

HENNEPIN COUNTY RESOURCE RECOVERY PROJECT  
DRAFT ENVIRONMENTAL IMPACT STATEMENT

EXECUTIVE SUMMARY

For Purposes of Public Meetings on  
January 15 and 16, 1986

Metropolitan Council of the Twin Cities Area  
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DRAFT ENVIRONMENTAL IMPACT STATEMENT

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ABSTRACT: Hennepin County proposes to construct a municipal solid waste energy facility at a site in Minneapolis, Minn. The facility would process an annual average throughput of 1,000 tons of waste daily. The county proposes to construct solid waste transfer stations at sites in Bloomington, Brooklyn Park, Hopkins and Minneapolis, Minn. The resource recovery project is proposed for commercial operations in 1989. This environmental impact statement (EIS) describes and evaluates the proposed project, several locational alternatives, technological alternatives and a no-build alternative, as well as sociological and environmental implications. Written comments on this draft EIS are due Jan. 30, 1986, and should be sent to either of the Metropolitan Council planners listed above. A public meeting on the draft EIS is scheduled on Jan. 15 and 16, 1986.

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## EXECUTIVE SUMMARY

### INTRODUCTION

Hennepin County has proposed to construct a 1,000 ton-per-day resource recovery facility and a system of four solid waste transfer stations. The resource recovery facility would be located in Minneapolis, Minn., at 7th St. N. and 6th Av. N. at a location known as the Greyhound site. The resource recovery facility will be a mass burn type and will cogenerate steam and electricity from the burning of solid wastes. The transfer stations will be located at sites in Bloomington, Brooklyn Park, Hopkins and Minneapolis (see Figure 1).

This executive summary provides a summary description of the proposed project and its likely impacts on the environment. Part 1 provides a detailed description of the project, the existing environment, the likely impacts of the project on the environment and measures that can be used to mitigate adverse impacts of the proposed action. Part 2 discusses environmental impacts associated with the project at the alternative locations, alternative project actions, alternative technologies and alternative sized projects. Notes and Appendices are provided at the end of the document. This section contains references and footnotes, and appendix material including worksheets.

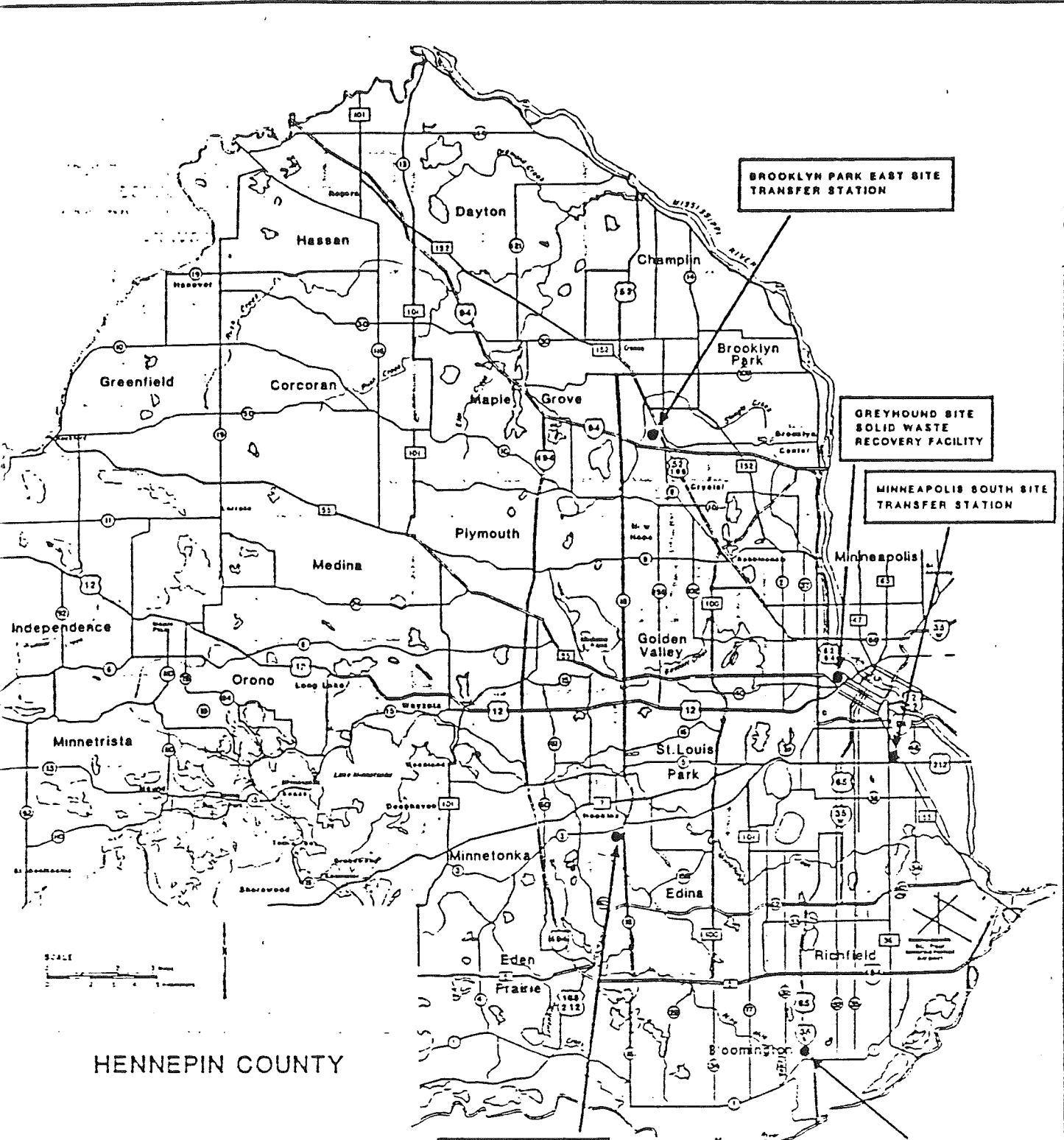
### PROJECT DESCRIPTION

The proposed mass burn facility will be located on a 14.6-acre site between 5th St. N. and 7th St. N. and between 6th Av. N. and the operating Burlington Northern railroad tracks. Access to the site will be via 6th Av. N. The proposed facility will consist of two waste processing lines each capable of burning 606 tons of waste per day (total design capacity of 1,212 tons per day). The facility will operate continuously, 24 hours per day every day. The solid waste will be combusted in the boilers. The heat of combustion (1,800<sup>0</sup> F) will be used to produce steam which will ultimately generate 37.5 MW (gross) of electricity. The facility will cost approximately \$70 million to construct.

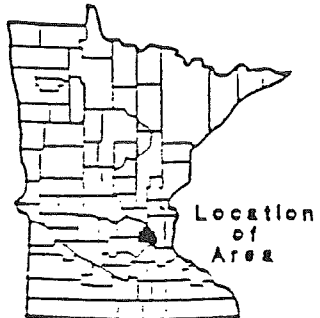
Transfer stations will be constructed and operated at four locations within the county. Each transfer station will be used to collect municipal refuse from short haul collection vehicles to large transfer trailers for transport to one or more resource recovery facilities. The preliminary conceptual design of the four transfer stations is for a total design capacity of 1,900 to 3,000 tons per day. However, it is not anticipated that the transfer stations will operate at this maximum design capacity. Additional capacity has been included so that the transfer stations could: 1) handle peak truck deliveries; 2) expand operating capacity in the future and accept waste from another transfer station in the event of a facility closure. The transfer stations vary in throughput capacity as follows:

<u>Transfer Stations</u>	<u>Operating* Capacity (TPD)</u>	<u>Design Capacity (TPD)</u>	<u>Total Project Area (acres)</u>	<u>(Millions) Cost \$</u>
Bloomington East	500	800	5	3.5
Brooklyn Park East	400	800	12	3.5
Hopkins DOT	600	1,200	5	4.5
Minneapolis South	400	800	1.2	3.5

\*Operating Capacity--annual average expected daily throughput.



HENNEPIN COUNTY



HOPKINS - DOT SITE TRANSFER STATION

BLOOMINGTON EAST SITE TRANSFER STATION

Figure 1

Hennepin County Resource Recovery Project

In general, the transfer stations will consist of an entrance/exit road, scale house with one or two incoming scales and an outgoing scale, a tipping area, an office, a parking area, and a truck storage area. The proposed stations will have a grade separation between tipping and loading levels.

Throughput capacity will be a function of the number of loading bays, hours of operation, mode of operation and space requirements. It is generally assumed that a two-hopper transfer station will have an eight-hour capacity of 300-400 TPD. A three-hopper facility will have a capacity of 900-1,200 TPD.

Each transfer station will employ between 5 and 10 employees. The hours of operation will typically be from 7 a.m. to 6 p.m. weekdays.

#### AIR QUALITY

During construction, fugitive dust will be generated at all locations. The impacts would be short term and are not considered significant. During operations at the resource recovery facility, air quality modeling indicates a potential for the buildup of 0.0029 inches of ice during a 14-hour period (assuming worst case weather conditions) from the cooling tower deposition. This ice buildup would occur on a short portion of 6th Av. N. The buildup is equivalent to a very light dusting of snow. The generation of traffic on the road is likely to prevent the buildup of significant amounts of ice. The facility will also generate gaseous emissions, including odors from the handling of the waste. The impact analysis did not indicate significant potential emission or odor problems due to operation of the facility.

#### HUMAN HEALTH

The human health analysis for the recovery facility shows that at a receptor with the highest maximum exposure to facility emissions, total cancer risk would be 0.9 per 100,000 chances. This analysis represents a worst-case scenario and is based on conservative assumptions. The Minnesota Pollution Control Agency has indicated that a health risk of one per 100,000 chances is in the range of acceptable risks.

#### GEOLOGY AND SOILS

Development of the resource recovery facility and transfer stations is not expected to result in significant long-term impacts to geologic or hydrologic resources. The only potential impacts identified include the removal of contaminated soils from the Greyhound site and the potential need for dewatering during construction.

If proper measures are adhered to during development of the Greyhound site, the removal of contaminated soils could represent an improvement above existing conditions.

#### WATER QUALITY

Construction of the resource recovery and transfer station facilities would result in a potential for increased runoff at certain sites. Associated with the runoff could be a decrease in water quality. The impacts would, however, be short term in nature.

Development of the Brooklyn Park site will involve construction in a flood fringe. Although the impacts to wetlands in the area are not expected to be significant, portions of the project will be situated in the floodplain area.

## LAND USE AND ZONING

Each city's zoning ordinance generally does not specifically address resource recovery or transfer stations as permitted uses. It appears that resource recovery or transfer stations might be allowed as conditional uses. The zoning ordinances could be modified to list resource recovery and transfer stations as conditional or permitted uses in industrial zones.

Both Bloomington and Hopkins have expressed feelings of concern regarding the location of transfer stations in those communities. Potential impacts on property values and environmental impacts have been listed as major concerns.

It appears from a review of local comprehensive plans that the proposed facilities would be consistent with long-range land use plans. The local communities, however, will have the ultimate responsibility to determine consistency with land use plans.

## TRANSPORTATION

The transportation analysis indicates no significant degradation in traffic operations at the Greyhound site. Operation of a transfer station at the Bloomington East site would not significantly affect roadway operations in the area. Similarly, although roadway operations at several intersections in Brooklyn Park may be of concern in the future, the operation of the proposed facility there would make no significant difference in traffic operating conditions. Facility operations in Hopkins would not adversely affect traffic operating conditions. Likewise, the level of service of intersections at the Minneapolis South site would not be adversely affected by the project action.

## NOISE

The primary impact of the proposed resource recovery facility and transfer station would be during construction. Construction noise will be generated by commuting workers, trucks and the operation of construction equipment. Construction noise would be significant at all project locations. The elevated noise levels would, however, be only temporary in nature.

At the transfer stations, noise levels would be increased by project operations. At Bloomington East, noise levels would exceed MPCA standards at three receptors. At Brooklyn Park East, one receptor would exceed standards as a result of the project. All receptors analyzed at Hopkins would exceed MPCA residential standards, with or without the project. Noise levels at the Minneapolis South site would exceed MPCA residential standards at all receptors. Existing noise levels currently exceed the standards, however, and would be increased by the project a barely perceptible amount. In general, the proposed facilities are located in urban environments exposed to a considerable amount of noise. Project operations would increase noise levels by a barely perceptible amount and would not be considered significant.

## UTILITIES

Construction and operation of the facilities would require the use of electricity, telephone, water, public service and sewer services. Although the facilities would place a demand on existing capacity, all existing utilities have the capacity to accommodate project requirements.



## SOCIOECONOMICS

Construction and operation of the proposed facilities would generate additional jobs in the county. Operation of the transfer stations would, however reduce real estate tax payments in Bloomington and Brooklyn Park. These sites are currently privately held and taxable, and the proposed action calls for public ownership and therefore tax exemption. Net project impacts on local economies should not be significant.

Concerns have been expressed regarding impacts on property values, particularly at Bloomington East, Brooklyn Park East and Hopkins DOT sites. No conclusive evidence exists to show that transfer station facilities reduce the value of adjacent properties. There are not expected to be any significant socioeconomic impacts.

## AESTHETICS AND CULTURAL RESOURCES

No known or expected cultural resources are believed to exist on any of the sites. All of the facilities will be visual to adjacent neighbors. The resource recovery facility will include a 213-foot high stack. The transfer stations would stand 35 feet above grade. Undoubtedly, nearby neighbors would be exposed to the proposed structures. Since the facilities will be located in industrially zoned and developed areas, project impacts are expected to be minimal.

## ECOLOGICAL RESOURCES

There are not expected to be any adverse impacts from the project on ecological resources.

## ASSUMPTIONS FOR TRANSFER STATION ANALYSIS

Several assumptions were made regarding the operation of the proposed transfer stations. The assumptions relate to expected operating practices, equipment, and consequently environmental impacts. The analyses were based in part on existing transfer station operations. The following list enumerates the existing transfer stations which are the model for the analyses undertaken in the EIS.

- . Minneapolis South transfer station. An existing 200 TPD facility located in Minneapolis.
- . An existing 1000 to 1500 TPD facility located in Millbury, Massachusetts, operated by Allied Signal.
- . An existing 1000 TPD facility located in metropolitan Baltimore, Maryland, operated by National Ecology.
- . An existing 600 TPD facility in metropolitan Philadelphia, Pennsylvania.

## NO-BUILD ALTERNATIVES

The EIS discusses two no-build alternatives: 1) building the resource recovery facility with no transfer stations; and 2) not building both the recovery facility and transfer stations. If the resource recovery facility is built without the transfer stations, more direct haul to the recovery facility can be expected. Truck traffic could increase the need for a larger queuing area. The additional traffic would also result in more noise and the increased

potential for safety impacts. Present land uses would continue at the proposed locations if the transfer stations are not built. No properties would need to be acquired by the county at the Bloomington and Brooklyn Park sites. Without the transfer stations, there would be the avoidance of additional traffic at the proposed locations. The increased noise and vehicle emissions associated with the traffic would not occur. The potential for safety problems and nuisance impacts, such as litter, would also not increase.

If both the resource recovery facility and transfer stations are not built, other methods will be needed to manage the waste these facilities were intended to handle. There would be no potential for employment or energy revenues resulting from the the recovery facility construction or operation. The visual upgrading provided by the new development and landscaping at the Greyhound site would not occur, which could be perceived as a negative impact for the site as a whole. Aesthetically, a 213-foot stack would not be needed at the site, which could be considered a positive impact on visual aesthetics for receptors of the stack. There would be no site-generated traffic. Traffic related safety and accident concerns would not occur as well as potential noise and nuisance impacts. All the utilities on and adjacent to the Greyhound site would remain as is. There would be no need for an ash disposal facility.

If Hennepin County were to choose landfilling in place of the resource recovery project, an additional 4,972 acre-feet of new landfill capacity would be required in the Metropolitan Area. This is the equivalent of two new landfills.

#### ALTERNATIVE SITE CONSIDERATIONS

In August 1985, the Council directed staff to identify specific alternative sites to the designated sites for the transfer stations and the resource recovery plant. The Minnesota Environmental Quality Board rules require EISs to discuss reasonable alternatives. The alternatives discussed in this EIS are contained in Part 2 of this document.

Staff used review criteria in conjunction with readily available information to identify the sites. Previous Hennepin County siting reports were used, as well as aerial photographs and land use plans. Reports on specific sites were also available from the Minnesota Pollution Control Agency and the Minnesota Waste Management Board. Documents from the Council's files were also available for several sites.

The alternative sites to the designated transfer station sites and the recovery facility site were analyzed for existing environmental conditions and potential effects of locating a facility at any one of these sites. For analysis purposes, each alternative was evaluated using a worst case condition; that is, using the design capacity of the transfer station and/or recovery facility for which a particular site may be an alternative.

A summary of environmental impacts for both the designated and alternative sites is shown in Table 1. The table is based upon information collected for the EIS. Pertinent sections of the EIS should be consulted with reference to particular sites. Letter designations have been used to represent both existing conditions and the effect of a transfer station or the recovery facility on those conditions. The first set of letters denotes the measured or perceived impact of the site on its surrounding area and/or current conditions at the site. The second set of letters indicates change from baseline conditions that

Table 1  
 DESIGNATED AND ALTERNATIVE SITES  
 SUMMARY OF ENVIRONMENTAL IMPACTS

	<u>Air Quality</u>	<u>Geology Soils</u>	<u>Surface Water</u>	<u>Land Use and Zoning</u>	<u>Transportation</u>	<u>Noise</u>	<u>Utilities</u>	<u>Socioeconomics</u>	<u>Aesthetics</u>	<u>Ecological Resources</u>
<u>Designated Sites</u>										
Greyhound*	I/I	MI/+	I/N	N/N	N/N	MI/I	N/N	N/N	I/I	N/N
Brooklyn Park	I/I	N/N	N/I	N/I	I/I	MI/I	N/N	N/N	N/I	N/I
Hopkins	I/I	N/N	I/N	N/N	N/N	MI/N	N/N	N/N	N/I	N/N
Bloomington East	I/I	N/N	N/I	N/N	I/I	MI/I	N/N	N/N	I/I	N/N
So. Minneapolis	I/N	N/N	I/N	N/N	N/N	MI/I	N/N	N/N	I/+	N/N
<u>Alternative Sites</u>										
Pacific St.*	I/I	N/N	N/N	N/N	I/N	N/N	N/I	N/N	N/N	N/N
73rd & Winnetka	I/N	N/N	N/I	N/N	I/I	N/N	N/N	N/N	N/N	N/N
Westwood	I/N	N/N	N/I	N/I	N/N	N/MI	N/N	N/N	N/N	N/N
Railroad	I/+	N/N	I/N	N/N	N/I	N/N	N/N	N/N	N/+	N/N
Greenhouse	I/N	N/N	I/I	N/I	N/N	N/MI	N/N	N/N	N/I	N/N
National Lead	I/N	MI/+	N/N	N/N	N/N	N/N	N/N	N/N	I/+	N/N
Pyrofax	I/N	MI/+	N/I	N/N	N/N	N/N	N/N	N/N	N/I	N/I
Airport Southwest	I/I	N/N	N/N	N/I	MI/N	MI/N	N/N	N/N	N/N	N/N
I-494 Nicollet	I/I	N/N	N/N	N/N	I/I	N/N	N/N	N/N	N/N	N/N
Freeway	I/N	I/I	I/I	N/N	N/N	N/N	N/N	N/N	N/N	N/I

KEY

N None  
 I Impact, measurable effect  
 MI Major impact, violation of an environmental standard or other gauge  
 + Improvement

XX/XX First set of letter(s) denotes the measured or perceived impact of the site on its surrounding area and/or current conditions at the site.  
 Second set of letter(s) indicates change from baseline conditions that would be measured or perceived if the facility were constructed at the site.

\*Resource Recovery Site

would be measured or perceived if the facility were constructed. In some instances, conditions (such as noise) are within standards now and will not be affected by the addition of a transfer station or recovery facility. In other cases, although the area complies with standards now, additions from a transfer station may exceed these standards. The third case is where certain site areas currently exceed standards and transfer station operations would not exacerbate this condition.

LIST OF PREPARERS

Minnesota Environmental Quality Board rules require the EIS to include a list of the names and qualifications of the persons primarily responsible for preparing the EIS and significant background reports.

## METROPOLITAN COUNCIL

Many members of the Metropolitan Council's staff, as well as representatives of other agencies, have assisted in the preparation of the EIS. The individuals with the primary responsibility for preparation of the document were:

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## CONSULTANT

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