



RSWA BOARD OF DIRECTORS
Minutes of Regular Meeting
November 19, 2024

A regular meeting of the Rivanna Solid Waste Authority (RSWA) Board of Directors was held on Tuesday, November 19, 2024, at 2:00 p.m. at Rivanna Administration Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

Board Members Present: Mike Gaffney, Jeff Richardson, Jim Andrews, Brian Pinkston, Sam Sanders (arrived at 2:04 p.m.), Steven Hicks

Board Members Absent: Lance Stewart

Rivanna Staff Present: Bill Mawyer, Phil McKalips, Betsy Nemeth, Lonnie Wood, David Tungate, James Heller, David Rhoades, Deborah Anama, Jacob Woodson

Attorney(s) Present: Valerie Long

1. CALL TO ORDER

Mr. Gaffney convened the November 19, 2024 regular meeting of the Board of Directors of the Rivanna Solid Waste Authority at 2:00 p.m.

2. AGENDA APPROVAL

There were no comments on or questions for the agenda.

Mr. Andrews moved that the Board approve the agenda. Mr. Pinkston seconded the motion, which carried unanimously (5-0). (Mr. Sanders and Mr. Stewart were absent.)

3. MINUTES OF PREVIOUS BOARD MEETING

a. Minutes of the Regular Meeting of the Board on September 24, 2024

There were no comments on or questions regarding the minutes for the meeting held on September 24, 2024.

Mr. Pinkston moved that the Board to approve the minutes from the meeting held on September 24, 2024. Mr. Andrews seconded the motion, which carried unanimously (5-0). (Mr. Sanders and Mr. Stewart were absent.)

4. RECOGNITION

a. Resolution of Appreciation for Lance Stewart, RSWA Board Member

Resolution of Appreciation for Mr. Lance Stewart

47 **WHEREAS**, Mr. Stewart has served as a member of the Rivanna Solid Waste Authority
48 Board of Directors since May 2019; and
49

50 **WHEREAS**, over that same period Mr. Stewart has demonstrated leadership in solid waste
51 and recycling services and has been a valuable member of the Board of Directors and a resource to
52 the Rivanna Solid Waste Authority; and
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54 **WHEREAS**, Mr. Stewart's understanding of the solid waste and recycling operations of the
55 Solid Waste Authority has supported a strategic decision-making process that provided benefits to
56 the customers served by the County of Albemarle as well as the community as a whole. During Mr.
57 Stewart's tenure, major initiatives and projects were completed for the Authority including:
58

- 59 – a 5-year Strategic Plan to provide direction for the programs of the Authority
- 60 – market-based tipping fees to increase community services
- 61 – vegetative buffer management and large clean fill disposal programs at the Ivy Solid Waste
62 & Recycling Center
- 63 – construction of the Ivy and Southern Albemarle Convenience Centers for collection of
64 recyclable materials and household refuse
- 65 – and planning for construction of a new recyclable materials Baling Facility and a Northern
66 Albemarle Convenience Center
67

68 **NOW, THEREFORE, BE IT RESOLVED** that the Rivanna Solid Waste Authority Board
69 of Directors recognize, thank, and commend Mr. Stewart for his distinguished service, efforts, and
70 achievements as a member of the Rivanna Solid Waste Authority, and present this Resolution as a
71 token of esteem with best wishes in his future endeavors.
72

73 **BE IT FURTHER RESOLVED** that this Resolution be entered upon the permanent
74 Minutes of the Rivanna Solid Waste Authority.
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76 Michael Gaffney, Chairman
77 Jim Andrews
78 Steven Hicks
79 Brian Pinkston
80 Jeff Richardson
81 Sam Sanders
82

83 **Mr. Andrews moved that the Board adopt the Resolution of Appreciation for Mr. Lance**
84 **Stewart. Mr. Pinkston seconded the motion, which carried unanimously (6-0). (Mr. Stewart**
85 **was absent.)**
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87 *b. Resolution of Appreciation for James Heller, Driver/Operator*
88

89 **Resolution of Appreciation for James Heller**
90

91 **WHEREAS**, Mr. Heller has served as a Driver/Operator for the Rivanna Solid Waste Authority
92 since August of 2004; and
93

94 **WHEREAS**, over a period of 20 years, Mr. Heller has demonstrated leadership in his field and
95 has been a valuable resource to the Authority and its employees; and
96

97 **WHEREAS**, Mr. Heller's understanding of the Authority's operation and dedication and
98 loyalty to the Authority has positively impacted the Authority, its customers and its employees; and
99

100 **WHEREAS**, the Rivanna Solid Waste Authority Board of Directors is most grateful for the
101 professional and personal contributions Mr. Heller has provided to the Rivanna Solid Waste
102 Authority and to its customers and its employees; and
103

104 **NOW, THEREFORE, BE IT RESOLVED** that the Rivanna Solid Waste Authority Board of
105 Directors recognizes, thanks, and commends Mr. Heller for his distinguished service, efforts, and
106 achievements as a member of the Rivanna Solid Waste Authority, and presents this Resolution as a
107 token of esteem, with its best wishes in his retirement.
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109 **BE IT FURTHER RESOLVED** that this Resolution be entered upon the permanent Minutes of
110 the Rivanna Solid Waste Authority.
111

112 *Michael Gaffney, Chairman*

113 *Jim Andrews*

114 *Steven Hicks*

115 *Brian Pinkston*

116 *Jeff Richardson*

117 *Sam Sanders*

118 *Lance Stewart*
119

120 **Mr. Pinkston moved that the Board adopt the Resolution of Appreciation for Mr. James**
121 **Heller. Mr. Andrews seconded the motion, which carried unanimously (6-0). (Mr. Stewart**
122 **was absent.)**
123

124 Mr. Mawyer asked if Mr. Heller would like to share his single most memorable event in his time
125 with the Authority.
126

127 Mr. Heller stated that Tom Frederick, who was once in Mr. Mawyer's position, came to them one
128 day and stated that they did not know what they were going to do, and they may need to look for
129 other jobs. He stated that thanks to Liz Palmer, who was a trooper along with Mr. Gaffney and the
130 other Board members, they did some unbelievable work. He stated that this Board understood what
131 was needed in the County and did what needed to be done. He stated that he remembered when they
132 opened the newest transfer station, everything changed.
133

134 Mr. Heller stated that the place was so much cleaner and the people who came in were so much
135 nicer. He stated that Mr. Mawyer and Mr. Rhoades' new management was unbelievable. He stated
136 that he was not getting anything out of saying this now, since he was leaving, but he had always
137 stated that these gentlemen here and the two others at Rivanna made a world of difference so that he
138 was able to stay at Rivanna. He stated that they made life here a whole lot better so he could
139 continue, and he thanked them for all that they had done.
140

141 **5. EXECUTIVE DIRECTOR'S REPORT**

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143 Bill Mawyer, Executive Director, stated that since this was the last RSWA meeting of the year, they
144 were making it a holiday celebration meeting. He stated that as a token of appreciation, they had
145 reusable Rivanna Authorities water bottles and Rivanna grocery totes available for Board members.

He stated that he also wanted to express his gratitude for the members service. He stated that it had been a great year, and they were looking forward to 2025.

Mr. Mawyer stated that to recap, they celebrated Employee Appreciation Day earlier this month and honored several employees. He stated that James Heller had just reached 20 years of service and was retiring, while others reached 10 and 5 years of service. He stated they also recognized Rodney Bright, who recently obtained his CDL Class A driver's license, allowing him to drive the large trucks on public roads.

Mr. Mawyer stated that he also wanted to acknowledge the significant amount of truck driving and road driving that occurred at their facility, with seven loads of leachate being transported to the plant every week. He stated that Mr. Bright's new license was a welcome addition to their team. He stated that business at the Ivy facility remained steady, with an upper level of 240 tons per day transferred in September and 214 tons per day in October, which was similar to 2023. He stated that they were currently leveling out their growth in tonnage, which was a positive trend. He stated that their maximum capacity was 450 tons per day, with occasional days reaching that 450 ton level.

Mr. Mawyer stated that Mr. McKalips' idea for the pumpkin composting event, or "The Pumpkin Smash," had been a success, with 1,700 pounds of pumpkins being collected and trucked to Panorama Farms for composting. He stated that they had also celebrated America Recycles Day on November 15, recognizing their recycling programs. He stated that they had been awarded a grant of approximately \$52,000 from the state for the litter prevention and recycling program.

Mr. Mawyer stated that additionally, they had received a competitive litter grant of \$6,000, which they planned to use to purchase reusable, insulated totes. He stated that the totes would be distributed through the Blue Ridge Area Food Bank, where they would be used to package food products for distribution at Thanksgiving. He stated that they completed the Fall Refuse and Special Collection Program, which saw over 700 customers visit the Household Hazardous Waste collection event over two days. He stated that the special collection program received over 56,000 pounds of products, including furniture, mattresses, appliances, and tires.

Mr. Mawyer stated that the United Way Day of Caring event, in partnership with Atlantic Union Bank employees, allowed them to bag oysters received at McIntire and ship them to VCU, where they were reseeded and returned to the James River and Chesapeake Bay. He stated that this program promotes water quality by reintroducing oysters into the environment.

Mr. Mawyer stated that the data also showed that e-waste disposal is a growing program, with a 33% increase in participation from Albemarle County residents and 43% increase in City resident participation over the last three years. He stated that household hazardous waste, appliance disposal, and furniture and mattress collection have also seen significant growth. He stated that they are hopeful the long-running program has helped to stabilize the disposal market for used mattresses. He stated that the City and the County cover the cost of products that are brought to them by customers, as customers do not incur any costs.

Mr. Pinkston asked where the mattresses eventually went.

Mr. McKalips stated that they were disposed of at the landfill in Henrico County.

Mr. Gaffney stated that they could not recycle the mattresses.

Mr. Pinkston asked if they could chip them up.

Mr. Mawyer stated that the springs caused significant problems when attempting to recycle them in the recycling machines. He stated that they received a proposal from van der Linde Recycling, located at Zion Crossroads, which would have cost \$100,000 to process these mattresses. He stated that it was decided not to pursue this program last year, resulting in the mattresses going to the landfill. He stated that if the Board was so inclined, they could reconsider that request.

Mr. Mawyer stated that he attended the annual membership meeting of the Solid Waste Association of North America (SWANA), which provided a valuable networking opportunity. He stated that the RSWA Board meeting schedule for 2025 was included as a consent agenda item, outlining their regular meetings, which took place every other month, starting in January, on the fourth Tuesday at 2:00 p.m., except for November, when they met in the third week due to holidays.

Mr. Mawyer stated that they accepted written comments from the public, which they would read to the Board if received, and offered virtual commenting via Zoom during Board meetings. He stated that they recorded and posted meetings on their website for public viewing. He stated that the 2025 holiday schedule for staff was also included on the consent agenda. He stated that this schedule included 13.5 holidays, with 12.5 standard holidays and the addition of December 26th next year. He stated that for next year, they propose adding the Friday following Christmas on Thursday, resulting in 13.5 days of holidays for staff.

Mr. Gaffney asked if the schedule was similar to the County, City, and Albemarle County Service Authority schedules for 2025.

Mr. Mawyer stated that he believed so, but was not entirely certain. He stated that they typically closely followed the calendars of other governments in the community. He noted that the red stars on the solid waste schedule were six days during the year on which the landfill and recycling facilities would be closed. On the other holidays, staff would be working and all facilities would be open. Staff would receive additional vacation time pay for those holidays.

Mr. Hicks asked if there was a reason for the half-day on Wednesday, November 26th.

Mr. Mawyer stated that traditionally they had allowed employees to take a half-day off before Thanksgiving, so it had become a standard part of their holiday package over the years.

6. ITEMS FROM THE PUBLIC

Matters Not Listed for Public Hearing on the Agenda

Liz Palmer stated that she was a County resident and a former member of this Board. She stated that she had a statement and a request to share with this Board today, and to be mindful of their time, she would just read her written statement. She stated that approximately 10 years ago, the County formed the Long-Range Solid Waste Solutions Advisory Committee, comprised of interested citizens, professionals in solid waste management, recycling, and other related professions.

Ms. Palmer stated that this committee was designed as a temporary entity for strategic planning. She stated that in 2014, when she joined the Board of Supervisors, the County was poised to close the Ivy Transfer Station and replace it with a couple of convenience centers for residential use only and to be operated by a private company. She stated that the new Board of Supervisors decided to take a different approach and formed the committee to guide decision-making.

Ms. Palmer stated that the committee included an impressive lineup of experts, including two engineers from the UVA Facilities Department, a chemist, a former GBB planner, Supervisor Mallek's husband, and a retired hauler who suggested building a new state transfer station on the hill, operating it six days a week, setting a competitive tipping charge, and expect a significant increase in business within three years. She stated that she believed that suggestion was spot on. She stated that next October will mark the 10th anniversary of that plan. She stated that while the County has made significant progress, she thought it was time to repeat the process.

Ms. Palmer stated that one aspect of the original plan that remained relevant was the County's hiring of a solid waste manager. She stated that it was now clear that this position was unnecessary, given the expertise and resources available through the Rivanna Authorities. She stated that furthermore, the City had undergone significant changes, including redevelopment plans that would generate a substantial amount of demolition debris and require special collections for sizable pickups, composting, and other services. She stated that perhaps this time around, it would make sense for the City to consider joining this process.

Ms. Palmer stated that she was here today to ask the Board to consider the formation of a new group. She stated that with joint City-County participation under the leadership of RSWA for strategic planning over the next 10 years, the resulting plan would hopefully be considered and approved by both the Board of Supervisors and the City Council, providing RSWA with clear direction for future improvements in service delivery.

Ms. Palmer stated that she was confident that if the RSWA could facilitate a hybrid participation in this meeting, they could truly capitalize on the extraordinary local talent that they had here. She stated that they did have an incredible amount of local talent. She stated that if one thing she had learned from her experience on various boards was that there were many people out there who could offer valuable assistance. She stated that she appreciated their time and any questions they may have. She stated that she looked forward to hearing their opinions.

7. RESPONSES TO PUBLIC COMMENT

Mr. Sanders stated that he would appreciate some insight into the City's perspective on the issue prior to their current engagement. He stated that since they were now asking the City to participate, he would like to gain a better understanding of what that entailed and what it meant for their current discussion. He stated that as he was not present at the previous discussions, he was seeking clarification on this matter.

Mr. Gaffney stated that perhaps Ms. Palmer could meet with Mr. Sanders to review the past actions.

Mr. Mawyer stated that they would be glad to help coordinate that.

Mr. Gaffney stated that it was a great idea.

Mr. Andrews stated that they could review the charges of that group and update them, involving Mr. McKalips in that process.

Mr. Richardson stated that before they left the topic, he wanted to clarify that the Board was asking Mr. Mawyer and his team to follow up on the history of the Solid Waste Advisory Committee, as requested by the City Manager, and they would get staff perspective for the Board to consider. He

stated that he would love to hear about what staff had to say about the work, which had been ongoing since 2014. He stated that Rivanna staff could share their thoughts on their progress in that time and what the future work may entail. He stated that without a determinate timeframe, he would simply ask that Mr. Mawyer and his team further discuss this topic with the Board.

Mr. Gaffney asked if Mr. Andrews would also like to be a part of this work.

Mr. Andrews stated yes, he would like to understand the charge given to the committee and what was needed to update it to reflect the desired outcome.

Mr. Gaffney stated that it was a great idea.

8. *CONSENT AGENDA*

a. Staff Report on Finance

b. Staff Report on Ivy Solid Waste and Recycling Center/Recycling Operations Update

c. Staff Report on Administration and Communications

d. Approval of Board Meeting Schedule for Calendar Year 2025

e. Approval of the Holiday Schedule for Calendar Year 2025

Mr. Pinkston moved that the Board approve the Consent Agenda as presented. Mr. Andrews seconded the motion, which carried unanimously (6-0). (Mr. Stewart was absent.)

9. *OTHER BUSINESS*

*a. Presentation and Vote on Acceptance: FY 24 Audit Report
Matthew McLearen, Robinson, Farmer, Cox Associates*

Matthew McLearen, with Robinson, Farmer, Cox Associates, stated that they had performed the Fiscal Year 2024 audit of the financial report, and he was here to present the results of that audit and answer any questions the Board may have. He stated that an auditor releases a governance letter, which is a two-page document that summarizes the key findings of the audit. He stated that this letter was available in hard copy format as well. He stated that he would briefly review the five key points in this letter.

Mr. McLearen stated that firstly, the letter highlighted the responsibilities under the audit, including management of the Authority, the finance staff's role in applying accounting principles, and their responsibility for preparing the financial report. He stated that the financial report was prepared in its entirety by the Finance Department here at Rivanna. He stated that management was also responsible for maintaining sufficient records and implementing a system of internal controls throughout the year to ensure compliance and accuracy of the financial statements.

Mr. McLearen stated that the auditor's responsibilities included auditing the documents, testing controls, verifying the application of accounting principles, and applying the results to the financial statements at the conclusion of the audit. He stated that the second key takeaway from this letter was accounting estimates. He stated that as with most financial statements, accounting

estimates were used in preparation. He stated that the set of financial statements issued by Rivanna included two to three critical accounting estimates.

Mr. McLearen stated that the first was the depreciable life of long-term assets or fixed assets. He stated that the second and third were related to pension and Other Post-Employment Benefits (OPEB) liabilities, which were estimated by an actuary and used in the evaluation report and financial report. He stated that third, the letter noted any difficulties encountered during the audit process. He stated that this included examples such as incomplete records or inability to access necessary records. He stated that he was pleased to report there were no difficulties encountered during this audit.

Mr. McLearen stated that the fourth item was corrected and uncorrected misstatements. He stated that most audit processes included corrected misstatements. He stated that those were adjustments proposed by the audit staff, management, or the finance department, and were included in the financial report. He stated that uncorrected misstatements were required to be disclosed in detail to the governing body. He stated that those were statements that they had proposed to management, which they had refused to post or had not been included in the Audit Financial Report. He stated that he was pleased to report there were no uncorrected misstatements.

Mr. McLearen stated that the fifth and final item was related to management's consultation with other auditors, requiring professional standards to disclose their knowledge that whether management had sought a second opinion with another audit firm. He stated that this only applied in situations where there had been a disagreement over client accounting principles or audit processes. He stated that they had no knowledge that management had sought a second opinion. He stated that this concluded remarks on the letter to those charged with governance.

Mr. McLearen stated that they had issued a financial report that included an opinion or independent audit report. He stated that he would briefly review this document. He stated that this document was prepared by the Finance Department's Mr. Wood and his team. He stated that they would start with the Independent Auditor's Report. He stated that the auditor was required to apply professional standards to the financial statements. He stated that their opinion was titled the Independent Auditor's Report.

Mr. McLearen stated that to follow along with the actual report documents, pages 13 and 15, they had issued an unmodified or clean opinion on the Fiscal Year 2024 Financial Report. He stated that there were three key exhibits or financial statements in this document. He stated that Exhibit 1 was a statement of net position, which was similar to a balance sheet for a for-profit entity. He stated that it reported the assets, liabilities, and net position or equity of the Authority. He stated that at June 30, 2024, the net position or equity of the Authority was approximately \$11.3 million.

Mr. McLearen stated that Exhibit 2 was a statement of revenues, expenses, and changes in that position. He stated that it reported the total revenues and expenses, as well as the increase and decrease in that equity or net position for the fiscal year. He stated that the change in net position was the third number from the bottom on the slide, but the increase in equity or net position was approximately \$1.1 million annually, as reported in the year ending June 30, 2024 financials.

Mr. McLearen stated that Exhibit 3 was an informational exhibit on cash flows, which provided a detailed breakdown of the Authority's cash position. He stated that approximately two-thirds of

the way down, they would see a double underline indicating the ending cash position for the authority. He stated that this represented the authority's cash position only and did not include other types of assets. He stated that the ending cash position was approximately \$3.1 million. He stated that this exhibit summarized how the authority utilized its actual cash.

Mr. McLearen stated that the second report, commonly referred to as the yellow book opinion or compliance opinion, was included in the financial report. He stated that this report described any significant deficiencies, material weaknesses, or internal control issues. He stated that the auditor was required to test these controls and compliance, and this report would outline any non-compliance or significant deficiencies in the Authority's internal control structure. He stated that the report stated that no significant deficiencies or material weaknesses were found in the Authority's financial reporting structure.

Mr. Gaffney thanked Mr. McLearen for the report. He congratulated Mr. Wood and the Finance Department staff.

Mr. Andrews moved that the Board accept the Fiscal Year 2024 Audit Report. Mr. Sanders seconded the motion, which carried unanimously (6-0). (Mr. Stewart was absent.)

b. Presentation: Future Challenges in Solid Waste
Bill Mawyer, Executive Director

Bill Mawyer, Executive Director, stated that they had a nice aerial photo of the Ivy facility they recently obtained with their drone. He stated that the landfill cells shown with red stars were unlined. They did not get leachate from the unlined cells, but rather from the three lined cells. He stated that they had a mix of three unlined and three lined cells. He stated that the lining was the plastic liner that went under and over the refuse, making it a lined cell. He stated that they had three unlined cells, which lacked these plastic liners.

Mr. Mawyer stated that he gave credit to Ms. Anama for providing the philosophical insight from Voltaire, who noted that choosing not to look into the future was unwise. He stated that when they looked to the future, they saw drivers of capacity, regulations, emerging contaminants, technology, sustainability, and affordability. He stated that in solid waste specifically, they started with capacity and were fortunate to have the university providing a stable economic foundation for the community, which continued to grow. He stated that information from the university indicated it was adding approximately 200,000 square feet of building infrastructure every year.

Mr. Mawyer stated that they looked at the Weldon Cooper population predictions, which showed a growing population with predictions of 155,000 residents in 2050 in the County and 50,000 residents by 2050 in the City. He noted that rising sea levels and coastal migration may push additional people to attractive employment areas like the Charlottesville-Albemarle community. He stated that the construction industry was a major source of waste, as per the Environmental Protection Agency (EPA), which indicated approximately 44 tons per person of waste were in landfills in Virginia.

Mr. Richardson asked Mr. Mawyer if UVA's growth per year was 200,000 square feet per year was what they required in order to continue their university operations.

Mr. Mawyer stated that he believed that was correct. He stated that they had interviewed the architect of the university and gathered planning projections from both the County and City

446 planning departments. He stated that they then aggregated that information to formulate water
447 demand predictions for the RWSA service area. He stated that they had also created a graph in the
448 water and sewer report that illustrated the data. He stated that this was how they make predictions
449 on the growth of the Solid Waste Authority and the products they expect to receive.

450
451 Mr. Mawyer stated that refuse and recycling would continue to be growing services provided to the
452 community. He stated that when they considered service capacity, they were planning to build the
453 Northern Albemarle Convenience Center in a couple of years. He stated that the baling facility was
454 scheduled to go out to bid in the next month or two, and it would be built at the Ivy facility to
455 manage recycled materials. He stated that the baling facility would be completed by the fall of 2026.

456
457 Mr. Mawyer stated that they had a lease with Dominion Power for approximately 15 acres, and they
458 planned to start building solar cells there in January. He stated that Virginia Electric Power had
459 already completed the special use permit process with the County and was ready to proceed with
460 construction of the solar arrays on top of unlined cell #2.

461
462 Mr. Mawyer stated that landfill space was a key theme for them, and according to the Virginia
463 Department of Environmental Quality's (VDEQ) report, Virginia had approximately 21 years of
464 landfill space remaining. He stated that additionally, the refuse transferred from Ivy was sent to a
465 private landfill in Henrico County, which had a remaining life of 17 years. He stated that as they had
466 learned from their discussions with other colleagues, one of the main concerns was that, in 20 years,
467 they would likely run out of landfill space as a state and a nation.

468
469 Mr. Mawyer stated that this raised a significant challenge for the Solid Waste Authority and the
470 broader issue of solid waste management. He stated that they must determine what they would do
471 with the refuse as they exhausted landfill space. He stated it was clear that it was difficult to site
472 landfills, not only due to public opposition and regulatory hurdles, but also because of the
473 complexity of the process. He stated that the main message for today was that they were facing a
474 critical issue: they were running out of landfill space.

475
476 Mr. Gaffney asked if DEQ would not permit any future landfills.

477
478 Mr. Mawyer stated that like many regulatory processes, they expected it would be onerous. He
479 stated that a significant component of waste was electronic waste, which had been growing. He
480 stated that according to data from the Washington Post, the Artificial Intelligence (AI) boom may
481 lead to a global surge in electronic waste, and statistics showed that it had almost doubled over the
482 last 14 years. He stated that electronic waste could be hazardous, depending on the type of elements
483 it contained in laptops, cell phones, and computers. He stated that in 2014, 42 million pounds of e-
484 waste were shipped to developed countries, primarily China, which has now stopped taking
485 recyclables, severely impacting the recycling program. He stated that electronic waste was a
486 growing component of the waste stream.

487
488 Mr. Mawyer stated that the Washington Post article also discussed recycling, highlighting what
489 really got recycled. He stated that the mantra of recycling was to reduce, reuse, and recycle. He
490 stated that they first aimed to reduce products that could not be recycled. He stated that the article
491 indicated that cardboard and paper (81%), aluminum (35%), and glass (31%) were likely to be
492 recycled, while plastics were not (13.6% recycled; 17% incinerated; 70% in landfills). He stated the
493 key takeaway was that types 1 and 2 plastics tended to be the most recycled.

Mr. Mawyer stated that to address this, one potential solution was robotics. He stated that AMP Robotics had developed facilities in Portsmouth and Greenville, North Carolina, that used robotics to sort recyclables, eliminating the need for human intervention. He stated that robots sorted through all the products to identify and extract recyclable materials, aiming for a 90% capture rate of target materials. He stated that this technology may become a local reality in the future, with the possibility of establishing another material recycling facility which could utilize robotic and artificial intelligence systems to minimize waste and reduce landfill contributions.

Mr. Mawyer stated that another issue they would discuss was regulation of emerging contaminants, including leachate. He stated that leachate occurred when rainfall mixed with waste products, creating a unique blend of contaminants. He stated that at Ivy, they collected leachate from the lined landfill cells, pumped it into a temporary storage pond (lined) and transported the liquid to Moores Creek for treatment in the wastewater clarification process. He stated that the presence of PFAS in leachate was a concern. He stated that to address this, they had taken samples over the past four years, which showed varying levels of PFOA and PFOS, two regulated PFAS components. He stated that these results were presented in the accompanying graph, which ranged from 740 to 220 ppm for PFOA and 141 to 83 ppm for PFOS.

Mr. Gaffney asked if those were three tests performed in 2024.

Mr. Mawyer stated that was correct. He stated that they were disposing of leachate from Ivy into the wastewater. He stated that for the future, additional records and disposal options could include incineration, bioreactor landfills, which aimed to reduce the volume of waste by cooking it within a landfill, or composting, which they already did with their solid waste biosolids through McGill Environmental in Waverly, VA, or pyrolysis, a high-temperature technique that would break down organic products.

Mr. Mawyer stated that previously, he had met with Southeastern Public Service Authority (SPSA) and Montgomery Regional Solid Waste Authority, which provided an opportunity to network and discuss these issues with those organizations. He stated that it was essential to stay informed about landfill space, as these authorities had mentioned it as a concern. He stated that in summary, landfill space would be a local, state, and national issue over the next 20 years. He stated that regulatory requirements for leachate and wastewater treatment were uncertain, but regional partnerships may help optimize resources and minimize costs.

Mr. Mawyer stated that as landfill space became scarce, the cost of disposal was expected to rise. He stated that currently it cost the Authority \$16 as a net loss to transfer one ton of refuse, while recycling cost about \$700 per ton. He stated that as disposal options decreased, the costs would go up. He stated that they consistently endorsed the long-range strategic planning effort they had undertaken. He stated that this brief discussion focused on two key areas: landfill space and contaminants, including leachate with PFAS contamination.

Mr. Richardson asked to see the recycling data which showed the diversion from the landfill. He stated that when talking with the regional partners across Virginia, he wanted to know if they shared data to see how our local community performed compared to their peers.

Mr. Mawyer stated that we compare favorably, although recycling rates were sometimes puzzling. He stated that when some localities reported very high recycling rates (50 - 80%), it could be difficult to understand how that was possible. He stated that when recycling rates included vegetative waste and manufacturing byproducts, those numbers became more understandable. He

stated that he did not have rates from other localities readily available but could follow up with that information.

Mr. Richardson stated that he did not expect the specific numbers to be presented but was wondering if they were looking at other communities to see if they had any opportunities to improve.

Mr. Mawyer stated that they would collect additional data and compare.

Mr. Hicks stated that in 20 years, they would not have any more landfills in Virginia. He asked what the conversation was with their colleagues about what would happen in 20 years.

Mr. Mawyer stated that this was a wide-open question. He stated that there was uncertainty surrounding how regulations would be applied at the national level in the future. He stated that when considering a landfill, there were numerous environmental considerations that could be prohibitive. He stated that whether regulations became more stringent or were relaxed, it was essential to acknowledge that they would need to find new ways to dispose of waste in the future. They would need to think creatively about alternative solutions. He stated that for instance, if energy-from-waste plants had been constructed in the past, such as the one in Portsmouth, which had been operational for decades before being shut down, there was a concern about whether similar facilities would become a reality again. He stated that this type of facility raised concerns about air pollution and was increasingly complex. He stated that there did not seem to be a simple answer to this challenge.

Mr. Gaffney stated that he had been thinking about the 43 tons of waste that each of them would generate in landfills. He stated that this led him to consider the barges that came from New York City years ago, which were unloaded in landfills in Virginia, likely adding a significant amount of waste per person.

Mr. Mawyer stated that from an economic perspective, it was more cost-effective for those like New York to transport the material on a barge rather than to find a closer location in New York. He stated that he was confident that as an industry, they would find innovative ways to address this issue.

10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA

There were none.

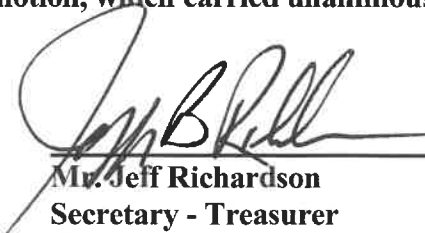
11. CLOSED MEETING

There was no closed meeting.

12. ADJOURNMENT

At 2:52 p.m., Mr. Pinkston moved to adjourn the meeting of the Rivanna Solid Waste Authority. Mr. Andrews seconded the motion, which carried unanimously (6-0). (Mr. Stewart was absent.)

Respectfully submitted,


Mr. Jeff Richardson
Secretary - Treasurer

November 19, 2024

