; Dr. Palmer, aye; Mr. Tolbert, aye; Mr.*
4 *Roberts, aye; Mr. Armstrong, aye; Mr. Moore, aye.*

5

6 11. Adjourn

7 *There being no further business, Dr. Palmer moved that the*
8 *meeting be adjourned, seconded by Ms. Swanson. All members voted*
9 *aye.*

10

11

12

13

14

Gary B. O'Connell, Secretary-Treasurer