DONALD D.J. STACK TELEPHONE: (404) 525-9205 FACSIMILE: (404) 522-0275 E-MAIL: DSTACK@STACKENV.COM WWW.STACKENV.COM



Atlanta 260 Peachtree Street • Suite 1200 Atlanta, Georgia 30303 Telephone: (404) 525-9205 Toll Free: (877) 622-3891 Facsimile: (404) 522-0275

> SAVANNAH P.O. BOX 13124 SAVANNAH, GEORGIA 31406 TELEPHONE: (912) 232-0567 FACSIMILE: (877) 622-3891

December 31, 2019

VIA E-MAIL Coastal Regional Commission c/o Russell Oliver, Senior Planner II Roliver@crc.ga.gov

Re: DRI # 3024, Green Meadows Solid Waste Disposal & Recycling Facility

Dear Mr. Oliver:

Please accept these comments regarding DRI # 3024, the proposed regional landfill in Screven County, on behalf of our client Ogeechee Riverkeeper ("ORK"), a designated affected party as defined by Ga. Comp. R. & Regs. 110-12-3-.06. We submit that Atlantic Waste Services Inc.'s ("AWS") proposed regional landfill is not in the best interests of the region.

First, we find the information provided by AWS to be insufficient to allow for a holistic review of the impact this proposed landfill would have on the region. According to the DRI submittal, AWS estimates the value of the proposed landfill to be \$17,500,000 when completely built out, which could be decades from now. However, it is not at all clear how AWS arrived at this figure. According to an economic analysis completed by a Doctor of Economics and current university professor, even giving AWS the benefit of every estimation, \$17,500,000 is questionable at best. This is particularly true because AWS's evaluation does not reduce that \$17,500,000 to present day value.

AWS claims that the landfill will generate jobs, produce host fee revenue, cut down on solid waste disposal costs, and increase both property and sales taxes. However, our economic analysis indicates that AWS exaggerates the likely monetary impact of most of these categories and completely ignores the detrimental economic impact the landfill will have on, for example, nearby property values. The following paragraphs outline the analysis from our economic expert.

As for jobs, AWS disregards the fact that Screven County currently has an unemployment rate of only 4.2 percent. It is not likely the case that those individuals who are currently unemployed will have the right skill set to fill all potential jobs, meaning that even if the proposed landfill would produce 41 jobs (the high end of AWS's estimation), many of those positions would not be filled by Screven County residents. Further, it is not the salary that is important when discussing economic impact of the landfill. Rather, it is how and where the money is spent by the workers, a fact AWS overlooks. The same basic analysis applies to the region at large.

Russell Oliver December 31, 2019 Page | 2

Similarly, AWS's host/tipping fees are also overblown. AWS claims in a presentation on its website that "Screven County will receive an additional estimated average of \$1,800,000." However, it also claims that it seeks to accept between 1000 and 1500 tons of waste per day. Calculating that out, it does not add up. Assuming that AWS will actually refuse to accept coal ash (as asserted but with no enforceable provision) despite a lower tipping fee, this implies weekly fees of \$13,750-\$20,625 at the current \$2.50 per ton rate. That calculates out to an annual host fee of only \$715,000-\$1,072,500 for Screven County. Additionally, AWS fails to address the fact that at least 50 percent of the host fee must be dedicated to ameliorating the negative impacts of the landfill. O.C.G.A. \$12-8-39 (d)(1)(C)(2)(A) Thus, the actual revenue for Screven County would be at best between \$357,500 and \$536,000, which is 70-80 percent less than AWS promises.

Further, in estimating the tax revenue Screven County will receive, AWS fails to acknowledge the inevitable decrease in property values due to the presence of the proposed landfill or the associated increase in traffic that inevitably comes with a landfill of this size. "[L]andfills that accept high volumes of waste (500 tons per day or more) decrease adjacent residential property values by 13.7% on average." Ready, R. C., *Do Landfills Always Depress Nearby Property Values?* The Journal of Real Estate Research, 32(3) 321-340 (2010). According to our economic expert, the landfill is likely to depress home values within 3 miles of the proposed site, causing a decrease in tax revenue for the County.

When salaries, spending, savings on solid waste disposal, host fee revenue, and tax revenue are considered, the grand total value of the proposed landfill can easily be as little as \$647,500 annually. Even that could be further reduced if the optimistic projections provided by AWS prove to be further inflated. Thus, it would appear that the only guaranteed benefit that the residents of Screven County can rely on is the host fee and any savings from local disposal. As for the host fee, while the state rate is set at \$2.50 per ton, that rate decreases to \$1.00 for coal ash.

In contrast with those rosy projections, a close examination of the known and expected negative impacts are better known and more easily determined.

We can be certain that the landfill poses a significant threat to the health of the Ogeechee River Basin. ORK's mission to protect, preserve, and improve the water quality of the Ogeechee River basin. This proposed landfill would pose an everlasting threat to the health of that basin based on its proximity to Brady Branch, sensitive wetlands, and ecologically important areas such as Carolina Bays. In fact, it has already been affirmatively demonstrated that the site is home to previously filled in Carolina Bays and there are two dozen Carolina Bays within a three-mile radius of the site. These unique ecological features are highly sensitive to changes in ground water flows and water quality impacts.

To truly demonstrate the lasting and devastating nature of this proposed landfill, we briefly explain why the Subtitle D regulations are not actually protective of groundwater systems.

As acknowledged by the EPA during the rulemaking process that eventually led to the adoption of the existing landfill design regulations, every landfill will eventually leak: "First, even the best liner and leachate collection system will ultimately fail due to natural deterioration, and recent improvements in MSWLF (municipal solid waste landfill) containment technologies suggest that releases may be delayed by many decades at some landfills." Solid Waste Disposal

Russell Oliver December 31, 2019 Page | 3

Facility Criteria; Proposed Rule, 53 Fed. Reg. 33,345 (August 30, 1988). A composite liner of the type considered in the "modern" subtitle D landfill, might delay a leak but it will not prevent it. Further, "[o]nce the unit is closed, the bottom layer of the landfill will deteriorate over time and, consequently, will not prevent leachate transport out of the unit." *Id*.

For groundwater monitoring, Subtitle D requires that "[a] ground-water monitoring system must be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield ground-water samples from the uppermost aquifer" and "[r]epresent the quality of ground water passing the relevant point of compliance specified by Director of Approved State under Section 248.40(d) or at the waste management unit boundary in unapproved States." In other words, Subtitle D relies on strategically placed wells to detect any leak from the landfill liner. But the nature of the composite liner itself means that any leak "will generate finger plumes of leachate that will be no more than a few meters wide at the point of compliance for groundwater monitoring." See Lee, G. F., and Jones-Lee, A., Deficiencies in US EPA Subtitle D Landfills in Protecting Groundwater Quality for as Long as MSW is a Threat: Recommended Alternative Approaches, Report G. Fred Lee & Associates, El Macero, CA, March (1997). The finger-like characteristics mean that groundwater monitoring systems can easily miss groundwater pollution from small tears or pinpoint holes in the plastic liner that then works its way through the clay: "Each monitoring well has a zone of capture for sampling groundwater of about one foot from the well in many aquifer systems." Id. In other words, satisfying the Subtitle D requirements does not ensure that there will be no leaks, and, when there is a leak, it could easily evade detection causing significant and irreparable harm.

Again, the proposed site of the landfill is a hydrologically complex system consisting of numerous wetlands, Carolina Bays, intermittent and perennial streams all of which ultimately feed into Brady Branch, which in turn feeds into the Ogeechee River. These connections to the larger watershed pose a major risk to the health of the basin because, as discussed above, the landfill will inevitably leak. There are also several wells on the site, many of which are older wells lacking the modern protections to prevent potential contamination. According to AWS's own data in its application for conditional use to Screven County, there are at least 22 offsite wells within half a mile of the proposed landfill that are downgradient of that conceptual landfill footprint. Any breach, leak, or simple mistake could lead to groundwater contamination affecting not only drinking water, but also the entire Ogeechee watershed and habitat.

Further, the region would bear the burden of any environmental contamination long after AWS's legal requirements of post-closure care end. The owner of a landfill is required to care for the landfill for 30 years post closure, but the noxious properties of the landfill—including the threats from inorganic salts, heavy metals, household chemicals, coal ash, and PFAS—will persist well beyond that time period. *See* Lee, G. F., and Jones-Lee, A., *Deficiencies in US EPA Subtitle D Landfills in Protecting Groundwater Quality for as Long as MSW is a Threat: Recommended Alternative Approaches*, Report G. Fred Lee & Associates, El Macero, CA, March (1997). Long after AWS's responsibilities to Screven County have ended, the massive amount of waste confined in the landfill will remain. Inevitably, the cap and liner will deteriorate, leaving the untended

Russell Oliver December 31, 2019 Page | 4

generating leachate to leak through the aging liner and contaminate the soil and water. That is not a supposition; that is an unfortunate eventuality. A landfill of this caliber poses a very real threat to the health, safety, environmental wellbeing of the region.

Importantly, it is impossible to know the true potential for groundwater contamination without an in-depth, site-specific evaluation. So far, AWS has not provided an adequate evaluation to either the Coastal Regional Commission or to the Screven County Board of Commissioners. Without complete information, no one can completely or accurately analyze the full scope and severity of the potential regional effects of the proposed landfill.

AWS contends that there should be no concerns as to groundwater because the site is not a "significant groundwater recharge area." However, this assertion is misleading at best and is clearly meant to lull people into a false sense of complacency. In addition to the above-stated, the proposed landfill site is near multiple recharge areas for the Floridan Aquifer, putting that primary source of drinking water for the region at risk of contamination. "Significant groundwater recharge area" is a term of art that relates to speed with which an area recharges. The site in question, however, is still ecologically important as recharge areas exist just north and east of the site. These areas of groundwater recharge are particularly important given that they recharges the Floridan Aquifer, which stretches from Florida throughout the Southeast and is a primary drinking water source for the entire southeastern portion of Georgia, as well as Florida and parts of South Carolina, Alabama, and Mississippi. That along with the presence of wells on the property significantly increases the likelihood of contamination of the aquifer.

Similarly, AWS has not adequately addressed the planned treatment of leachate. While it now claims it will treat leachate onsite using reverse osmosis, originally AWS proposed sending the leachate to the local wastewater treatment facility. Now that it has proposed treating leachate onsite, we are left with inadequate information regarding the details of this proposed system to truly evaluate its potential impacts on the region.

Finally, we note that based on published landfill capacities, there is no existing need for a regional landfill in the area. In fact, DCA's own records demonstrate that there is adequate capacity in the region for more than a century of future waste management.

In sum, ORK finds this proposal extremely troubling as it will threaten the safety of the watershed and the Ogeechee River Basin indefinitely. Further, based on the analysis of our economic expert, ORK believes AWS has significantly overblown the potential economic benefits of the landfill. Taken together, it becomes clear that the proposed regional landfill is not in the best interests of the region.

Sincerely yours,

/s/ Donald D.J. Stack

Donald D.J. Stack