

BILL C. PEACOCK
Director - Purchasing



DOUGLAS COUNTY BOARD OF COMMISSIONERS
PURCHASING DEPARTMENT

8700 Hospital Drive • Douglasville, GA 30134
Telephone (770) 920-7247 • Fax (770) 920-7219
November 20, 2018

Subject: Douglas County, Georgia, Board of Commissioners
Request for Proposals – Solid Waste Facility Management
Solicitation No. 18-026

Dear Ladies/Gentlemen:

Enclosed please find the Douglas County Board of Commissioners, Request for Proposals, covering the Solid Waste Facility Management for Douglas County.

Your sealed proposal, one (1) original and three (3) copies, in response to this request are **due December 21 2018 no later than 2:00 pm ET. The Bid Opening will be held on December 21, 2018 at 2:00 pm ET** at the Douglas County Courthouse, Purchasing Department Bid Opening Room, Third Floor, 8700 Hospital Drive, Douglasville, Georgia 30134. You are invited to attend, or submit your proposal prior to the deadline as stated in the attachments. Each proposal should be marked on the outside of the envelope with: **“PROPOSAL FOR SOLID WASTE FACILITY MANAGEMENT Solicitation 18-026”**.

Sealed proposals in response to this request will be received by:

Douglas County Purchasing Department
Mr. Bill Peacock, Purchasing Director
8700 Hospital Drive, 3rd Floor
Douglasville, Georgia 30134

Thank you in advance for your interest and we look forward to your participation.

Sincerely,

Bill C. Peacock
Purchasing Director

Attachments

**DOUGLAS COUNTY
BOARD OF COMMISSIONERS**



**REQUEST FOR PROPOSALS
SOLID WASTE FACILITY MANAGEMENT**

Solicitation 18-026

November 20, 2018

Purpose of the Request for Proposal

The Douglas County Board of Commissioners is soliciting proposals from Qualified Contractors for Solid Waste Facility Management for Douglas County. The County's objective is to determine the optimal solution to long-term management and operational control of the County's solid waste facilities while maintaining a commitment to excellent environmental and operational performance. Proposals could include, but are not limited to the following or combination of the following options:

- a) Purchase of the Cedar Mountain Road Landfill Facility ("Facility Property") and assets;
- b) Lease the Cedar Mountain Road Landfill Facility and assets;
- c) Permit and develop an expansion of the existing Cedar Mountain Road C&D Landfill on the Facility Property;
- d) Expand or replace the existing Cedar Mountain Road Transfer Station on the Facility Property;
- e) Permit and develop a new MSW Landfill on the Facility Property;
- f) Other options related to the acceptance and disposal of solid waste from Douglas County.

General Information

Sealed proposals, one (1) original and three (3) copies shall be submitted to the Douglas County Purchasing Department, 8700 Hospital Drive, Douglasville, GA 30134 no later than 2:00 p.m. ET, December 21 2018. All proposals must be submitted by this date and time and will be publicly opened and the names of submitting firms shall be read aloud. All interested parties and the public are invited to attend. Each sealed envelope containing a proposal must be plainly marked on the outside as "**Solicitation 18-026 " Proposal for Solid Waste Facility Management"**

No proposal will be received or accepted after the specified time for the opening of the proposals. Such proposals may be deemed invalid and returned unopened to the proposer. A proposal submitted elsewhere than the address listed above will not be accepted. Douglas County reserves the right to waive any formalities or to reject any or all proposals, to evaluate proposals, and to accept any proposal, which, in its opinion, offers the most acceptable proposal to provide solid waste management services, to Douglas County, or not to accept any of the proposals.

Note: No Bidders are to contact anyone with the Douglas County at any time during the Bidding Process. All questions are to be directed to Bill Peacock, via email, at the address provided below. Any breach of this requirement will result in Bidder's disqualification.

All **questions** concerning this Request for Proposals must be submitted in writing, (email is preferred but fax and mail may also be used) to the Purchasing Director no later than **5:00 PM, December 11, 2018**. Phoned questions shall not be accepted. Responses shall be issued no later than **5:00 PM, December 14, 2018**.

Questions regarding this Request for Proposals are to be delivered to:

Douglas County Purchasing Department
Mr. Bill Peacock, Purchasing Director
8700 Hospital Drive
Douglasville, Georgia 30134
770.920.7219
Email: bpeacock@co.douglas.ga.us

Cost of Proposal

Douglas County assumes no responsibility or liability for the costs incurred by the submitting firm to prepare and/or submit a proposal in response to this RFP or for any costs, expenses and legal fees incurred by respondents in meeting with or making oral presentations to the County or in connection with evaluation and approval by Douglas County.

Proposal Format and Content

At minimum the proposal shall include the information listed below. Each section should be clearly labeled, with the pages numbered and separated by tabs.

Tab 1 Proposer Qualifications

The proposal shall include sufficient information to demonstrate that the Proposer has the necessary qualifications to design, site, permit, construct and operate solid waste landfills and/or transfer stations. The proposal shall describe all team members and the roles of each.

The proposal shall include a listing of all owned and/or operated landfills and/or transfer stations currently in operation by the Proposer and any affiliates, in Georgia. The list shall include the following information:

- Name and type of facility
- Locations
- Site owner
- Permitted size/capacity
- Average annual wastes received (tons)
- Starting date of Proposer's operations

- Types of wastes received
- Reference name, title, and contact information

The proposal shall include sufficient information to demonstrate that the Proposer has the necessary financial strength to provide services requested in this RFP, including but not limited to the following:

- A copy of Proposer’s annual audited financial report/ annual report for the past two (2) years; and
- A certification whether or not Proposer or any predecessor companies has filed under the Bankruptcy Act within the past seven (7) years

Tab 2- Proposed Approach

The proposal shall include a description of which of the above options or combination of options your Company is interested in pursuing. Provide a description of how the services will be initiated when a contract is reached. The approach should identify the respective roles of the County and Proposer and identify the benefits of the proposed approach to the County.

Tab 3- Proposed Financial Arrangement

The proposal shall describe the general financial terms proposed including but not limited to:

- Upfront payments;
- Ongoing royalties or host fees;
- Closure/ post-closure care financial obligations; and
- Pricing for waste disposal by County citizens and businesses

Tab 4 – Anticipated Schedule

The proposal shall present an anticipated schedule beginning with the execution of a contract with the County with significant milestones for the implementation of the proposed services.

Tab 5- Additional Information

The content of this tab is left to the Proposer’s discretion to include any additional materials that will be helpful to the County in understanding the Proposal.

Background Information

A study titled “Selected Solid Waste Disposal Options” was prepared for Douglas County (the County) by Atlantic Coast Consulting, Inc. (ACC) in August 2017. This study evaluated existing solid waste issues and future waste disposal options for the County. As a result of this study, the County is soliciting proposals from private waste companies to privatize solid waste services currently provided by the County to meet the needs of Douglas County citizens. The following paragraphs present information on the County and the County’s existing solid waste facilities and operations.

County Overview

Douglas County is located in the northwest part of Georgia, with an approximate land area of two hundred square miles. It is surrounded by Paulding and Cobb Counties to the north, Fulton County to the east and south, and Carroll County to the west and south. The county seat is the City of Douglasville. The County is bisected east and west by Interstate 20 and U.S. Highway 78 and north and south by Georgia State Route 5. Douglas County's strategic location as the western gateway to Atlanta and its proximity and ease of access to Hartsfield-Jackson International Airport help to make it one of the fastest growing counties in the state. The U.S. Census determined that the County had a Year 2010 population of 132,403 people. The County experienced a population growth rate of almost forty-four percent (44%) between 2000 and 2010. Douglas County is also a member of the Atlanta Regional Commission (ARC). The ARC estimates that in 2040 the population of Douglas County will be just over 256,000 people which would be almost a 100% increase over 2010.

Cedar Mountain Road Landfill Facility

Douglas County owns the Cedar Mountain Landfill (the Facility) located at 1730 County Services Road, Douglasville, Georgia, 30134. The County currently operates a Construction and Demolition (C&D) Landfill and a Municipal Solid Waste (MSW) Transfer Station at the Facility. As shown on Figure 1 the Facility is located on approximately 1,034 acres of land owned by the County (Facility Property). The Georgia Environmental Protection Division (EPD) issued a Letter of Site Acceptability (LOSA) on 272 acres of the property on May 19, 1986 for an MSW landfill. EPD then approved a Design and Operation (D & O) Plan and issued a solid waste handling permit (Permit No. 048-009D (SL) for Phase 1 of the site on January 9, 1987. The approved D & O Plan indicated three waste disposal sections (Sections 1, 2 and 3) with a total landfill footprint of approximately 78 acres. In July 1988, the County requested approval of a second phase of the landfill consisting of approximately 150 acres of the original 272 acres that had received site suitability in 1986. D & O Plans for Phase 2 were developed which would provide approximately 2,500,000 cubic yards of waste disposal capacity within a 150-acre footprint. The Phase 2 D & O Plans were never approved by the EPD and approval was never pursued as new Federal Subtitle D landfill regulations were enacted requiring MSW landfills to install costly liners and leachate collection systems. A study titled "Selected Future Solid Waste Disposal Options for Douglas County" was prepared for the County by Tribble and Richardson, in September 1996. This study evaluated existing solid waste issues and future waste disposal options at that time. As a result of this study, the County elected to convert the remaining portion of the landfill (Section 3) to a C & D Landfill which did not require the liners and leachate collection system. The County also decided to construct an MSW transfer station and contract with a private hauler for the disposal of the County's MSW out of the County. The existing MSW transfer station was constructed in 1997 and is owned and operated by the County. The facility is a 4,200 square foot (SF) metal building that provides a 2,752 SF tipping floor surrounded by an 8-foot high push wall. The existing transfer station could benefit from improvements or replacement. Some MSW is migrating outside of the station and could be the subject of enforcement action from the EPD. The design of the existing transfer station does not provide the required separation from the tipping floor to the tunnel floor to allow for waste to be pushed directly into the trailers. Waste must be lifted and loaded into the

transfer trailers which results in more spillage and minimizes the opportunity for compaction in the trailers. The County contracted with Republic Services, Inc. in 2004 for hauling and disposal of waste from the station. This contract has been extended each year since the original termination date in May 2011. MSW from the transfer station is currently hauled to the Grady Road Landfill in Polk County operated by Waste Industries.

Tip fees at the landfill were increased on October 1, 2018. Current tip fees are as follows:

- Commercial Refuse (MSW) - Out of County: \$60.00/ton (averages to \$.03 per pound)
- Commercial Refuse (MSW) - In County: \$48 ton
- Household Refuse (MSW): \$7.00/load up to 300 pounds
- Household Refuse (MSW) County Residents: Over 300 pounds \$48 ton
- Household Refuse (MSW) with recycling: \$5.00/load up to 300 pounds
- Recycling Only: No Charge
- Construction/Demolition (C&D) Waste: \$60.00/ton (\$.03 per pound)
- Vegetative Waste (clean, with no other waste included): \$60.00/ton (\$.03 per pound)
- Tires up to 17" in diameter: \$5.00 each
- Tires larger than 17" in diameter: \$15.00 each
- Freon-loaded items (refrigerators, freezers, air conditioners): \$16.00 each
- Wood Chips/Mulch: Free (if you load it yourself)
- Out-of-County Waste (MSW & C&D): \$60.00 per ton
- Out of County Refuse (MSW) up to 300 pounds: \$18 per load, over 300 pounds prorated at \$.03 per pound

The landfill is operated Monday through Saturday, 8:00 a.m. – 5:00 p.m. except on 11 holidays. In addition to MSW and C&D waste the landfill also accepts vegetative waste and recyclable materials. All clean and un-bagged vegetative waste (yard trimmings, limbs, grass clippings, stumps, trees, branches, and garden residuals, etc.) received at the landfill is chipped or composted. Recyclable materials are temporarily stored on site until taken to market.

Camp Road Convenience Center

The County also operates the Camp Road Convenience Center that is located on approximately one acre in the Fairplay community on Camp Road just south of Georgia Highway 166 near the intersection with Post Road. The County does not own this property and thus the operation is subject to renewal of an annual lease. The operating hours are Monday through Friday from 12:00 noon - 6:00 p.m. and Saturday from 8:00 a.m. - 5:00 p.m. The Camp Road Convenience Center accepts residential-only refuse and limited recyclable items. No commercial disposal is allowed, and no construction/demolition or vegetative waste is accepted at this location. Recyclable items accepted are mixed paper, aluminum cans, and glass bottles and jars. The maximum size load allowed is a pick-up truck bed loaded evenly with the top of the bed. Fees are \$7.00 per load without recyclable items, or \$5.00 per load with recyclable items. Materials from the facility are hauled to the Cedar Mountain Road Landfill facility.

Solid Waste Collection and Disposal

With the exception of waste brought to the Cedar Mountain Landfill and Camp Road Convenience Center, Douglas County does not provide any type of solid waste collection service. Collection service is provided in the majority of the unincorporated areas of the County by private haulers. The private collection companies provide residential waste collection services but not recycling services. The City of Douglasville currently collects and disposes of household and commercial waste generated within the city limits. EPD records indicate that in 2016 approximately 165,214 tons of MSW and 3,506 tons of C&D waste from Douglas County was disposed of in out of county landfills. Of this total, 21,909 tons of MSW was transferred out of county from the County's transfer station. During that same time frame approximately 26,892 tons of C&D waste was landfilled in the County's C&D Landfill. The increase in the tip fees imposed on October 1, 2017 has reduced the amount of MSW transferred through the County's transfer station and the amount of C&D landfilled in the County's C&D Landfill. From July 1, 2017 to June 30, 2018 approximately 19,819 tons of C&D waste was landfilled in the County's C&D Landfill and 19,119 tons of MSW was transferred out of the County's transfer station.

Equipment

The following lists the larger pieces of equipment at the Facility:

120G Motor Grader (1976)	621B Pan (1981)
DBR Dozer (1995)	826C Compactor (1991)
Linkbelt Excavator (1995)	D7H Dozer (1990)
IT38 Rubber Tire Loader (2004)	Military Water Buffalo (2000)
Massey Ferguson 1030 Tractor (1987)	826H Compactor (2006)
Freightliner Road tractor 91996)	963C Cat Track Loader (2000)
International S1900 Dump (2002)	Volvo Road Tractor (1994)

Remaining Capacity in Existing C&D Landfill

An aerial survey of the landfill was conducted on July 10, 2018 to determine the remaining capacity of Section 3. It was estimated that on June 30, 2018 approximately 339,732 cubic yards of waste disposal volume remained. Assuming an in-place density of 997 pounds per cubic yard and a fill rate of 66 tons per day, it is anticipated that the existing C&D Landfill will reach its capacity in January 2027.

Closure of the Existing Landfill

Sections 1 and 2 of the landfill have been closed. When Section 3 of the landfill reaches its final elevation, the area will have to be capped with 18-inches of clayey soil with a permeability of 1×10^{-5} cm/sec and 6-inches of top soil and vegetative cover. Closure of this 26.9-acre area is anticipated to cost approximately \$2,163,000 in 2018 dollars.

Post-Closure Care of Existing Landfill

It is assumed that any future landfill on the property will be monitored separately from the existing facility thereby allowing a closure certificate to be issued for the existing landfill. Upon the acceptance of the closure for Section 3 and the issuance of a closure certificate, the 30- year post-closure care period will begin for the existing landfill. Post-closure care includes the environmental monitoring and maintenance of the closed facility. It is anticipated that the annual post-closure care costs will be \$76,167 per year or a total of approximately \$2,285,000 in 2018 dollars.

Landfill Environmental Monitoring

There are currently 50 wells used to monitor groundwater conditions (4 upgradient, 4 side gradient, and 42 downgradient wells). Results from Detection Monitoring in some of the wells exceeded standards thus requiring the site to conduct Assessment Monitoring and to prepare an Assessment of Corrective Measures (ACM) Study for the Site. The ACM was approved in a letter from the Georgia EPD in July 2003 and later expanded in August 2004 to include impacts in the vicinity of GWC-36. A Corrective Action Plan (CAP) for the landfill was prepared and was initially submitted in August 2004. The most recent revisions to the CAP were submitted to EPD in February 2008 and approved by EPD on April 14, 2008. The CAP corrective measures include: capping, monitored natural attenuation (MNA), in-refuse landfill gas venting in Section 2 of the landfill, and phytoremediation. In accordance with the CAP, annual Corrective Measures Status Evaluations (CMSE) have been completed concurrently with first semi-annual groundwater monitoring event and are now on a 3-year reporting schedule. As of the First 2016 CMSE, the remedial actions implemented at the site are effective and ongoing and no further remedial actions were recommended because the overall mass of volatile organic compounds in groundwater is decreasing. The groundwater issues at the site currently prevent the existing landfill from being vertically expanded.

There are four permitted surface water sampling points (SWC-1, SWC-2, SWC-3, and SWC-4) and two assessment surface water monitoring locations (SW-2, SW-4) monitored semi-annually at the Facility. The surface water concentrations detected in the latest sampling event are within historical ranges. Two assessment surface water locations (SW-2 and SW-4) are monitored semi-annually for Appendix I VOCs and metals. No Appendix I VOCs have been confirmed in samples from SW-2 or SW-4.

Methane monitoring is currently being conducted by County staff. Methane is monitored in nine wells, three bar punch locations, four onsite structures, and in two offsite structures. The most recent methane monitoring report indicates that all locations are in compliance with methane monitoring standards. The total environmental monitoring costs for the landfill are \$42,105 for 2018.

Preliminary Evaluation of Remaining Landfill Property for New Landfill

A preliminary evaluation of the suitability of the remaining County property at the Facility for development of a new landfill was conducted in 2017 by Atlantic Coast Consulting (ACC). A more detailed analysis would be required for permitting purposes. The following sections detail the results of the 2017 evaluation.

Consistent with Zoning

To be permitted as a landfill, the property must conform to all local zoning/land use ordinances. ACC did not confirm current zoning of all the property as part of this investigation. It can be assumed that the property would be properly rezoned for use as a landfill if it is not currently properly zoned. It can also be assumed that the County would provide written verification that use of the property as a landfill would be consistent with all the County's local zoning and land use ordinances.

Consistent with Solid Waste Management Plan

To be permitted as a landfill, the property must be consistent with the local Solid Waste Management Plan (SWMP). The "Douglas County Ten Year Solid Waste Management Plan" was revised and adopted by the County in 2014. Continued use and expansion of the Cedar Mountain Road Landfill appears to be consistent with the existing SWMP.

Proximity to Wellhead Protection Zone

Landfills and landfill expansions cannot be located within the inner or outer management area of a wellhead protection zone for a municipal supply well. Wellhead protection zones closest to the site were provided by Sandra Jo Robertson of Georgia EPD in September 2007. The closest zones are for wells located near the towns of Hiram and Villa Rica. Both of these towns are 6-7 miles from the site and therefore not within the wellhead protection zones for these wells.

Airport Safety

The Environmental Protection Agency (EPA), the Federal Aviation Administration (FAA), the Georgia Department of Transportation (GDOT), and the EPD all have specific requirements regarding the proximity of new MSW landfills and existing MSW landfill expansions to certain types of airports. All require 10,000 feet of buffer from a public use airport used by turbo-jet aircraft and 5,000 feet of buffer for public use airports used by piston type aircraft. A public use airport is defined as an airport open to the public without prior permission and without restrictions within the physical capabilities of available facilities. These criteria do not apply to the development of a C&D landfill.

Based on a review of the Atlanta Aeronautical Chart 2007 (Figure 2), portions of the site are located within the buffer distances described above to an airport. The Pinewood Landing strip is located along Rock Ridge Drive just north of the Douglas-Paulding County line. It is

estimated that the distance from the northern edge of the county property to the end of the runway (closest point) is approximately 0.4 miles or 2,100 feet. Development of a new MSW landfill on the property would require a 5,000-foot buffer from the end of the runway.

Section 503 of the Wendell H. Ford Aviation and Investment and Reform Act of the 21st Century (AIR-21) (Public Law 106-181) requires a six-mile separation from new MSW landfills and certain airports that are recipients of federal grants, those that primarily serve general aviation aircraft, and are primarily scheduled for air carrier operations using aircraft with less than 60 passenger seats. Per Ms. Carol Comer, Georgia Department of Transportation's Aviation Programs Manager, the only airports in Georgia currently impacted by AIR 21 are the airports in Albany, Athens, Brunswick, Columbus, Macon, and Valdosta so the property is not impacted by AIR-21.

Per the FAA Advisory Circular and Circular 14, owners or operators proposing to site new MSW landfill units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the FAA. The owner or operator must also place a copy of this notification into the operating record and notify the Director. Because the site is within five miles of the runway ends at the airport, this notification would be required.

Floodplains

The landfill must not adversely affect any floodplain, waterway, spring, or stream, or 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 that might pose a hazard to human health and the environment. According to Flood Insurance Rate Map (FIRM) Panel numbers 130306 0010 A and 130306 005 A (Figure 3), the western area of the site contains an area identified as being within the 100-year floodplain for Mud Creek and Waterfall Branch. Also, there is a small portion of the site along the eastern edge near Gothards Creek that is within the floodplain. These areas would not be suitable for waste placement.

Streams and Wetlands

A landfill cannot be located in wetlands, as defined by the U.S. Corps of Engineers, unless evidence is provided to the Director that use of such wetlands is permitted by the Corps. Additionally, the landfill must be sited so that wastes do not adversely affect any spring or stream. Streams/creeks and wetlands will have buffer requirements that may impact and limit the design of a landfill facility. These features will need to be delineated at the site during the Site Acceptability Investigation. However, based on a review of USGS topographic maps, it appears that Waterfall Branch, Mud Creek, and a possible tributary to Mud Creek (shown as a "blue line" feature on the topographic map) transect the western portion of the site (see Figure 1) and will most likely require buffer setbacks. In some cases, "blue line" water features are mislabeled as streams and may be ephemeral or wet weather drainages. A determination can be made during the Site Acceptability Investigation as to the status of

this feature. Additional waste placement area could be gained if the potential tributary is not identified as a stream.

Protection of Water Supply Watersheds

Landfill sites located within seven miles upstream of a governmentally owned public drinking water supply intake or water supply reservoir shall have a 100-foot buffer on both sides of perennial streams as measured from the stream banks. The nearest surface water body that serves as a government owned water supply appears to consist of Dog River Reservoir (as described on the Douglas County Water Authority web site). Based on a review of USGS topographic maps, the Dog River Reservoir is located over seven miles south-southwest of the facility, so the additional buffer requirement should not apply. The Reservoir is operated by the Douglas County Water and Sewer Authority. Paulding County does not currently maintain any active surface water supply intakes and purchases its supply from the Cobb County-Marietta Water Authority. The status of the reservoir and the County drinking water supply should be verified with the Water Authority during the Site Acceptability Investigation as changes to the supply source could result from the current excessive drought conditions.

Fault Areas

New landfill units shall not be located within 200 feet of a fault that has had displacement in Holocene time unless a demonstration can be made that an alternative setback is appropriate. Based on the United States Geological Survey Map MF-916, dated 1970 and reprinted in 1992, the site is not located within 200 feet of a fault that has had displacement in Holocene time. As stated in Circular 14: *“With the possible exception of a single fault shown between Dooly and Sumter Counties on the 1976 1:500,000 Geologic Map of Georgia, there are no known Holocene faults in Georgia.”*

Seismic Impact Zones

New landfill units and lateral expansions cannot be located in seismic impact zones, unless it can be demonstrated that the design will resist the maximum horizontal acceleration in lithified earth material for the site. A seismic impact zone is an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material will exceed 0.10 gravity in 250 years. Based on a review of U.S. Geological Survey Publication MF-2120 entitled *“Probabilistic Earthquake Acceleration and Velocity Maps for the United States and Puerto Rico*, the proposed expansion area is located in a seismic impact zone, as defined above (Figure 4), and will need to be designed to resist the same maximum horizontal acceleration as the existing facility.

Geology / Unstable Areas

Based on a review of the Georgia Geologic Survey publication “*Geologic Map of Georgia*”, local geology at the site consists of biotite gneisses, mica schists and amphibolites overlain by saprolite. This type of geology is typically not prone to developing unstable conditions such as poor foundations, mass movement, or karst features. Site geology and the potential for unstable areas will need to be evaluated in a field reconnaissance during the Site Acceptability Investigation but are not anticipated to be an issue for this expansion.

Groundwater Recharge Area

Additional siting restrictions may be placed on a facility located in an area considered to be a Most Significant Groundwater Recharge Area (recharge area). Specifically, a facility cannot be designated as a regional landfill (one that accepts waste generated outside of the counties or special districts constituting the region or a solid waste landfill which accepts solid waste generated outside the county in which the landfill is located). A portion of the proposed expansion appears to be in a recharge area, based on a review of Georgia Geologic Survey Hydrologic Atlas 20 (Figure 5). This criterion would not preclude the facility from being developed, but it could limit the area from which it could accept waste. This should be further evaluated during the Site Acceptability Investigation as Atlas 20 is less precise than possible individual or county specific studies that may have been completed in the area. Additional research is warranted to further evaluate this condition.

Military Airspace/Bombing Range

Georgia Comprehensive Solid Waste Management Act 12-8-25.3(d) states that: “*No permit shall be issued for a municipal solid waste landfill within two miles of a federally restricted military air space which is used for a bombing range*”. The site is not located within two miles of a federally restricted military air space which is used for a bombing range based on a review of the 2007 Atlanta Aeronautical Chart.

Proximity to National Historic Sites

A facility or expansion may not be permitted within 5,708 yards of a National Historic Site (NHS). The site is not within this distance to any of the three NHS's located in Georgia (Andersonville Prison in Americus, GA, Martin Luther King, Jr. Memorial in Atlanta, GA, Jimmy Carter Birthplace in Plains, GA).

Proximity to City/County Boundaries

No facility shall be located within ½ mile of a City or County boundary without obtaining written approval from the governing authority of the adjoining governmental body. A large portion of the proposed expansion area is within ½ mile of the Paulding County line. Written approval would be required from Paulding County. A Resolution was passed by Paulding

County on September 15, 2011 that would allow for the County to expand the landfill within one-half mile provided that the County provide a 500-foot buffer of the northernmost portion of the Douglas County landfill property boundary. Other nearby County boundaries include Fulton County, located approximately four miles to the east, Cobb County approximately six miles to the northeast and Carroll County approximately six miles to the west. The nearest city is Douglasville which is located approximately 3 miles southeast of the site.

Proximity to other Landfills

Georgia Code § 12-8.25.4 prohibits permitting of a landfill or expansion that is within a two-mile radius of three or more other active MSW or C&D landfills or inactive MSW or C&D landfills that ceased receiving waste after June 29, 1989. This project involves the expansion of the existing Cedar Mountain Road Phase I MSW Landfill, Permit No.048-009D(SL) which is located on contiguous property with the closed Douglas County Landfill, Permit No. 048-007D(SL). Based on a review of EPD records, the closed facility ceased waste acceptance on November 1, 1987 and therefore would not limit the development of another landfill within a two-mile radius. The site is not located within two miles of another solid waste disposal facility.

Trout Streams

Under the Georgia Erosion and Sedimentation Act of 1975, as amended through 1995 (12-7-6. (b) (16) land-disturbing activities are regulated along designated “trout streams” in Georgia. Based on a review of trout stream locations provided on Georgia Department of Natural Resources website, there are no trout streams in Douglas County.

Private Recreational Camp

Georgia Code 12-8-25.5 states “No permit shall be issued for any municipal solid waste disposal facility if any part of the premises proposed for permitting is within one mile of any private recreational camp operated primarily for use by persons under 18 years of age and which camp has been so operated at its location for 25 years or more.” Based on information provided by the Boy Scouts of America website and ACC’s review of the topographic map, no private recreational campgrounds appear to be located within one mile of the site. Camp Frank G. Lumpkin in LaGrange is nearest Boy Scout camp and is approximately 65 miles to the southwest of the site.

Hydrogeologic Assessment

A complete hydrogeologic investigation of the expansion area must be completed in order to comply with EPD’s permitting requirements. Based on the results of the previous investigation, the hydrogeologic characteristics of the site (with proper engineering controls) should meet the requirements of EPD’s siting criteria.

Summary

Based on this preliminary site acceptability evaluation, there is available acreage within the remaining County property for the development of a new MSW or C&D waste landfill. As can be seen on Figure 10, the required 5,000-foot buffer from the end of the Pinewood Landing strip limits the land available for an MSW landfill. Comparing Figure 6 to Figure 7, it is clear that the former Phase 2A and 2B landfill property would not be available for a new MSW landfill. Most of this property would, however, be available for a new C&D waste landfill.

A complete Site Acceptability Study that includes a hydrogeologic investigation would need to be completed as well as various public participation and SWMP procedures in order to proceed with the permitting process for any new landfill. Wetlands, streams, and local water wells will need to be delineated during the Site Acceptability Study. Identification of these types of features within or near the actual study area may result in various additional buffer requirements for the expansion area.

FIGURES

See attached beginning with Page 13 and ending with Table 22

Summary

Based on this preliminary site acceptability evaluation, there is available acreage within the remaining County property for the development of a new MSW or C&D waste landfill. As can be seen on Figure 10, the required 5,000 foot buffer from the end of the Pinewood Landing strip limits the land available for an MSW landfill. Comparing Figure 10 to Figure 11, it is clear that the former Phase 2A and 2B landfill property would not be available for a new MSW landfill. Most of this property would, however, be available for a new C&D waste landfill. A complete Site Acceptability Study that includes a hydrogeologic investigation would need to be completed as well as various public participation and SWMP procedures in order to proceed with the permitting process for any new landfill. Wetlands, streams, and local water wells will need to be delineated during the Site Acceptability Study. Identification of these types of features within or near the actual study area may result in various additional buffer requirements for the expansion area.

FUTURE DISPOSAL OPTIONS

Four potential future disposal options have been identified for the planning period from 2017 until 2037. Regardless of the option selected the County will be faced with additional costs associated with the existing facilities. Operation of the transfer station will require the investment of approximately \$455,000 in capital costs for a new wheel loader and a new yard dog. Operation of the existing C&D Landfill will require the investment of approximately \$680,000 in capital costs for new equipment. In addition, the County will be faced with approximately \$2,125,000 in capital costs to close the Section 3 of the existing C&D landfill. While the closure could potentially be delayed, this evaluation has assumed that the closure will occur as soon as Section 3 reaches its capacity. This will cause the 30 year post-closure care period for the landfill to begin. Post closure care for the existing landfill has been estimated to cost \$74,820 per year.

The following sections briefly describe the four future disposal options.

Option 1- Permit and Construct a New C&D Landfill and a New MSW Transfer Station

Under Option 1 the County would permit and construct a new C&D Landfill and a new MSW Transfer Station on the County's property adjacent to the Facility. The County would continue to operate the existing C&D landfill and MSW Transfer Station until the existing C&D Landfill reaches its capacity in 2022. It is anticipated that a new C&D Landfill would be permitted and the initial 10 acres of C&D cells and the new Transfer Station constructed by that time. Upon completion of construction all C&D and yard waste would be disposed of in the new C&D Landfill. The County would then initiate the closure of Section 3 of the existing C&D landfill

and begin post-closure care on that facility. MSW waste brought to the Facility would be transferred out of County through the new transfer station.

It is anticipated that the new C&D Landfill would be permitted in the location designated as Section 1 of the Phase 2 plans that were developed by Hofstadter & Wood in 1988. This Section 1 area consists of approximately 50 acres of landfill footprint. It is estimated that this area would provide for approximately 2,565,200 CY of landfill capacity which would provide for the disposal of approximately 1,282,600 tons of waste, which would meet the County's needs through 2037. The EPD will require the County to meet all of the requirements of a new permit for this expansion. It is anticipated that the permitting will cost approximately \$250,000 and will require approximately two years to complete. Construction of the initial 10 acre cell and associated access roads and monitoring system is estimated to cost \$1,300,000 and will require another year to complete. A breakdown of the construction cost is presented in Table 8. As shown on Table 9, it is estimated that approximately \$5,230,000 in new equipment will be required for the new landfill during the planning period. Two additional 10 acre cell areas will be required during the planning period. As shown in Table 10, it is estimated that each of the additional 10 acre cell areas will cost approximately \$906,000 to construct. With the construction of the new landfill area the County's closure and post-closure care costs responsibilities will increase. Closure of the new 50 acre area is estimated to cost approximately \$3,750,000. Post closure care for the new area is estimated at \$55,610 per year. Breakdowns of these costs are presented in Tables 11 and 12. The O&M cost for the new landfill will increase to approximately \$38 per ton with the additional cost per ton to fund the additional closure and post closure.

It is anticipated that a new MSW Transfer Station would be constructed on the property. The new station would be sized for 250 TPD of MSW and would include a full separation drive through tunnel. It is anticipated that the 8,000 SF station would cost approximately \$1,600,000 and would take approximately two years to design and construct. It is estimated that approximately \$1,115,000 in new equipment will be required during the planning period. It is anticipated that the station could be operated for \$11 per ton and that a contract for transportation and disposal of the MSW of \$35 per ton could be obtained.

The total annual cost for Option 1 is estimated to be \$60,015,177 for the planning period. The total capital cost is estimated to be \$10,362,000. A breakdown of the total annual cost and capital costs associated with this option are presented in Table 13.

Option 2 – Permit and Construct a New MSW Landfill

Under Option 2 the County would permit and construct a new MSW Landfill on the County's property adjacent to the Facility. The County would continue to operate the existing C&D landfill and MSW Transfer Station until the existing C&D Landfill

reaches its capacity in 2022. It is anticipated that a new MSW Landfill would be permitted and the initial 10 acres of MSW cells constructed by that time. Upon completion of construction, all waste would be deposited in the new MSW Landfill. The County would then initiate the closure of Section 3 of the C&D landfill and begin post-closure care on that facility.

The new MSW Landfill would receive a new solid waste handling permit from the EPD. The ultimate size of the facility will be dependent upon the site suitability limitations issued by the EPD and design constraints. For the purpose of this analysis we have assumed that a 50 acre footprint would be permitted. It is estimated that this area would provide for approximately 2,565,200 CY of landfill capacity which would provide for the disposal of approximately 1,282,600 tons of waste, which would meet the County's needs through 2037. The EPD will require the County to meet all of the requirements of a new permit for this expansion. It is anticipated that the permitting will cost approximately \$450,000 and will require approximately three years to complete. Construction of the initial 10 acre cell and associated access roads and monitoring system is estimated to cost \$3,600,000 and will require another year to complete. A breakdown of the construction cost is presented in Table 14. It is estimated that approximately \$5,230,000 in new equipment will be required for the landfill during the planning period. Five additional 10 acre cell areas will be required during the planning period. As shown in Table 15, it is estimated that each of the additional 10 acre cell areas will cost approximately \$2,343,000 to construct. With the construction of the new landfill area the County's closure and post-closure care costs responsibilities will increase. Closure of the new 50 acre area is estimated to cost approximately \$8,600,000. Post closure care for the new area is estimated at \$87,050 per year. Breakdowns of these costs are presented in Tables 16 and 17. Table 18 presents the estimated additional O&M costs for the new MSW landfill. The additional O&M costs is approximately \$2 per ton. The total O&M cost for the new landfill will increase to approximately \$44 per ton with the additional costs per ton to fund the additional closure and post closure.

The total annual cost for Option 2 is estimated to be \$63,070,703 for the planning period. The total capital cost is estimated to be \$24,255,000. A breakdown of the total annual cost and capital costs associated with this option are presented in Table 19.

Option 3- Construct a New MSW Transfer Station

Under Option 3 the County would construct a new MSW Transfer Station to handle all waste. The County would continue to operate the existing C&D landfill until the landfill reaches its capacity in approximately 6 years and the existing MSW Transfer Station until the new transfer station is constructed. The new station would be sized for 600 TPD of MSW and would include dual full separation drive through tunnels. It is anticipated that the 16,800 SF station would cost approximately \$3,400,000 and would take approximately two years to design and construct. It is estimated that approximately \$1,115,000 in new equipment will be required during the planning

period. It is anticipated that the station could be operated for \$11 per ton and that a contract for transportation and disposal of the MSW of \$35 per ton could be obtained.

The total annual cost for Option 3 is estimated to be \$65,328,737 for the planning period. The total capital cost is estimated to be \$7,320,000. A breakdown of the total annual cost and capital costs associated with this option are presented in Table 20.

Option 4- Get Out Of the Waste Disposal Business

Option 4 includes several possibilities all of which result in the county getting out of the waste disposal business. One possibility would involve the County issuing a Request for Proposals (RFP) from private waste firms to develop the facilities necessary to provide for disposal of waste from the Citizens and Businesses in the County for the next 20 years. The RFP would at minimum confirm the interest or lack of interest of a private firm permitting and constructing their own landfill and/or transfer station on the County's property. If a private firm develops a new landfill on the property, the firm would be required by law to pay the County a host fee. Host fees of between \$1-2 per ton are typical. Depending upon the perceived value of the new landfill, the firm may even assume some of the responsibility for closure and post closure of the existing landfill. If a private firm elects to develop a new transfer station on the property, the County may receive a host fee on waste processed by the facility. While the numbers cannot be estimated at this time, it is a certainty that privatizing the landfill and/or transfer station would be a viable financial option.

If this approach is politically not acceptable or if there is no interest from private waste firms to develop a transfer station or landfill on the property, the County can still get out of the business. Under this approach the County would continue to operate the existing C&D landfill and MSW Transfer Station until the landfill reaches its capacity. It is currently estimated that the landfill will reach its capacity in 2022. At that time the County would cease accepting waste at the Facility and citizens and companies would be required to contract directly with private waste companies for collection and disposal services. The total annual cost for this approach to Option 4 is estimated to be \$13,393,955 for the planning period. The total capital cost is estimated to be \$3,260,000. A breakdown of the total annual cost and capital costs associated with this option are presented in Table 21.

EVALUATION OF DISPOSAL OPTIONS

A summary of the total annual cost and total capital cost for each of the four disposal options discussed above is presented in Table 21. A summary of some of the non-cost factors that should be considered for each type of facility is presented in Table 22.

Obviously the least costly option involves the County getting out of the disposal business and relying on the private sector to provide the services needed (Option 4) As described above the cost for this option is dependent upon the approach taken by the county and the interest of private waste companies. Another advantage of Option 4 is that it removes the County from the risk and cost associated with building new facilities for solid waste disposal without controlling a waste stream to support them. There are sufficient private companies and facilities active in Douglas County to provide the citizens and businesses with solid waste disposal services. The private sector already provides solid waste collection services in the County. The cons associated with this option are that with this change solid waste disposal services historically provided by the County will be provided by the private sector and with that the cost of service could increase. These citizens and businesses may blame the costs increases on privatization unless they are educated on the costs associated with the other alternatives discussed in this report. It should also be noted that several of the metropolitan Atlanta counties such as Fulton, Cobb, and Gwinnett rely upon the private sector for solid waste disposal services.

Option 1 has the next lowest total cost to the County getting out of the disposal business. Option 1 also presents the least amount of change for the citizens and businesses that utilize the County's facilities for solid waste disposal. Construction of additional C&D landfill capacity and replacement of the existing transfer station would provide the facilities for existing operations to continue for the next 20 years. The negatives associated with this option include the fact that the County would be required to invest \$10,362,000 in capital cost over the next 20 years into the new facilities that may or may not be utilized by the private waste firms that collect solid waste in the County. In addition the County will face an additional \$3,750,000 for closure and \$1,668,310 for 30 years of post-closure care of the new C&D landfill.

Option 3 has a slightly higher total cost than Option 1 but a significantly lower capital cost requirement. Under this option, the County would be required to invest \$7,320,000 in capital cost over the next 20 years. This option has significantly less environmental and financial risk than Option 1.

Option 2 is the most expensive alternative of the alternatives presented in this report. The negatives associated with this option include the fact that the County would be required to invest \$24,255,000 over the next 20 years in capital cost into facilities that may or may not be utilized by the private waste firms that collect solid waste in the County. In addition the County will face an additional \$8,600,000 for closure and \$2,611,500 for 30 years of post-closure care of the new MSW landfill.

RECOMMENDATIONS

Based upon the probable costs of the disposal options considered in this report and other non-cost factors presented above we offer the following recommendations:

1. The County should authorize the preparation of a Request for Proposal (RFP) for Solid Waste Disposal Services from private waste companies that includes the option of the private waste company developing a transfer station and/or landfill on the County's property.
2. The County should evaluate the proposals and select the proposal that provides the greatest benefit to the County;
3. If an acceptable proposal is not received from the procurement process discussed above, the County should continue to operate the existing C&D landfill and Transfer Station until the Landfill reaches its capacity. Afterwards the County should cease operations of the transfer station and C&D landfill and initiate closure construction.
4. If getting out of the disposal business through privatization is not an acceptable option for the County, we would recommend that the County pursue Option 3, the construction of a new transfer station to handle all of the County's waste.
5. The County should consider increasing current tipping fees at the Facility to assist in funding the closure and post-closure of the existing C&D landfill.

Table 22
Summary of Probable Costs for Disposal Options

<u>Option</u>	<u>Total Annual Cost</u>	<u>Total Capital Cost</u>	<u>Total Cost</u>
1	\$60,015,177	\$13,432,000	\$73,447,177
2	\$63,070,703	\$23,575,000	\$86,645,703
3	\$65,328,737	\$7,320,000	\$72,648,737
4	\$13,393,955	\$3,260,000	\$16,653,955

Note: Total costs are for the period from 2017 to 2037

PRICE PROPOSAL

I have read and understand the requirements of this **RFP 18-026 Solid Waste Facility Management** and agree to provide required services in accordance with this proposal and all other attachments, etc. I understand that the County will not be responsible for the reimbursement of any costs not specifically set forth in this proposal.

Lump Sum Price \$ _____

I hereby certify that this Financial Proposal is made without prior understanding, agreement or connection with any corporation, firm, or person submitting a proposal for the same services and is in all respects fair and without collusion or fraud. I certify that I am authorized to sign the Financial Proposal.

Company Name Date

Printed Name Authorized Signature

Sworn to and subscribed before me this _____ day of _____, 2018.

Notary Public

Commission Expires

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR PROPOSAL