



Board of Directors Meeting

November 19, 2024

2:00pm

BOARD OF DIRECTORS

Regular Meeting of the Board of Directors of the Rivanna Solid Waste Authority

DATE: November 19, 2024

LOCATION: Rivanna Administration Building (2nd Floor Conference Room),
695 Moores Creek Lane, Charlottesville, VA 22902

TIME: 2:00 p.m.

AGENDA

1. **CALL TO ORDER**
2. **AGENDA APPROVAL**
3. **MINUTES OF PREVIOUS BOARD MEETING ON SEPTEMBER 24, 2024**
4. **RECOGNITION**
 - a. *Resolution of Appreciation for Lance Stewart, RSWA Board Member*
 - b. *Resolution of Appreciation for James Heller, Driver/Operator*
5. **EXECUTIVE DIRECTOR'S REPORT**
6. **ITEMS FROM THE PUBLIC**

Matters Not Listed for Public Hearing on the Agenda
7. **RESPONSES TO PUBLIC COMMENTS**
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*

9. OTHER BUSINESS OTHER BUSINESS

- a. *Presentation and Vote on Acceptance: FY 24 Audit Report
Matthew McLearen, Robinson, Farmer, Cox Associates*
- b. *Presentation: Future Challenges in Solid Waste
Bill Mawyer, Executive Director*

10. OTHER ITEMS FROM BOARD/STAFF NOT ON THE AGENDA

11. CLOSED MEETING

12. ADJOURNMENT

GUIDELINES FOR PUBLIC COMMENT AT RIVANNA BOARD OF DIRECTORS MEETINGS

If you wish to address the Rivanna Board of Directors during the time allocated for public comment, please raise your hand or stand when the Chairman asks for public comments.

Members of the public requesting to speak will be recognized during the specific time designated on the meeting agenda for “Items From The Public, Matters Not Listed for Public Hearing on the Agenda.” Each person will be allowed to speak for up to three minutes. When two or more individuals are present from the same group, it is recommended that the group designate a spokesperson to present its comments to the Board and the designated speaker can ask other members of the group to be recognized by raising their hand or standing. Each spokesperson for a group will be allowed to speak for up to five minutes.

During public hearings, the Board will attempt to hear all members of the public who wish to speak on a subject, but it must be recognized that on rare occasion comments may have to be limited because of time constraints. If a previous speaker has articulated your position, it is recommended that you not fully repeat the comments and instead advise the Board of your agreement. The time allocated for speakers at public hearings are the same as for regular Board meetings, although the Board can allow exceptions at its discretion.

Speakers should keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. For that reason, speakers are requested to speak from the podium and wait to be recognized by the Chairman. In order to give all speakers proper respect and courtesy, the Board requests that speakers follow the following guidelines:

- Wait at your seat until recognized by the Chairman.
- Come forward and state your full name and address and your organizational affiliation if speaking for a group;
- Address your comments to the Board as a whole;
- State your position clearly and succinctly and give facts and data to support your position;
- Summarize your key points and provide the Board with a written statement, or supporting rationale, when possible;
- If you represent a group, you may ask others at the meeting to be recognized by raising their hand or standing;
- Be respectful and civil in all interactions at Board meetings;
- The Board may ask speakers questions or seek clarification, but recognize that Board meetings are not a forum for public debate; Board Members will not recognize comments made from the audience and ask that members of the audience not interrupt the comments of speakers and remain silent while others are speaking so that other members in the audience can hear the speaker;
- The Board will have the opportunity to address public comments after the public comment session has been closed;
- At the request of the Chairman, the Executive Director may address public comments after the session has been closed as well; and
- As appropriate, staff will research questions by the public and respond through a report back to the Board at the next regular meeting of the full Board. It is suggested that citizens who have questions for the Board or staff submit those questions in advance of the meeting to permit the opportunity for some research before the meeting.

The agendas of Board meetings, and supporting materials, are available from the RWSA/RSWA Administration office upon request or can be viewed on the Rivanna website.

Rev. September 7, 2022



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2
3 **RSWA BOARD OF DIRECTORS**
4 **Minutes of Regular Meeting**
5 **September 24, 2024**

6 A regular meeting of the Rivanna Solid Waste Authority (RSWA) Board of Directors was held
7 on Tuesday, September 24, 2024, at 2:00 p.m. at the 2nd Floor Conference Room, Moores Creek
8 Administration Building, 695 Moores Creek Lane, Charlottesville, VA, 22902.

9
10 **Board Members Present:** Mike Gaffney, Brian Pinkston, Steven Hicks, Jim Andrews, Jeffrey
11 Dumars (for Lance Stewart)

12
13 **Board Members Absent:** Jeff Richardson, Sam Sanders, Lance Stewart

14
15 **Rivanna Staff Present:** Bill Mawyer, Phil McKalips, Betsy Nemeth, Deborah Anama, Jacob
16 Woodson, George Cheape, Tia Waters

17
18 **Attorney(s) Present:** Valerie Long

19
20 **1. CALL TO ORDER**

21 Mr. Gaffney convened the September 24, 2024 regular meeting of the Board of Directors of the
22 Rivanna Solid Waste Authority at 2:00 p.m.

23
24 **2. AGENDA APPROVAL**

25
26 **Mr. Andrews moved the Board to approve the agenda as presented. Mr. Pinkston second the**
27 **motion, which carried unanimously (4-0). (Mr. Richardson, Mr. Sanders, and Mr. Stewart**
28 **were absent)**

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30 **3. MINUTES OF PREVIOUS BOARD MEETING ON JULY 23, 2024**

31
32 **Mr. Pinkston moved the Board to approve the minutes for the meeting held on July 23, 2024.**
33 **Mr. Andrews seconded the motion, which carried unanimously (4-0). (Mr. Richardson, Mr.**
34 **Sanders, and Mr. Stewart were absent)**

35
36 **4. RECOGNITION**

37 There were no recognitions.

38
39 **5. EXECUTIVE DIRECTOR'S REPORT**

40 Mr. Mawyer stated that unfortunately, they were unable to accept any refuse at the Ivy Solid Waste
41 and Recycling Center starting yesterday and continuing today. He stated that the reason for this was
42 that they transferred refuse to a facility that had two scales, and one was not functioning. He stated
43 that the refuse was transported to the Old Dominion Landfill in Henrico County which was owned
44 by Republic Services. He stated that Republic was also their transportation contractor.

45
46 Mr. Mawyer stated that the landfill only had one operational scale, causing the trailers to remain in
47 Henrico for extended periods and preventing them from returning to Ivy and refilling them on the

48 same day. He stated that as a result, they had to close transfer operations today. He stated that they
49 expected the scale repair to be completed today.
50

51 Mr. Mawyer stated that they planned to reopen at Ivy tomorrow on time and continue operations as
52 long as possible, ideally for the full day. He stated that they had several empty trailers available, but
53 once they were full, they would have to cease the transfer operation. He stated that it was
54 unfortunate, but it was somewhat beyond their control.
55

56 Mr. Pinkston asked how often that occurred.
57

58 Mr. McKalips stated that they had never experienced this type of delay before.
59

60 Mr. Pinkston asked if they had issued a public notice.
61

62 Mr. Mawyer stated that they had issued a media release at 10:30 the previous morning indicating
63 they would be closing Ivy at 1 p.m. and would be closed today. He stated that the transfer operation
64 was the only part of the services at Ivy that was closed.
65

66 Mr. Mawyer stated that regarding the transfer station, they were currently receiving approximately
67 200 tons of material per day. He stated that the tonnage for 2024 was beginning to level out, similar
68 to the tonnage for 2023. He stated that this leveling suggested that they may have reached an
69 optimization point in terms of tonnage and charges.
70

71 Mr. Mawyer stated that as a reminder, they had increased the tip fee from \$54 to \$58 on July 1. He
72 stated that they were closely monitoring the impact of this change on tonnage. He stated that
73 although they saw a drop in tonnage from July to August, they would continue to monitor the
74 situation. He stated that they believed they had reached a capacity peak in the optimization between
75 tonnage and cost.
76

77 Mr. Mawyer stated that in July of 2023, the Board approved a new organization plan, which led to
78 the creation of the Administration and Communications Division. He stated that Ms. Nemeth had
79 been promoted to be the Director of this division. He stated that one of the positions they had
80 planned to support this division and align with their strategic plan's communication priorities was a
81 new outreach communications position.
82

83 Mr. Mawyer stated that he was pleased to introduce Tia Waters, the new Communication and
84 Outreach Coordinator. He stated that she brought experience from the Virginia Department of
85 Social Services and had previously worked for the Blue Ridge Health Department District in
86 Charlottesville as the Community Engagement Coordinator. Tia Waters stated that she was excited
87 to work with the organization.
88

89 Mr. Mawyer stated that regarding workforce development, they had a quarterly team-building event
90 in August. He stated that September was National Preparedness Month. He stated that in August,
91 they had their management team in the conference room and reviewed the Emergency Operations
92 Plan. He stated that it entailed continuity of operations. He stated that they discussed what happens
93 if they could not access the Moores Creek Administration building, where they would go as a
94 second location, and who was next in charge. He stated that they had a full, written Emergency
95 Operations Plan that they used for training.
96

97 Mr. Mawyer stated that they reviewed the Emergency Response Plan. He stated that it was a federal
98 requirement that the American Water Infrastructure Act required them to have. He stated that it was
99 very similar, but was called the emergency response plan. He stated that it was completed in 2018
100 and they were updating it. He stated that in the region, they had the Comprehensive Emergency
101 Management Plan which was for the three utilities: the City, ACSA, and the Authority, which was
102 a plan of how they worked together.

103
104 Mr. Mawyer stated that their goal was to train everyone on the Emergency Operations Plan,
105 emphasizing that when there was an emergency, they did not just rush to respond. He stated that
106 they needed to understand their plan and roles in responding to an emergency. He stated that they
107 presented this to their management team every year. He stated that September 17 was National
108 Information Technology Professionals Day, and he wanted to acknowledge their IT team. He stated
109 that he appreciated the work of the team of IT professionals.

110
111 Mr. Mawyer stated that regarding the emergency operations plan, the backup location was the South
112 Rivanna WTP. He stated that they had constructed a full technology backup system there to provide
113 system redundancy. He stated that if their systems were compromised, they could switch to a
114 backup system or a cloud system.

115
116 Mr. Mawyer stated that as part of their initiative to broaden involvement with regional groups, they
117 participated in a regional solid waste authorities meeting. He stated that the Central Virginia Waste
118 Management Authority serves 13 localities in the Richmond area, and they took them on a virtual
119 tour of their facilities. He stated that Montgomery Regional, which serves the Blacksburg and
120 Virginia Tech area, and the New River Resource Authority, which serves Dublin and west of
121 Blacksburg, also joined them. He stated that the Southeastern Public Service Authority, serving
122 Virginia Beach, Chesapeake, Norfolk, and the Tidewater area, was a very large authority. He stated
123 that the Virginia Peninsula's Public Service Authority, which serves 10 cities and counties including
124 Williamsburg, Hampton, and James City, also attended.

125
126 Mr. Mawyer stated that Mr. McKalips shared a presentation with the group. He stated that it was
127 beneficial that they were networking and understanding the challenges others faced, as they might
128 become our challenges in the future. He stated that Southeastern Authority mentioned that they had
129 about 20 years of landfill space left and were uncertain about their future disposal methods. He
130 stated that refuse disposal was expected to become a significant issue in their state and possibly
131 nationwide.

132
133 Mr. Mawyer stated that they had the semi-annual electronic waste disposal program, which allowed
134 electronic waste to be recycled instead of thrown away. He stated that they had special collection
135 days for furniture, mattresses, appliances, tires, and other items, which were sponsored by the City
136 and County. He stated that these programs were free for customers, and they collected thousands of
137 pounds of products, preventing them from ending up in the waste stream or on the streets and roads
138 in their area. He stated that this amnesty program had been ongoing for over 20 years.

139
140 Mr. Gaffney asked about the United Way Day of Caring.

141
142 Mr. Mawyer stated that it was planned but delayed due to rain. He stated that the event was moved
143 to next week, and it would be hosted at the Ivy facility.

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145 **6. ITEMS FROM THE PUBLIC**

146 There were none.

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7. RESPONSES TO PUBLIC COMMENT

There were no comments from the public, therefore, there were no responses.

8. CONSENT AGENDA

- a. Staff Report on Finance*
- b. Staff Report on Ivy Solid Waste and Recycling Center/Recycling Operations Updates*
- c. Staff Report on Administration and Communications*

Mr. Pinkston moved the Board to approve the Consent Agenda as presented. Mr. Andrews seconded the motion, which carried unanimously (4-0). (Mr. Richardson, Mr. Sanders, and Mr. Stewart were absent)

9. OTHER BUSINESS

- a. Presentation: RSWA Projects Update
Phil McKalips, Director of Solid Waste*

Phil McKalips, Director of Solid Waste, stated that they had been discussing the CIP with the Water and Sewer Authority for several months. He stated that it was a good time to provide everyone with an update on their progress with solid waste capital projects. He stated that they had three projects in the pipeline. He stated that the first project was the baling facility, which was intended to replace the paper sorting facility on Meade Avenue. He stated that the design was to have it located at Ivy, behind one of the landfill cells.

Mr. McKalips stated that the second project was the Northern Convenience Center, which was currently going through the special use and planning commission permitting process with the County. He stated that the third project was an office upfit at Ivy. He stated that starting this fiscal year, they had hired an Assistant Recycling Manager to manage their recycling operations. He stated that they lacked office space for him, and they had been exploring solutions. He stated that trailers were considered but ultimately dismissed due to their poor durability. He stated that they then considered creating an office in a section of the heavy equipment shop, which was seldom used.

Mr. McKalips stated that the baling facility was nearly 17,000 square feet and fully enclosed, unlike the existing paper sorting facility, which was open on one of its long sides. He stated that it would feature 11 tractor-trailer bays for storing incoming and baled products. He stated that currently, they had to co-mingle a lot of their products due to space constraints. He stated that the baling facility would provide them with opportunities to generate additional revenue from some of the products they received. He stated that it would be equipped with two baling machines.

Mr. McKalips stated that they had purchased a new baling machine and would have a second machine in the new facility to improve reliability. He stated that this would enable them to expand their operations in the coming years to meet the needs. He stated that they were planning construction to start in April 2025 and continue through the end of FY 26. He stated that the budget remained at \$6.4 million, with the recycling cost agreement allocating 70% to the County and 30% to the City.

196 Mr. McKalips stated that the floor plan illustrated how the facility would operate. He stated that
197 trucks would enter through the truck entrance, and if they carried fiber products such as cardboard
198 and paper, they could unload them into these bunkers. He stated that due to the nature of paper
199 products, they would pile up to some extent. He stated that if they dumped PETE, or number one
200 plastic bottles on the floor, they would spread out, creating an ocean of bottles. He stated that plastic
201 films and plastic bottles would be temporarily stored in trailers.
202

203 Mr. McKalips stated that material would then be transported to one of the two balers and
204 subsequently to other trailers for transportation to the recycling endpoints. He stated that the
205 Northern Convenience Center was almost identical to the Southern Convenience Center, with a few
206 minor modifications. He stated that it would also accept recycled materials and tagged trash.
207

208 Mr. McKalips stated that the facility was located on the north side of the Rivanna River, between
209 Berkmar Drive and Rio Mills Road. He stated that this new extension was added by VDOT two
210 years ago. He stated that the Planning Commission would finish approving the conceptual design by
211 2024. He stated that they hoped to begin construction at the beginning of FY27 and complete it by
212 the end of FY27. He stated that this was a \$1.8 million project, funded entirely by the County.
213

214 Mr. McKalips stated that the office at the Ivy Solid Waste and Recycling Center had consisted of
215 two offices with a break room and restrooms. He stated that originally, this was a heavy equipment
216 shop. He stated that they had been trying to find a place to expand their office space. He stated that
217 they had considered getting rid of the break room or reducing the size of the space, but that would
218 leave little room for their staff to eat lunches, conduct training, and so on.
219

220 Mr. McKalips stated that they had decided to take the heavy equipment bay, which they rarely used
221 except for their equipment, and convert half of it into a two-story addition. He stated that this
222 addition would include two offices on the upper floor and a large conference room, training room,
223 and meeting room on the first floor, all compliant with ADA regulations. He stated that he was
224 thrilled about this because they had never had a dedicated space for staff meetings. He stated that
225 they were usually held outside or in the heavy equipment bay.
226

227 Mr. McKalips stated that the budget for this project was \$150,000, with approximately 90% of it
228 being County funding. He stated that this allocation varied slightly depending on the appropriation
229 between each cost center, but it was roughly a 90-10 split between City and County. He stated that
230 this approach allowed them to utilize existing space and aligned with their charter. He stated that
231 they anticipated construction to begin in the spring, with the architects estimating a three-month
232 duration for a builder to complete the work.
233

234 *(recess RSWA in a COMBINED SESSION with the RWSA)*
235

236 **At 2:24 p.m., Mr. Pinkston moved to recess the meeting of the Rivanna Solid Waste Authority**
237 **Board. Mr. Andrews seconded the motion, which passed unanimously (4-0). (Mr. Richardson,**
238 **Mr. Sanders, and Mr. Stewart were absent)**
239

240 **At 3:05 p.m., Mr. Andrews moved to reconvene the Rivanna Solid Waste Authority Board.**
241 **Mr. Pinkston seconded the motion, which passed unanimously (4-0). (Mr. Richardson, Mr.**
242 **Sanders, and Mr. Stewart were absent)**
243

244 *(See RWSA Board minutes for combined meeting presentations and motions.)*
245

246 *b. Presentation: Safety Program Update*
247 *George Cheape, Safety Manager*
248

249 George Cheape, Safety Manager, stated that he had assumed this role in December 2023 and had
250 been with the company for just over six years. He stated that his initial role was as a Engineering
251 Project Inspector. He stated that he transitioned into this position primarily due to his extensive
252 background. He stated that he had accumulated approximately 35 years of construction
253 experience, with over 29 years specializing in water and wastewater. He stated that he held a
254 Class 2 Operator certification in both water and wastewater.
255

256 Mr. Cheape stated that he had significant experience in maintenance and held Master Electrician
257 and Master Plumber licenses. He stated that he had also been previously certified and was
258 currently working towards recertification as an instructor trainer for OSHA 10 and OSHA 30. He
259 stated that his involvement with Rivanna began when he was an adjunct professor at PVCC. He
260 stated that Rivanna required OSHA training, which led to his introduction to the Authority.
261

262 Mr. Cheape stated that his vision was to cultivate a culture of safety through building
263 relationships with others. He stated that it was not just about office work; it was about being
264 present. He stated that their goal was for all Rivanna personnel and contractors to always think
265 and practice safety, making it an automatic process. He stated that they had a strong culture of
266 safety at Rivanna, and his goal was to enhance it further.
267

268 Mr. Cheape stated that he preferred a hands-on, helpful approach rather than pointing out
269 mistakes. He stated that he believed in being present in various departments and job sites,
270 engaging in conversations with their staff and contractors, and building relationships to improve
271 safety. He stated that effective communication was key to accomplishing tasks efficiently and
272 safely. He stated that while enforcing safety standards was necessary, he aimed to focus on
273 positive conversations about how they could make their work environment safer. He stated that
274 their goal was zero accidents, ensuring everyone went home safely.
275

276 Mr. Cheape stated that safety was a continuous improvement process that protected their staff
277 and reduced workplace incidents. He stated that it was an integral part of their strategic plan, and
278 they aimed to set safety goals and strategies through site visits and communication with their
279 team. He stated that he wanted to expand their safety initiatives, offering more to their staff and
280 the public through a commitment to a growing culture of safety. He stated that all of their staff
281 were dedicated to fostering a safety culture.
282

283 Mr. Cheape stated that from the very beginning, he had been actively involved in the field
284 making site visits. He stated that he also spent time in the office. He stated that he had been
285 visiting with the Rivanna Solid Waste Authority, Rivanna Water and Sewer Authority, and
286 Maintenance and Operations in the field. He stated that he communicated with different
287 departments, attended safety meetings, and asked questions. He stated that he also ensured that
288 employees were safe when working in hot conditions.
289

290 Mr. Cheape stated that his current role with the pump station involved ongoing safety
291 coordination for the rehabilitation. He stated that he would attend a Safety Committee meeting
292 the next day, which was a pre-conference for load testing the VFDs to ensure their reliability. He
293 stated that they had experienced some failures with the primary clarifiers recently, which served
294 as a prime example of collaborating with people to find unique solutions. He stated that these
295 clarifiers were approximately 110 feet in diameter and 10 feet deep, making them a permit-

296 required confined space.

297

298 Mr. Cheape stated that he had worked with the Maintenance Manager, Greg Marrs, and their
299 maintenance team to develop a safe method for accessing these clarifiers, and they had
300 successfully achieved this on both clarifiers. He stated that he also conducted site safety
301 inspections at their CIP sites, including the Airport Road Pump Station, South Rivanna and
302 Observatory WTPS, and the 5kV project.

303

304 Mr. Cheape stated that the pump station incident occurred approximately three weeks into his
305 new role. He stated that he had been performing a dual role as an inspector, inspecting the
306 emergency bypass installation, while also collaborating with Rivanna staff, consulting engineers,
307 and contractors to ensure the safe installation of additional pumps and piping. He stated that this
308 included designing an effective fall protection system for workers who would be working at
309 heights.

310

311 Mr. Cheape stated that he worked to ensure the drywell areas were safe for entrance to perform
312 the initial analysis and inspection. He stated that he coordinated with contractors to get the
313 drywell cleaned and disinfected. He stated that one of the achievements that year was that VRSA
314 had a safety grant system. He stated that they had qualified for a \$4,000 safety grant for Rivanna
315 Water and Sewer Authority. He stated that they had successfully obtained all \$4,000 of that. He
316 stated that they had standardized their vests, purchasing 43 Class III high-visibility vests
317 company-wide. He stated that they were also acquiring three new gas monitors for the
318 maintenance department, and six chemical rain suits for wastewater.

319

320 Mr. Cheape stated that for Solid Waste, he had collaborated with David Rhoades, the Solid
321 Waste Manager, to apply a \$2,000 grant. He stated that they developed a project aimed to protect
322 their employees on the tipping floor by installing a specialized gate. He stated that he had
323 confirmed with VRSA that the \$2,000 grant could be applied to this project, enhancing employee
324 safety while cleaning the tipping floor. He stated that they had created a new Electrical Safety
325 chapter for the Safety Manual, which was the first of its kind in their safety manual. He stated
326 that he had collaborated with UVA Facilities Management for this initiative, and they had been
327 very helpful. He stated that the chapter was nearly complete and had been finalized and
328 published.

329

330 Mr. Cheape stated that in addition to attending meetings with CUA 911, the City of
331 Charlottesville, ACSA, and others, he had been actively building relationships and participating
332 in various activities. He stated that the safety manual consisted of 25 chapters. He stated that the
333 manual was expected to continue expanding as they progressed.

334

335 Mr. Cheape stated that one of the things he was particularly excited about was the upcoming
336 rollout of a new incident reporting system in the fourth quarter of this year. He stated that their
337 current incident reporting system had been primarily paper-based, but they had been
338 collaborating with different stakeholders, including IT and HR, to integrate it with their existing
339 Paychex employee payroll system, which is also used for safety training.

340

341 Mr. Cheape stated that this integration would enable every employee to have incident reporting
342 readily available on their phone, allowing them to document incidents. He stated that this
343 approach would not only make incident reporting more accessible but also enhance their data
344 collection capabilities, enabling them to focus on specific injuries or incident types. He stated
345 that they were developing a comprehensive lockout/tagout program to comply with OSHA

346 requirements. He stated that this program would be incorporated into their CityWorks asset
347 management program, and they were working on streamlining forms and systems for review and
348 approval.

349
350 Mr. Pinkston asked what they had been historically doing for lockout/tagout.

351
352 Mr. Cheape stated that they were currently implementing lockout/tagout procedures. He stated
353 that although they had always performed this work, they were now documenting their actions
354 and establishing procedures to ensure that every new employee would know how to secure
355 equipment. He stated that he would attend all pre-construction meetings related to projects,
356 focusing on safety. He stated that he would also conduct on-site safety inspections and
357 collaborate with construction inspectors to develop safety guidelines for these jobs.

358
359 Mr. Mawyer stated that they had a position in the proposed budget for July to add another safety
360 person to assist Mr. Cheape and to focus on Solid Waste. He stated that this was a topic that had
361 been mentioned by the Solid Waste Board several years ago. He stated that they expressed a
362 desire for a more dedicated safety resource, which they may discuss further in the spring.

363
364 ***10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA***

365 There was none.

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367 ***11. CLOSED MEETING***

368 There was no closed meeting.

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370 ***12. ADJOURNMENT***

371 **At 3:18 p.m., Mr. Andrews moved to adjourn the meeting of the Rivanna Solid Waste**
372 **Authority. Mr. Pinkston seconded the motion, which passed unanimously (4-0). (Mr.**
373 **Richardson, Mr. Sanders, and Mr. Stewart were absent)**

374



**RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

Resolution of Appreciation for Mr. Lance Stewart

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

WHEREAS, over that same period Mr. Stewart has demonstrated leadership in solid waste and recycling services and has been a valuable member of the Board of Directors and a resource to the Rivanna Solid Waste Authority; and

WHEREAS, Mr. Stewart's understanding of the solid waste and recycling operations of the Solid Waste Authority has supported a strategic decision-making process that provided benefits to the customers served by the County of Albemarle as well as the community as a whole. During Mr. Stewart's tenure, major initiatives and projects were completed for the Authority including:

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

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

BE IT FURTHER RESOLVED that this Resolution be entered upon the permanent Minutes of the Rivanna Solid Waste Authority.

Michael Gaffney, Chairman
Jim Andrews
Steven Hicks
Brian Pinkston
Jeff Richardson
Sam Sanders



**RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

Resolution of Appreciation for James Heller

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

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

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

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

NOW, THEREFORE, BE IT RESOLVED that the Rivanna Solid Waste Authority Board of Directors recognizes, thanks, and commends Mr. Heller for his distinguished service, efforts, and achievements as a member of the Rivanna Solid Waste Authority, and presents this Resolution as a token of esteem, with its best wishes in his retirement.

BE IT FURTHER RESOLVED that this Resolution be entered upon the permanent Minutes of the Rivanna Solid Waste Authority.

Michael Gaffney, Chairman
Jim Andrews
Steven Hicks
Brian Pinkston
Jeff Richardson
Sam Sanders
Lance Stewart

MEMORANDUM

**TO: RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

FROM: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: EXECUTIVE DIRECTOR’S REPORT

DATE: NOVEMBER 19, 2024

STRATEGIC PLAN PRIORITY: WORKFORCE DEVELOPMENT

New License

The professional credentials of our staff continue to improve and enhance our services. We congratulate the following employee for successfully completing the requirements for a license from the State:

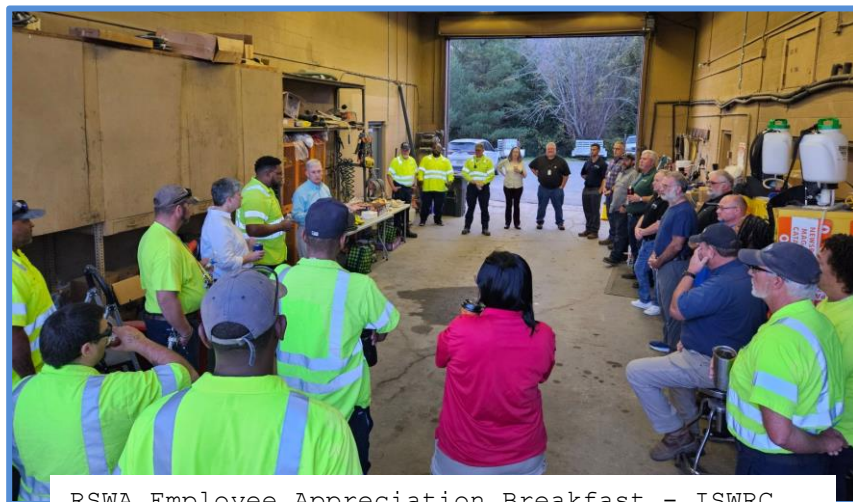
- Rodney Bright – CDL Class A

Employee Appreciation

We celebrated the contributions of our staff on November 7th with breakfast at the Ivy Solid Waste and Recycling Center. Service awards were presented to employees who have been with RSWA in increments of 5 years of service. We celebrated the following staff for their years of service:

- James Heller, 20 years
- James Langolf, 10 years
- Rashad Banks and Sherrod Terrell, 5 years

As part of our employee appreciation and sustainability initiatives, each employee was given a Rivanna Authorities Yeti water bottle.



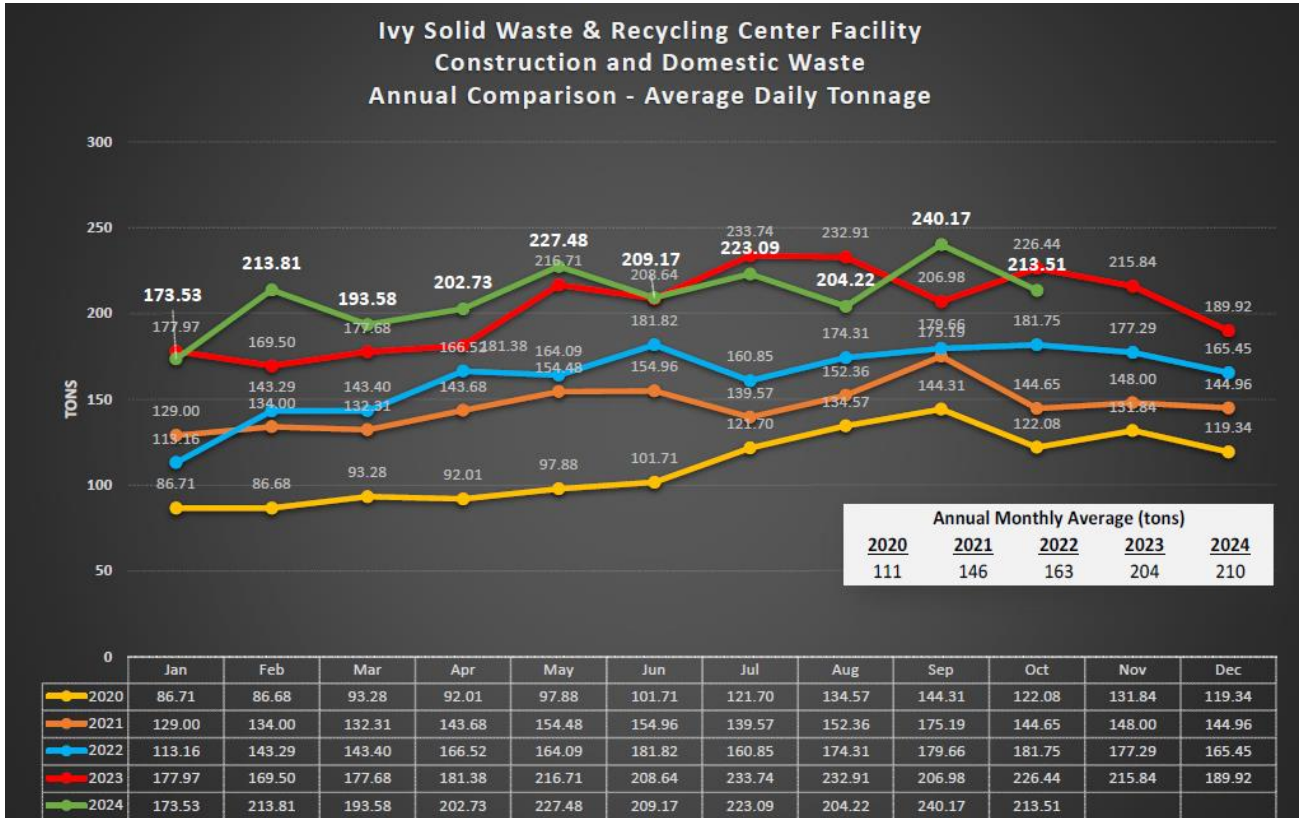
RSWA Employee Appreciation Breakfast - ISWRC

STRATEGIC PLAN PRIORITY: OPTIMIZATION AND RESILIENCY

Transfers from the Ivy Solid Waste and Recycling Center:

Average daily refuse transfer volume has increased from 122 tons per day in October 2020 to 214 tons per day in October 2024, as shown below:

September 2024	<u>Vehicles</u> 5,729	<u>Avg MSW & CDD Tons/Day</u> 240
October 2024	<u>Vehicles</u> 7,299	<u>Avg MSW & CDD Tons/Day</u> 214



STRATEGIC PLAN PRIORITY: ENVIRONMENTAL STEWARDSHIP

Pumpkin Composting

Our 7th Annual *Great Pumpkin Smash* was held at McIntire Recycling Center from November 5th – 12th to encourage customers to compost their Halloween pumpkins. This year we collected 1700 pounds of pumpkins which were taken to Panorama Farms for composting.



Grant Awards

The Virginia Department of Environmental Quality approved a grant award of \$52,697 for the Litter Prevention and Recycling Program. The grant funds will be used to support our recycling program.

In addition, RSWA received a \$6,000 Competitive Litter Grant from the Virginia Department of Environmental Quality. The purpose of this grant is to buy reusable, insulated grocery totes. Tote bags will be donated to the Blue Ridge Area Food Bank before the Thanksgiving Holiday.



America Recycles Day – November 15th



The EPA recognizes the importance and impact of recycling on November 15th and encourages everyone to recycle to conserve energy and natural resources.

Our recycling centers: McIntire, Ivy, and Southern Albemarle accept the following items:

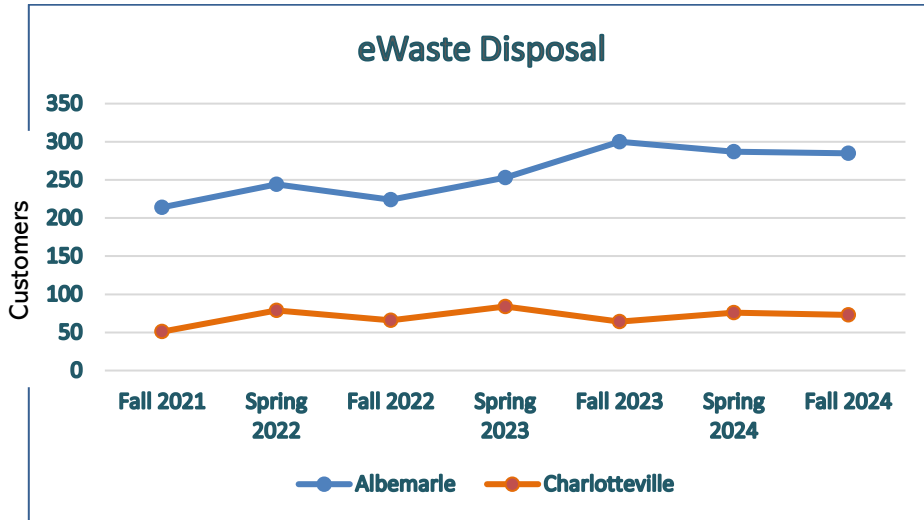


Fall Refuse Special Collection Days

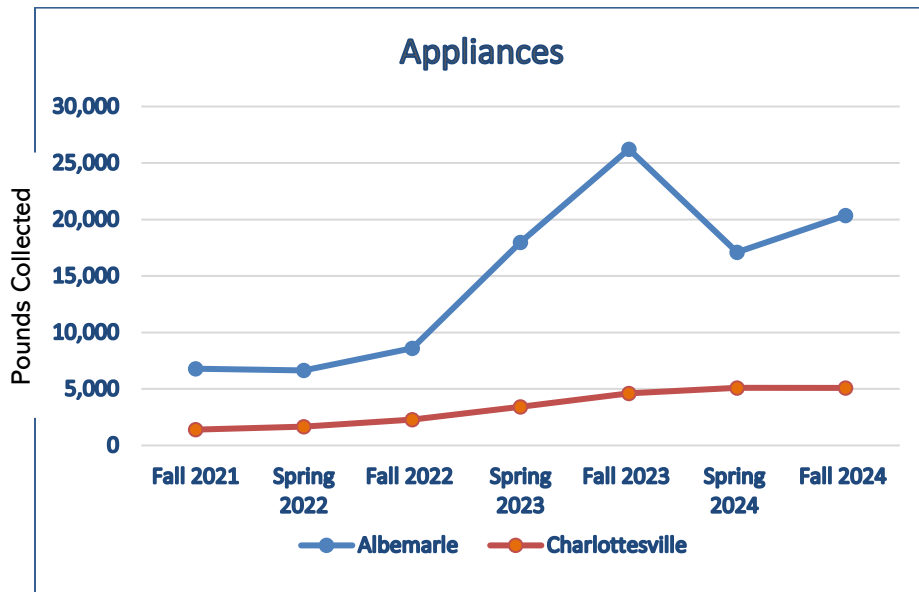
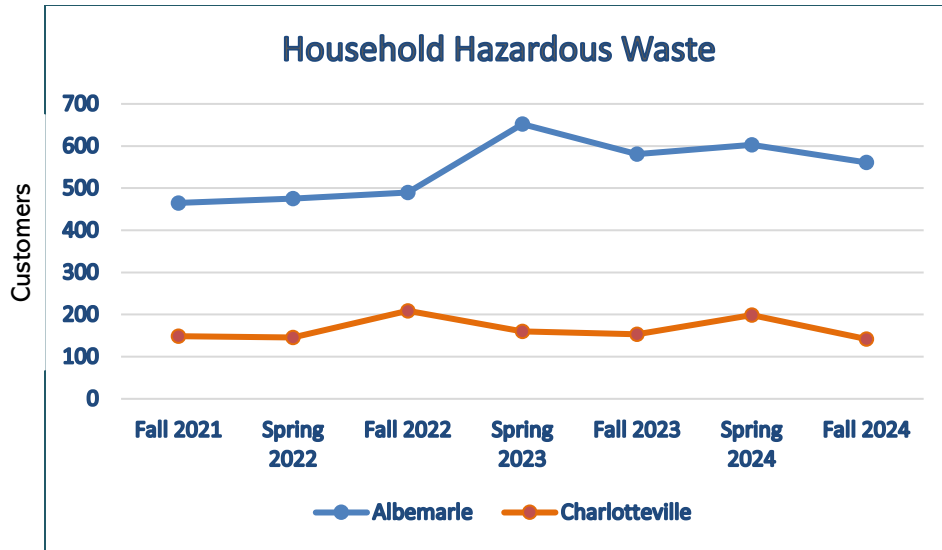
Customers appreciated the Household Hazardous Waste and Special Collection free disposal days that were held this fall at the Ivy Solid Waste and Recycling Center.

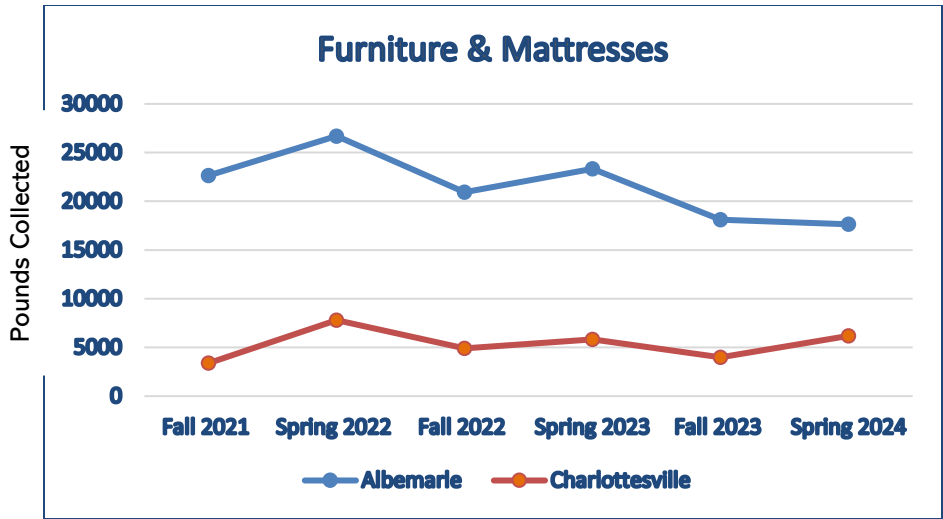
			Albemarle	Charlottesville
Household Hazardous Waste	Friday	9/20/2024		
		Customers	285	78
	Saturday	9/21/2024		
		Customers	276	64
Special Collections	Furniture/Mattresses	- Pounds Collected	26,240	5,000
	Saturday	9/28/2024		
	Appliances	- Pounds Collected	20,360	5,080
		- Freon units Collected	125	31
	Saturday	10/5/2024		
	Tires	Participating Vehicles	125	7
	Saturday	10/12/2024		

Three-year Trends



From 2021 to 2024, the number of Albemarle County residents participating in electronic waste disposal increased 33% (214 to 285) and Charlottesville had a 43% (51 to 73) increase over the same period.





Solid Waste Association of North America



On October 17th, I attended the Annual Membership meeting of the Solid Waste Association of North America (SWANA). This full-day event included presentations and discussions on state and federal solid waste issues and regulations.

United Way Day of Caring 2024

We appreciate the group of volunteers from Atlantic Union Bank who participated in the United Way Day of Caring on October 3rd and their hard work in bagging oyster shells at Ivy SWRC, along with current and retired Rivanna staff. The group of volunteers bagged 245 bags of oyster shells, which will be delivered to Gwynn’s Island, a VCU Rice Rivers Center’s program, where the shells are seeded and taken into the Chesapeake Bay to grow and filter billions of gallons of water annually.





MEMORANDUM

**TO: RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

**FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND INFORMATION
TECHNOLOGY**

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: SEPTEMBER 2024 FINANCIAL SUMMARY

DATE: NOVEMBER 19, 2024

Total operating revenues for the first quarter of this fiscal year totaled \$1,498,900, and total operating expenses were \$2,523,600, which resulted in a \$1,024,700 net operating loss. Funding support for operations and remediation of \$1,302,000 has been received this quarter. The Authority processed 63,721 tons of waste and recycling products through September. A breakdown of net revenue or cost per ton, including overhead and administrative support costs, is shown below.

	<u>Ivy Operations</u>	<u>Ivy Transfer</u>	<u>Recycling</u>	<u>Total</u>
Tonnage	46,249	16,914	558	63,721
Net operating income (loss)	\$ (41,011)	\$ (275,684)	\$ (414,969)	\$ (731,664)
Net operating income (loss) per ton	\$ (0.89)	\$ (16.30)	\$ (743.67)	\$ (11.48)

Attachments

**Rivanna Solid Waste Authority
Revenue and Expense Summary Report
FY 2025**

For September 2024

	Budget FY 2025	Budget YTD	Actual YTD	Variance \$	Variance %
Revenues					
Ivy Operations Tipping Fees	\$ 1,360,450	\$ 340,113	\$ 366,282	\$ 26,169	7.69%
Ivy Environmental Revenues	-	-	-	-	
Ivy MSW Transfer Tipping Fees	3,804,850	951,213	1,035,588	84,376	8.87%
County Convenience Centers	60,000	15,000	17,048	2,048	13.65%
Recycling Revenues	285,000	71,250	40,660	(30,590)	-42.93%
Other Revenues Administration	80,000	5,000	39,350	34,350	687.01%
Total Revenues	\$ 5,590,300	\$ 1,382,575	\$ 1,498,928	\$ 116,353	8.42%
Expenses					
Ivy Operations	\$ 1,099,541	\$ 274,885	\$ 337,075	\$ (62,190)	-22.62%
Ivy Environmental	1,105,926	276,482	208,749	67,733	24.50%
Ivy MSW Transfer	4,659,079	1,164,770	1,241,054	(76,285)	-6.55%
County Convenience Centers	828,216	207,054	199,530	7,524	3.63%
Recycling Operations	841,582	210,396	216,973	(6,578)	-3.13%
Administration	1,291,034	322,758	320,221	2,538	0.79%
Total Expenses	\$ 9,825,378	\$ 2,456,344	\$ 2,523,602	\$ (67,257)	-2.74%
Net Operating Income (Loss)	\$ (4,235,078)	\$ (1,073,769)	\$ (1,024,673)	\$ 49,096	4.57%
Other Funding Sources					
Local Government Support	\$ 2,765,841	\$ 691,460	\$ 751,370	\$ 59,909	8.66%
Environmental Support	1,469,237	367,309	550,592	183,283	49.90%
Subtotal	\$ 4,235,078	\$ 1,058,769	\$ 1,301,962	\$ 243,192	22.97%

Net Income (Loss)	\$ -	\$ (15,000)	\$ 277,288	\$ 262,288
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Local Support Detail			Annualized Payments	True-up Est. Due to / (Due from)
County - Ivy Operations	\$ 41,849	\$ 14,212	\$ 10,462	\$ (30,549)
County - Ivy Transfer	1,156,987	292,997	289,247	13,563
County - Convenience Centers	768,216	192,054	192,054	9,572
County - Recycling	559,152	141,888	139,788	(22,953)
County - Environmental MOU	896,069	224,017	224,017	-
	<u>\$ 3,422,274</u>	<u>\$ 865,168</u>	<u>\$ 855,568</u>	<u>\$ (30,366)</u>
City - Recycling	\$ 239,637	\$ 60,809	\$ 59,909	(9,837)
City - Environmental MOU	493,185	123,296	246,593	-
	<u>\$ 732,822</u>	<u>\$ 184,106</u>	<u>\$ 306,502</u>	<u>\$ (9,837)</u>
UVa - Environmental MOU	\$ 79,982	\$ 19,996	\$ 79,982	\$ 183,283
Total Local Support	\$ 4,235,078	\$ 1,069,269	\$ 1,242,052	\$ 143,079

Rivanna Solid Waste Authority
Fiscal Year 2025 - September 2024
Revenue and Expense Summary Report

FY 2025			Variance \$	Variance %
Budget FY 2025	Budget YTD	Actual YTD		

Ivy Operations

Revenues

Clean fill material	\$ 728,000	\$ 182,000	\$ 233,283	51,283	28.18%
Grindable material	486,000	121,500	104,638	(16,862)	-13.88%
Tires whole	50,350	12,588	1,013	(11,575)	-91.95%
Tires and white good per item	21,100	5,275	9,773	4,498	85.27%
Material Sales	75,000	18,750	17,575	(1,175)	-6.27%

Total Operations Revenues	\$ 1,360,450	\$ 340,113	\$ 366,282	\$ 26,169	7.69%
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Expenses

Personnel Cost	\$ 377,941	\$ 94,485	\$ 110,963	\$ (16,478)	-17.44%
Professional Services	-	-	-	-	
Other Services and Charges	29,700	7,425	13,854	(6,429)	-86.59%
Communications	18,900	4,725	4,843	(118)	-2.50%
Information Technology	25,000	6,250	4,181	2,069	33.11%
Vehicles and Equip. Maintenance	82,000	20,500	38,415	(17,915)	-87.39%
Supplies	4,000	1,000	288	712	71.23%
Operations and Maintenance	362,000	90,500	114,532	(24,032)	-26.55%
Environmental Remediations	-	-	-	-	
Equipment Replacement	200,000	50,000	50,000	(0)	0.00%

Total Operations Expenses	\$ 1,099,541	\$ 274,885	\$ 337,075	\$ (62,190)	-22.62%
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Allocation of Administration Costs	302,758	79,440	70,218	9,222	11.61%
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Expenses With Admin Allocations	\$ 1,402,299	\$ 354,325	\$ 407,293	\$ (52,968)	-14.95%
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Net Operating Income (Loss)	\$ (41,849)	\$ (14,212)	\$ (41,011)	(26,799)	188.56%
				(26,799)	

Summary of Local Support

County	\$ 41,849	\$ 14,212	\$ 10,462	\$ 3,750
	\$ 41,849	\$ 14,212	\$ 10,462	\$ 3,750

Estimated True-up \$ (30,549)

Rivanna Solid Waste Authority
 Fiscal Year 2025 - September 2024
 Revenue and Expense Summary Report

FY 2025			Variance \$	Variance %
Budget FY 2025	Budget YTD	Actual YTD		

Ivy Environmental

Revenues

Forestry Management Revenue	\$	-	\$	-	\$	-	-
Total Operations Revenues	\$	-	\$	-	\$	-	-

Expenses

Personnel Cost	\$	230,426	\$	57,607	\$	65,360	\$	(7,753)	-13.46%
Professional Services		40,000		10,000		76		9,924	99.24%
Other Services and Charges		8,200		2,050		1,037		1,013	49.44%
Communications		5,300		1,325		107		1,218	91.96%
Information Technology		-		-		371		(371)	
Vehicles and Equip. Maintenance		22,000		5,500		4,340		1,160	21.10%
Supplies		-		-		-		-	
Operations and Maintenance		220,000		55,000		38,627		16,373	29.77%
Environmental Remediations		270,000		67,500		21,333		46,167	68.40%
Equipment Replacement		310,000		77,500		77,500		0	0.00%
Total Operations Expenses	\$	1,105,926	\$	276,482	\$	208,749	\$	67,733	24.50%
Allocation of Administration Costs		363,310		95,328		84,261		11,066	11.61%
Expenses With Admin Allocations	\$	1,469,237	\$	371,809	\$	293,010	\$	78,799	21.19%
Net Operating Income (Loss)	\$	(1,469,237)	\$	(371,809)	\$	(293,010)		78,799	-21.19%

Summary of Local Support

County	\$	896,069	\$	224,017	\$	224,017	\$	0
City		493,185		123,296		246,593	\$	(123,296)
Uva		79,982		19,996		79,982		(59,987)
	\$	1,469,237	\$	367,309	\$	550,592	\$	(183,283)

Rivanna Solid Waste Authority
 Fiscal Year 2025 - September 2024
 Revenue and Expense Summary Report

FY 2025			Variance \$	Variance %
Budget FY 2025	Budget YTD	Actual YTD		

Ivy Transfer Station

Revenues

MSW / Construction Debris	\$ 3,701,850	\$ 925,463	\$ 994,189	\$ 68,727	7.43%
Compostable Material	-	-	-	-	
Service Charges / other revenues	103,000	25,750	41,399	15,649	60.77%
Total Operations Revenues	\$ 3,804,850	\$ 951,213	\$ 1,035,588	\$ 84,376	8.87%

Expenses

Personnel Cost	\$ 712,652	\$ 178,163	\$ 203,434	\$ (25,271)	-14.18%
Professional Services	-	-	-	-	
Other Services and Charges	52,000	13,000	7,841	5,159	39.69%
Communications	16,600	4,150	12,986	(8,836)	-212.92%
Information Technology	55,000	13,750	1,824	11,926	86.74%
Vehicles and Equip. Maintenance	110,000	27,500	22,517	4,983	18.12%
Supplies	10,000	2,500	863	1,637	65.48%
Operations and Maintenance	3,574,327	893,582	961,590	(68,008)	-7.61%
Environmental Remediations	3,500	875	-	875	100.00%
Equipment Replacement	125,000	31,250	30,000	1,250	4.00%
Total Operations Expenses	\$ 4,659,079	\$ 1,164,770	\$ 1,241,054	\$ (76,285)	-6.55%
Allocation of Administration Costs	302,758	79,440	70,218	9,222	11.61%
Expenses With Admin Allocations	\$ 4,961,837	\$ 1,244,209	\$ 1,311,272	\$ (67,063)	-5.39%

Net Operating Income (Loss) \$ (1,156,987) \$ (292,997) \$ (275,684) 17,313 -5.91%

Summary of Local Support

County	\$ 1,156,987	\$ 292,997	\$ 289,247	\$ 3,750
City	-	-	-	-
	\$ 1,156,987	\$ 292,997	\$ 289,247	\$ 3,750

Estimated True-up \$ 13,563

Rivanna Solid Waste Authority
 Fiscal Year 2025 - September 2024
 Revenue and Expense Summary Report

	FY 2025			Variance \$	Variance %
	Budget FY 2025	Budget YTD	Actual YTD		
County Convenience Centers					
Revenues					
Material Sales	\$ 60,000	\$ 15,000	\$ 17,048	\$ 2,048	13.65%
<i>Total Operations Revenues</i>	\$ 60,000	\$ 15,000	\$ 17,048	\$ 2,048	13.65%
Expenses					
Personnel Cost	\$ 558,716	\$ 139,679	\$ 161,555	\$ (21,876)	-15.66%
Professional Services	-	-	549	(549)	
Other Services and Charges	16,300	4,075	3,933	142	3.48%
Communications	18,200	4,550	275	4,275	93.96%
Information Technology	-	-	957	(957)	
Vehicles and Equip. Maintenance	155,000	38,750	14,336	24,414	63.00%
Supplies	-	-	-	-	
Operations and Maintenance	15,000	3,750	1,675	2,075	55.34%
Environmental Remediations	-	-	-	-	
Equipment Replacement	65,000	16,250	16,250	(0)	0.00%
<i>Total Operations Expenses</i>	\$ 828,216	\$ 207,054	\$ 199,530	\$ 7,524	3.63%
Allocation of Administration Costs	-	-	-	-	
<i>Expenses With Admin Allocations</i>	\$ 828,216	\$ 207,054	\$ 199,530	\$ 7,524	3.63%
Net Operating Income (Loss)	\$ (768,216)	\$ (192,054)	\$ (182,482)	9,572	-4.98%

Summary of Local Support					
County	\$ 768,216	\$ 192,054	\$ 192,054	\$ -	
	\$ 768,216	\$ 192,054	\$ 192,054	\$ -	

Estimated True-up \$ 9,572

Rivanna Solid Waste Authority
 Fiscal Year 2025 - September 2024
 Revenue and Expense Summary Report

FY 2025			Variance \$	Variance %
Budget FY 2025	Budget YTD	Actual YTD		

Recycling

McIntire & Paper Sort

Revenues

Material Sales & other revenues	\$ 250,000	\$ 62,500	\$ 40,660	\$ (21,840)	-34.94%
Grants	35,000	8,750	-	(8,750)	-100.00%

Total Operations Revenues	\$ 285,000	\$ 71,250	\$ 40,660	\$ (30,590)	-42.93%
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Expenses

Personnel Cost	\$ 457,432	\$ 114,358	\$ 131,695	\$ (17,337)	-15.16%
Professional Services	-	-	4,950	(4,950)	
Other Services and Charges	57,100	14,275	12,339	1,936	13.57%
Communications	3,400	850	2,478	(1,628)	-191.50%
Information Technology	-	-	758	(758)	0.00%
Vehicles and Equip. Maintenance	129,600	32,400	18,936	13,464	41.56%
Supplies	1,050	263	-	263	100.00%
Operations and Maintenance	93,000	23,250	20,819	2,431	10.46%
Environmental Remediations	-	-	-	-	0.00%
Equipment Replacement	100,000	25,000	25,000	0	0.00%
Total Operations Expenses	\$ 841,582	\$ 210,396	\$ 216,973	\$ (6,578)	-3.13%
Allocation of Administration Costs	242,207	63,552	56,174	7,378	11.61%
Expenses With Admin Allocations	\$ 1,083,789	\$ 273,947	\$ 273,147	\$ 800	0.29%

Net Operating Income (Loss)	\$ (798,789)	\$ (202,697)	\$ (232,487)	(29,790)	14.70%
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Summary of Local Support

County	\$ 559,152	\$ 141,888	\$ 139,788	\$ 2,100
City	239,637	60,809	59,909	900
	\$ 798,789	\$ 202,697	\$ 199,697	\$ 3,000

Estimated True-up - County	\$ (22,953)
Estimated True-up - City	\$ (9,837)

Rivanna Solid Waste Authority
 Fiscal Year 2025 - September 2024
 Revenue and Expense Summary Report

FY 2025			Variance \$	Variance %
Budget FY 2025	Budget YTD	Actual YTD		

Administration

Revenues

Interest revenues	\$ 65,000	\$ 1,250	\$ 33,809	\$ 32,559	2604.70%
Late Fees	15,000	3,750	5,542	1,792	47.78%
Total Operations Revenues	\$ 80,000	\$ 5,000	\$ 39,350	\$ 34,350	687.01%

Expenses

Personnel Cost	\$ 196,634	\$ 49,158	\$ 56,041	\$ (6,882)	-14.00%
Professional Services	105,000	26,250	7,570	18,680	71.16%
Other Services and Charges	974,700	243,675	246,147	(2,472)	-1.01%
Communications	5,700	1,425	1,004	421	29.57%
Information Technology	8,000	2,000	4,275	(2,275)	-113.75%
Vehicles and Equip. Maintenance	-	-	2,276	(2,276)	
Supplies	1,000	250	209	41	16.57%
Operations and Maintenance	-	-	2,700	(2,700)	
Environmental Remediations	-	-	-	-	
Equipment Replacement	-	-	-	-	
Subtotal Before Allocations	\$ 1,291,034	\$ 322,758	\$ 320,221	\$ 2,538	0.79%

Net Operating Income (Loss)	\$ (1,211,034)	\$ (317,758)	\$ (280,870)	36,888	-11.61%
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Allocation to Cost Centers (per agreement)

	Allocation %					
Ivy Operations	25%	\$ 302,758	\$ 79,440	\$ 70,218	\$ 9,222	-76.81%
Ivy Environmental	30%	363,310	95,328	84,261	11,066	-76.81%
Ivy Transfer	25%	302,758	79,440	70,218	9,222	-76.81%
County Convenience Centers	0%	-	-	-	-	
Recycling	20%	242,207	63,552	56,174	7,378	-76.81%
Total Allocation to Cost Centers	100%	\$ 1,211,034	\$ 317,758	\$ 280,870	\$ 36,888	-76.81%



October 1-31, 2024

Days of

Operation: **27**

		MSW collected at Transfer Station (tons)					Non-MSW	
	Vehicles	Count	Citizen-Can	Construction	Domestic	MSW Total	Total Tons	
10/01/24	Tuesday	165	192	0.45	131.82	130.70	262.97	14.32
10/02/24	Wednesday	211	245	0.62	97.31	156.34	254.27	95.81
10/03/24	Thursday	271	295	1.52	62.55	111.78	175.85	868.81
10/04/24	Friday	277	389	0.72	59.74	125.93	186.39	486.54
10/05/24	Saturday	309	371	0.98	17.25	54.37	72.60	21.53
10/06/24	Sunday						-	
10/07/24	Monday	329	1,578	1.49	220.82	245.72	468.03	373.24
10/08/24	Tuesday	255	272	0.43	261.24	119.97	381.64	120.32
10/09/24	Wednesday	278	297	0.45	68.88	128.94	198.27	727.36
10/10/24	Thursday	246	254	0.93	58.63	171.75	231.31	221.38
10/11/24	Friday	287	328	0.37	78.78	90.61	169.76	209.01
10/12/24	Saturday	284	366	0.78	25.76	41.75	68.29	48.32
10/13/24	Sunday						-	
10/14/24	Monday	291	370	1.40	96.95	168.45	266.80	258.01
10/15/24	Tuesday	273	456	0.33	99.06	129.49	228.88	320.87
10/16/24	Wednesday	275	277	0.22	107.78	102.22	210.22	558.59
10/17/24	Thursday	272	308	1.24	93.91	142.90	238.05	734.24
10/18/24	Friday	281	349	0.45	112.81	91.02	204.28	603.47
10/19/24	Saturday	235	310	0.88	17.27	46.80	64.95	46.91
10/20/24	Sunday						-	
10/21/24	Monday	316	374	1.30	93.62	169.44	264.36	399.79
10/22/24	Tuesday	280	351	0.45	63.08	127.80	191.33	937.98
10/23/24	Wednesday	265	279	0.38	84.42	130.90	215.70	508.70
10/24/24	Thursday	262	285	1.27	83.82	122.37	207.46	418.32
10/25/24	Friday	287	301	0.57	91.23	97.40	189.20	664.29
10/26/24	Saturday	238	311	0.57	9.01	35.64	45.22	24.33
10/27/24	Sunday						-	
10/28/24	Monday	280	296	1.28	79.30	205.66	286.24	430.03
10/29/24	Tuesday	296	305	0.49	106.28	173.80	280.57	786.45
10/30/24	Wednesday	265	300	0.48	70.43	118.14	189.05	780.19
10/31/24	Thursday	271	330	1.23	117.94	115.07	234.24	589.77
Total	7,299	9,789	21.28	2,409.69	3,354.96	5,785.93	11,248.58	
<i>Average</i>	270	363	0.79	89.25	124.26	214.29	416.61	
<i>Median</i>	275	308	0.62	84.42	125.93	210.22	418.32	
<i>Maximum</i>	329	1578	1.52	261.24	245.72	468.03	937.98	
<i>Minimum</i>	165	192	0.22	9.01	35.64	45.22	14.32	

Material Type & Description

Citizen-Can: Roll-off container at the Ivy MUC Convenience Center-citizens dispose of prepaid trashbags

Construction: Construction/demolition debris (shingles, sheetrock, treated lumber, etc.)

Count: Transactions per item (appliances, hauling fees, service fees, tag-bag stickers, tires,

Domestic: Business/residential general or household waste

MSW: Materials processed/handled at the Transfer Station

Non-MSW: Materials processed/handled on-site

Vehicle: Transactions or vehicles processed in a day



September 1-30, 2024

Days of

Operation: **24**

		MSW collected at Transfer Station (tons)					Non-MSW	
	Vehicles	Count	Citizen-Can	Construction	Domestic	MSW Total	Total Tons	
09/01/24	Sunday					-		
09/02/24	Monday					-		
09/03/24	Tuesday	326	399	0.74	83.99	363.56	448.29	276.42
09/04/24	Wednesday	286	307	0.28	68.18	168.42	236.88	284.05
09/05/24	Thursday	265	287	2.13	128.02	123.50	253.65	344.22
09/06/24	Friday	264	310	0.50	89.20	99.98	189.68	211.15
09/07/24	Saturday	336	440	0.82	44.12	84.49	129.43	24.64
09/08/24	Sunday					-		
09/09/24	Monday	276	327	1.20	49.46	237.64	288.30	195.84
09/10/24	Tuesday	285	323	0.51	67.72	118.76	186.99	411.04
09/11/24	Wednesday	267	333	0.46	142.37	133.88	276.71	210.44
09/12/24	Thursday	294	421	1.69	166.92	143.43	312.04	271.48
09/13/24	Friday	264	346	0.67	182.94	83.65	267.26	167.85
09/14/24	Saturday	284	370	0.61	98.62	32.03	131.26	11.63
09/15/24	Sunday					-		
09/16/24	Monday	280	309	1.37	117.02	204.79	323.18	92.02
09/17/24	Tuesday	147	169	0.25	72.89	154.09	227.23	20.00
09/18/24	Wednesday	171	197	0.30	188.58	129.63	318.51	12.08
09/19/24	Thursday	221	267	1.35	169.75	158.30	329.40	223.03
09/20/24	Friday	312	344	0.63	116.05	126.18	242.86	379.58
09/21/24	Saturday	282	393	0.91	19.48	54.17	74.56	18.58
09/22/24	Sunday					-		
09/23/24	Monday	184	188	1.71	57.94	146.51	206.16	181.85
09/24/24	Tuesday	34	91	0.64	-	-	0.64	189.78
09/25/24	Wednesday	198	227	3.56	74.06	120.35	197.97	43.73
09/26/24	Thursday	187	306	1.44	62.32	216.62	280.38	44.83
09/27/24	Friday	127	161	0.48	45.35	142.48	188.31	26.77
09/28/24	Saturday	251	315	1.36	12.77	43.91	58.04	17.59
09/29/24	Sunday					-		
09/30/24	Monday	188	204	1.69	144.90	234.79	381.38	17.87
Total	5,729	7,034	25.30	2,202.65	3,321.16	5,549.11	3,676.47	
<i>Average</i>	239	293	1.05	91.78	138.38	231.21	153.19	
<i>Median</i>	265	310	0.78	83.99	133.88	239.87	174.85	
<i>Maximum</i>	336	440	3.56	188.58	363.56	448.29	411.04	
<i>Minimum</i>	34	91	0.25	12.77	32.03	0.64	11.63	

Material Type & Description

Citizen-Can: Roll-off container at the Ivy MUC Convenience Center-citizens dispose of prepaid trashbags

Construction: Construction/demolition debris (shingles, sheetrock, treated lumber, etc.)

Count: Transactions per item (appliances, hauling fees, service fees, tag-bag stickers, tires)

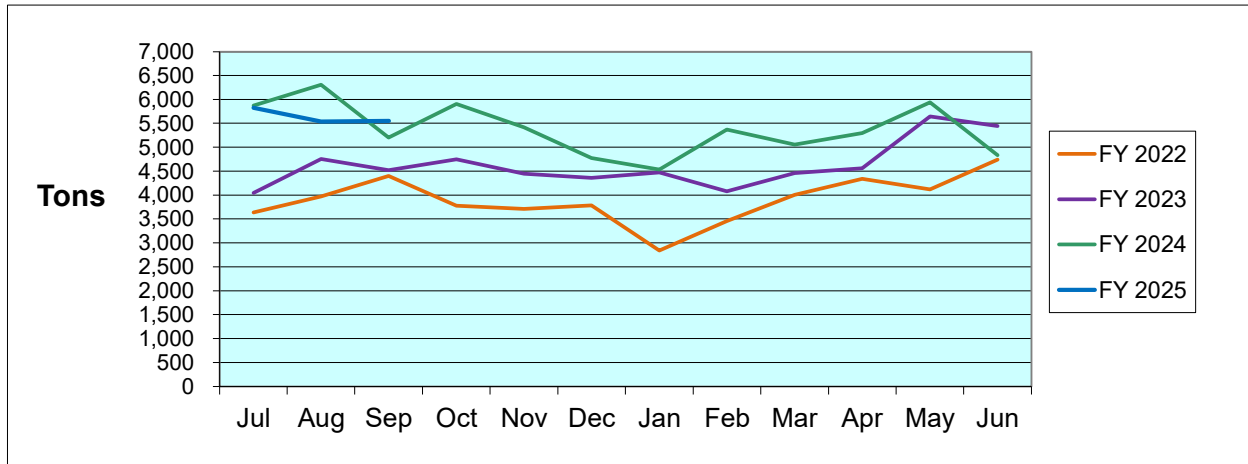
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Vehicle: Transactions or vehicles processed in a day

Rivanna Solid Waste Authority
Ivy MSW Transfer Tonnages
FY 2022 - 2025





MEMORANDUM

**TO: RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

**FROM: DAVID RHOADES, SOLID WASTE MANAGER
PHILLIP MCKALIPS, DIRECTOR OF SOLID WASTE**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

**SUBJECT: IVY SOLID WASTE AND RECYCLING CENTER REPORT/
RECYCLING OPERATIONS UPDATE**

DATE: NOVEMBER 19, 2024

Ivy Solid Waste And Recycling Center (ISWRC) : DEQ Permit 132: 450 tons/day MSW limit

September 2024

- **5,729 vehicles crossed the scales**
- The IMUC transfer station operated for 24 days and received a total of 5,549.11 tons of municipal solid waste (MSW), an average of 231.21 tons per day of operation. The monthly transfer station tonnage figures are attached to this report.
- 3,676.47 tons of non-MSW materials were received
- 9,225.58 tons were received as a combined total tonnage (MSW + non-MSW)

October 2024

- **7,299 vehicles crossed the scales**
- The IMUC transfer station operated for 27 days and received a total of 5,785.93 tons of municipal solid waste (MSW), an average of 214.29 tons per day of operation. The monthly transfer station tonnage figures are attached to this report.
- 11,248.58 tons of non-MSW materials were received
- 17,034.51 tons were received as a combined total tonnage (MSW + non-MSW)

Fall HHW and Bulky Waste Totals:

Saturday, September 14, 2024: *E-Waste*

A total of 358 vehicles participated, including 285 from the County and 73 from the City.

Thursday, September 19, Friday, September 20, and Saturday, September 21, 2024: *Special Collections*

The Conditionally Exempt Small Quantity Generator (CESQG) Special Collection for business hazardous waste was held on Thursday, September 21, 2023. CESQG collection program is a pre-registration, fee-based program with sign-up information and instructions on the Rivanna.org website. 9 customers participated.

Household Hazardous Waste Day was a two-day event this Fall. Hours were from 9am-2pm on both Friday, September 20 and Saturday, September 21, 2024. Wait times on both days this spring were less than 5 minutes. The total customer count for the two-day event was 703 City/County residents. Friday: the split was 285 County, and 78 City. Saturday: the split was 276 County and 64 City. 21 Nelson County residents participated.

Saturday, September 28, 2024: *Furniture / Mattresses*

A total of 164 vehicles participated, including 137 from the County and 27 from the City. 26,240 lbs. of furniture and mattresses were collected from the county. 5,000 lbs. of furniture and mattresses were collected from the City.

Saturday, October 5, 2024: *Appliances*

A total of 167 vehicles participated, including 134 from the County and 33 from the City. 20,360 lbs. of appliances and 125 freon units were collected from the County. 5,080 lbs. of appliances and 31 freon units were collected from the City.

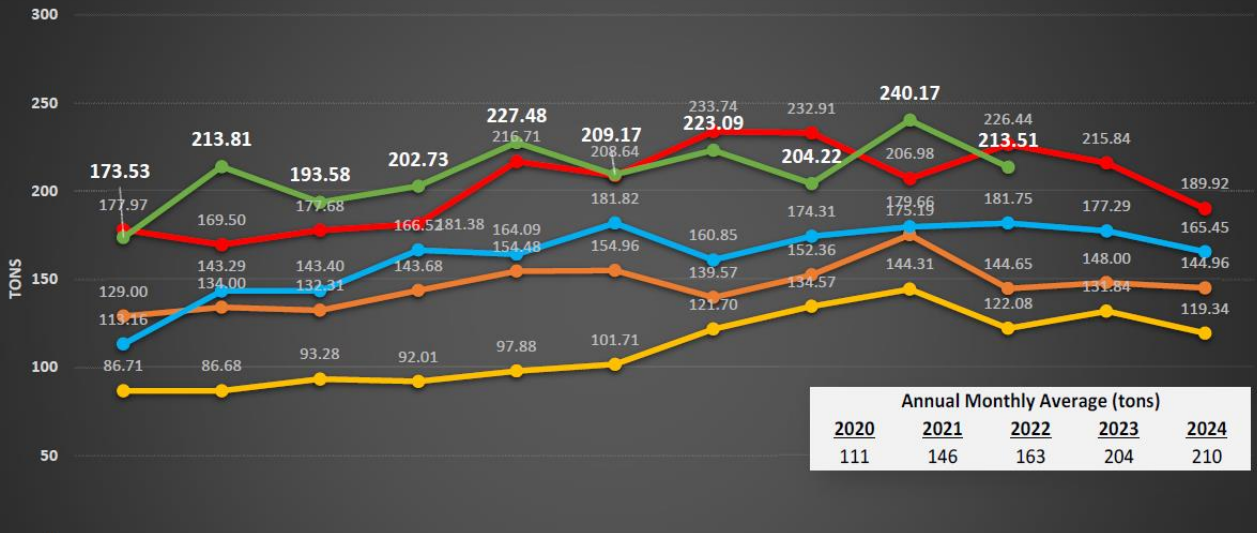
Saturday, October 12, 2024: *Tires*

A total of 132 vehicles participated, including 125 from the County and 7 from the City. 0.72 tons from the City and 13.76 tons from the County. Total tonnage of tires was 14.48 tons.

Transfer Station Update

Our average daily tonnages are generally following seasonal trends, as shown in the following figure.

Ivy Solid Waste & Recycling Center Facility Construction and Domestic Waste Annual Comparison - Average Daily Tonnage



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	86.71	86.68	93.28	92.01	97.88	101.71	121.70	134.57	144.31	122.08	131.84	119.34
2021	129.00	134.00	132.31	143.68	154.48	154.96	139.57	152.36	175.19	144.65	148.00	144.96
2022	113.16	143.29	143.40	166.52	164.09	181.82	160.85	174.31	179.66	181.75	177.29	165.45
2023	177.97	169.50	177.68	181.38	216.71	208.64	233.74	232.91	206.98	226.44	215.84	189.92
2024	173.53	213.81	193.58	202.73	227.48	209.17	223.09	204.22	240.17	213.51		



MEMORANDUM

TO: RIVANNA SOLID WASTE AUTHORITY BOARD OF DIRECTORS

FROM: BETSY NEMETH, DIRECTOR OF ADMINISTRATION AND COMMUNICATIONS

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: ADMINISTRATION AND COMMUNICATIONS REPORT

DATE: NOVEMBER 19, 2024

Human Resources

Fiscal year-to-date staff turnover rate is 3.6% for the Rivanna Solid Waste Authority through November 4, 2024.

We are pleased to welcome Shawn Gibbs to the team as our new Maintenance Worker. Shawn started with us on October 3, 2024.

We held our annual Employee Appreciate Day for our Rivanna Solid Waste Authority employees at the Ivy Solid Waste & Recycling Center on November 7, 2024. Four service awards were presented:

- James Heller – 20 years of service
- James Langolf – 10 years of service
- Rashad Banks – 5 years of service
- Sherrod Terrell – 5 years of service

Safety

The \$2000 grant that we received from VRSA contributed to a new gate at the Ivy Transfer Station. The gate will protect our employees from vehicle traffic when they are cleaning the tipping floor.

On October 16, 2024, we trained our managers on the new Incident Reporting module of our HR management system called “Paychex”. This system will eliminate paper incident reporting.

We have published a new Electrical Safety chapter as a part of our Safety Manual. Many thanks go to staff from the University of Virginia for their assistance with this chapter.

Community Outreach

October was National Breast Cancer Awareness Month, and our team showed their support to people who have been affected by breast cancer by wearing pink shirts to work on October 16, 2024.

Development is continuing on a new website and we are hopeful to launch it by the end of January!



Board Meeting Schedule

Listed below are the proposed RSWA Board of Directors meeting dates for calendar year 2025:

Tuesday, January 28, 2025

Tuesday, March 25, 2025

Tuesday, May 27, 2025

Tuesday, July 22, 2025

Tuesday, September 23, 2025

Tuesday, November 18, 2025*

* The November meeting is advanced to avoid a conflict with the week of Thanksgiving.

RSWA meetings will start at 2:00 p.m. and be held in the large conference room on the second floor of the Moores Creek Wastewater Treatment Plant Administration Building, 695 Moores Creek Lane, Charlottesville, VA.

Written comments received from the public before the meeting will be presented by staff at the meeting. The public may view and comment virtually during the meeting via Zoom; a link will be posted on our website prior to each meeting. Video recordings of the meetings will be posted to our website.



MEMORANDUM

TO: RIVANNA SOLID WASTE AUTHORITY BOARD OF DIRECTORS

FROM: BETSY NEMETH, DIRECTOR OF ADMINISTRATION & COMMUNICATIONS

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: APPROVAL OF THE RIVANNA SOLID WASTE AUTHORITY HOLIDAY SCHEDULE FOR CALENDAR YEAR 2025

DATE: NOVEMBER 19, 2024

This memo is to propose a schedule for 13.5 paid holidays to be observed during calendar year 2025, as indicated by the attachment.

This schedule has been determined in accordance with our Personnel Management Plan, Holiday Leave Policy. In addition to the 12.5 observed holidays listed in our Personnel Management Plan, this schedule includes Friday, December 26, 2025.

The Rivanna Solid Waste Authority facilities, including the Ivy Solid Waste and Recycling Center, the Meade Avenue Paper Sort Facility, the McIntire Recycling Center, and the Southern Albemarle Convenience Center, will be closed to the public on the following six holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Staff will receive additional compensation for work performed to keep our facilities open to the public on the remaining 7.5 holidays.

Board Action Requested

Approval of the attached Holiday Schedule for Calendar Year 2025.



2025 Holiday Schedule

New Year's Day – Wednesday, January 1st

Martin Luther King, Jr Day (Floating) – Monday, January 20th

President's Day (Floating) – Monday, February 17th

Memorial Day – Monday, May 26th

Juneteenth (Floating) – Thursday, June 19th

Independence Day – Friday, July 4th

Labor Day – Monday, September 1st

Veteran's Day (Floating) – Tuesday, November 11th

1/2 Day Before Thanksgiving – Wednesday, November 26th

Thanksgiving Day – Thursday, November 27th

Day After Thanksgiving – Friday, November 28th

Christmas Eve – Wednesday, December 24th

Christmas – Thursday & Friday, December 25th & 26th

MEMORANDUM

**TO: RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

**FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND
INFORMATION TECHNOLOGY**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

**SUBJECT: ANNUAL COMPREHENSIVE FINANCIAL REPORT
FISCAL YEAR ENDING JUNE 30, 2024**

DATE: NOVEMBER 19, 2024

The Authority's Annual Comprehensive Financial Report for the fiscal year ending June 30, 2024 is included with your Board packet. A large part of preparing the financial statements involves having the financial reports audited for the purpose of obtaining an opinion from an independent Certified Public Accountant as to the accuracy of the information presented in the report.

The audit also reviews internal accounting controls and tests for compliance with relevant laws and regulations as a function of expressing the firm's opinion on the financial information. I am pleased to inform you that the Authority received an unmodified opinion, which is the highest opinion that the financial statements are materially accurate and fairly presented.

Mr. Matthew McLearen, a principal of the Charlottesville office of Robinson, Farmer, Cox Associates, will be at the meeting to give a brief review of the audit and discuss any audit findings the firm may have. A letter communicating several aspects of the review is attached for you as well.

I would also like to thank Kathy Ware, Senior Accountant, who performed much of the detailed work in the preparation of this report. The entire administrative staff deserves our appreciation for their hard work during the year in processing our transactions and for providing assistance during the audit.

This report will be submitted to the Certification Program of the Government Finance Officers Association.

Board Action Requested

Accept the FY 2024 Annual Comprehensive Financial Report from Robinson, Farmer, Cox Associates.

Attachments: Annual Comprehensive Financial Report
Communication with Those Charged with Governance

Future Challenges of Solid Waste



Presented to the Board of Directors
By Bill Mawyer, Executive Director
November 19, 2024





“Looking into the future is a fool’s occupation - but it is the bigger fool who dares not to.” - *Voltaire*



SOLID WASTE DRIVERS



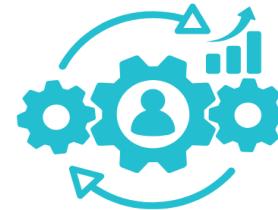
CAPACITY



REGULATIONS



EMERGING
CONTAMINANTS



TECHNOLOGY



SUSTAINABILITY



AFFORDABILITY

CAPACITY AND SUSTAINABILITY UPCOMING PROJECTS

NORTHERN ALBEMARLE CONVENIENCE CENTER



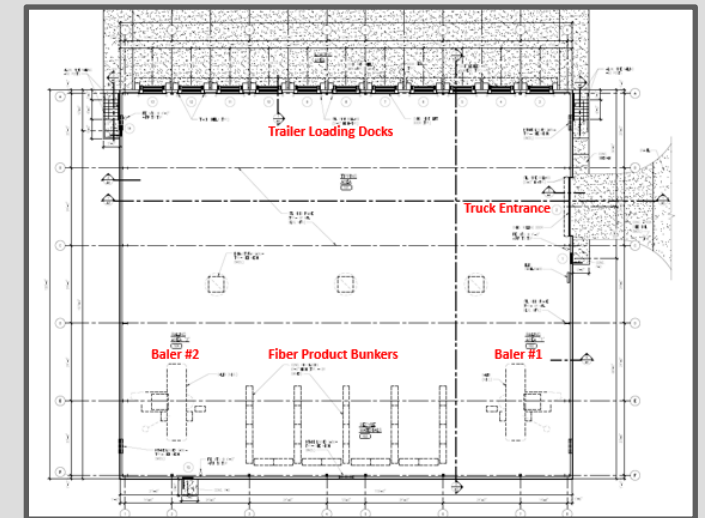
- ❖ Located between Berkmar Dr. and Rio Mills Rd.
- ❖ Accept bagged trash and recycled materials
- ❖ Construction:
 - ❖ 2026 – 2027
 - ❖ \$1.8 M

SOLAR CELLS



- ❖ 17 acres of solar cells on property we lease at the Ivy SWRC
- ❖ Construction: 2025

BALING FACILITY



- ❖ 17k sf located at Ivy SWRC
- ❖ 11 tractor-trailer bays for recyclables
- ❖ Equipped with 2 baling machines
- ❖ Construction:
 - ❖ 2025 – 2026
 - ❖ \$6.4 M

Capacity

UVA - stable foundation of local economy



UVA supports almost 30k jobs in Albemarle & Charlottesville. Economic impact on Va's economy is estimated to be \$5.9 B annually.

Construction industry is major source of waste

These materials include aggregates such as concrete, asphalt, asphalt shingles, gypsum wallboard, wood, and metals.

Source: EPA, United States Department of Transportation



Total waste from construction-related projects is double the municipal waste from homes and businesses.

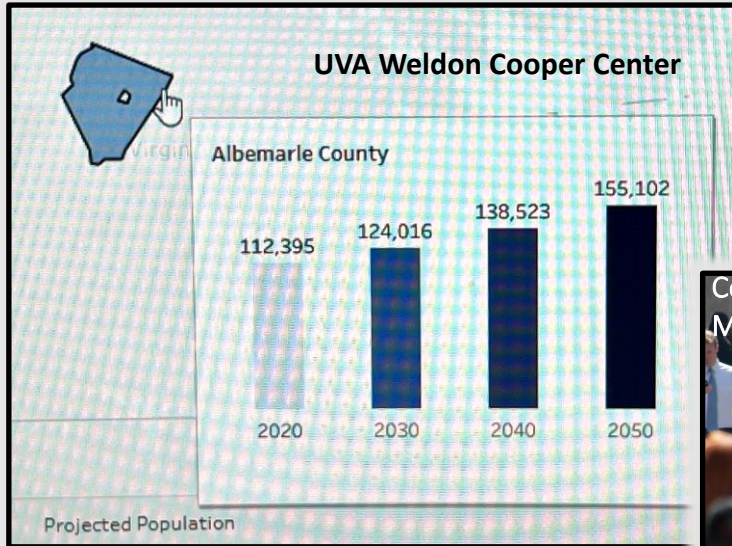


Over 20% of the United States waste stream is estimated to be construction and demolition waste.



Construction and demolition waste generation in the U.S. increased by 342% from 1990 to 2018.

Population Growth



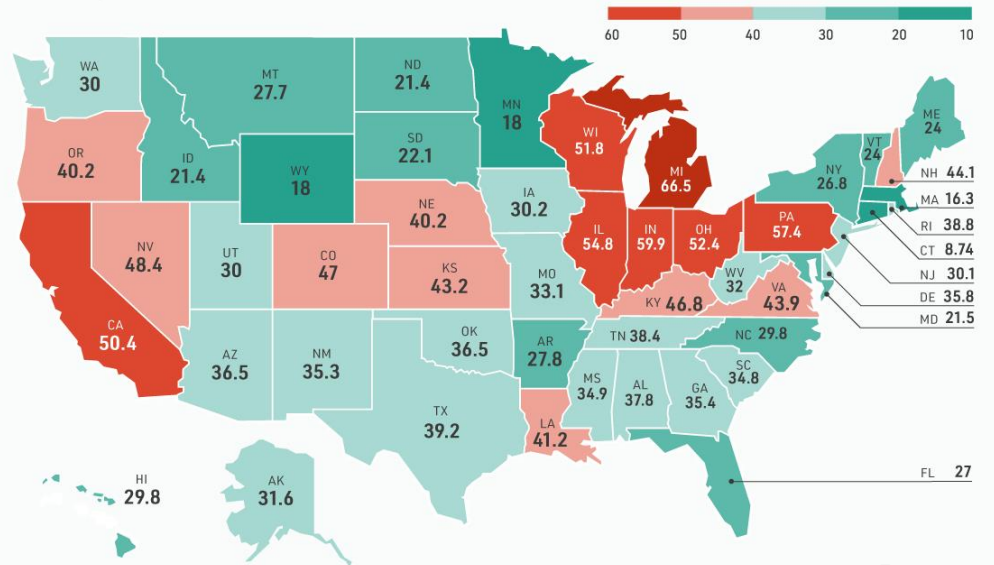
Albemarle County's projected 2050 population is 155k, an **increase of 38%** over 2020 census population. Charlottesville's projected 2050 population is 50k, an **increase of 7%** over 2020 census population.



43.9 Tons per person in Virginia

TONS OF WASTE IN LANDFILLS PER PERSON, BY STATE

Source: EPA, United States Census Bureau



LANDFILL CAPACITY

According to the VDEQ's 2021 Annual Solid Waste Report, Virginia has **21 years** of MSW landfill capacity remaining.

- ❖ MSW and CCD from Ivy SWRC are transported to Republic's Old Dominion Landfill in Henrico
- ❖ 114 Acres, opened 1994, capacity 35 B Tons
 - As of 2023, 7 B Tons of waste space available
 - Remaining permitted life – **17 Years**



ELECTRONIC WASTE

The AI boom may unleash a global surge in electronic waste *Washington Post 10/29/24*

- ❖ A record 62 M tons of e-waste was produced in 2022, up 82% from 2010. On track to rise another 32%, to 82 M tons by 2030
- ❖ Billions of dollars worth of valuable resources (copper, gold, silver, aluminum, and rare earth elements) dumped as well as hazardous materials such as lead, mercury, and chromium
- ❖ E-waste is considered hazardous waste as it contains toxic materials and can produce toxic chemicals if not recycled properly.



REDUCE, REUSE, RECYCLE

What gets recycled:

- ❖ Paper/cardboard: 81%
- ❖ Aluminum: 35%
- ❖ Glass containers: 31%
- ❖ Plastics:
 - 13.6 % recycled
 - 16.9% incinerated
 - 70% landfilled

Wallstreet Journal 10/22/2024

Plastic Recycling's Wasted Opportunity

By SAABIRA CHAUDHURI

Each week a garbage truck pulls up and workers collect the contents of your blue bin. Your mixed recycling contains lots of plastics—shampoo bottles, yogurt cups, milk jugs and more—but how much actually gets recycled?

The answer isn't what you want to hear. But knowing it will help you get smarter about sorting your trash.

Just 13.6% of waste plastic containers and packaging—what goes in blue bins as well as the trash—were sent to a recycling facility in 2018, according to the Environmental Protection Agency's most recent data. An additional 16.9% got incinerated. Nearly 70% went to landfills.

Compare that to waste paper and cardboard: The EPA says 81% of what we threw away in 2018 got recycled. The rate for glass containers was about 31%. For aluminum, including cans and foil, it was around 35%.

Recycling plastic is a challenge because of chemistry...and business.

There are seven categories of plastic resins—including a catchall called "other." Most types aren't even considered for curbside recycling. Meanwhile, businesses have touted their containers as recyclable as they look to keep consumers and regulators happy. Yet for recycling to work, there has to be demand for all the

used plastic that we toss. Today virgin plastic is both cheaper and better, so there's little incentive for companies to invest in recycling facilities.

What gets recycled

You know the numbers on plastic items ranging from one through seven? Just because something has a number doesn't make it recyclable. Two plastics, widely used in soda bottles, milk jugs and other popular containers, are most often recycled.

PET—polyethylene terephthalate, used for soda and other drink bottles—goes by number 1 and is the most highly recycled plastic in the U.S. As of 2022, about 29% of the PET bottles sold to consumers were purchased by reprocessors or exported for recycling, according to the National Association for PET Container Resources.

HDPE—high-density polyethylene, found in milk jugs and detergent containers—is number 2. About 27% of HDPE bottles and jugs were bought by reprocessors or exported for recycling in 2022, according to the Association of Plastic Recyclers.

PP—polypropylene, which bears the number 5 and is commonly used in yogurt and butter containers—hasn't been widely recycled in the U.S. In recent years, more recyclers have shown interest in processing the ma-

terial, but check your town's recycling guidelines to see if PP is accepted.

Most flexible packaging you bring home from the supermarket—bags, pouches, toothpaste tubes—isn't typically accepted in curbside recycling bins although you can drop some of it off at supermarkets, where it could be collected to become trash bags or building material. Rigid containers made from polyvinyl chloride (No. 3), polystyrene (No. 6) or multilayer plastics (No. 7) generally shouldn't go in blue bins either.

Your town might still tell you to put all your rigid plastic in the bin, numbers 1 through 7. That's usually to up the odds of collecting more 1s and 2s. The facility will sort out other plastic to be sent to a landfill or an incinerator.

"It was initially thought if you



reprocess old packaging.

The variety of plastics on store shelves today compounds the challenge. Trays, clamshell food containers and other non-bottle or jar shapes are often tossed aside, even those made from PET and HDPE. Recycling itself degrades plastic, meaning it's usually only recycled a couple of times. Most food packaging isn't turned back into food packaging.

Sorting and cleaning a wide assortment of plastic containers is expensive. Collected plastic is often downcycled into trash bags, Frisbees or park benches, which can't be recycled again.

What you can do

If your town offers recycling, use it.

- ▶ **Look out for number 1 (and 2).** When sorting your trash, give priority to PET and HDPE bottles and jars. You don't have to clean them but make sure they're empty. To ensure the caps also get recycled, keep them on the bottles.
- ▶ **Steer toward clear.** Noncolored plastic containers are easier to recycle—and are less likely to be downcycled—so opt for brands that use clear containers (and ones made with recycled material).
- ▶ **Don't gum up the works.** Throwing bags, six-pack rings and other flexible plastics into your blue bin could mess sorting machinery.
- ▶ **Bag your bags.** Look for plastic-bag drop-off programs at Walmart and Target or your local supermarket. Some other flexible items may be collected at these locations, too.

▲ **Over five decades after soda makers first turned to plastic bottles, America's PET bottle recycling rate stands at under 30%.**

just said put all containers in the bin, it would minimize confusion," says Scott Saunders, head of recycling at KW Plastics, one of North America's largest recyclers. "Trying to train individual households to put in specific plastics was so difficult."

Why rates are so poor

The U.S. used to export recycling to China, but the country stopped taking most foreign waste in 2018. If American companies aren't interested in making new products from recycled plastic—which typically costs more than virgin plastic—there's no incentive to develop the infrastructure to collect, sort and

RECYCLING WITH ARTIFICIAL INTELLIGENCE

❖ AMP Robotics Corp, artificial intelligence and robotics for the waste and recycling industry:

- reduce labor costs
- increase resource recovery
- capture value of recyclables
- capable of sorting single stream, MSW, e-waste, plastics, metals
- 90% capture rate of target materials

❖ Recycling and Disposal Solutions Company

- Portsmouth, VA: new 33,000-square-foot building; installed AMP system in 2023
 - Currently processing 150 Tons per day of local MSW, diverting 60% or more from landfill
- Greenville, NC: installed AMP Robotics 2024 to process about 10,000 tons of single stream and commercial recycling annually.

2.1B

Global waste produced annually

16%

Global recycling rate annually

\$11.4B

Value of US recyclables lost to landfill annually



Portsmouth Expansion



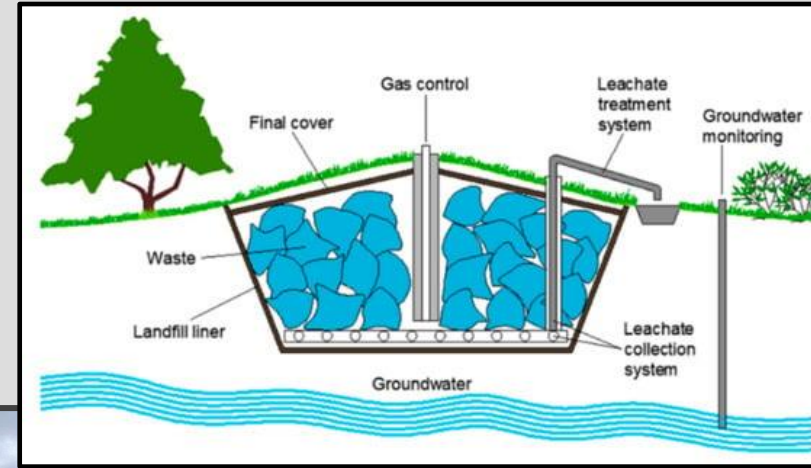
RDS – Portsmouth completes the second material processing building.



RDS - Greenville NC

EMERGING CONTAMINANTS IN LEACHATE

- ❖ Leachate is generated when water trickles through buried solid waste. It is collected and transported to Moores Creek for treatment.
- ❖ Contains pollutants, such as ammonia, heavy metals, pesticides, and PFAS. Our wastewater treatment does not remove PFAS.

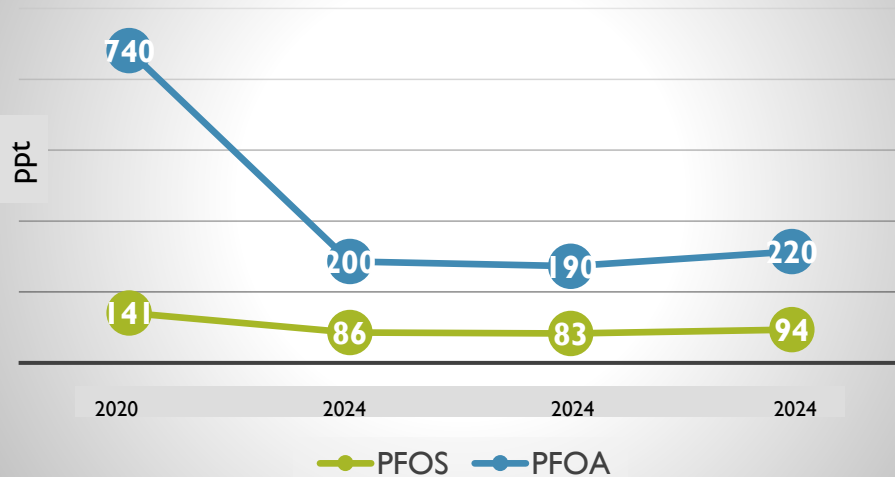


Ivy Leachate Pond



Leachate transport to MCAWRRF

Ivy Leachate



Additional Refuse Disposal Options

Waste to Energy Incineration

Incineration is a process that uses waste as a fuel in order to create energy. The downside to this process is that additional greenhouse gases in the form of CO₂ are created.

Bioreactor Landfills

Aerobic - In an aerobic bioreactor landfill, leachate is removed from the bottom layer, piped to liquids storage tanks, and re-circulated into the landfill in a controlled manner. Air is injected into the waste mass using vertical or horizontal wells to promote aerobic activity and accelerate waste stabilization.

Anaerobic - In an anaerobic bioreactor landfill, moisture is added to the waste mass in the form of re-circulated leachate and other sources to obtain optimal moisture levels. Biodegradation occurs in the absence of oxygen (anaerobically) and produces landfill gas. Landfill gas - primarily methane - can be captured to minimize greenhouse gas emissions and can be used for energy projects.

Hybrid (Aerobic-Anaerobic) - The hybrid bioreactor landfill accelerates waste degradation by employing a sequential aerobic-anaerobic treatment to rapidly degrade organics in the upper sections of the landfill and collect gas from lower sections. Operation as a hybrid results in the earlier onset of methanogenesis compared to aerobic landfills.

Composting/Organic Waste Recycling

Composting is a process that allows biological waste, such as rotten food, to break down naturally. Composting allows for organic waste to be recycled rapidly, and be turned into fertilizer, which can be used in farming.

Advanced Technologies

Pyrolysis uses high temperatures to break down organic waste into smaller portions, which can then be disposed of more easily. Another process known as plasma arc gasification catalyzes organic matter into synthetic gases and solid waste known as slag. The slag can then be used as a solid for construction material and other purposes.

VA REGIONAL SOLID WASTE AUTHORITIES GROUP



Summary

- Landfill capacity will be a local, state and national issue over the next 20 years.
- Regulatory requirements to address PFAS in leachate will increase the complexity and cost of refuse disposal.
- Regional partnerships may provide options to optimize resources and minimize costs.
- A long-term Strategic Plan will be essential to guide the changes.

Questions?

