

The Georgia Environmental Protection Division (“EPD”) has received many questions and comments about the proposed major modification to expand Advanced Disposal Service’s (“ADS”) Eagle Point Landfill (“EPLF”). Review of a major modification application consists of two separate stages. First, the site suitability review (“siting review”) focuses on characteristics of the proposed site included in the required hydrogeological site assessment report, and in this stage of review EPD sets limitations under which the site may be used for solid waste handling. In the siting review, EPD determines the proposed site’s ability to meet the standards of The Georgia Comprehensive Solid Waste Management Act, O.C.G.A. 12-8-20 (“Act”); Ga. Comp. R. and Regs. R 391-3-4-.05 “Criteria for Siting”; and Circular 14, “Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia.”

After the siting review is completed, the design review focuses on whether the site specific Design and Operational Plan demonstrates the ability to meet the design standards and operating standards of Ga. Comp. R. and Regs. R 391-3-4 (“Rules”). Only the siting review for this proposed major modification has been completed to date; the design review has not begun. Therefore, our responses will focus on the siting review, but we have provided brief response to some questions related to design and operations of the existing landfill.

1. Siting

Floodplain restriction

- Comment: The FEMA 100 year floodplain map shows development within the floodplain.

EPD Response: EPD Rule 391-3-4-.05(1)d allows portions of a solid waste handling facility to be located in a 100-year floodplain, however the facility shall be designed so that it “. . . shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste so as to pose a hazard to human health and the environment.” Additionally, site limitations require that “Any modifications to the 100-year floodplain shall not cause a rise in the 100-year floodplain of more than 0.10 feet at any point.”

The floodplain may be modified at the site through construction of additional flood water storage to compensate for any flood volume displaced by site development. Site limitations do not allow these additional flood volume storage areas to be within 200 feet of the Etowah River. ADS and their design engineers must demonstrate these Rules and limitations are met. EPD will evaluate that demonstration in the design review. ADS previously used constructed flood storage areas to meet the 0.10 foot rise restriction. Their compensatory flood study submitted with the current application will be evaluated in the design review.

Seismic impact zones

- Question: How does EPD determine the applicable design standard for the landfill to withstand seismic accelerations?

Siting restrictions for seismic impact zones are covered in Rule 391-3-4-.05(1)(g). During the siting review, EPD uses seismic hazard maps published by the US Geological Survey to decide what seismic acceleration, if any, must be considered in the design of a landfill. EPLF must be designed to withstand an acceleration of 0.22g. Landfill stability for this potential seismic impact will be reviewed in the design review.

Hydrological assessment

- Question: The data submitted to the county is from the early 2000's. Does this need to be updated?

EPD Response: No. Numerous monitoring wells, piezometers and borings were completed in and around the current proposed landfill expansion area, both as part of the hydrogeologic investigation conducted for the initial siting and during installation of the monitoring system for EPLF from 1996 through 2012. The geologic and hydrogeologic data collected from these earlier investigations did not need to be updated for the proposed landfill expansion. This information included: description of alluvial and residual soils and bedrock, vertical and horizontal hydraulic conductivity, grain size analysis, sorption capacity, porosity and thickness of residual soils, depth to bedrock and orientation of bedrock joints and foliation. In regards to the site-specific hydrogeologic characterization, older information has been updated with current data to produce an updated seasonal high potentiometric surface map (in other words, a map of the water table beneath the landfill). This map is used to set the minimum separation between the water table and the base of the landfill liner system.

Significant Groundwater Recharge Area

- Question: Is Eagle Point Landfill in an area of significant groundwater recharge?

EPD Response: No, the Eagle Point Landfill does not lie within one of the "Most Significant Groundwater Recharge Areas of Georgia" as depicted on Hydrologic Atlas 18.

Etowah River

- Comment: There is a drinking water intake in Cherokee County 15.8 nautical miles downriver from the landfill.

EPD response: Georgia's Rules for Environmental Planning Criteria (Chapter 391-3-16-.01) specify certain minimum protection criteria for water supply watersheds. Within seven (7) miles upstream of a governmentally owned public drinking supply intake, no impervious surface (e.g., a landfill liner) may be constructed within 150 feet of either side of a stream bank. The setback is reduced to 75 feet if more than seven miles upstream of the intake. EPLF is greater than seven miles upstream from the intake and its impervious liner system is 600 feet from the Etowah River. EPLF meets State rules on siting near rivers used for drinking water.

Cherokee County Water & Sewerage Authority continuously monitors and tests water quality at and upstream of the intake points. To date, there have been no indications of water quality impairment attributable to the Eagle Point Landfill (letter to EPD received July 3, 2017).

- Comment: In the most recent 5-year review by the US Fish and Wildlife Service (USFWS), the landfill was specifically mentioned with respect to the continued degradation of the Etowah watershed and habitat.

EPD response: The USFWS mentions the landfill in reference to the degradation of fish habitat in the Etowah River; however it lists EPLF generically as an example of urban development and land clearing that impact the river's ecosystem.

The EPLF expansion also requires a Section 404 Permit under the Clean Water Act. As part of the Section 404 Permit process, the U.S. Fish and Wildlife Service evaluated the potential impact the landfill's stormwater discharges could have on endangered species in the Etowah River. The USFWS reviewed and approved EPLF's stormwater design in 2013.

Cultural/Historical Sites

- Question: Is public access to the cultural sites on the Eagle Point Landfill property required?

No. The U.S. Army Corps of Engineers created a Memorandum of Agreement (MOA) for the cultural sites at EPLF that was signed and agreed to by the U.S. Army Corps of Engineers (USACE), The Georgia State Historic Preservation (GASHPO), and FSL Incorporated (the original permit applicant). This MOA specified what steps had to be taken by FSL to preserve the cultural sites on the landfill property. While no public access was required by this MOA, a 100 foot undisturbed buffer was established for each cultural site, and a management plan approved by USACE and GASHPO was established.

- Comment: Provide clarification on siting restrictions for historic sites.

EPD Response: EPD's siting restriction regarding proximity to historic sites, as described in the Act in O.C.G.A. 12-8-25.1, is specific to three historic sites. These three sites are: (1) Andersonville National Historic Site, (2) Jimmy Carter National Historic Site and (3) Martin Luther King, Jr. National Historic Site.

2. Landfill Design and Operations

Facility buffers

- Questions: Were all required buffers included on the Plan?

EPD response: Currently, EPD has only completed the siting review of this Major Modification permit application. After the siting review is completed, the Design & Operation plans will be reviewed. EPD will confirm that all the necessary buffers are observed on the plans during the design review.

The following buffers are required for EPLF:

- Minimum 200' undisturbed buffer between waste disposal boundary and property line (Rule 391-3-4-.07(1)(b)).
- Minimum 500' buffer between waste disposal boundary and any public water supply well, and any occupied dwelling and/or its water supply well (Rule 391-3-4-.07(1)(b)).
- Minimum 600' setback of waste disposal from the Etowah River, measured from centerline of river. Grading shall not take place within 300' of the Etowah River. Floodplain reclamation areas shall not be within 200' of the Etowah River. (Site Limitations imposed by EPD).
- Minimum 50' buffer between waste disposal boundary and any wetland areas, unless the wetland disturbance is permitted in accordance with Section 404 of the Clean Water Act.
- O.C.G.A. 12-8-25(a)(3) requires that a municipal solid waste landfill obtain permission of an adjoining county or city if it lies within one-half mile of the adjoining local government. EPLF obtained this permission from Dawson County in a letter written December 29, 1997.

All required buffers were previously delineated on the facility's D&O Plans. An adjacent property owned by ADS that is used a surface mine to obtain soils for landfill operations is not required to have a 200' undisturbed buffer at the property line. During the design review, EPD

will ensure that all the buffers are maintained on the plans for the major modification. EPD has not observed any buffer violations at EPLF.

Previous Issues of Non-Compliance

- Question: EPLF has been found out of compliance with various requirements on previous inspection reports. Can a major permit modification for an expansion be issued to a facility that has received notices of non-compliance?

When issues of non-compliance are found during landfill inspections, facilities are typically given a deadline to address the deficiencies. While EPLF has received notices of operational deficiencies during past inspections (e.g. Notices of Deficiencies, Notices of Non-compliance), these issues have been addressed in a timely manner. Higher level enforcement options, such as Notices of Violations, Consent Orders, and Administrative Orders have not been issued to EPLF. EPD would not typically deny or delay approval of a major modification to a facility that has only received Notices of Deficiencies. EPD would, however, use the review process for a major modification as an opportunity to improve the facility plans to address previously noted deficiencies.

Site access

- Question: There have been reports of trucks using the site after hours. Can the hours of operation be controlled by EPD?

EPD Response: Rule 391-3-4-.07 (1)(h) requires a gate or other barrier at vehicular access points to prevent unauthorized access to the site when an operator is not on duty. However, there are no requirements in the Act or Rules about hours of operation. The landfill does not accept waste after 4:30 p.m. but remains in operation as cover soils are applied over any exposed waste prior to closing for the night.

Daily cover

- Comment: The site is a frequent source of odor.

EPD Response: In consideration of comments, EPD has included a new site limitation that requires EPLF to update its design and operating practices to minimize odors. EPD recently

approved a minor modification at EPLF to add an odor curtain along a portion the west side of the landfill to reduce odors leaving the site.

Waste Streams

- Question: What types of waste are being accepted? Are hazardous wastes being accepted at the landfill? Are sludge and liquid waste permitted to be dumped at this facility?

EPD Response: The Rules prohibit certain wastes from being disposed at a Municipal Solid Waste Landfill. This includes lead acid batteries, radioactive wastes, polychlorinated biphenyl (PCB) waste, biomedical wastes, and any regulated quantities of hazardous wastes. To ensure these wastes are kept out of the landfill, a prohibited waste exclusion plan is required in the D&O plans according to the rules.

Sludges and other liquid wastes are allowed to be disposed of at landfills so long as they are non-hazardous and they must be sufficiently solidified prior to disposal. Wastes containing free liquids, as determined by a paint filter liquids test, are prohibited from direct disposal at the working face of the landfill. A liquid solidification operation is approved at EPLF.

Because solidified liquid wastes are potentially different in their material properties than household waste, landfills accepting solidified liquids should ensure that they are not operating in a way that invalidates the original design parameters of the landfill. It is known that significant amounts of solidified waste have been disposed at EPLF. Because of that, EPD is amending the site limitations to require an updated demonstration that landfilling in such areas will not lead to instability.

- Question: Can Advanced Disposal be limited to only accept the County of Forsyth's waste?

EPD Response: No, the State's Solid Waste Management Act and Rules do not give EPD the authority to limit EPLF to only receiving waste originating from Forsyth County.

Coal Ash

- Question: Is coal ash permitted to be disposed at this facility?

EPD Response: No, coal ash may not currently be disposed at EPLF. Disposal of coal ash is prohibited at any MSWL that has not obtained approval of a site specific CCR (Coal Combustion Residuals) Management Plan. ADS submitted a letter on January 20, 2017 stating that EPLF has never received CCR and there are no immediate plans to start.

Asbestos

- Question: Will relocating the C&D cells disturb the integrity of the asbestos containers?

EPD Response: EPLF has asbestos handling operations in their current Design and Operation plans. The asbestos-containing wastes must be kept in leak proof containers and labeled. The waste must be placed in a way to protect the integrity of the containers and covered immediately with at least six inches of non-asbestos material. The disposal of asbestos wastes must also conform to relevant federal laws, most notably 40 CFR Part 61 Subpart M. Finally, the location and amount of asbestos disposed of in the landfill must be recorded and kept in the operating record. Should ADS choose to relocate previously disposed waste, they must develop a plan that demonstrates the above requirements can be met when relocating asbestos-containing wastes.

Financial Assurance

- Question: If Advanced Disposal abandons Eagle Point, where will the money come from to close and clean-up the site?

EPD Response: The Act (in O.C.G.A. 12-8-27.2) and Rules (391-3-4-.13) require permitted solid waste handling facilities to demonstrate financial responsibility for closure and post-closure care. An estimate of the total costs for a third-party to conduct closure and post-closure care of the facility must be in the facility plan and operating record along with a financial assurance mechanism (e.g., bond, trust fund, or letter of credit) to match those estimates. Estimates must be updated for any operational or design changes to the facility that would affect the cost estimates and also updated annually to account for inflation. Currently, EPD holds bonds for EPLF which meet the financial assurance requirements.

3. Monitoring and Notifications

Groundwater

- Comment: Cobalt was detected in groundwater monitoring well GWC-9 in 2015.

EPD Response: ADS's consultant prepared an alternate source demonstration for the cobalt detections suggesting they were naturally occurring. EPD accepted the alternate source

demonstration. While cobalt in GWC-9 showed a statistically significant increase (SSI), there is no maximum contaminant level (MCL) for cobalt. This well has gone dry in the past so the data may have been affected by low water volumes and high turbidity. This well is downgradient of the construction and demolition waste cells which are proposed to be excavated in the major modification application.

- Comment: Cis-1,2-DCE was detected in surface water sampling location SWC-6 in 2011.

Similar to cobalt, these detections were statistically significant increases (SSI) but were not above the MCL. Cis-1,2-DCE was detected at low levels of 3 to 4 ppb (the MCL is 70 ppb for this constituent). EPD asked ADS to address the observed SSI to determine if the problem could be resolved before it required an assessment of corrective measures (ACM). ADS acknowledged there were aspects of the landfill that could be upgraded or repaired (such as replacing leachate pipes). ADS made necessary repairs and upgrades to remediate the problem.

- Comment: Arsenic was detected in underdrains in 2017.

Arsenic was detected in three underdrains. On December 15, 2017, ADS's consultants provided an alternate source demonstration that attributed the arsenic in the underdrains to natural conditions at the site. On January 4, 2018, EPD concurred with the conclusions of the alternate source demonstration.

Public Notifications

- Question: What are the requirements for notifications for contaminant releases?

EPD response: O.C.G.A. 12-8-24.3, adopted in 2016, requires the owner or operator of a municipal solid waste landfill to notify the local governing authorities of any city and county in which such landfill is located of any release from the site of such landfill of a contaminant which is likely to pose a danger to human health. In addition, this law requires the owner or operator to provide notice of such release to be published in the legal organ of the county in which such landfill is located. The EPLF has not had contaminant releases as defined in the Act and Rules. The Hightower Road Landfill has posted all public notices as required.

The landfill owner or operator must notify all persons who own or reside on land that overlies any plume of contamination that has migrated offsite (Rule 391-3-4-.14(30)). Requests to directly notify all residents within a certain radius or to provide this information on websites are beyond the requirements of the Act and Rules.

The landfill owner or operator is required to discuss the results of the assessment of corrective measures for offsite contamination in a public meeting (Rule 391-3-4-.14(37)).

Stormwater

- Comment: Threshold values for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) have been exceeded in some stormwater samples.

The Industrial General Stormwater Permit, GAR050000, (IGP) requires facilities to employ Best Management Practices (BMPs) to reduce the discharge of pollutants from their facilities. The Permit divides each industrial activity into Industrial Sectors with specific requirements for employing BMPs, and sampling discharges from the site. Landfills must comply with the general requirements of the IGP, as well as the specific requirements of Sector L, “Landfills, Land Application Sites, and Open Dumps.” Such facilities must sample annually for Total Suspended Solids (TSS) to determine if the BMPs they employ at the site are effective. If they exceed the TSS benchmark of 100 mg/L, then they must assess their BMPs and take appropriate corrective actions to address the exceedance. It is not a violation of the IGP to exceed a benchmark. However, it is a violation if no corrective actions are taken to address the exceedance.

Although EPLF reported an exceedance of the 100 mg/L benchmark for TSS in their 2013 annual report, they were below the benchmark in the 2014 and 2016 Annual Report. The 2015 Annual Report acknowledged exceeding the TSS 100 mg/L benchmark, and provided specific corrective actions that were employed to reduce TSS in the discharge. The 2016 Annual Report indicated that benchmarks were met after corrective actions were implemented. A reported exceedance of BOD₅ in 2013 was also not repeated in subsequent reports.

While landfills are subject to effluent limits for stormwater discharge, this only applies if stormwater makes contact with sources of contamination present at the landfill, such as exposed waste or leachate. Stormwater that comes into contact with exposed waste present on the working face of the landfill is, by design, directed to a leachate collection system. Collected leachate is sent to a wastewater treatment facility, and not discharged at the landfill. Stormwater regulations do not require effluent limit sampling unless there is a failure (such as an overflow or spill) that leads to contaminated stormwater being discharged.

Private Well Testing

- Question: Can EPD require that Advanced Disposal pay for independent testing of private wells in the area?

EPD Response: No.

Air criteria

- Question: Does EPD's Air Protection Branch check emissions due to odor complaints?

EPD Response: When the Air Protection Branch receives complaints related to landfill gas odors, it investigates each complaint. The Air Branch does not regulate odor but does check to ensure that the cause of the odor is not in and of itself a violation of any other requirement of the facility's permit and Air Quality Rules. The Air Branch is not typically notified of odor complaints related to garbage disposal; these are typically investigated by EPD's District Offices.

- Question: Is EPLF currently meeting the requirements of the Clean Air Act and federal rules?

Yes. The Division's July 27, 2017 inspection of the EPLF found only minor administrative deviations. The Air Protection Branch has not issued any enforcement action to EPLF.

- Question: Since EPLF's current permit is near the EPA limit for NOx emissions, will the Clean Air Act and federal pollution rules be met if an expansion is granted or if the landfill gas processing facility is constructed?

EPD Response: If the landfill expansion ultimately triggers a New Source Review (NSR) for additional flares or other air pollution generating devices, ADS will go through that review process to maintain compliance with the Clean Air Act. If constructed, the proposed landfill gas processing plant should reduce NOx emissions compared to the current practice of flaring (combustion).

4. Other Operations

Solid waste collection

- Comment: The trucks coming from the landfill track large amounts of mud on to the roadways.

EPD response: Site limitations have been amended from the Draft version to emphasize that transport of sediment (mud) onto public roads and rights of ways is not allowed.

- Question: Can rules for littering from waste collection trucks be enforced against Eagle Point Landfill?

EPD response: The Rules require that vehicles are cleaned frequently and shall be maintained in good repair. The Rules further require that vehicles or containers used for the collection and transportation of solid waste shall be loaded and moved in such manner that the contents will not fall, leak or spill and shall be covered (typically tarped) to prevent waste from blowing out of containers.

EPD has the authority to enforce the Rules on maintenance and littering, as does the County. Since many permitted solid waste collection operations deliver waste to Eagle Point, littering needs to be actively observed for a citation to be issued to the collection operation.

Local ordinances for hours of operation

- Question: Can EPD enforce local ordinances related to hours of operation?

EPD response: No, EPD does not have the authority to enforce local ordinances.

5. Forsyth County Hightower Road Landfill

Post-Closure Care of Hightower Road Landfill Site

On August 30, EPD approved a minor modification to the Hightower Road Landfill post-closure care plan to allow construction of an access road. This will allow trucks to transport soils from a surface mine in Cherokee County to Eagle Point without adding to traffic along Old Federal Road.

- Questions: Will post-closure care requirements be violated by allowing heavy equipment to drive across the landfill? Will this impact the final cover or liner?

EPD response: The Act and Rules do not preclude this type of post-closure care use. The minor modification does not allow for the removal of any waste materials or the final cover system, only the addition of the road and associated appurtenances to ensure monitoring wells and gas extraction wells are not damaged by truck traffic. EPD does not expect the traffic on the road to affect the final cover, but if the cover is damaged it will have to be repaired.

Only Phase 4 of the Hightower Road site has a liner system. The haul road is not near Phase 4, so no liner systems will be impacted.

- Question: Is this type of operation allowed by Georgia Hazardous Waste Authority at a closed hazardous site?

EPD response: Yes, it is allowed. While the Hightower Road site is listed on Georgia's Hazardous Site Inventory (HSI), the site is regulated as a closed landfill under the Rules of Solid Waste and the Solid Waste Management Act.

- Question: Will allowing a road to cross the Hightower Road Landfill affect the groundwater and remediation efforts at the site?

EPD response: EPD does not anticipate construction of the road will impact groundwater contamination or remedial measures.