Appendix C

Landfill Site Selection Criteria

LANDFILL SITE SELECTION CRITERIA

(as adopted by the Montgomery County Council in Resolution 11-787, April 19, 1988)

Four kinds of search criteria will be considered in evaluating potential sites as follows:

- **Threshold criteria.** These are environmental characteristics which a site must have to be considered for a landfill.

- **Cost criteria.** These are criteria where a certain minimum standard of site characteristics can be identified and, if a particular site is deficient in these characteristics, the deficiency can be overcome by spending more money.

- **Non-cost numerical criteria.** These are site conditions where some numerical site characteristic required for siting landfills can be measured to compare one site with another, but this measurement cannot be converted into dollars.

- **Qualitative criteria.** These are site characteristics where desirable characteristics can be described, but the extent to which a particular site satisfies them cannot be measured numerically.

The **Threshold Criteria** to be used in the landfill search are as follows:

Intentional Contamination of ground or surface water	No landfill will be located in a site where leachate cannot be separated from ground or surface water.
Floodplain	No landfill working area will be located within an ultimate-use 100-year floodplain.
Landfill exclusion area	No landfill will be located within three miles of the working area of the Oaks or the Gude Landfill.

The **Cost Criteria** to be used in the landfill search are as follows:

Soil Overburden thickness	A minimum of 4 feet of natural soils will be provided between the base of the landfill and the top of bedrock. Sites lacking this must import soils to meet this requirement and the cost will be calculated.
Soil permeability	State regulation requires a subbase with a minimum thickness of 2 feet and a permeability less than or equal to 1 X 10-5 centimeters per second. Sites with less than this minimum must import soils to meet the requirement and the cost will be calculated.
Depth to seasonal high water table	A minimum of 3 feet between the base of the landfill and seasonal high water table will be provided. Sites lacking this must import soils to meet this requirement and the cost will be calculated.
Groundwater protection	Landfills with a single liner will be located in areas with deep, well drained, fine grained soils between the base of the landfill and either bedrock or seasonal high water

	table. Sites lacking these characteristics will provide a second liner or other additional protective features indicated by the State permitting agency and the cost of these will be calculated.
Cover material	Sufficient soil cover for daily, intermediate, and final cover will be provided for a landfill of sufficient size to receive ash, non-processible and bypass waste for the bond life of the mass burner. Landfill sites lacking sufficient on-site cover to provide this amount must import soils for this purpose; the cost of this import will be calculated.
Prevention of Drinking Water Contamination	Landfills will not contaminate drinking water supplies from public or private wells that could be contaminated in the event of landfill leachate escaping containment systems will be calculated as a contingency cost.
Historical Structures and Archaeological Sites	If there is a registered historical structure on a proposed landfill site the cost of moving it will be calculated. A reasonable period for investigations in the event that sites of archaeological interest are uncovered will be estimated and the cost of this delay calculated.
Road or rail access	The cost impacts of access by rail and road will be considered in the context of a total access system. Landfills must have access either to a road of adequate size and projected capacity at the time of opening the landfill to accommodate the trucks proposed by solid waste transportation or to a railroad spur connected to both the solid waste transfer station and the mass-burn resource recovery facility. If sites lack either of these transportation facilities the cost of building them will be calculated. For those sites where the method of transporting ash from the resource recovery facility involves rail transport from the mass burner to the transfer station then truck transport to the ashfill, the additional cost of double handling will be calculated.
Adjacent residences	Landfills should not be sited in such a way that the boundary of the work area is within 1000 feet of a residence. If there are sites where there are existing residences within this distance, the cost of purchasing and demolishing these residences will be calculated. This does not mean that the residences will be purchased if the site in question is selected (this should be the choice of the homeowners) only that this potential additional cost be included in site comparisons.
Site Cost	The cost of purchasing each landfill site will be calculated.
Other	Any other site costs, not already identified, which would be necessary to bring a site into compliance with State regulations will be calculated.

The **Numerical Criteria (other than Cost)** to be used in the landfill site search are as follows:

Site life	Landfill sites will be of sufficient size to receive the quantity of ash, bypass or non-processable waste estimated for the bond life of the mass burner. Sites larger than this will be preferred.
Buffer area	Landfill sites will provide a minimum buffer area of 50% of the area of the working fill Buffer areas larger than this will be preferred.
Adjacent population	The number of people living, working or studying within a mile of the boundary of the site work area will be estimated separately; sites with fewer people will be preferred to sites with more.
Site ownership	Sites with few owners will be preferred to sites with many.

The **Qualitative Criteria** to be used in the landfill site search are as follows:

Criterion	**Requirement or Preference**
Topography	Gently rolling uplands will be preferred as landfill sites to flat, steeply sloping, or valley bottom areas.
Surface water	Landfill sites which are not in the watersheds of drinking water reservoirs or Class 3 streams will be preferred to those that are.
Sole source aquifer	Landfill sites not within the area of a sole source aquifer will be preferred to those that are.
Vegetation	Landfill sites which are already cleared in the area proposed for the fill and forested in the buffer area will be preferred to those where forest must be cleared in the working area and planted in the buffers.
Screening	Landfill sites which are naturally screened from developed areas and roads by topography will be preferred to those which are visible or those requiring artificial buffers.
Adjacent land use	Landfill sites compatible with existing and future land use will be preferred to those that are not
Rare species	Sites which do not impact rare species will be preferred to those that do.