

LAND LIMITATION

ENVIRONMENTAL LIMITATIONS

Floodplains

An ideal municipal solid waste landfill will have little or no floodplain areas within its boundaries. A site located within the 100-year floodplain, however, must not restrict the flow of the 100-year flood, reduce temporary water storage capacity of the floodplain, or result in a river washout of solid waste material. If floodplains and floodways are present, the design must provide adequate capacity without impacting the floodplain areas.

Floodplain and floodway maps, as well as soil survey maps, will be used to determine the amount of floodplain present on a proposed site.

Wetlands

A municipal solid waste landfill cannot be located in wetlands unless evidence is provided to the director of the Environmental Protection Division (EPD) that no alternative sites or methods are available to that jurisdiction for the handling of its solid waste and that the use of such wetlands would comply with all other applicable state and federal laws and rules. Most tracts of land will have some amount of wetlands on site. The ideal site would have no or a minimal amount of wetlands. Development in wetlands will require other permits, mainly the Corps of Engineers 404 permit which can take a considerable amount of time to receive; therefore, every effort should be made to avoid wetlands if possible. Wetland maps and soil survey maps will be used to identify wetland areas for potential landfill sites.

Protected River Corridors

Development of new solid waste landfills is prohibited by DNR Rule 391-3-16-.04(4)(h). The Chestatee and Chattahoochee Rivers are both protected; however, the Chestatee is not indicated for protection within Hall County because it is under the jurisdiction of the Army Corps of Engineers as it flows into Lake Lanier.

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Groundwater Recharge Areas

The State of Georgia now requires any municipal solid waste landfill located within two miles of a significant groundwater recharge area to be designed with a liner and a leachate collection system. A regional landfill cannot be located over an area of significant recharge. While all landfills will be designed with some type of liner and leachate collection system, the significance of this requirement is that these areas have received special regulatory protection. A more ideally situated site is one located a distance greater than two miles from a significant groundwater recharge area.

Water Supply Watersheds

Municipal solid waste landfills must not be situated within two miles upgradient of any surface water intake for public drinking water source, unless engineering modifications such as designed liners and leachate collections systems and groundwater monitoring plans and systems are provided. All landfills are required to be constructed with all of these systems in place. However, from an overall environmental and public acceptance standpoint, the landfill should be sited far enough away from a public drinking water intake so as to show no effect on drinking water sources.

For groundwater well zones, the only requirement is a 500-foot buffer zone located between waste disposal sites and an existing groundwater well zone. Well users down gradient of a proposed landfill could possibly affect EPD's approval of the site; therefore, efforts should be made to avoid large numbers of down gradient well users.

Faults

Fault zones located within two miles of a potential site could be reason enough for declaring the site unsuitable by EPD. The unstable nature of the rock in a fault zone can increase the potential of ground water contamination should movement of the rock occur. The Brevard Fault runs in a northeasterly direction from Rest Haven through Gainesville to just north of Lula.

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Karst Terrain

Karst areas, or areas where sinkholes have formed over limestone bedrock, should not be used for future landfill sites. This limitation does not preclude all limestone bedrock areas, but only those areas that have a high probability of new occurrences of sinkholes.

Protected Mountains

DNR Rule 391-3-16-.05(4)(l) prohibits the development of new solid waste landfills in areas designated as protected mountains. No protected mountain areas exist in Hall County.

Proximity to Lake Lanier

There are other criteria that relate to the specific state requirements for distances to surface water users and streams. Lake Lanier is a unique resource providing drinking water and recreation to a large population. It has significant economic benefit to Hall County and surrounding area. While state of the art technology provides for adequate protection of the ground and surface water from a landfill site, the public's perception of locating a disposal site in close proximity to the lake or its drainage basin is important. Ideally the best situation would be to not site a landfill within the Chattahoochee River basin. This would be an extreme position, eliminating most of Hall County. A more reasonable standard would be to not consider sites within two miles of the lake itself.

Other Local Environmental Issues

The following three local environmental issues will need special consideration during future landfill siting processes:

Hall County is currently constructing the Cedar Creek Reservoir in the eastern area of the County. This reservoir is in the North Oconee watershed, where a setback of 150 feet is required for any stream or river. The County enacted special legislation to adequately protect this future drinking water source in 2001. The legislation is inclusive of the watershed feeding the reservoir and adds additional stream buffers, has limits on impervious area, and imposes additional septic tank setbacks. This reservoir was substantially complete and began filling in 2003.

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Another reservoir is proposed on Flat Creek in northern Hall County. As of this date, the County has not completed the permit process on this reservoir. The same rules applying to the North Oconee Reservoir will most likely apply to this future reservoir.

In 2001 Hall County enacted the Watershed Protection Ordinance. This ordinance will need to be considered during future siting processes because it entails stricter stream buffers countywide and has provisions for controlling stormwater runoff quality and quantity.

LAND USE FACTORS

Land Use Plan/Zoning Requirements

For EPD to review an application for a solid waste handling permit, evidence documenting that a potential landfill site conforms to all zoning and/or land use ordinances must be provided. Therefore, any potential site must be zoned properly or be able to be zoned for use as a municipal solid waste landfill.

Heavily Developed Areas

There are no siting criteria that relate to the proximity to populated areas. Landfills are designed with a minimum of 200 feet of on-site buffer that generally protects the adjacent property owner from effects as a result of the landfill operation. Potential landfill sites located more than two miles from a city boundary or 0.5 miles from a subdivision would receive a more favorable rating from EPD when being reviewed for approval. Location of a potential site adjacent to a populated area does not in itself exclude the site from consideration; however, it does reduce its desirability for use as a landfill site.

National Historic Site

Potential landfill sites cannot be located within 5,708 yards of a National Historic Site. Currently, there are no National Historic Sites within 5,708 yards of Hall County. For locally significant historic sites, a distance of 1,000 feet should be used for site location.

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Proximity to Airports

According to EPD requirements, siting criteria mandates that municipal solid waste landfills shall not be located:

- (1) Within 10,000 feet of any runway used or planned to be used by turbojet and piston-type aircraft; or
- (2) Within 5000 feet of any runway used or planned to be used by piston-type aircraft only. FFA regulations add that any landfill that attracts birds should not be located within five miles of a runway.

Jurisdictional Boundaries

EPD requires that a potential landfill site cannot be located within 0.5 mile of a county boundary unless approval is secured from the adjoining county. This requirement does not prohibit the siting of a landfill near the boundary but represents a potential obstacle to the permitting of the site and should be avoided if possible.

Site Access

There is no specific siting criterion related to site access. Good access roads leading to the landfill are obviously desirable. Ideally, the landfill should be accessed by paved roads and bridges capable of handling truck traffic typical of a landfill operation and should not pass through residential areas.

PLAN CONSISTENCY OF SOLID WASTE HANDLING FACILITIES

In order for EPD to issue or renew a permit for a solid waste handling facility, any new facility or facility expansion must be consistent with a local government's solid waste management plan. The following outlines the local procedure that will be followed to determine whether a proposed facility, public or private, is consistent with the plan.

No proposed facility or facility expansion will be sited in the planning area without a letter from the Hall County Board of Commissioners stating that the proposed facility is consistent with the Solid Waste Management Plan for Hall County. To determine if a proposed facility or facility expansion is consistent with the Plan, an owner/operator of the facility shall:

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A. At least 60 days prior to filing for a solid waste handling or C&D permit, or notifying EPD in the case of a solid waste handling facility that is permitted by rule, the applicant must submit to the local governing authority a written statement documenting the following:

1. How the proposed facility or facility expansion will meet the specific goals and/or needs identified in the Solid Waste Management Plan, specifically what will be:
 - a. the impact upon the collection capability within the planning area; and
 - b. the impact upon disposal capacity identified in the planning area; and
 - c. the impact to the waste reduction and recycling efforts within the planning area, specifically, how the proposed facility or facility expansion will further progress toward achieving the State's 25% per capita waste disposal reduction goal; and
 - d. the impact on underserved geographic areas and segments of Hall County such as individuals, businesses and/or waste types (residential, industrial/commercial, construction and demolition, inert) as identified in the Solid Waste Management Plan.
2. How the proposed facility or facility expansion and its operation will impact the community; specifically what will be
 - a. the impact to vehicle traffic and public safety around the proposed facility and throughout the planning area;
 - b. the impact to the financial viability of the existing solid waste management system within the planning area;
 - c. the impact to individual and business solid waste management rates;
 - d. the impact of the proposed facility or facility expansion to other natural or cultural resources within the planning area; and
 - e. the impact of the proposed facility or facility expansion to the current solid waste management infrastructure within the planning area, both public and private.
3. How the owner/operator of the proposed facility (and any subsequent owner/operators, if sold) will satisfy the financial assurance provisions of the plan and local ordinances.
4. That the proper public notification process was followed, to include a public hearing and notification of all adjacent property owners.

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5. That the proposed facility or facility expansion is sited in an area deemed suitable according to the criteria listed in the plan; and
 6. That the proposed facility or facility expansion is sited in a location that is consistent with local zoning ordinances.
- B. The Governing Authority shall review the "Written Statement of Consistency" and shall determine if the proposed facility or facility expansion is consistent with the Solid Waste Management Plan. Within 30 days of making their determination, the Board of Commissioners shall notify the developer whether or not the proposed facility or facility expansion is consistent with the Plan. If the proposed facility is not consistent with the Plan, the developer may address the inconsistencies and resubmit their request for another review.

Needs/Goals

1. Financial assurance provisions should be investigated and developed more fully than possible here to include specific minimums for various types of solid waste handling facilities.
2. The need for local ordinances to back these key plan consistency provisions should be investigated, as well as a determination as to whether each municipality must adopt similar ordinances.

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Sources Consulted:

Hall County Planning and Zoning Department. (2004). *Hall County comprehensive land use plan*. Gainesville, GA; Author.

McInturff, Kevin. personal interview. February 6, 2004.

Rules of Georgia Department of Natural Resources Environmental Protection Division. Retrieved June 14, 2004 from <http://www.state.ga.us/dnr/environ/>