

**MODIFICATIONS TO
CUMBERLAND COUNTY
SOLID WASTE MANAGEMENT PLAN**

DECEMBER, 1980

CUMBERLAND COUNTY PLANNING BOARD

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CUMBERLAND COUNTY SOLID WASTE

MANAGEMENT PLAN

VOLUME 2

MODIFICATIONS TO 1979 SOLID WASTE

MANAGEMENT PLAN

DECEMBER 1980

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(Note: Item III-Sludge & Septage - This is the responsibility of the 201 Planning Agency and is not required to be addressed in the modification.)

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ITEM 1

The selected alternative of the Cumberland County Solid Waste Management Plan calls for the continued use of landfilling for the mandated 10 year planning period of 1980-1990. As shown in Figures 1-1 through 1-6 all municipalities would continue to use current municipal landfills from 1980-1982.

In 1982 a new Western landfill would begin operation to absorb wastes from western municipal landfills as they close. This new landfill would serve the needs of the Western municipalities through the end of the planning period. From 1982 to 1987 eastern municipalities would continue the use of their municipal landfills. In 1987 a new landfill would be implemented for these towns and would serve their needs through the planning period.

Regarding alternative disposal locations, the only significant disposal service disruptions that could occur would involve the BPU-registered disposal facilities. In the event of facility disruption early in the planning period, only the Vineland or Bridgeton landfills could serve as backup facilities should either facility be out of service. If a new western landfill were operational following closure of the Bridgeton facility, it could serve as a backup to the Vineland facility and vice versa. Regarding the balance of the small, municipal landfills, municipalities would have to negotiate intermunicipal agreements in the event of facility shutdown, or would have to make arrangements for collection and transport to BPU-registered facilities.

Listed in Table 1-1 are the registered collector/haulers currently operating within each municipality in the County.

FIGURE 1-1
MUNICIPAL WASTE - TYPE 10
1980 - 1982 WASTE FLOW

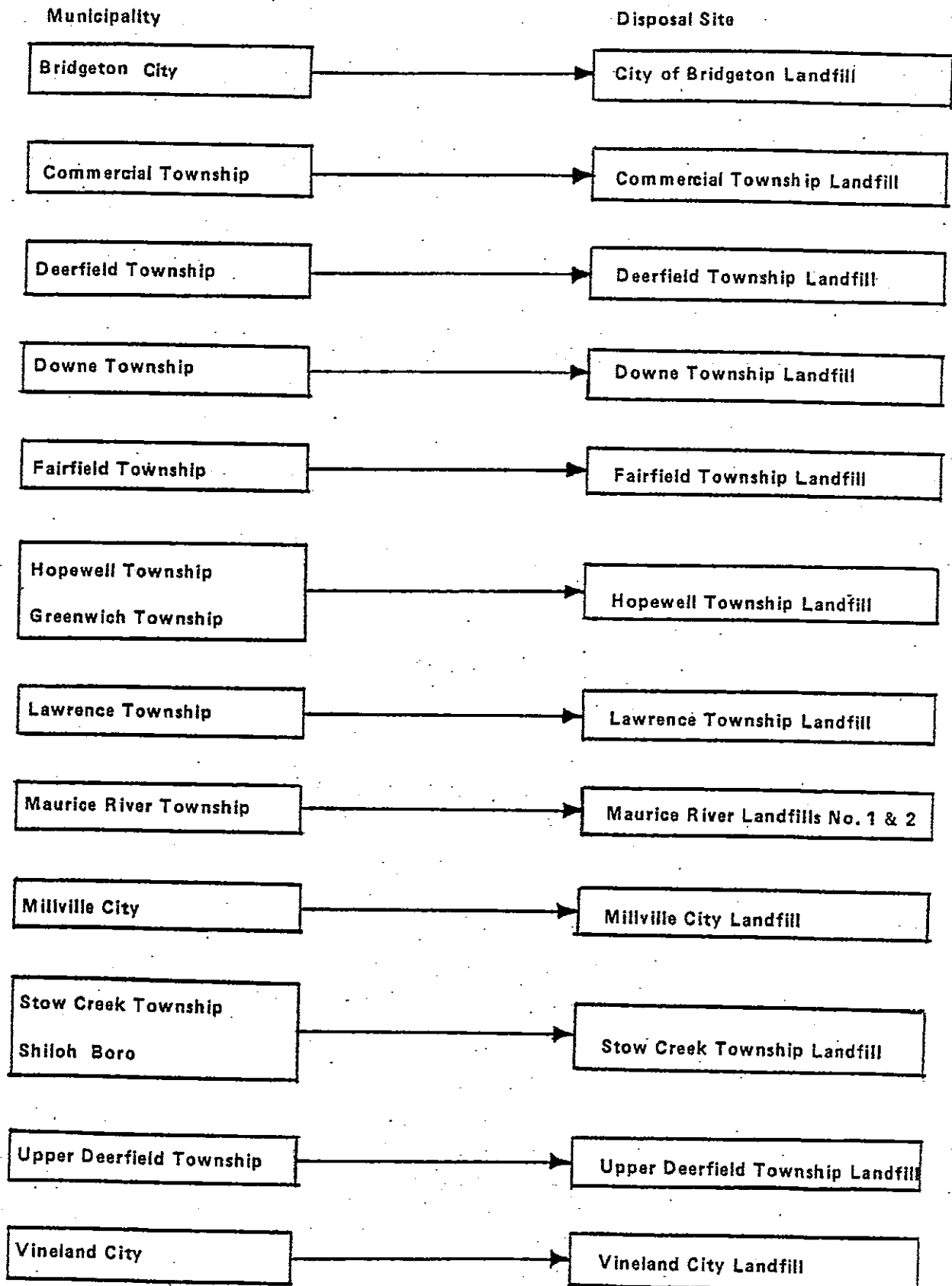
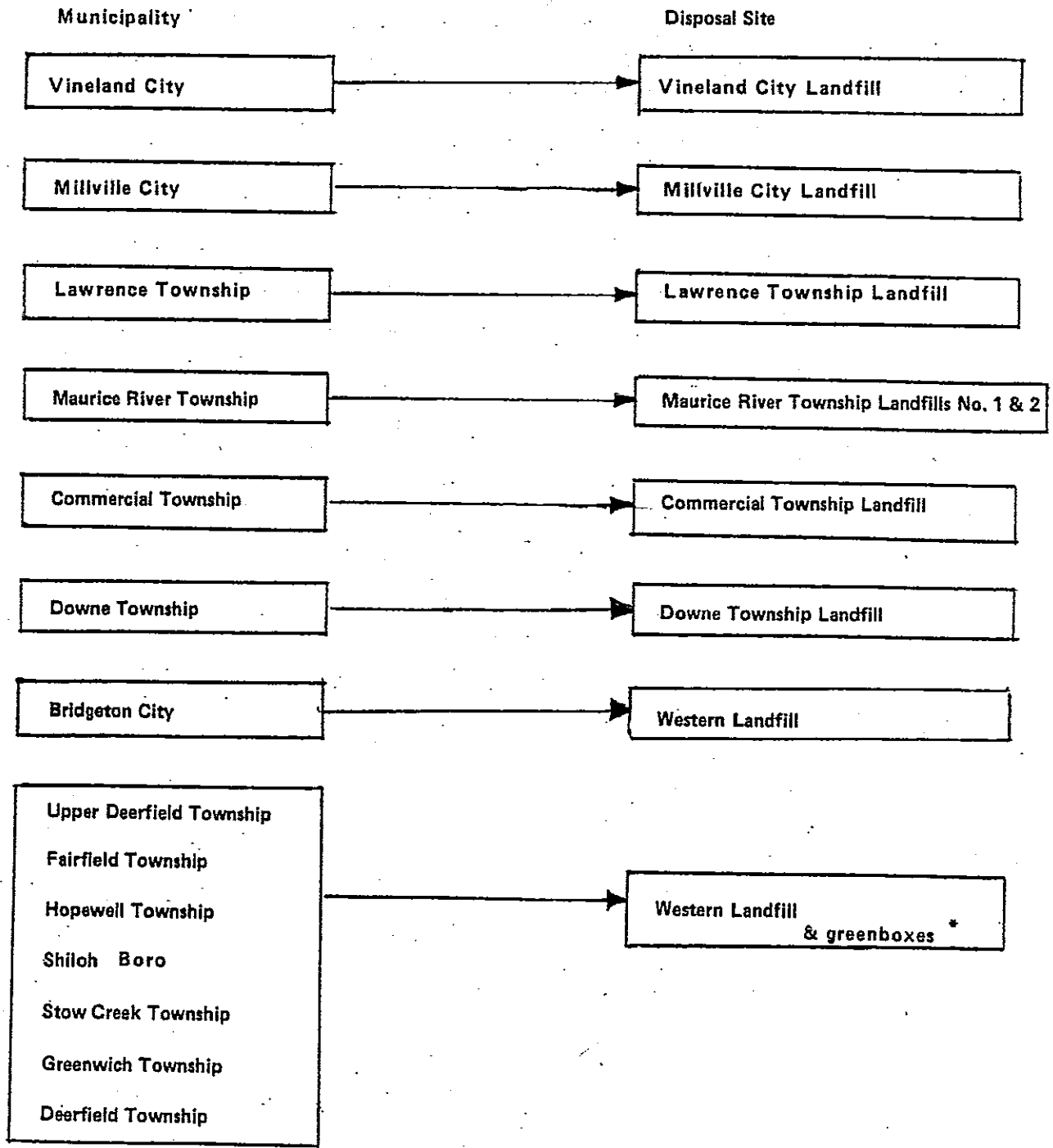


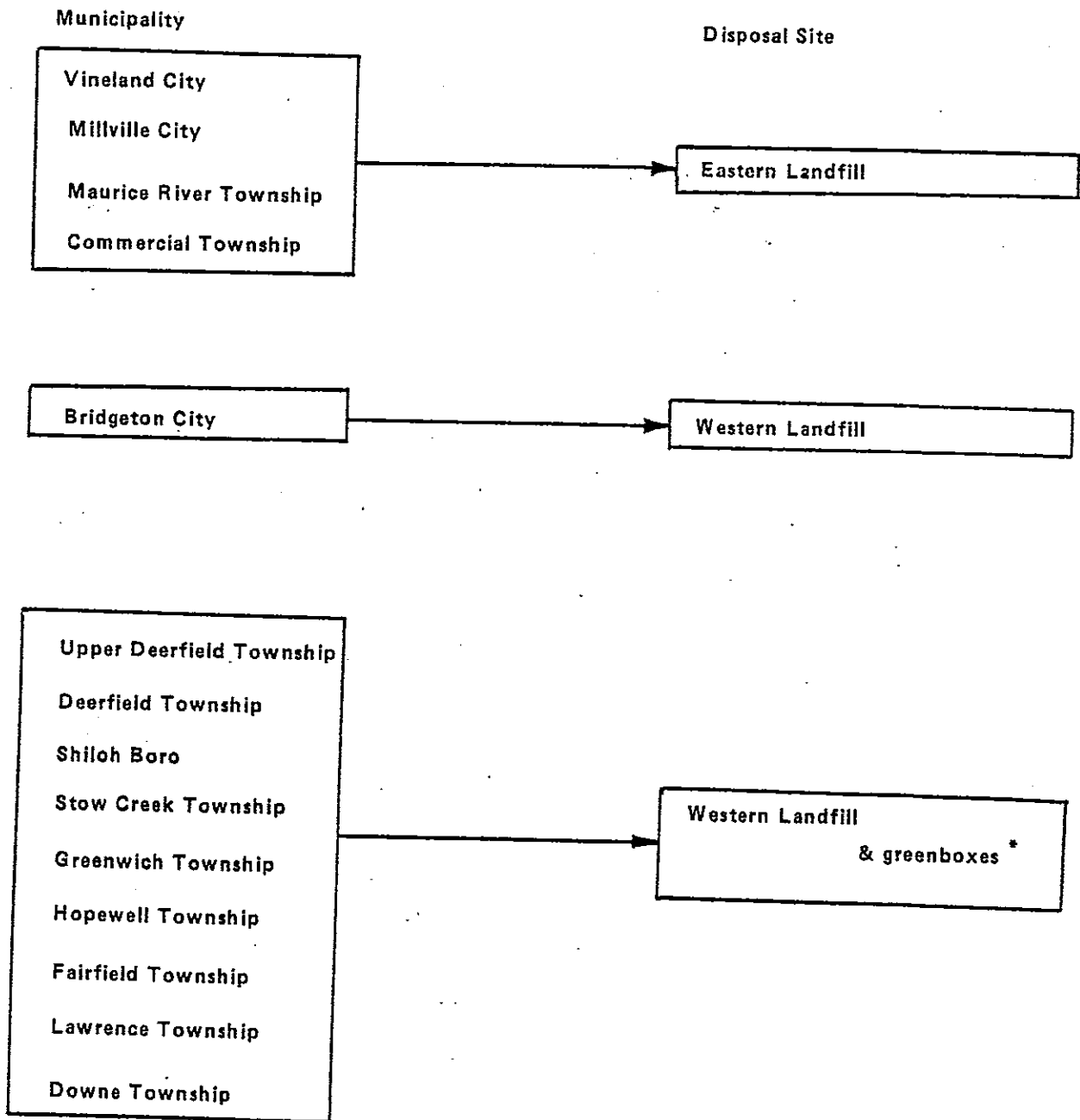
FIGURE 1-2
MUNICIPAL WASTE - TYPE 10
1982 - 1987 WASTE FLOW



* As small municipal landfills reach capacity.

FIGURE 1 - 3

MUNICIPAL WASTE—TYPE 10
1987-1990 WASTE FLOW



* As small municipal landfills reach capacity.

FIGURE 1 - 4

WASTE TYPES 13, 23, 25, & 27
1980 - 1982 WASTE FLOW

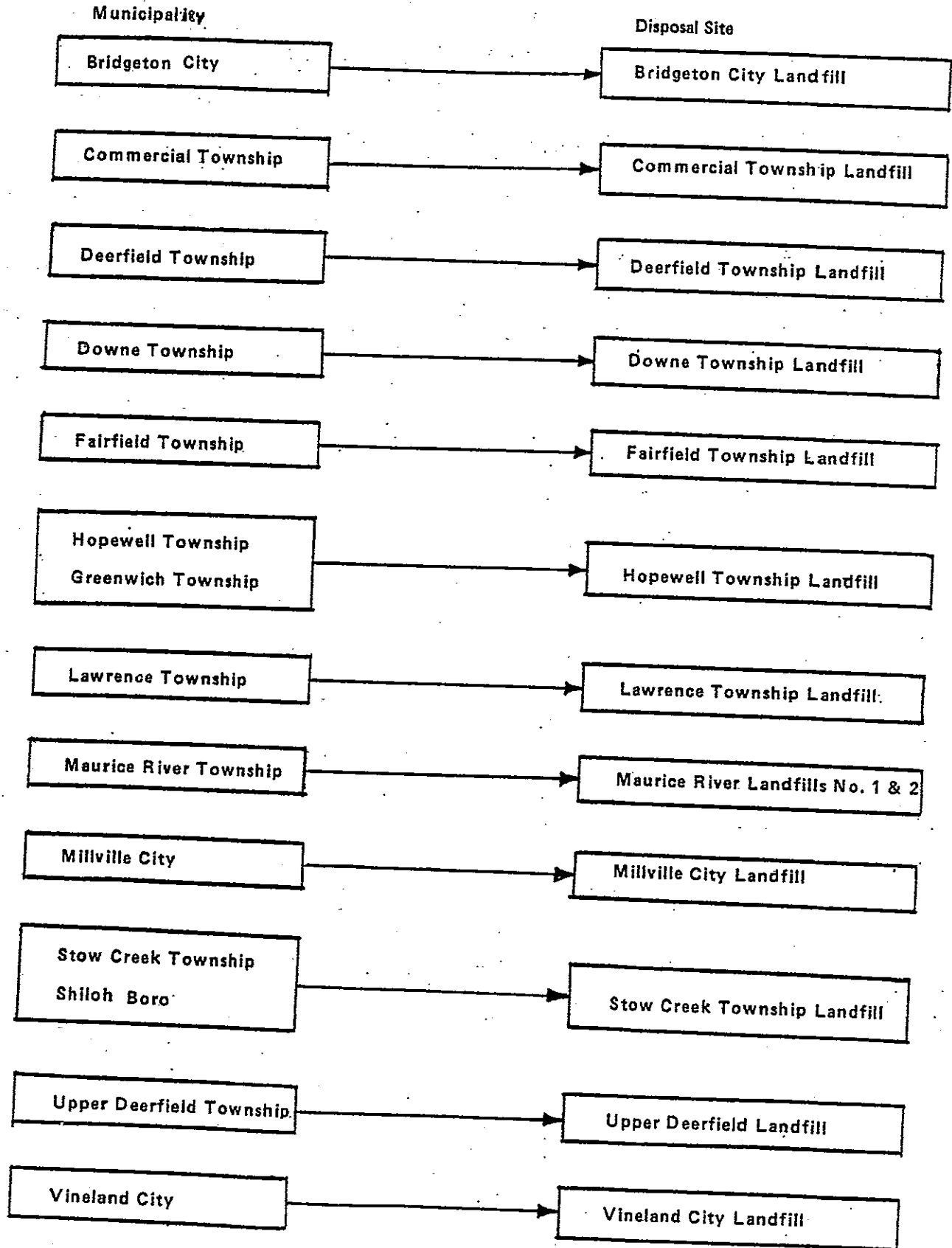
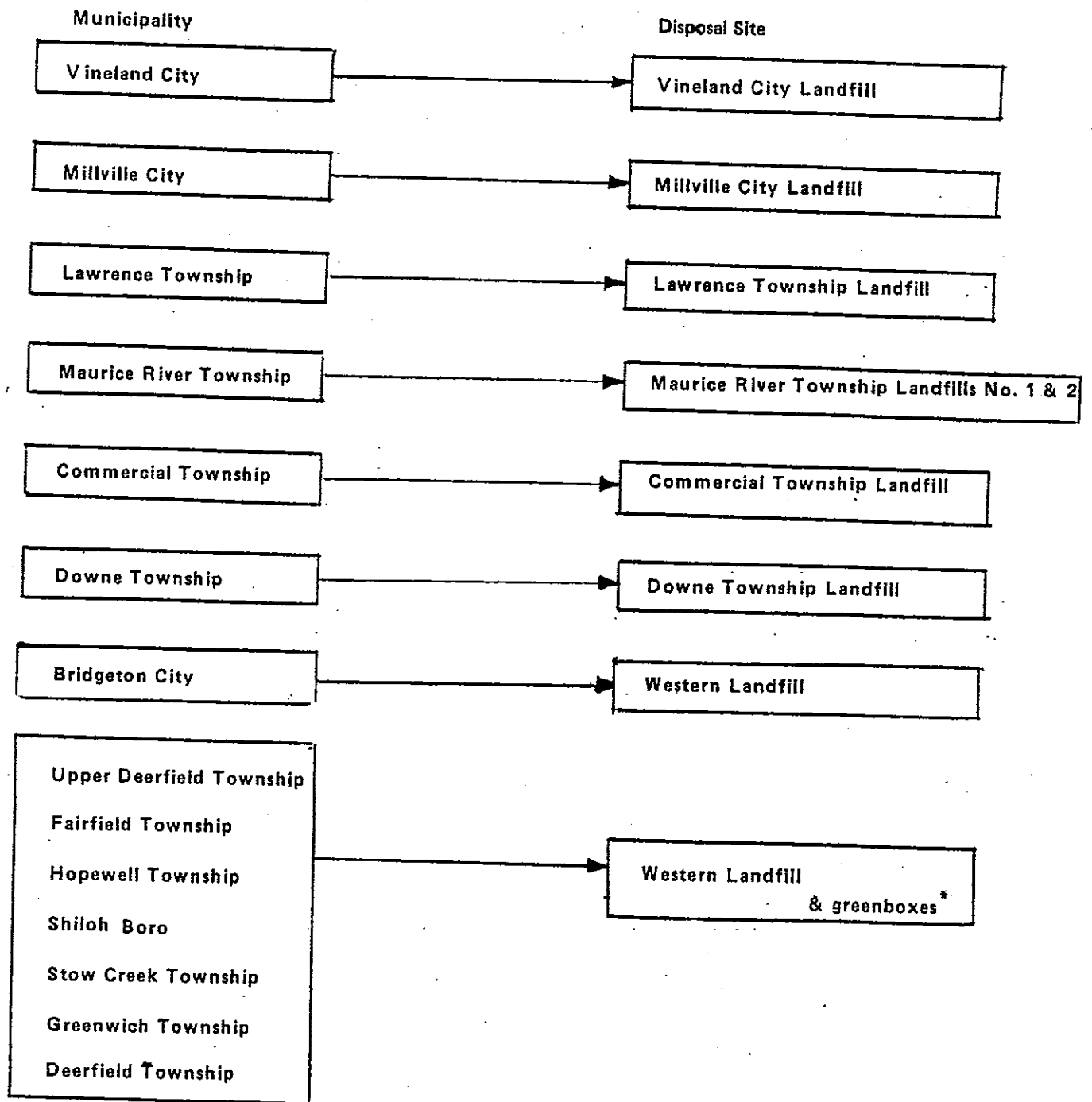


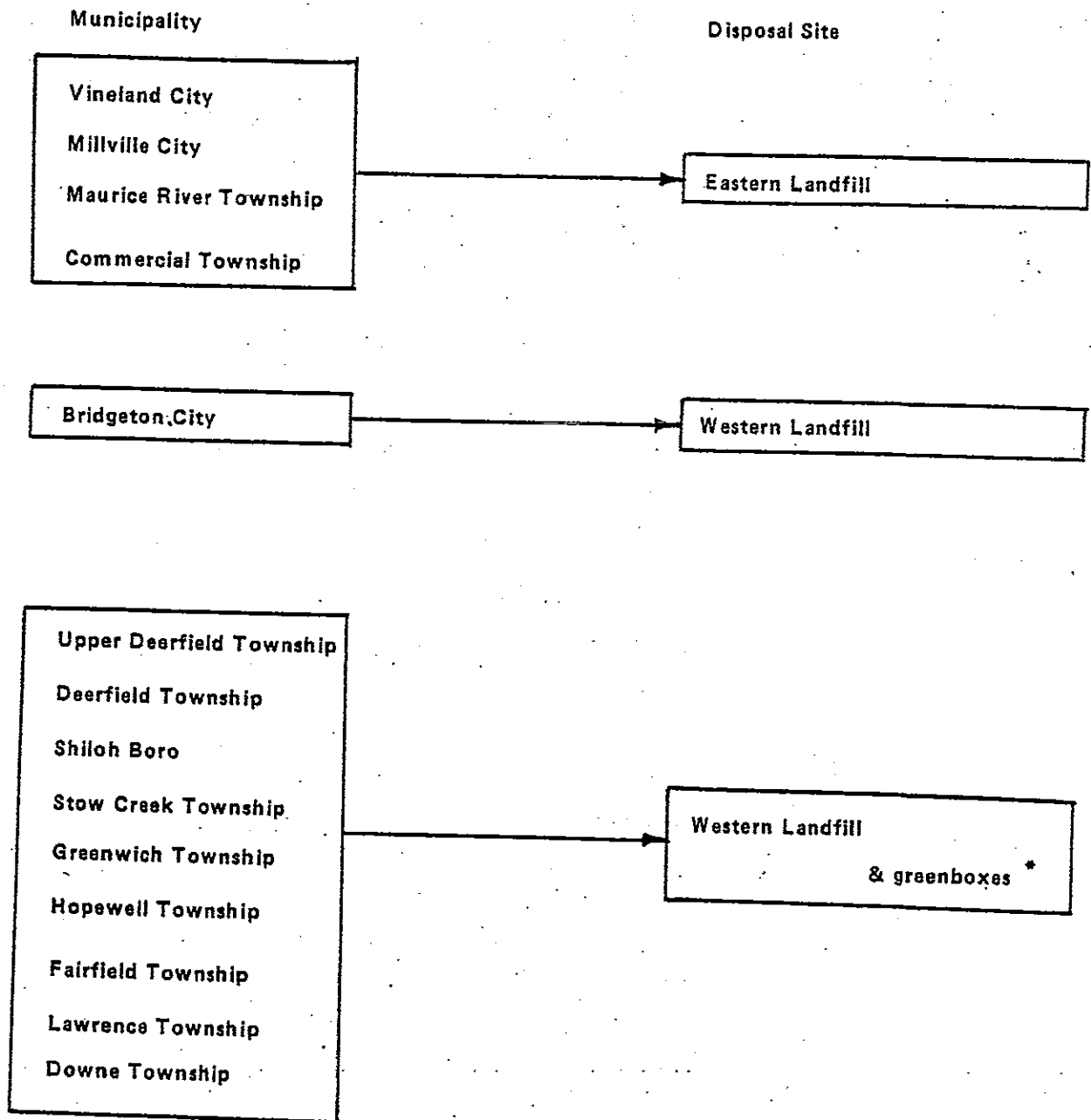
FIGURE 1 - 5
 WASTE TYPES 13, 23, 25, & 27
 1982 - 1987 WASTE FLOW



* As small municipal landfills reach capacity.

FIGURE 1 - 6

WASTE TYPES 13, 23, 25, & 27
1987-1990 WASTE FLOW



* As small municipal landfills reach capacity.

TABLE 1-1

COLLECTOR/HAULERS OPERATING IN CUMBERLAND COUNTY
(SWA Registered)

<u>Municipality</u>	<u>Waste</u>	<u>Collector/Hauler</u>
Bridgeton	27, 10	Winfield Riley
	10	Snyders Trash Removal
	10	Francis Johnson
	13	Albert May
	73	M. Streets Cesspool Service
	10	Thomas Hancock
	73	Lore's Cesspool Service
	10	Glanville Trash Service
	10	Theodore Cooper
	10	William Murray
	10	H.H. Hankins & Bro.
	25	Minot Food Packers, Inc.
	10	Springer & Thomas, Inc.
	13	West Jersey Construction Co., Inc.
	10	Stanker & Galletto, Inc.
	10	Bridgeton Board of Education
	13	Luther Williamson
	27	Leone Industries
	13	Zack Higginbotham
	10, 13, 25, 27	Elwells Trash Service, Inc.
	27	Instant Disposal Service, Inc.
	23	Perna Excavating, Inc.
	13	Carpenter Realty Corp.
	10, 13	King Davis
	10	Alex Boston
	13, 18, 26, 27	Owens-Illinois, Inc.
13	Manuel Gerrero	
12	Finklestein Farms	
23	Cifaloglio, Inc.	
73	Acorn Sewage Service	
Commercial	73	Lores Cesspool Service
	13	Commercial Twp.
	73, 74	Clem & Ed's Cesspool Service
Deerfield	73	Lores Cesspool Service
	73	D&R Cesspool Service
	10	Merc's Trash Service
	73	H. Wells Cesspool Service

TABLE 1-1 (cont.)

<u>Municipality</u>	<u>Waste</u>	<u>Collector/Hauler</u>
Downe	73	Lores Cesspool Service
	73	H. Wells Cesspool Service
Fairfield	73	Lores Cesspool Service
	73	D&R Cesspool Service
	10	Cumberland Co. Utilities Authority
	10	Merc's Trash Service
Greenwich	72	Dutch Neck Landscaping
Hopewell	73	Lores Cesspool Service
	73	D&R Cesspool Service
Lawrence	73	Lores Cesspool Service
Maurice River	73	Lores Cesspool Service
	73, 74	Clem & Ed's Cesspool Service
	10	Frank A. Bergamo & Son Const.
Millville	13, 10	William Biggs, Contractor
	73	Don's Cesspool Service
	73	Lores Cesspool Service
	27	Wheaton Industries
	13	Peter Lumber Co.
	13	West Jersey Construction Co.
	10	Hinds Hauling
	27	Sheppard Box Co.
	10	Raritan Engineering Co.
	10	R.C. Packaging Inc.
	10, 13	Millville City
	13	Zack Higginbotham
	10, 27	Instant Disposal Service
	13, 23	B.H. Easmunt
	10	Richard Peterson & Son
27	Kerr Glass Manufacturing Corp.	
10	Airwork Service Div. of Pacific Al	
13, 73, 74	Clem & Ed's Cesspool Service	
73	E&T Septic Service	
13	Billy Perryman Odd Job Service	
73	H. Wells Cesspool Service	

TABLE 1-1 (cont.)

<u>Municipality</u>	<u>Waste</u>	<u>Collector/Hauler</u>
Shiloh		
Stow Creek		
Upper Deerfield	73	D&R Cesspool Service
	10, 13	Gentile Brothers
	10	Seabrook Housing Corp.
	10	Eiwells' Trash Service
Vineland	10, 13	Edwin Jennings
	10, 13	Cifaloglio, Inc.
	10	Peter Hall
	13	Gelardos Excavating
	73	Joseph Gatto
	74	Don's Cesspool Service
	10	Bottom Contractor's Co.
	10	Mosgon Contracting
	10, 13	Grays Yard Maintenance
	10	Peterson Trash Removal Service
	23	Mencnes Lawn Service, Inc.
	13	Farside Excavating Service
	10	Orville Moore, Jr.
	27	Michael Gagliardi, Scrap Iron
	13	El-Paul Homes, Inc.
	13	Edwin Jennings
	13, 23	Vineland Produce Auction
	13, 23, 27	National Freight, Inc.
	27	Joffe Lumber & Supply Co., Inc.
	10, 13	AC&S Investment Corp.
	27	Imperial Dist. Co., Inc.
	13	Paul Holmes
	10	Zack Higginbotham & Son
	10	Bernal Mech. Contr.
	13	M.L. Buberton Const. Co., Inc.
	27	V.J. Archetto, Inc.
	13, 23, 27	Landis Leasing, Inc.
	13	Muessig Construction Co.
	13	Harold E. Smith & Sons, Inc.
	10, 13	Vineland Board of Education
	10	N.J. Dept. of Human Services

TABLE 1-1 (cont.)

<u>Municipality</u>	<u>Waste</u>	<u>Collector/Hauler</u>
Vineland (cont.)	10	N.J. Department of Transportation
	10, 13	Vineland City
	10	Henry Cifaloglio
	10	Mercs Trash Service
	23	Turf Construction Co., Inc.
	10	South Jersey Paper Prod., Inc.
	10	Cumberland County College
	10	American Institute for Mental Study
	10, 23	Green Lawn Sprinkler Systems
	13, 27	Mortex Packaging
	13	Polerno Masonry, Inc.
	10	Jim Berns
	13	Art Anderson, Inc.
	10, 13	Zack Higginbotham
	27	John Souder
	10	Elwell's Trash Service
	13	Harry Fiocchi Construction Co.
	13	Cumberland Construction Co.
	10	Frank A. Borgano & Son Const.
	27	Morandno Const. Co.
	10, 27	Instant Disposal Service Inc.
	18, 72	Vineland Laboratories, Inc.
	10	Chapman Mobile Homes
	13	Nucity Garage Inc.
	10	Bertoldi Construction Co., Inc.
	13	Rocks Excavating Inc.
	13	Perkins Construction
	27	Cumberland Recycling Corp.
	23	Perna Excavating
	13, 72	Giordano's Scrap Yard
	10	Hermans Hauling Service
	10	Joseph Alba
10	Richard Peterson & Son	
18, 27	Owens Illinois Kimble Products	
27	H. Wells Cesspool Service	
73, 74	Clem & Ed's Cesspool Service	
73	Pollock Bros.	
73	Corsiglia Pumping Service	
73	Harry Cifaloglio	
73	J. Raines Sanitation Service	
73	Acorn Sewage Service	

ITEM 2

RESOURCE RECOVERY IMPLEMENTATION

The process for developing a comprehensive ten-year solid waste management plan for Cumberland County included the examination of both low and high technology disposal alternatives. These were:

- Landfilling
- Modular Incineration
- Refuse Derived Fuel (RDF)
- Mass-Burning
- Pyrolysis

After carefully reviewing each of these alternatives and their applicability to Cumberland County, high technology resource recovery was eliminated from consideration.

The selected solid waste management plan for Cumberland County includes the construction of environmentally safe landfills to handle wastes generated within the County for the next ten years.

Chapter "326" encouraged counties to include in their plans "the maximum practicable use of resource recovery systems". The County at this time does not feel resource recovery in the form of a high technology disposal alternative is viable. The County, though, is not ruling out the eventual implementation of resource recovery systems. A further evaluation of modular incineration will be completed during plan updates occurring every other year.

Therefore, at this time the County does not feel that it is necessary to perform in-depth resource recovery implementation studies. If in the future a decision is made to pursue the implementation of modular incineration, the County would undertake implementation studies. The following discussion indicates what resource recovery implementation studies have already been completed, and, in addition, what further studies would be required should implementation proceed:

a. Regionalization.

The Counties of Cumberland, Cape May, Salem and Atlantic jointly conducted an energy and materials market survey as part of their solid waste management planning programs. Results of this study can be found in Section III-E page III-38 of the Cumberland County Solid Waste Management Plan.

Several potential energy users were identified, yet only one, Atlantic City Electric Company, indicated a capability of utilizing a substantial portion of the solid wastes generated within the four county region.

Wastes generated within Cumberland County would have to be transported relatively long distances for disposal at a regional facility. The County has investigated this option as part of their plan's development and does not feel it is a cost effective alternative.

b. Securing Agreements for Material and Energy Markets.

The success of a modular incinerator is dependent on the sale of recovered energy. There are several resource recovery facilities currently sitting idle due to the fact that firm commitments from energy users were not secured prior to construction.

The County could conduct a district-wide survey to determine potential markets for refuse derived energy.

Identification of High Priority Potential Markets.

The County would draw on data from several sources for the preliminary identification of high priority markets. These sources include:

- Four County Survey
- County Industrial Directories
- NJDEP
- State and Local Chambers of Commerce
- EPA Documents ("Where the Boilers Are")
- Information on fuel consumption in New Jersey (Industrial/Utility Reports)

From the list developed above, a group of up to 10 potential users could be selected for contact. The primary screening criteria would be size, fuel burning equipment on site, and location.

Rank Energy and Material Markets.

The list of identified potential users would be screened against the following criteria:

- size of potential energy demand
- energy specifications (can they be met by the resource recovery systems available?)
- location of candidate market

The result would be a ranking of potential candidates from which both visits and the mailing of survey forms can be accomplished.

A survey would be mailed to each of the potential consumers. The cover letter mailed to high priority markets would describe the program and indicate interest in arranging meetings for further discussion. The survey phase would consist of both telephone follow-up and plant visits depending on the priority of the user.

In addition to completion of the survey data forms, the plant visits would concentrate on the necessary steps to achieve the maximum commitment from potential users.

Final Selection and Ranking of Candidate Markets.

The County could then finalize market potential and rank candidates in order of potential application to the proposed project.

c. Identification of Sites.

The implementation of a modular incineration facility would require an available site either directly adjacent to or in close proximity to the steam user. The cost and technical feasibility of steam transmission over long distances rules out locating the facility elsewhere.

An investigation for potential sites in the vicinity of potential energy users would be undertaken. Several sites would be identified as prime candidates for further consideration.

Final site selection for the modular incineration facility would be based on further investigations of the potential sites. Among the factors which would be considered

are the area of the potential site, its minimum dimensions, and its location with regard to source materials and the potential energy user. The transportation network in the site vicinity, and access to and from the site should also be addressed. In addition, the proposed site development would be examined with regard to its compatibility with local zoning, master plans, and land use restrictions. Site proximity to sensitive receptors (schools, hospitals, high density residential areas) would also be examined.

d. Collection of More Reliable Solid Waste Generation and Composition Data and Justification for Facility Capacity.

Before committing funds for a weighing and composition program, the County would evaluate existing solid waste generation data. Sources of this data would include:

- DEP-SWA Collector Hauler Reports
- Landfill Operator Records
- Interviews with local municipal solid waste officials

After reviewing this data, if it is determined that a more complete data base is required, the County would conduct an in-depth solid waste generation and composition study. Such a study would include the following items:

- Survey of all collector/haulers operating in Cumberland County
- Survey of municipal officials
- A refuse truck/counting and weighing program to accurately determine waste quantity
- A composition analysis of solid wastes generated within the County

The outcome of this feasibility study would enable the County to determine the required size of a modular incineration facility.

e. Identification of Legal and Institutional Constraints and Solutions Thereto.

There are several financial, legal, and institutional issues that must be addressed and answered prior to implementing a modular incineration project.

Waste Control.

Control of the solid waste stream becomes essential in guaranteeing a minimum continuous flow of solid waste to a facility. Without this, expected income could fall short of projected costs, and jeopardize the project's viability.

The County would investigate and choose one of the following control approaches:

- Municipal Contracts
- Franchises
- User Charge System

Financing.

Financial aspects are obviously quite important when evaluating a modular incineration facility. Among the financing options that would be considered are:

- General Obligation Bonds
- Revenue Bonds
- Private Financing
- Leverage Lease Revenue Bonds

For each option a review of the related risk elements to the implementing agency would be considered. These risk elements include:

- Technology
- Facility Operation
- Long Term Solid Waste Delivery Contracts

Other elements that would also be addressed concern:

- Authority Ownership
- Impact on Authority Debt
- Relative Interest Rates
- Tax Benefits on Capital Assets

A decision would then be made as to which financial arrangement to pursue.

Implementing Agency.

Before any county-wide solid waste system can be implemented, an implementation agency with requisite financial, jurisdictional, legal and operational capability is required. The County would investigate the use of the following institutional structures as an implementing agency:

- County Department
- County Municipal Utilities Authority
- County Improvement Authority

An implementing agency would then be designated.

f. Projections of Both Capital and Operating Costs and the Method of Financing Them.

The cost of constructing and operating a modular incineration facility in Cumberland County of a size and location selected as part of the feasibility study would be estimated.

The cost analysis would include the following factors:

- Capital Expenditures
- O&M Costs
- Transportation Costs
- Anticipated Tipping Fees
- Anticipated Revenues
- Additional Cost to Households in County

g. Environmental Assessment of Technology and Sites.

This study would produce a thorough and detailed analysis of the environmental constraints specific to modular incineration and to each of the highest ranked candidate sites in Cumberland County, detailing each site's benefits and limitations in terms of the proposed use and the feasibility of implementing modular incineration at each specific location. A detailed economic analysis based on transportation costs for solid waste would be performed to investigate the

economics of direct hauling to a modular incinerator facility versus the use of transfer stations. The result of this phase of the feasibility study will be a recommendation for implementation of a facility at a specific site in Cumberland County.

h. Determination of Capacity Needs for Residue and Emergency Backup.

The implementation of modular incineration would not eliminate the need for landfill capacity. An evaluation would be performed to determine expected residue quantities. At that time an evaluation of existing landfill facilities would be made. If existing landfill facilities are deemed suitable they would be utilized for residue and/or emergency backup. In the event that sufficient landfill capacity does not exist, the County would evaluate constructing new landfill facilities or investigate the potential of exporting these residuals to other districts.

i. Resource Recovery Implementation Schedule and Cost Estimate.

The proposed schedule for completing the above studies is shown in Figure 2-1. It can be seen that the entire program will take approximately 10 months to complete at an estimated cost of \$40,000 – \$80,000. It is anticipated that federal or state resource recovery implementation funds would be available for conducting these studies should modular incineration be found to be viable.

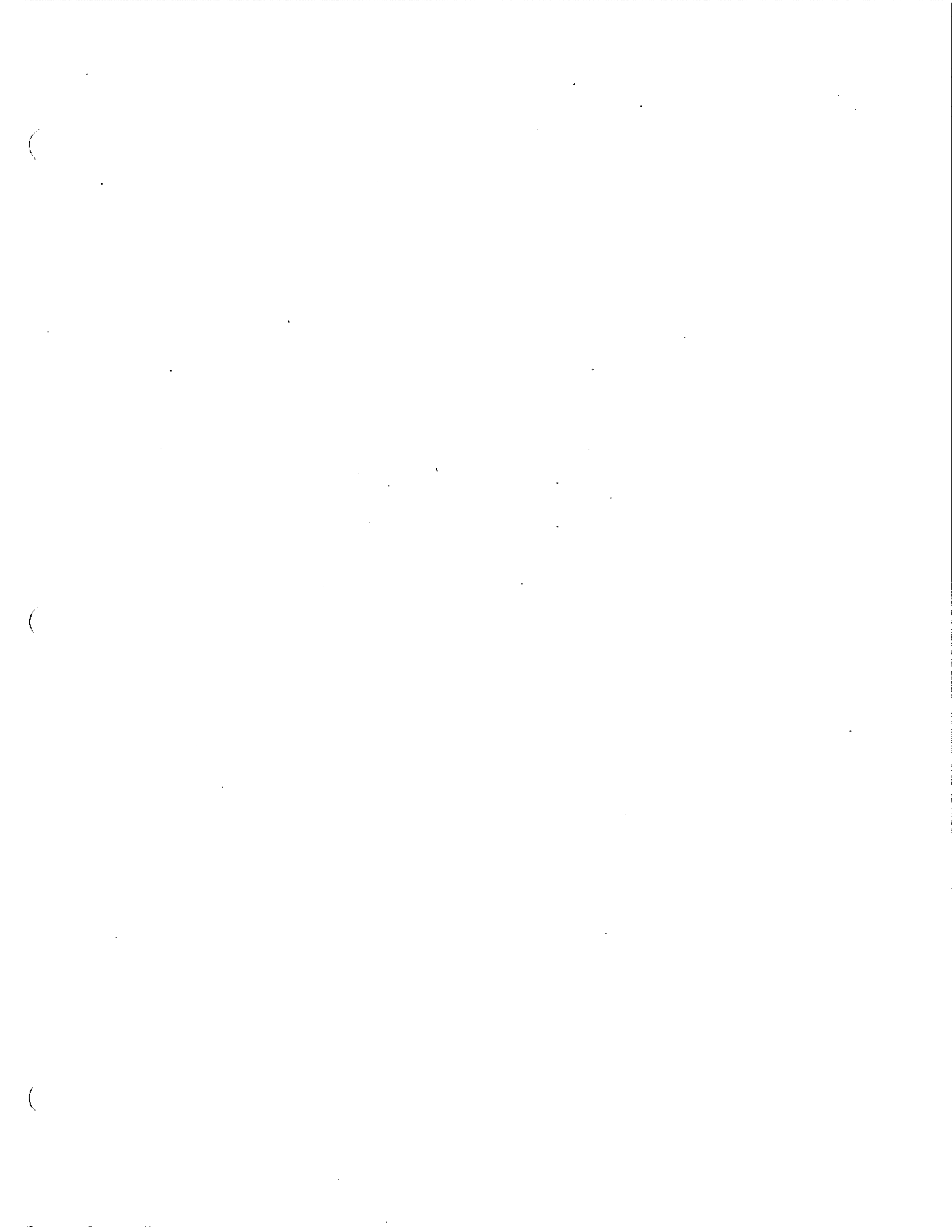
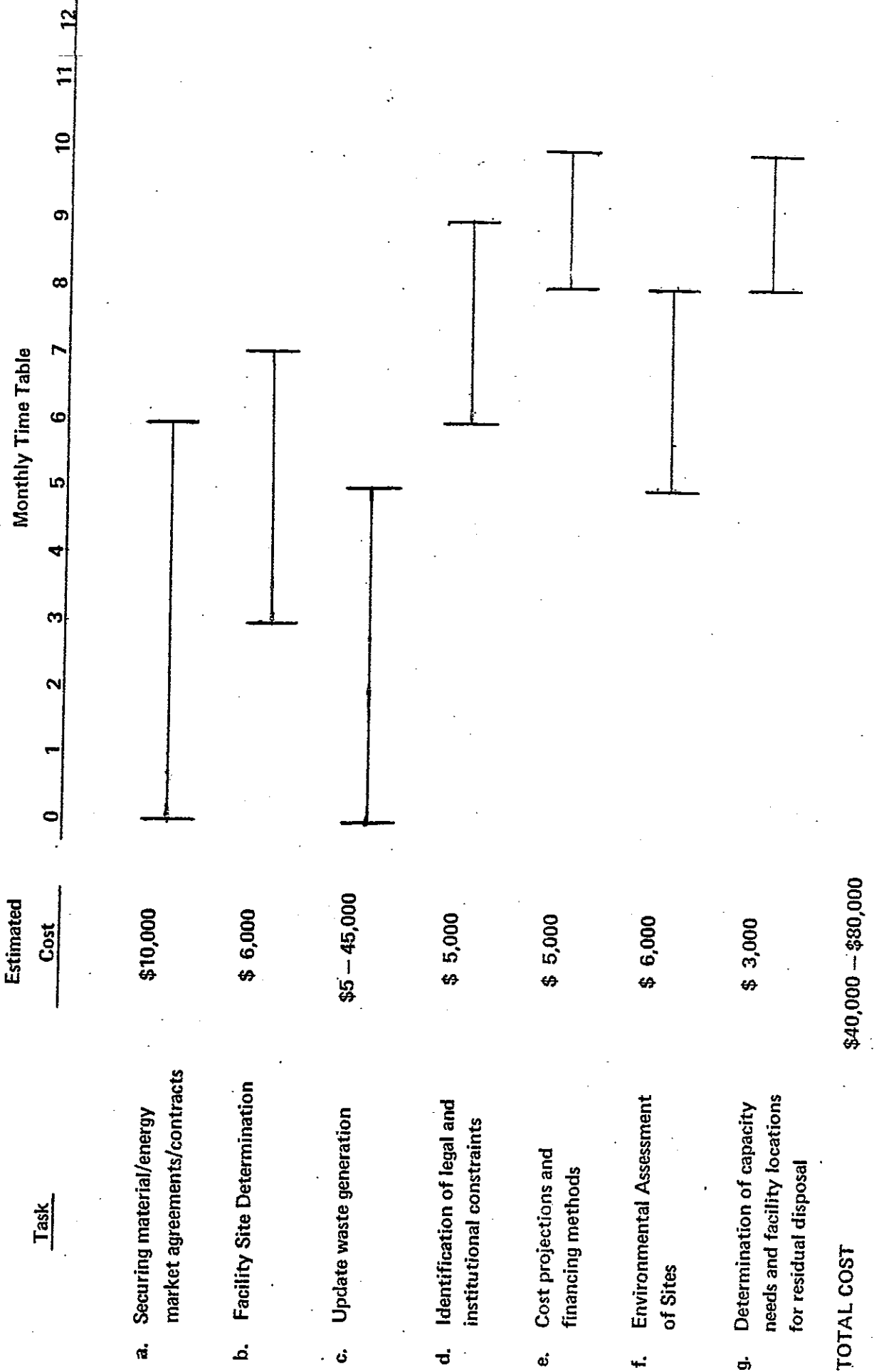


FIGURE 2-1

MODULAR INCINERATION IMPLEMENTATION SCHEDULE



ITEM 3

Figure 2-2 presented in the Cumberland County Solid Waste Management Plan shows the location of each registered disposal area in the County and its operating status. At the time of the Plan's writing, three landfills and one composting facility were inactive or terminated. Table 3-1 lists the terminated disposal facilities and their current or expected land use.

The immediate land use plan of these four disposal facilities is to return the land to its natural state. This includes revegetating each site with plants, shrubs and trees typical of the area. The sites will then remain as open or unused land areas.

It will be the responsibility of the Cumberland County Planning Board to review any developments relating to terminated landfills if new state legislation mandates County review of terminated landfill site development plans. This includes federal and state guidelines and/or regulations concerning the environmental safety of terminated disposal facilities.

TABLE 3-1

PLANNED LAND USE OF TERMINATED WASTE DISPOSAL SITES
IN CUMBERLAND COUNTY

<u>Terminated Landfills</u>	<u>Land Use</u>
Downe Twp. Landfill Site No. 3 (0604 B)	After application of final cover site will be returned to natural vegetation of the area.
Lawrence Twp. Landfill Site No. 1 (0608 A)	Final cover applied. Site returned to natural vegetation of the area.
Lawrence Twp. Landfill Site No. 2 (0608 B)	After application of final cover site will be returned to natural vegetation of the area.
City of Vineland Composting Facility (0614C)	Site returned to natural vegetation of the area.

ITEM 4

As required by the Certification of Modification, the County of Cumberland has developed a more comprehensive and implementable program for extracting materials via recycling. The plan, which is separate, is entitled "Cumberland County Source Separation Feasibility Study - Alternatives and Recommendations for Implementation."

ITEM 5

One concept which has recently been advanced to economically allow for improvements in the solid waste disposal system is the concept of rate averaging. Under rate averaging systems, all disposal facilities charge one set unit tipping fee for disposal (say "X" dollars per cubic yard). All of the fees collected are pooled together to cover the operating costs of all the facilities.

If rate averaging was in effect in a given disposal district, it would make no difference whether wastes were delivered to a conventional landfill, a controlled landfill, or a resource recovery facility; all would charge the same tipping fee.

Rate averaging as a public and municipal utility rate structure is not new. Nearly all electric and water utilities, as well as some sewerage utilities charge a uniform fee for services rendered regardless of the proximity of the users to the wells, generating station, or treatment plant. Rate averaging offers a reasonable solution to the problems that occur when some localities have to pay substantially higher disposal costs as new disposal facilities open, while other communities pay a fraction of these costs since their conventional landfills have not yet reached capacity. It should, however, be noted that the substantial rate differential that currently exists between conventional and controlled landfills will be narrowed within five years, as all conventional landfills will face substantial upgrading costs as a result of federal programs under the Resource Conservation and Recovery Act (RCRA). Under RCRA, most existing conventional landfills will be given five years to upgrade or be closed.

Rate averaging can be imposed over an entire county, over more than one county, or over individual solid waste districts within a county. The final decision on where or when to implement rate averaging should rest with the agency selected to implement the solid waste management plan. Imposition of true rate averaging within a district may require the obtaining of a disposal franchise, to avoid institutional problems associated with dividing up collected revenues between private operators. After obtaining a franchise, the implementing agency could contract with private operators to run disposal facilities if desired for a specific fee, with the agency collecting revenues and tipping fees itself. The disposal facility would receive its contracted fee for disposal facility operation.

In the event of a new landfill siting in Cumberland County to accommodate future waste flows, it may become necessary to seek a franchise and impose a rate averaging system. Current landfilling of solid waste costs between \$.30 per cubic yard to \$.75 per cubic yard, with some sites providing free disposal. Taking into consideration the substantial environmental improvements associated with a newly constructed landfill, future costs are estimated to be in the range of \$6 per ton to \$15 per ton. In order to guarantee waste flow to this new facility the rates between both existing and newly constructed facilities must be equalized to prevent utilization of the least expensive but environmentally unimproved disposal site.

ITEM 6

Presently, Cumberland County is both exporting and importing solid waste to and from adjacent counties. This disposal activity coincides with the disposal in Cumberland County of self-generated tonnages. Table 6-1 shows the origin and amount of imported and self-generated solid wastes in the County. Table 6-2 lists the disposal location of exported solid waste generated within Cumberland County.

At this point formalized interdistrict waste flow agreements have not been negotiated nor executed. However, such agreements may become necessary in the near future. In this event the appropriate legal procedures will be undertaken to integrate intercounty disposal practices.

TABLE 6-1

SOLID WASTE IMPORTATION (1977)

<u>Origin County</u>	<u>Tons/Year</u>
Atlantic County	1,260
Camden County	288
Cape May County	19
Gloucester County	435
Salem County	1,105
	<hr/>
TOTAL	3,107

TABLE 6-2

DISPOSAL OF SOLID WASTES GENERATED IN CUMBERLAND COUNTY (1977)

<u>Disposal County</u>	<u>Tons</u>	<u>% Tons</u>
Atlantic	629	0.5
Burlington	529	0.4
Camden	51	0.04
Cumberland	112,311	91.3
Gloucester	9,411	7.7
Ocean	20	0.02
Salem	3	0.002
TOTAL	122,954	100 %

APPENDIX 1

ITEM I. SOLID WASTE GENERATION

Information regarding solid waste generation was presented in Section II-B 1&2 of the Cumberland County Solid Waste Management Plan. Solid waste generation data was based on a survey of collector/haulers, municipal officials and landfill operators.

In the process of reviewing data contained within the NJDEP-SWA collector/hauler reports it became evident that several discrepancies existed between the County's estimate and that of the State.

A close examination revealed that in some instances wastes were being reported by the municipality and again by the collector/hauler in effect doubling the actual amount of waste generation.

In addition, it was felt that the conversion factor used by the State to convert cubic yards to tons was more applicable to areas in which larger 25 to 30 cubic yard trucks are utilized. Virtually all collection vehicles used in Cumberland County have a capacity of 20 cubic yards or less.

In several other instances wastes being deposited at small municipal landfills were being overestimated by the operators. Many of these wastes are brought by individuals to the site and are not compacted.

The solid waste generation data presented within the plan is based on information supplied to the State by collector/haulers and municipalities. The accuracy of this data is therefore as accurate as the information submitted.

To assure continued accuracy of solid waste generation estimates, data will be reviewed as part of the required two-year update.

Solid waste projections for the ten-year planning period were based on predicted population and employment trends. These projects are shown in Table I-1 for each of the ten years.

TABLE I-1
TOTAL SOLID WASTE PROJECTIONS FOR CUMBERLAND COUNTY
 1980 - 1990 (Tons per Year)

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Municipal Wastes	80,772	82,991	85,210	86,320	87,984	89,648	91,558	93,469	95,256	97,105	98,954
Industrial, Commercial, & Other Solid Wastes	47,253	47,384	47,515	47,581	47,679	47,777	47,985	48,194	48,347	48,528	48,709
TOTAL	128,025	130,375	132,725	133,901	135,663	137,425	139,543	141,663	143,603	145,633	147,663

ITEM II. COLLECTION AND HAUL

Industrial waste generation of all types is relatively light in Cumberland County when compared with other areas in the State. Table II-1 lists the 1980 projected quantities of industrial waste generation for all municipalities within Cumberland County. Shown in Table II-2 is the typical composition of industrial solid wastes and the corresponding estimated quantities of each component in the Cumberland County industrial waste stream.

These wastes are currently transported by private collector/haulers or directly by the generator (private industry vehicles) to the major landfills within the County.

Due to the nature of the major industries located within the County (i.e. glass manufacturing and food processing), it is not anticipated that a sizeable amount of materials could be recovered as part of a recycling program. These industries already recycle any recoverable materials from their waste stream back into their processes, or in the case of food processing wastes, residuals are used extensively for animal feed.

In the event the County re-examines the utilization of modular incineration and conducts the feasibility studies as described in Item 2, a detailed analysis of industrial waste generation and composition will be undertaken to determine project applicability.

TABLE II-1

**INDUSTRIAL AND COMMERCIAL WASTE PROJECTIONS
1980 (TONS)**

<u>Municipality</u>	<u>13</u>	<u>18</u>	<u>23</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>Total</u>
Bridgeton	1,472	4,051	171	143	36		5,873
Commercial							
Deerfield							
Downe	62		37				99
Fairfield	21		93				114
Hopewell - Greenwich							
Lawrence	155		116				271
Maurice River							
Millville	3,090					7,437	10,527
Stow Creek - Shiloh							
Upper Deerfield	38		86				124
Vineland	12,376	2,016	680			14,999	30,071
Various	77		56			19	152
TOTAL	17,291	6,067	1,239	143	36	22,731	47,507

13 - Bulky Waste

18 - Dry Non-Hazardous Chemical Waste

23 - Vegetative Waste

25 - Animal & Food Processing Waste

26 - Oil Spill Cleanup Waste

27 - Non-Chemical Waste

TABLE II-2

ESTIMATED TYPICAL COMPOSITION OF INDUSTRIAL WASTE (1980)

<u>Component</u>	<u>Percentage</u>	<u>Quantity (Tons)</u>
Paper	45.8	21,758
Wood	7.1	3,373
Plastics	15.1	7,174
Glass	2.7	1,283
Metals	3.6	1,710
Stone, Sand	5.5	2,613
Organic Chemicals	2.8	1,330
Textiles, Rags	3.2	1,520
Ceramics	0.5	238
Inorganic Chemicals	0.4	190
Petrochemical	1.8	855
Mixed Commercial	3.3	1,568
Food	5.7	2,708
Miscellaneous	4.2	1,995

Source: Wilson, 1977

ITEM IV. RESOURCE RECOVERY

The recommended alternative for solid waste disposal in Cumberland County is landfilling. However, two other processing methods are being evaluated in terms of both their present and future applicability. A low-technology approach, specifically source separation, will offer the possibility of not only accruing revenues from the sale of recovered products but will also reduce the burden placed upon landfilling. Table IV-1 shows the estimated composition of the municipal solid waste stream. Table IV-2 extracts from Table IV-1 those materials which would be recoverable by a source separation program and estimates their potential quantities according to the NJDOE goal of 20% for such low technology processes.

A high technology resource recovery method which may have future applicability in Cumberland County in the late 1980's is modular incineration. Unlike source separation, this approach produces an energy rather than materials output to achieve revenues. The compatibility of several elements of the municipal solid waste stream is good, however, other waste streams, with a higher concentration of metals and glass may cause slagging problems on interior incinerator surfaces. The system is not amenable therefore to bulky wastes and hazardous or explosive wastes, as well as industrial or commercial wastes with high percentages of non-processible material. Table IV-3 shows a range of steam recovery quantities for various sized facilities from 25 TPD to 50 TPD. Actual figures will vary according to individual system design and waste composition.

TABLE IV-1

ESTIMATED COMPOSITION OF TOTAL MUNICIPAL SOLID WASTE (1980)
(By Weight)

<u>MATERIAL</u>	<u>% of Municipal Solid Waste*</u>	<u>Cumberland's Estimated Quantity (tons)</u>
Paper	35	28,270
Newspaper	8	
Corrugated	9	
Office Paper	3	
Other Paper	15	
Glass	10	8,077
Glass Containers	9	
Other Glass	1	
Ferrous Metals	9	7,269
Ferrous Cans	4	
Other Ferrous Metals	5	
Non-Ferrous Metals (Mainly Aluminum Cans)	1	808
Plastics	4	3,231
Rubber/Leather	3	2,423
Textiles	2	1,616
Yard Wastes	16	12,924
Food Wastes	15	12,116
Miscellaneous	5	4,038
	100%	80,772

TABLE IV-2

ESTIMATED QUANTITIES OF RECOVERED MATERIALS (20%)
 BY LOW TECHNOLOGY FROM TOTAL MUNICIPAL SOLID WASTE

	<u>Low Technology Quantities</u> (Tons)
Newsprint	1,292
Ferrous Metals	1,454
Aluminum	162
Glass	<u>1,454</u>
TOTAL	4,362

TABLE IV-3

ESTIMATED STEAM PRODUCTION OF SMALL MODULAR INCINERATION

<u>TPD</u>	<u>Input lbs./hr.</u>	<u>@ 2.5 lb. Steam/lb. Input Steam lbs./hr.</u>	<u>@ 60% Effic. & 4500 Btu/lb. 1000 Btu/lbs. Steam</u>	<u>Btu/hr.</u>
		lb./hr.	lb./hr.	
23	2,083	5,207	5,624	5,624,000
30	2,500	6,250	6,750	6,750,000
35	2,917	7,292	7,876	7,876,000
40	3,333	8,332	8,999	8,999,000
45	3,750	9,375	10,125	10,125,000
50	4,167	10,417	11,251	11,251,000

ITEM V. PUBLIC PARTICIPATION

Throughout development of the Cumberland County Solid Waste Management Plan, the County conducted a comprehensive Public Involvement and Participation Program. This program included:

- Newsletters
- Public Meetings
- Press Releases
- Surveys

The County will continue to provide a program to inform the public and receive any public comment throughout the implementation process.

ITEM VI. LANDFILLS

The Cumberland County Solid Waste Management Plan identified Facility 0614A (the Alex Hayes facility) as being registered as a composting area.

Reference is made to the facility's Certificate of Registration issued on October 31, 1972 by the NJDEP. (See Attached)

As can be seen, this Certificate entitled the owners to dispose of no wastes other than leaves and/or branches.

In June 1976 the NJDEP Division of Water Resources issued a "Certificate of Exempt Status" for facility 0614A identifying it as a "solid waste facility ... operated solely for the purpose of composting leaf and other vegetation yard wastes." (See Attached)

Although some discrepancy exists as to its proper status, it appears that the facility is registered as a landfill but is operated as a composting facility.

As part of the Resource Conservation and Recovery Act (RCRA), all solid waste disposal facilities are being classified as "open dumps" or "sanitary landfills". "Open dumps" (facilities not complying with current regulations regarding environment safeguards) will be required to upgrade their operations or close within five years.

At this time preliminary indications are that all landfills located within Cumberland County may be included in the "open dump" category, due to a lack of liners and leachate collection and treatment systems. Criteria which are being utilized in RCRA classification include:

1. Floodplains. The criteria for floodplains states that "Facilities or practices in floodplains shall not restrict the flow of the base flood [100 year flood], reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste, so as to pose a hazard to human life, wildlife, or land or water resources."
2. Endangered Species. Disposal "facilities and practices shall not cause or contribute to the taking of any endangered or threatened species of plants, fish or

wildlife..." as listed under the Endangered Species Act. "Taking" means the harassment, harming, hunting, wounding, killing, capturing or collecting of the species or attempting to engage in such conduct. In addition, "the facility or practice shall not result in the destruction or adverse modification of the critical habitats of endangered or threatened species..."

3. Surfacewater. The criteria for surfacewater states that no disposal facility or practice shall cause a discharge of pollutants or fill materials into waters of the United States. Surfacewaters, as well as groundwaters, are most often polluted by leachate, a contaminated liquid resulting from the passage of rain or surfacewater through a landfill.

4. Groundwater. According to RCRA, a landfill "facility or practice shall not contaminate an underground drinking water source beyond the solid waste boundary or beyond an alternative boundary specified... as part of a solid waste management plan..."

5. Application to Land Used for the Production of Food-Chain Crops. This disposal facility criteria concerns the "application of solid waste to within one meter (three feet) of the surface of land used for the production of food-chain crops shall not exist or occur...". Specifically, this criteria addresses the contamination of tobacco crops, crops grown for human consumption, and animal feed crops by heavy metals and polychlorinated biphenyls (PCP's).

6. Disease. This criteria concerns the possible spreading of disease by vectors such as rodents or flies, or by pathogens contained in sewage sludge and septic tank pumpings disposed of at a landfill. Periodic application of cover material to solid waste or other techniques to protect public health from disease causing vectors is required. Sewage sludge and septic tank pumpings are required to be treated by a process to significantly reduce pathogen activity, prior to landfill disposal.

7. Air. The disposal "facility or practice shall not engage in open burning of residential, commercial, institutional, or industrial solid waste. This requirement does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes; land-clearing debris, diseased trees, debris from emergency clean-up operations, and ordnance."

8. Safety. The safety criteria addresses potential hazards of the landfill or landfill operation with respect to explosive gases, fires, bird hazards to aircraft and public access to the facility. Methane is a potentially explosive gas often generated at a landfill from solid waste decomposition. Underground migration of methane from the landfill to adjoining properties has been a problem in past landfill operations.

Disposal facilities "within 10,000 feet (3,048 meters) of any airport runway used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway used by only piston-type aircraft shall not pose a bird hazard to aircraft."

In the event that facilities located within the District are classified as "open dumps", the County will take efforts necessary to assure the facility's proper upgrading and/or closure so as to eliminate any environmental operations.

The Solid Waste Management Plan for Cumberland County included the following recommendations: (See Section III-K, Page III-65)

- Development of a new landfill in the Western Section of the County to accommodate wastes currently being disposed in Bridgeton and surrounding municipalities. This facility (with a capacity of 80 TPD) should become operational in 1982, the estimated closure date of the present Bridgeton landfill.
- Development of a new landfill to be operational by 1987-88 for the Eastern Section of the County (capacity 350 TPD), to replace the existing Millville and Vineland landfills.
- Phasing out of small municipal landfills, as they reach capacity or are closed due to implementation of strict environmental guidelines under RCRA. As each of these landfills is closed, use of a "greenbox" system(s) should be further investigated for the municipality(ies).
- The proper closure of landfills as they reach capacity including final cover, gas venting wells and continued groundwater monitoring.

The implementation of these recommendations will promote the use of environmentally sound regional landfills and reduce the dependency on present disposal methods, which may not be in compliance with the new RCRA standards.

Implementing Agency

Responsibility for the implementation of the Cumberland County Solid Waste Management Plan will be by the newly created Cumberland County Improvement Authority which will use the technical assistance from the Cumberland County Utilities Authority or the Landis Sewage Authority deemed necessary.



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
JOHN FITCH PLAZA, P.O. BOX 1390, TRENTON, N.J. 08625

CERTIFICATE OF REGISTRATION
FOR
SOLID WASTE DISPOSAL AND/OR PROCESSING FACILITY

Under provision of Chapter 39, Laws of New Jersey 1970 known as the Solid Waste Management Act, this Certificate is hereby issued to:

Alex R. Hayes
2313 Mays Landing Road
Millville, New Jersey 08332

for the purpose of conducting a solid waste disposal and/or processing facility on:

LOT NO. (s) 17

BLOCK NO. (s) 929

in the municipality of Vineland

county Cumberland

This Certificate will expire on June 30, 197 3. It is subject, however, to prior revocation, when in the opinion of the Department said solid waste disposal and/or processing facility does not meet the standards or criteria as set forth in the regulations of the Department of Environmental Protection. NOTE: THIS CERTIFICATE IS SUBJECT TO THE PROVISION(S) TYPED ON THE REVERSE HEREOF.

[Signature]
Chief, Bureau of Solid Waste Management

[Signature]
Commissioner, Department of Environmental Protection

Date October 31, 1972

Certificate No. 06804002

This Certificate is Non-Transferable. This Certification shall in no way prejudice any claim that the State may have to riparian lands.

This certificate of registration is conditioned upon the following:

1. The registrant shall not accept or receive wastes, other than leaves and/or branches, for disposal at this site.
2. The registrant shall not fill or alter, or allow to be filled or altered in any way, lands which are deemed to be Wetlands and/or Riparian lands, streams or flood plains without first acquiring the necessary grants, permits or approvals from the Department of Environmental Protection.

Failure to comply with any or all limitations heretofore mentioned will result in the Department seeking relief under N.J.S.A.13:1E, et seq. (Solid Waste Management Act, 1970) which is hereinafter incorporated by reference. Specifically N.J.S.A.13:1E-12.

N.J.S.A.13:1E-12: The department, after hearing, may revoke or suspend the registration issued to any person engaged in the solid waste collection or solid waste disposal upon a finding that such person:

- a. Has violated any provision of this act or any rule, regulation, or administrative order promulgated hereunder; or
- b. Has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State; or
- c. Has refused or failed to comply with any lawful order of the department.



State of New Jersey
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF WATER RESOURCES
 TRENTON, NEW JERSEY 08625

CERTIFICATION OF EXEMPT STATUS
COMPOST FACILITY

REGISTRANT:

Name ALEX R HAYES
 Trade Name None
 Address 2313 MAYSLANDING RD MILLVILLE NJ

LOCATION OF FACILITY:

Street Location 2313 MAYSLANDING RD
 Municipality WAKEFIELD County CUMBERLAND
 Block & Lot No. BLOCK NO 929 LOT 17

I hereby certify that the solid waste facility described above is operated solely for the purpose of composting leaf and other vegetative yard wastes, and the operation of the facility does not require a Certificate of Public Convenience and Necessity issued by the Board of Public Utility Commissioners.

Alex R Hayes
 Signature

~~None~~ ALEX R HAYES
 Name - Print or Type

OWNER
 Title

2313 MAYSLANDING RD
 Address

MILLVILLE NJ 08532
 City, State, Zip Code

FOR OFFICIAL USE ONLY

AS
 Approved

6/30/76
 Date

0614A
 Registration Number

APPENDIX 2



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF THE COMMISSIONER
P. O. BOX 1390
TRENTON, N. J. 08625
609-292-2885

May 13, 1980

Charles Fisher, Director
Board of Chosen Freeholders
Cumberland County Courthouse
Bridgeton, New Jersey 08302

Dear Director Fisher:

I wish to congratulate the Cumberland County Board of Chosen Freeholders, the County Administrator, the Solid Waste Management Program staff, and the Solid Waste Advisory Council for submitting its Solid Waste Management Plan to the Department of Environmental Protection for review and certification under the Solid Waste Management Act. The Board adopted the Plan on December 13, 1979 and, under Chapter 326, the Commissioner of the Department of Environmental Protection is allowed 150 days to review the Plan and to approve, reject or require its modification. A Certification of Modification of the Cumberland County Solid Waste Management Plan is attached.

During the 150 day review period, the Cumberland County Plan was reviewed by a number of State agencies and a public meeting was held concerning Cumberland and other such plans on March 27, 1980. The individual comments of the State review agencies have already been forwarded to the Cumberland County Solid Waste Coordinator and I would urge you to give due consideration to those comments either as part of the modifications required by the attached certification, or in the two year update of the District Plan.

The certification should not be construed as critical of the excellent effort put forth by Cumberland County in the development of its Plan. The severe time constraints, the limited availability of resources and the extreme complexity in developing such a plan make the adopted District Plan all the more laudable.

It is my firm belief that the County's initial Solid Waste Management Plan, combined with the modifications identified in the certification, will move Cumberland County into a new era of material and energy recovery and environmentally sound solid waste management.

Sincerely,



JERRY FITZGERALD ENGLISH
COMMISSIONER



STATE OF NEW JERSEY
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OFFICE OF THE COMMISSIONER
 P. O. BOX 1390
 TRENTON, N. J. 08625
 609-292-2885

(IN THE MATTER OF THE PROPOSED)
 (SOLID WASTE MANAGEMENT PLAN OF)
 (THE CUMBERLAND COUNTY SOLID)
 (WASTE MANAGEMENT DISTRICT)

CERTIFICATION
 OF
 MODIFICATION

BY ORDER OF THE COMMISSIONER:

On December 13, 1979, the Cumberland County Board of Chosen Freeholders adopted the Cumberland County Solid Waste Management Plan pursuant to the Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.).

The Department of Environmental Protection has studied and reviewed the Plan in accordance with this Legislation. The review process, established by the Solid Waste Administration in an April, 1979 Policy Memorandum entitled "Policy and Procedures for Review of District Solid Waste Management Plans", was used to evaluate the Cumberland Solid Waste Management Plan. This process was designed to incorporate both State level and public comments into the review. Generally, State agencies evaluated the Plan with regard to its impact on the State solid waste management program and their own programs, and provided advice within their own specialized areas of expertise. Public comments centered mostly on environmental concerns and the possibilities of implementing resource recovery. Additionally, the State has reviewed the Plan to ascertain whether there is sufficient clarity of facts and recommendations to permit program implementation.

Based on the results of this review and evaluation, it is my determination that the Cumberland County Solid Waste Management Plan be granted a Certification of Modification at this time, requiring satisfactory completion of the modifications listed herein.

The Department, as a result of its review of the Cumberland County District Solid Waste Management Plan, and in accordance with the Solid Waste Management Act, has made the following findings and conclusions:

- 1) The Solid Waste Management Act requires each District to include an analysis of existing transportation routes with waste collection systems and and further, to make a survey of Solid Waste Management District and transportation routes, and to provide collection districts costs from collection districts to existing transportation waste facilities. While the Cumberland County designated solid waste management Plan includes a survey of the various Solid Waste Management systems and proposes to utilize the existing Solid Waste Management transportation system for the initial two years, collection placement of "greenboxes" at the terminated landfill and maintain existing patterns, the Plan does not include a by the analysis of existing or proposed transportation routes and within the District to existing or suitable sites for solid waste facilities, or a list of collector/haulers servicing each municipality in the District.

- 2) The Solid Waste Management Act requires the District Plan to inventory the sources, composition and quantity of solid waste generation for each of the ten years following the year in which the Plan is prepared. The Plan does not totally comply with this requirement.
- 3) The Solid Waste Management Act requires the District Plan to include a solid waste disposal strategy which includes the maximum practicable use of resource recovery. While the Cumberland County Plan does include various strategies for low technology resource recovery, and an indication that future energy recovery feasibility studies may be undertaken, it does not provide for the on-going planning and development of high technology resource recovery systems in the near future.
- 4) The Solid Waste Management Act requires that each District Plan contain a plan for using terminated landfill disposal sites. While the Cumberland County Plan proposes to place "greenboxes" at each of its terminated landfills, the Plan does not identify a specific land use for each landfill.
- 5) The Solid Waste Management Act and the guidelines and criteria adopted by the Department pursuant to the Act require the District to adopt a solid waste management strategy which includes the maximum practicable use of resource recovery, including source separation and recycling. While the Cumberland County Plan describes methods to reduce the amount of solid waste to be disposed of through the institution of source separation and waste flow reduction programs throughout the County, the Plan lacks a comprehensive program to maximize source separation, including an indepth evaluation of specific markets and costs, the consideration of regional source separation districts and any legal, institutional or financial measures necessary to implement the program.
- 6) The Solid Waste Management Act provides that a system shall be established for uniform disposal rates within the District. The Cumberland County Plan does not include a detailed procedure for the uniform distribution of resource recovery and disposal costs throughout the District's service area.
- 7) The Department, in its review of District Solid Waste Management Plans, finds that certain District Plans have not identified sufficient existing or available suitable sites to treat or dispose of their own wastes either in the short or long term, or both. Districts, including Cumberland County, have not entered interdistrict agreements with one another for the transportation of wastes across District boundaries. The Department finds that such interdistrict waste flow is necessary, and should be part of a comprehensive plan for solid waste management in New Jersey.

In light of the need for this interdistrict waste flow it is necessary for Cumberland County, if it desires to utilize out-of-district disposal facilities, to enter into interdistrict agreements with these Districts.

Therefore, Cumberland County is hereby directed to make the following modifications to its adopted District Solid Waste Management Plan no later than December 31, 1980:

- 1) The Plan shall set forth sufficient data and discussion to identify the existing and proposed configuration of solid waste collection and disposal operations, such that a solid waste franchise system can be developed. This shall include a waste flow diagram, for each type of waste, which shows the existing and proposed flow of solid waste for the ten year planning period from each municipality (source) to a specific processing and/or disposal facility (destination) either within Cumberland County or within another Solid Waste Management District. The Plan shall also identify the specific haulers now involved in collecting waste by municipality.
- 2) The Plan shall include a schedule (including specific milestones) for the completion of indepth studies necessary for resource recovery implementation and an indication of who will undertake the studies, an estimate of their costs, and how the studies will be funded. The studies shall include, as a minimum, the following:
 - a) the assessment of a regional resource recovery system servicing all or a portion of the four County area of Atlantic, Cape May, Cumberland and Salem, with a cost-sharing analysis distributed among the cooperating Districts (including variations thereto),
 - b) the means for securing agreements/contracts for markets for materials and energy (including those for source separation/recycling),
 - c) determination of specific facility site(s), including lot and block numbers,
 - d) collection of more reliable solid waste generation and particularly composition data, (with emphasis on seasonal fluctuations due to resort activity) and a justification for facility capacity,
 - e) identification of legal and institutional constraints and solutions thereto,
 - f) projections of both capital and operating costs and the method of financing them,
 - g) environmental assessment of technology and sites,
 - h) determination of specific sites and capacity needs for the disposal of resource recovery residuals, for emergency backup and for non-processable wastes, and
 - i) determination of the necessary interdistrict agreements (including a schedule for negotiating the agreements) for long term transportation, resource recovery and solid waste disposal throughout the region comprising Cumberland, Salem, Atlantic and Cape May Counties.

- 3) The Plan shall include a detailed plan for the use of each terminated land disposal site within the County.
- 4) The Plan shall include a more comprehensive and implementable program for extracting the maximum practicable amount of recoverable materials via recycling, waste exchanges, and similar source separation programs.
- 5) The Plan shall include a detailed procedure for the uniform distribution of resource recovery and disposal costs throughout the District's service area. This Plan shall include procedures for the uniform distribution of costs necessary to upgrade existing disposal facilities to meet environmental regulations.
- 6) If necessary, the Plan shall include interdistrict agreements with neighboring Counties (such as Atlantic, Cape May, Gloucester and Salem), setting forth the necessary procedures for coordinating and integrating collection, transportation, recovery and disposal services in the area and setting forth the specific responsibilities of each District for implementation of the Plan(s).
- 7) If necessary, Cumberland County shall reach an agreement with neighboring Counties on the amounts and types of wastes generated within Cumberland County and transported to either existing and/or proposed facilities within neighboring Counties for each of the ten years addressed in the Plan. The agreed upon data shall be incorporated into Cumberland County's report and Plan.
- 8) In addition, Cumberland County is directed to complete the additional modifications to its Solid Waste Management Plan described in the document attached to this Certification as Appendix I by December 31, 1980.

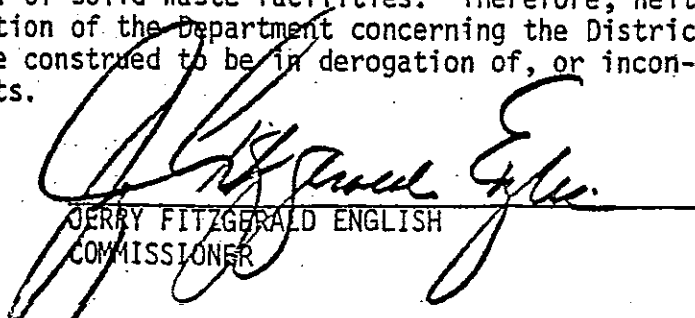
Attached as Appendix II is a list of recommended modifications to be included in the District Solid Waste Management Plan as part of the two year review required pursuant to N.J.S.A. 13:1E-20.

In accordance with N.J.S.A. 13:1E-24, these required modifications shall be considered major modifications of the District Plan and the District is hereby directed to conduct an additional public hearing no later than 45 days from the date of this Certification.

Following submission and review of the adopted modifications, I shall, within 30 days of submittal, certify to the Board of Chosen Freeholders whether or not these modifications are acceptable and if the Plan is approved.

Further, it is noted that the Solid Waste Management Act, the Rules of the Department of Environmental Protection, and other State and federal requirements apply to the permitting and approval of solid waste facilities. Therefore, neither the Certification nor any future action of the Department concerning the District Solid Waste Management Plan shall be construed to be in derogation of, or inconsistent with, such other requirements.

13 May 1980
DATE


JERRY FITZGERALD ENGLISH
COMMISSIONER

Appendix I

Additional Modifications Required by December 31, 1980

I. SOLID WASTE GENERATION

- The Plan shall include an inventory by source, type, composition, and quantity of solid waste (including sludge and septage) generated within the solid waste management District in the year in which the report is prepared and each of the ten years following the report. In addition, the Plan shall include a specific timetable for the conduct of a program to more accurately define waste generation rates and composition necessary for resource recovery implementation, and also resolve a major discrepancy between solid waste generation data provided in the Plan and solid waste generation data reported in the New Jersey Department of Environmental Protection collector/hauler reports for 1977 and 1978.

II. COLLECTION AND HAUL

- The Plan did not provide a specific analysis of industrial waste generation, transportation and disposal within the County. In addition, a strategy for the maximum recovery of industrial wastes should be developed. A specific timetable for undertaking this analysis and developing a strategy shall be included.

III. SLUDGE AND SEPTAGE

- While sludge and septage disposal was well addressed in the Cumberland County Plan, the County is advised that the sludge disposal systems utilized by the five sewerage authorities in the County have not been approved by the Department and should not be uniformly regarded as acceptable. Each 201 agency will be responsible for its own sludge disposal practices, but the District may wish to become involved as these practices are upgraded.

IV. RESOURCE RECOVERY

- The Plan shall analyze and identify that part of the waste stream which could be recovered by high and low technology resource recovery, in order to minimize costs, conserve energy and enhance environmental quality. In addition to implementing the Plan's source separation component, the County should continue to explore the feasibility of modular energy recovery facilities in the higher waste generating areas of the District.

V. PUBLIC PARTICIPATION

- The Plan shall set forth an on-going comprehensive public information and participation program similar to the program developed and utilized during formulation of the District Plan. This program shall identify a process for keeping the public informed, for the receipt, evaluation and consid-

eration of public comment, and for the integration of public participation into Plan development and implementation.

VI. LANDFILLS

- The Plan shall be revised to show that the Alex Hayes facility (0614A) of Vineland City is a sanitary landfill according to New Jersey Department of Environmental Protection registration and not a composting facility as listed in the Plan.
- The Plan shall contain an analysis of the necessary environmental improvements to landfills located within the District.
- The Plan shall provide a schedule (including specific milestones) for the completion of necessary tasks and decisions leading to the scheduled implementation of the Plan's regional landfill strategy and an indication of who will be responsible for undertaking and completing these tasks, an estimate of their costs, and how their completion will be funded. These tasks and/or decisions shall include, as a minimum, the following:
 - a) environmental assessments and permit approvals,
 - b) selection of site(s),
 - c) acquisition of property,
 - d) preparation of engineering plans and designs,
 - e) transportation/facility capacity,
 - f) facility financing,
 - g) cost analysis/rate projections, and
 - h) facility ownership/operational decisions.

VII. PLAN REVIEW AND UPDATE

- The Solid Waste Management Act requires the District Plan to contain provisions for its review by the Board of Chosen Freeholders once every two years. While the Cumberland County Plan acknowledges this requirement and indicates that the Plan will have to be updated by the County Planning Board or some other new agency, no specific provisions have been made in the Plan to accomplish this. Therefore, the Plan shall include specific provisions for its update.

Appendix II

Recommended Modifications for Two-Year Update of the Cumberland County Solid Waste Management Plan

I. DATA BASE

- The Plan should contain a table showing existing land distribution (amount and percent) for single family residential, multi-family residential, commercial, industrial, public and quasi-public, conservation and recreation, and open space areas.
- The Plan should include updated census data and population projections consistent with year 2000 policy projections from the New Jersey Department of Environmental Protection Draft New Jersey Water Quality Management Plan, March, 1979.
- Employment projections should be presented according to standard industrial classification to provide consistency with other District data. Methodologies and assumptions used in the formulation of estimates and projections should be included.
- The Plan should contain a section on existing major industrial and institutional developments and utilities. Proposed developments and constraints to development should also be included.

II. SOLID WASTE GENERATION

- Solid waste estimates and projections should continue to be provided according to waste identification categories in the New Jersey Department of Environmental Protection "Rules of the Solid Waste Administration." This format will provide consistency among District data.
- The updated Solid Waste Management Plan should include, in an appendix, the specific methodology used in obtaining solid waste estimates and projections.

III. COLLECTION AND HAUL

- The Plan should contain an analysis of the feasibility of alternative collection practices. For example, in a municipality where residents contract privately with one of several collector/haulers, savings may be realized if the municipality contracted with one collector/hauler. Another approach to increasing the efficiency of collection would be to divide a municipality into service areas and have collector/haulers bid for the right to service specific service areas thus reducing the amount of collector/haulers servicing one area.

Public Hearing on
DEP's Certification of Modification
regarding the Cumberland County
Solid Waste Management Plan
June 26, 1980
7:30 p.m.

The Public Hearing on DEP's Certification of Modification regarding the Cumberland County Solid Waste Management Plan was called to order. Roy Spoltore asked if there were any questions of comments concerning the Certification of Modification.

Mr. Holm: It looks like there are many items to assemble to comply with the Certification of Modification. How does the December 31st date for submittal to the state look?

Mr. Spoltore: The consultants will have the revisions to us next week. We met with the state in the beginning of January and went over the proposed modification. The consultant felt that there was no major problem. The Solid Waste Advisory Council will meet in September and then make their recommendation to the Freeholders. We appear to be on a proper time schedule.

Mr. Lowenstern: What happens after it is submitted to the state?

Mr. Spoltore: The state will formulate a state wide plan based on the solid waste districts plans.

Mr. Lowenstern: There is no mention in the modification regarding an implementing agency?

Mr. Spoltore: The modification states that the plan shall provide who will be responsible for completing these tasks in the section on landfill modifications.

Mr. Holm: How will these modifications be injected into the Solid Waste Plan?

Mr. Spoltore: Other counties have submitted them as a supplement.

Mr. Schwardtle: What are the provisions for sludge disposal?

Mr. Spoltore: All sludge and septic waste management planning will be done by the 201 planning agency.

Mr. Holm: One of the more difficult things in the plan is the potential sites of the landfill. In the Commissioner's letter, she has stated that something needs to be done in regard to this matter.

PUBLIC HEARING ON SOLID WASTE MANAGEMENT PLAN

June 26, 1980

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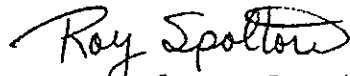
Mr. Spoltore: The administering agency would be responsible for implementing the plan. Law requires that before a site can be chosen, a public hearing must be held on site selection.

Mr. Schwerdtle: What changes are being requested?

Mr. Spoltore: The major changes are as follows: waste flow diagrams and a list of collector haulers servicing each municipality; schedule for resource recovery studies; a plan for the use of terminated land disposal site within the County and a comprehensive source separation plan.

There being no other discussion, the hearing was adjourned.

Respectfully submitted,



Roy Spoltore, Secretary
Cumberland County SWAC

RJS/cjp