

AMENDMENT
to the
OCEAN COUNTY DISTRICT
SOLID WASTE MANAGEMENT PLAN
JUNE 7, 1989



Adopted by
THE OCEAN COUNTY BOARD of CHOSEN FREEHOLDERS

Revision Dates:
April 7, 1989
April 17, 1989
June 7, 1989

Ocean County Department of Solid Waste Management
119 Hooper Avenue
Toms River, New Jersey
(201) 929-2054

THE BOARD OF CHOSEN FREEHOLDERS

OCEAN COUNTY
TOMS RIVER, NEW JERSEY 08754



Damian G. Murray
- Freeholder Director

(201) 929-2003

June 28, 1989

Commissioner Christopher J. Daggett
Department of Environmental Protection
CN 402
Trenton, NJ 08625

Dear Commissioner Daggett:

I am very pleased to submit on behalf of the Ocean County Board of Chosen Freeholders the enclosed Amendment to the Ocean County District Solid Waste Management Plan. This Amendment was adopted by the Board of Chosen Freeholders on June 7, 1989. A Public Hearing was held by the Board on May 16.

The Plan Amendment provides a financial plan for Ocean County's proposed 1,050 ton per day resource recovery facility. Included with the financing plan is a plan and disbursement schedule for the County Resource Recovery Investment Tax funds. The Plan Amendment also provides a transportation cost study, a revised implementation schedule and listing of private recycling operations, compost facilities and permitted small incinerators within the County.

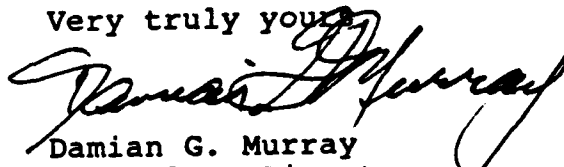
I would also like to advise you that the Board of Chosen Freeholders has taken additional steps to afford a higher degree of environmental benefit from the proposed plant and also to address certain critical issues. In this regard, the Board of Freeholders has adopted a resolution which has been made part of the record, indicating that it is the policy of the County to incorporate all available and effective pollution abatement technology in the design of the resource recovery facility. In addition, County staff and consultants have been directed to immediately begin preparing an Ash Management Plan which will include conducting a survey of industries within Ocean County to determine the characteristics of their waste products. It is our intent to remove potentially harmful material from the waste stream before shipments are made to the resource recovery facility.

Commissioner Christopher J. Daggett
Department of Environmental Protection
June 28, 1989
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The County will also expand its current plastic recycling program and intends to mandate the recycling of all PET and HDPE plastics next year. With the completion of the County's materials processing facility in Lakewood Township, the Board will require recycling of all other marketable plastics as well.

I appreciate your consideration of this Plan Amendment and on behalf of the Board would like to thank you and your staff for the assistance which you have provided to us. If you have any questions concerning our Solid Waste Management efforts, please feel free to contact me or Steven L. Pollock, Director of the Department of Solid Waste Management.

Very truly yours,



Damian G. Murray
Freeholder Director

DGM:mjb

Enclosure

cc: The Board of Chosen Freeholders

Benjamin H. Mabie, County Administrator

John Czapor, Director, Division of Solid Waste Management,
NJDEP

John C. Sahradnik, Esq., Assistant County Counsel

Steven L. Pollock, Director, Solid Waste Management Department

OCEAN COUNTY BOARD OF CHOSEN FREEHOLDERS

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Charles Kauffman.....Ex-Officio Member
Robert Holland.....Ex-Officio Member
H. George Buckwald.....Freeholder-Liaison

OCEAN COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT

Steven L. Pollock, P.P.Director
Ernest J. Kuhlwein, Jr.Assistant Director
John Haas.....District Recycling Coordinator
Kathleen Murphy.....Recycling Program Aide
Arthur Burns.....Supervisor, Recycling Operations
Joseph Hummel.....Supervisor, O.C. Northern Recycling Center
Joseph Carter.....Supervisor, O.C. Southern Recycling Center
Everett Osborne.....Supervisor, Composting Operations
Steve Childers.....Coordinator, Artificial Reef/Tire Project
Mary Jane Bavais.....Administrative Secretary
Robin Sedath.....Supervising Account Clerk
Ruth Przybilski.....Clerk Typist
Bobbi Murlin.....Clerk Typist

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I. INTRODUCTION

This document is a proposed amendment to the Ocean County District Solid Waste Management Plan. The Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) requires that the County adopt such a Plan and that it be amended as required by changing circumstances.

The original Plan was adopted by the Board of Chosen Freeholders on July 18, 1979. Certain technical amendments were proposed on July 1, 1980 and were approved by the Commissioner of the Department of Environmental Protection on July 31, 1980 with certain additional modifications made on his initiative.

A second amendment to the Plan was adopted by the Freeholders on November 28, 1984 and approved by the Commissioner on April 8, 1985. This revision included a proposal to construct waste-to-energy facilities at a site in Lacey Township. For the first time the Plan established as a goal the recycling of 25% of the residential and commercial solid waste generated within the County.

On October 7, 1986 an amendment was adopted by the Freeholders which changed the designation of the site for the waste-to-energy facility from Lacey Township to Ocean Township (Waretown). That change was approved by the Commissioner on February 23, 1987.

In the early months of 1987 the Board of Freeholders directed the development of a County Recycling Plan to meet the requirements of the Mandatory Recycling Act (P.L.1987, c.102). That Plan was proposed on October 28, 1987 as an amendment to the District Solid Waste Management Plan and was approved by the Commissioner on September 2, 1988.

The proposed Plan Amendment set forth on the following pages has been drafted by staff and advisors at the direction of the Board of Freeholders and in consultation with the Solid Waste Advisory Council. On May 16, 1989, a public hearing was held on the proposal. The Board of Chosen Freeholders adopted the proposed Plan on June 7, 1989.

The County Plan continues to have the following three elements:

- An aggressive recycling effort to recover from the community solid waste stream all materials for which there are any reuse opportunities;
- A waste-to-energy facility which will selectively burn non-recyclable waste using the heat to generate electricity;
- A protectively designed landfill for the disposal of wastes which can neither be recycled nor burned, and for the disposal of the ash residue from the waste-to-energy process.

Except for emphasis, the waste management strategy represented by these three elements is not changed by this amendment.

The essential purposes of this proposed plan amendment are to:

- Establish the Pollution Control Financing Authority as the financing entity for the development of the waste-to-energy facility

- Provide a financial plan for resource recovery
- Provide a plan for the use of the Resource Recovery Investment Tax Fund
- Provide a transportation cost study
- Change the milestones which serve as the basis for the Administrative Consent Order that now requires the development, construction and operation of resource recovery facilities

In addition, this proposed amendment includes the following:

- List of private recycling operations
- List of compost operations and the areas served by them
- List of permitted small incinerators

II. RECYCLING

We can define recycling as the recovery of materials which would otherwise be waste and which, with or without processing, are returned to use. Recycling is the first, the most important and the most promising of the three elements of the County Plan.

There has been recycling activity in Ocean County since the early 1970s. In 1982 an organized County program was developed. The amount of materials recycled has increased in each succeeding year. However, in 1987 the County's recycling effort was intensified in response to the adoption of the State Mandatory Recycling Act.

The District Recycling Plan was adopted in 1987 and made a part of the County Plan. Two recycling centers have been established by the County to serve respectively the northern and southern regions. Their operations are to be expanded.

Lakewood

The Northern Regional Recycling Center located in Lakewood, comprising 60 acres and previously serving just the Township, will be purchased by the County by mid-1989. The recycling center property includes Block 1160.06, Lot 241. It is now receiving by means of municipal pickup the officially designated materials (aluminum and ferrous cans, glass containers and newspapers) for trans-shipment to private recycling facilities. The Center also continues to receive vegetative wastes for composting, bulky materials and other recyclables of the kind previously handled by Lakewood Township.

By July 1989 interim equipment will be installed to make possible the separation of glass, aluminum and other containers. However, the County is moving ahead with plans to have a full recycling center for use by all interested municipalities in the northern region.

On July 18, 1989 the County will receive bids for the design, construction and operation of a recycling facility for the separation, storage and marketing of recyclable materials including aluminum cans, ferrous cans, glass containers, plastic containers, newsprint, corrugated and other paper products. The facility will have a design capacity of 300 tons per day. This operation will be an element of the Northern Regional Recycling Center owned and operated by the County. Center administration will be the responsibility of the Director of the Ocean County Department of Solid Waste Management. An employee of that Department will serve as Center manager and will provide

day-to-day supervision of Center operations. These operations will also include the residents' dropoff depot for cans, bottles, newspapers, waste oil, leaf composting processes, handling of refrigerators and other bulky items, the truck weighing station and other related activities.

The County is developing several new programs to expand the recycling opportunities in Ocean County.

- a) Plastic Beverage Containers - The County is currently accepting commingled PET and HDPE from municipalities and private haulers. Both of the County's Regional Recycling Centers have 30 cubic yard roll-off containers available for plastic beverage containers. These containers are baled into 850-900 pound bales at the Northern Regional Recycling Center. On March 1, 1989, the County Board of Chosen Freeholders authorized executing a contract with CVM Corporation for the marketing of plastic.

The new recycling facility to be constructed at the Northern Regional Recycling Center in Lakewood will begin operation in 1991. Its design includes the handling of plastic containers. The Board intends to designate plastic containers as a mandatory recyclable as of January 1990.

- b) White Goods - White goods are currently being baled at the Northern Regional Recycling Center. Since January 1989, approximately 5,000 cubic yards of white goods have been baled. The County expects to expand the program and to accept white goods from municipalities, businesses and individuals. The Ocean County Corrections Department will provide prisoners to remove capacitors and motors.

- c) Summer 'Igloo' Program - The County has purchased 60 Igloo containers and a special truck to service the containers. These containers will be placed near high volume beach areas to accept aluminum and glass containers this summer. During the remainder of the year, the containers will be available for special events. Aerial advertising will be provided this summer to promote recycling and a clean beach.
- d) Household Hazardous Waste - The County has established four household hazardous waste collection days in Spring and Fall of 1989. The Spring program date for the Northern Regional Recycling Center was June 3, 1989. The Southern Regional Recycling Center date was June 10, 1989. The Fall program dates are tentatively scheduled as follows for both regional recycling centers: September 16, 1989 for the Northern Regional Recycling Center and September 23, 1989 for the Southern Regional Recycling Center. In addition, the program will provide for the disposal of hazardous waste generated by various County departments.
- e) Used Batteries - The County is currently marketing used automobile batteries that have been dropped off at the Center. The County is currently reviewing contracts for regular monthly pickup from the Center. That would allow the County to encourage more active recycling. The contract may include additional varieties of batteries.

Stafford

The Southern Regional Recycling Center has been established at Stafford Township just south of Route 72 and just west of the

Parkway. This site includes Block 25, Lot 59. It is now receiving recyclable materials. Cans and bottles are shipped for private processing and marketing. Paper is shipped to the Lakewood facility or sold directly to market. Plastics are sent to Lakewood for baling and sale.

A new building is to be constructed during the summer of 1989 that will house the handling operations. In about 18 months, when the Lakewood facility has been constructed, the conveyors and other sorting equipment theretofore used in Lakewood will be transferred to Stafford where limited separation operations will be conducted.

Other Waste Handling Facilities

Other waste handling facilities are included in the Ocean County Solid Waste Management Plan and are presented in this amendment as appendices:

- a) Nine special purpose incinerators operate, or are authorized to operate, in Ocean County. The statute requires that they be included in the County Plan for their operation to be lawful. The incinerators are identified in Appendix A including information concerning the type of waste, its origin and volume, and the disposal of the residue;
- b) Four private organizations operate facilities in which non-traditional waste materials are recycled. To be lawful they must be included in the County Plan. These facilities are identified in Appendix B including their address, lot and block location, contact person and the nature and quantities of materials processed;

- c) Seven municipalities have secured from the Department of Environmental Protection required permits to operate composting facilities. An eighth (Brick Township) has applied for such a permit. They are identified in Appendix C including the areas serviced by the four municipalities that operate regional facilities.

In the Ocean County Recycling Plan adopted August 31, 1987, the County expressed its intention to acquire, operate and maintain the following equipment to assist in the compost process and to improve the quality of compost products:

- Windrow turner
- shredder
- finished compost screen
- front-end loader
- crew truck
- four-wheel drive pickup truck

All of this equipment has since been acquired by the County and is now in operation.

III. RESOURCE RECOVERY

This section deals with the County's proposal to build a facility to burn waste that is not recyclable and to recover energy in the process.

Under the statute (N.J.S.A. 13:1E-137v) the term resource recovery is defined to mean any solid waste facility operated for the recovery of useful materials or for energy production.

The term mass-burn defines the incineration of unsegregated community waste. As the efficiency and the scope of recycling increases, the burning process will be more restricted. Selective burn is a more apt term when applied to the Ocean County Plan.

The plant size that was originally proposed in the Plan Amendment adopted November 28, 1984 was 1050 tons per day. In the course of subsequent studies of the engineering economics of the project it appeared that, given the volume and seasonal fluctuation of waste flow in Ocean County, a facility of 1500 tons per day was optimum. However, the Citizens Advisory Committee, established to advise the Freeholders with respect to resource recovery, at its final meeting of March 8, 1988 voted in favor of increased recycling expectations and proposed that the design capacity for the plant be again set at 1050 tons per day. The Freeholders have accepted this recommendation; no change in the County Plan is required.

However, while the capacity of the resource recovery facility will be 1050 tons per day, not all of the waste received needs to be burned. Ocean County now has a working curbside recycling program that is gaining public acceptance every day. In order to achieve further separation of materials which can be recycled or are non-combustible (or both), we will ask candidate vendors to include in their proposals separation equipment to precede the combustion process. Such front-end screening can increase total recycling and reduce the amount of ash for disposal.

The Ocean Township site for the waste-to-energy facility was designated in the Plan Amendment filed with the DEP on October 7, 1986. The Preliminary Environmental and Health Impact Statement

based upon the use of generic technology at the selected site was approved by the Department on November 20, 1987.

The procurement process can begin with the issuance of a Request for Qualifications of candidate vendors. This Request will be issued in mid-June. In mid-October a Request for Proposals will be sent to those vendors who qualify.

(Further reference to the advancement of this project is made in Plan Amendment Section V. **MANAGEMENT.**)

IV. LANDFILL

The County Plan has anticipated that the Southern Ocean Landfill, Inc. facility (SOLF), until recently serving the southern region of the County, would operate until August 8, 1990 when, in accordance with the regulations (N.J.A.C. 7:50-6.74) of the Pinelands Commission, it would be required to close. The Plan further stated that the Ocean County Landfill Corporation facility (OCLF) in Manchester would thereafter receive all of the wastes of the County which are to be landfilled, until such time as the proposed resource recovery facility opens for operation. At that time waste flow will be redirected to the resource recovery facility.

Recently SOLF ceased operations in response to a joint Order of the Department of Environmental Protection and the Board of Public Utilities (BPU). Wastes generated in the southern region of the County have been redirected to OCLF in Manchester Township.

V. MANAGEMENT

Ocean County Department of Solid Waste Management

The Department, which was established December 2, 1981, is now staffed with 29 employees. It operates the northern and southern recycling centers as well as the county-wide recycling program. It provides technical assistance to municipalities and education services to the public.

The Department is managing the procurement of equipment and buildings for the two regional recycling centers. It is also responsible for managing the procurement, construction and operation of the resource recovery facility, and for general administration of the County Plan.

The Department of Solid Waste Management will serve as staff to the Pollution Control Financing Authority.

Transportation

As required by N.J.S.A. 13:1E-21b(4), a study was performed under contract with the County by GBB-Killam of transportation routes and projected costs. Report Upon Transportation Cost Analysis is presented as Appendix D. The study was made current by work done in March 1989.

Financial Plan

After review of proposals, and interviews with candidate consultants, the County on January 20, 1988 engaged the firm of Public Financial Management Incorporated (PFM) of Philadelphia to provide financial advisory services in the furtherance of the County Solid Waste Management Plan. (The Plan of Finance is presented as Appendix E.)

a) The Resource Recovery Plan of Finance

The County has developed a Plan of Finance for the development of a resource recovery facility which is included as Appendix E of this plan amendment.

After evaluation of the Resource Recovery Facility Ownership Report dated April 5, 1989 prepared for this County by Public Finance Management, Inc., the County's Financial Advisor, the County determined that it will be most cost effective to have its resource recovery facility privately owned and operated. Because the selected vendor will be willing to contribute equity to the project which may cover between 12% and 15% of the project's capital costs, the amount of borrowing necessary to provide funding for the project will be reduced. This level of equity participation is a function of the project's status under the Tax Reform Act of 1986 as a "Transition Rule" project. The benefit to the County of private ownership is a projected savings on the tipping fee of between \$5 and \$10 per ton of waste processed.

The County will select the vendor, who will own and operate the facility, through a competitive Request for Qualifications/Request for Proposals process. The project will be financed with funds provided from four sources: a) the proceeds of a tax-exempt bond issue; b) the proceeds of a taxable bond issue; c) an equity contribution made by the project's owner; and d) the proceeds of funds available in the Resource Recovery Investment Tax Fund (see b below).

The facility will generate electricity which will be sold to produce revenues to offset the annual cost of operating the facility. The balance of the funds needed

annually to operate the facility and service the debt associated with the facility will be raised through the imposition of a tipping fee.

b) Resource Recovery Investment Tax Fund

The County has determined to use the proceeds of the Resource Recovery Investment Tax Fund (the "Fund") for three specific purposes related to the development and implementation of the resource recovery aspect of its Solid Waste Management Plan.

The first use of the proceeds will be for the acquisition of the Facility site. Collections for 1987, 1988 and 1989 totalling \$4,177,521 will be used to purchase the designated Facility site. To the extent a portion of this total is not used for site acquisition, it will be used to augment the 1990 and 1991 collections to reduce the amount of the 1992 bond issues.

In 1992, the County, through its Pollution Control Financing Authority (the "Authority"), will issue bonds, both tax-exempt and taxable, the proceeds of which will be available to fund the costs of designing, constructing and testing a privately-owned, 1,050 ton/day mass-burn resource recovery facility. Debt service payments on these bonds will represent a significant component cost of the County's solid waste disposal budget. In order to reduce this cost on an absolute basis over the term of the bond issues, the County intends to use all of the proceeds then available to the County in the Fund, currently estimated to be \$4,500,000, to meet a portion of the capital costs of the resource recovery facility. This will relieve the Authority of the need to borrow the amount available in

the Fund as well as the amounts that would have been associated with the construction period interest and reserve funds which the Authority would also have had to borrow. Based upon preliminary calculations, this means that for each \$1.00 of the Fund used to offset borrowing requirements, the ultimate borrowing can be reduced by approximately \$1.30. This down-sizing of the bond issues will produce an absolute reduction in the cost of solid waste disposal to the citizens of Ocean County for the first 20 years of the resource recovery facility's operation.

Between the date of the financing in 1992, and the scheduled start of commercial operations of the facility, additional Resource Recovery Investment Tax Funds will be collected. Upon the completion of construction, it is expected that there will be a special, one-time mandatory redemption of a portion of the bonds when the vendor's equity is contributed to the project. The County will also use the Resource Recovery Investment Tax Funds which have accumulated during the construction period, currently estimated to be \$4,500,000, to increase the size of this special bond redemption and, therefore, decrease the amount of debt that will be outstanding for the next 20 years.

The County will use the balance of the Resource Recovery Investment Tax Funds which are collected between the date of the post-construction period bond redemption and December 31, 1995 to establish a Rate Stabilization Fund. This Fund will be used to offset a portion of the tipping fee at the resource recovery facility during its first two and one-half years of commercial operation

(July 1, 1993 - December 31, 1995). The use of the Rate Stabilization Fund will mitigate the full impact of the increase in waste disposal costs associated with the resource recovery facility on the citizens of Ocean County and permit a more controlled and gradual increase in these costs.

c) Financing Agency

PFM prepared the Resource Recovery Facility Ownership Report, April 5, 1989, in which the advantages were clearly shown of private ownership of resource recovery facilities. The report also informs as to the financial advantages secured by arranging the public financing required in such projects through an Authority rather than through County government itself.

There are three forms of authorities in New Jersey which are authorized to finance such a project:

- County Utilities Authority (N.J.S.A. 40:14B-1 et seq.)
- County Improvement Authority (N.J.S.A. 40:37A-44 et seq.)
- Pollution Control Financing Authority (N.J.S.A. 40:37C-1 et seq.)

The existing Ocean County Utilities Authority is already responsible for the collection and treatment of wastewater. There is no County Improvement Authority in Ocean County. Rather than create one, the Board of

Freeholders proposes to designate the Pollution Control Financing Authority that was established by Freeholder resolution on May 1, 1974. The Authority is empowered under recent statutory amendments (N.J.S.A. 40:37C-3, P.L. 1983, c.298) specifically to deal with the financing of resource recovery facilities. It is proposed that by resolution of the Board the Authority be given the responsibility to sponsor the public financing necessary to accomplish the construction of resource recovery facilities. The resolution will note specifically that supervision of the procurement, construction and operation of the facility will be carried out by the County Department of Solid Waste Management.

Franchise

The County has previously filed with the Board of Public Utilities an application for a solid waste franchise. The County shall proceed to obtain the franchise necessary to accommodate the financing of the resource recovery facility by assuring waste flow.

Development Schedule

On September 27, 1984, the Board of Chosen Freeholders and the Department of Environmental Protection entered into an Administrative Consent Order (Order) setting forth a step-by-step schedule for the development of resource recovery facilities in Ocean County under the sponsorship of the Board.

Milestones up to and including #15 have been achieved. It is proposed that the schedule of remaining milestones be amended to read as follows:

Milestone #

Description

- #16 Not later than June 7, 1989 the County shall adopt amendments to its Solid Waste Management Plan specifying ownership and a financial plan for the procurement and implementation of its resource recovery facility. (This is accomplished by the amendment expressed on the preceding pages.)
- #17 Not later than September 1, 1989 the County shall acquire any necessary property or interests therein for the resource recovery facility.
- #18 Not later than October 7, 1989 the Department shall complete its review and render its decision on approval of the County's Plan amendments.
- #19 Not later than October 15, 1989 the County shall release a Request for Proposals for design, construction and operation of the resource recovery facility in accordance with the approved ownership and financing plan.
- #20 Not later than February 1, 1990 the County shall designate a vendor for the resource recovery facility.

- #21 Not later than May 1, 1990 the County or its designated vendor shall complete negotiations and award a contract for design, construction and operation of the resource recovery facility.

- #22 Not later than December 1, 1990 the County or its designated vendor shall submit to the Department the final EHIS and complete applications for all necessary permits relative to the resource recovery facility.

- #23 Not later than September 1, 1991 the Department shall complete its review and render its decision on approval of the final EHIS and permit issuance.

- #24 Not later than March 1, 1992 the designated vendor shall commence construction of the resource recovery facility; and shall complete construction, testing and startup operations in accordance with its contract.

APPENDICES

APPENDIX A - Permitted Small Incinerators

APPENDIX B - Private Recyclers of Non-Traditional Material

APPENDIX C - Ocean County Regional Compost Sites and Areas Serviced

APPENDIX D - Transportation Study

APPENDIX E - Plan of Finance

APPENDIX F - Transition Ruling

APPENDIX G - Resolution of Adoption

APPENDIX H - Resolution for Pollution Abatement Technology

APPENDIX I - Resolution for Inclusion of Recyclable Materials in
Screening Process

APPENDIX A

Permitted Small Incinerators

APPENDIX A - Permitted Small Incinerators

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Permit Data

SEQ #	FACILITY LOCATION ADDRESS/BLOCK & LOT CONTACT/TELEPHONE #	WASTE CODE(S)	INCINERATOR TYPE CODE	PERMIT/ CERTIFICATE #	APC PLANT ID	OPERATION PERMIT EXPIRATION DATE
1	OCEAN COUNTY UTILITIES AUTHORITY Central Treatment Plant 501 Hickory Lane, P.O. Box P Bayville, NJ 08721 Block 620, Lot 1 (Berkeley Township) Robert S. Holland, Executive Director William Fine, Director - Engineering Department Telephone: 201-269-4500	5	24	075096	78162	7/04/88 *
2	PAUL KIRBALL MEDICAL CENTER 600 River Avenue Lakewood, NJ 08701-5281 Block 421, Lot 1 (Lakewood Township) Daniel LaDuke, Risk Manager Telephone: 201-363-1900	4	23	064682	78244	9/05/92
3	COMMUNITY MEMORIAL HOSPITAL 99 Highway 37 West, CN 2002 Toms River, NJ 08754 Block 535, Lot 3 (Dover Township) Charles Faella, Director - Plant Operations Telephone: 201-240-8070	4	12	042687	78062	4/17/90

APPENDIX A - Permitted Small Incinerators

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Permit Data

SEQ #	FACILITY LOCATION ADDRESS/BLOCK & LOT CONTACT/TELEPHONE #	WASTE CODE(S)	INCINERATOR TYPE CODE	PERMIT/ CERTIFICATE #	APC PLANT ID	OPERATION PERMIT EXPIRATION DATE
4	POINT PLEASANT HOSPITAL Point Pleasant Division of the Medical Center of Ocean County (Point Pleasant and Brick Hospitals) 2121 Edgewater Place Point Pleasant, NJ 08742 Block 35, Lot 1 (Point Pleasant Borough) John Hopler, Director of Engineering Telephone: 201-892-1100	1 & 4	23	030100	78093	5/04/92
5	STAFFORD VETERINARY HOSPITAL, P.A. 211 North Main Street (Route 9) Manahawkin, NJ 08050-3098 Block 239, Lot 8 (Stafford Township) Paula Pavenick, Hospital Manager Telephone: 609-597-7571	1 & 4	23	009299	78106	8/21/89
6	TOMS RIVER REGIONAL SCHOOL DISTRICT Toms River High School North Old Freehold Road Toms River, NJ 08753 Block 410-C, Lot 30 (Dover Township) Raymond Ryan, Principal Telephone: 201-341-9200	0	20	000611	78108	2/06/89

APPENDIX A - Permitted Small Incinerators

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Permit Data

SEQ #	FACILITY LOCATION ADDRESS/BLOCK & LOT CONTACT/TELEPHONE #	WASTE CODE(S)	INCINERATOR TYPE CODE	PERMIT/ CERTIFICATE #	APC PLANT ID	OPERATION PERMIT EXPIRATION DATE
7	ASSOCIATED HUMANE SOCIETIES INC. Humane Way (off Lacey Road) P.O. Box 43 Forked River, NJ 08731 Facility Location: Popcorn Zoo, W. Lacey Rd. Block 2811, Lot 2 (Lacey Township) Lee Bernstein, Director Telephone: 609-693-1900	4	10	034087	78143	3/30/93
8	TOMS RIVER VETERINARY HOSPITAL 769 Route 37 West Toms River, NJ 08753 Block 00507, Lot 00031 (Dover Township) Louise A. Reynolds, Practice Manager Telephone: 201-349-4599	4	23	040189	78153	4/17/90
9	OCEAN COUNTY VETERINARY HOSPITAL, P.A. 2367 Lakewood Road Toms River, NJ 08754 Block 159, Lot 2 (Dover Township) Eleanor Grabowski, Hospital Administrator Telephone: 201-349-4599	2 & 4	23	040961	78158	3/05/89

* The temporary permit expired 7/4/88. A new temporary permit was issued.

Type of Waste

- 0 - Trash, a mixture of highly combustible waste such as paper, cardboard, cartons, wood boxes and combustible floor sweepings, containing approximately 10% moisture and 5% incombustible solids and having a heating value of 8500 BTP per pound as fired and derived from commercial and industrial activities. The mixtures contain up to 10% by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags and plastic or rubber scraps.
- 1 - Rubbish, a mixture of combustible waste such as paper, cardboard, cartons, wood scraps, foliage and combustible floor sweepings, containing approximately 25% moisture and 10% incombustible solids and having a heating value of approximately 6500 BTU per pound as fired, and deriving from domestic, commercial and industrial activities. The mixture contains up to 20% by weight of restaurant or cafeteria waste, but contains little or no treated paper, plastic or rubber wastes.
- 2 - Refuse, consisting of an approximately even mixture of rubbish and garbage by weight, containing up to 50% moisture and approximately 7% incombustible solids and having a heating value of approximately 4300 BTU per pound as fired, and commonly deriving from apartment and residential occupancy.
- 3 - Garbage, consisting of animal and vegetable wastes containing up to 70% moisture and up to 5% incombustible solids and having a heating value of approximately 2500 BTU per pound as fired and deriving from restaurants, hotels, hospitals, markets and like installations.
- 4 - Human and animal remains, consisting of carcasses, organs and solid inorganic waste from hospitals, laboratories, abattoirs, animal pounds, and similar sources, consisting of up to 85% moisture and approximately 5% incombustible solids and having a heating value of approximately 1000 BTU per pound as fired.
- 5 - By-product waste, gaseous, liquid, or semi-liquid, such as tar, paints, solvents, sludge, fume, etc., from industrial operations.
- 6 - Solid by-product waste, such as rubber, plastics, wood waste, etc. from industrial operations.

Type of Waste Burning Unit

- 10 - Single chamber incinerator
- 11 - Single chamber incinerator - auxiliary fuel
- 12 - Single chamber incinerator - controlled air
- 20 - Multiple chamber incinerator
- 21 - Multiple chamber incinerator - auxiliary fuel
- 22 - Multiple chamber incinerator - controlled air
- 23 - Pathological incinerator
- 24 - Sludge incinerator
- 30 - Flare

APPENDIX A - Permitted Small Incinerators

Page 5 of 6

Waste Data

SEQ #	FACILITY SITE	TYPE OF WASTE	ORIGIN OF WASTE	WASTE VOLUME	DISPOSAL OF RESIDUE
1	OCEAN COUNTY UTILITIES AUTHORITY Central Treatment Plant	Sludge residues	Wastewater and waste-water sludge	At start-up 1990, 880 lbs/hr for 96 continuous hours	Returned to the head of the plant where the inert matter is removed along with the grit and screenings all of which are subsequently disposed of in a landfill
2	PAUL KIRKALL MEDICAL CENTER	Infectious waste	Hospital treatment units	Average (5-6) 25 gallon barrels per day x 7 days	Residue is compacted after incineration and disposed of with hospital household (hauled by Consolidated Waste Service)
3	COMMUNITY MEMORIAL HOSPITAL	NOS Etiologic Agent NA2814	Patient care areas	3600 cubic yards per year	Ocean County Landfill
4	POINT PLEASANT HOSPITAL	Pathological waste, chemotherapy waste, isolation waste and outdated drug waste	Point Pleasant and Brick divisions of the Medical Center of Ocean County	Average: 5 bags of medical waste every 2 weeks (average weight 5 lbs per bag) Unit Capacity: 85 lbs per hour	Contractual waste hauler to OCLP
5	STAFFORD VETERINARY HOSPITAL, P.A.	Animal carcasses	Animal cremation	Average: 48 lbs per month	Ashes returned to pet owner

APPENDIX A - Permitted Small Incinerators

Page 6 of 6

Waste Data

SNO	FACILITY SITE	TYPE OF WASTE	ORIGIN OF WASTE	WASTE VOLUME	DISPOSAL OF RESIDUE
6	TOMS RIVER REGIONAL SCHOOL DISTRICT	Confidential student files and non-toxic school nurse waste	All 17 schools in the TRSD ship to Toms River North	100 cartons of paper files per year; 50 cartons of school nurse waste per year	Private hauler (Rosetto Bros.) - OCLP
7	ASSOCIATED HUMANE SOCIETIES INC.	Animal carcasses and medical waste	Animal cremations, road kills, medical operations	Average: 10 carcasses per week (average weight 10 lbs)	Southern Ocean Landfill
8	TOMS RIVER VETERINARY HOSPITAL	Animal carcasses	Animal cremations	Average: 25 carcasses per week	Private hauler (Rosetto Bros.) - OCLP
9	OCEAN COUNTY VETERINARY HOSPITAL	Animal carcasses, animal feces, animal tissue, and needles and syringes	Facility generation	Less than 300 lbs/week	Private hauler - OCLP

APPENDIX B

Private Recyclers of Non-traditional Material

APPENDIX B

RECYCLERS OF NON-TRADITIONAL MATERIAL

NAME OF FACILITY MAILING ADDRESS/PHONE	CONTACT PERSON	LOT/BLOCK	MATERIAL PROCESSED	ESTIMATED AMOUNT	
				PROCESSED (yearly basis)	
Ralph Clayton & Sons 515 Lakewood-New Egypt Rd. Lakewood, New Jersey 363-1995	John Barr	Lot 70 Block 11.05	concrete, asphalt, brick and block	30,000 tons	
Rosetto Recycling Center 1301 Route 37 W Toms River, New Jersey 341-3333	Bob Dixon	Lot 1 thru 7 Block 506-1	wood (2x4's, plywood)	9,125 tons	
Ocean County Recycling Center, Inc. 1306 River Avenue Lakewood, New Jersey (office) 244-1716	Harvey Onore	Lot 26 Block 410	concrete, asphalt, masonry products, cement blocks, bricks, tree stumps	Stumps - 10,000 cu. yds (1988) Concrete/asphalt - 35,000 cu. yds (1988)	
South Brunswick Asphalt Mizzen & R. R. Avenue Box 352 Beachwood, New Jersey 349-0481	Eugene Johnson Jim Lowery	Lot 1 Block 824	stumps, trees, concrete, and asphalt	Stumps - 70,799 cu. yds (1988) Asphalt - 414 cu. yds (1988) Concrete - 545 cu yds (1988)	

APPENDIX C

Compost Facilities

APPENDIX C

OCEAN COUNTY REGIONAL COMPOST SITES AND AREAS SERVICED

Beachwood Facility

Beachwood
Pine Beach
Ocean Gate

Dover Facility

Dover
Ocean County Buildings and Grounds
Lavallette
Seaside Park
Seaside Heights

Stafford Facility

Stafford
Barnegat Light
Harvey Cedars
Long Beach Township
Ship Bottom
Surf City
Beach Haven
Eagleswood
Little Egg Harbor
Barnegat
Ocean
Tuckerton
Berkeley
South Toms River

Northern Regional Recycling Center, Lakewood (owned and operated by Ocean County)

Lakewood
Dover (parts)
Ocean County Parks
* Point Pleasant
* Point Pleasant Beach
* Bay Head
* Mantoloking
Island Heights
* Brick
Plumsted
Lakehurst

* When Brick receives its composting permit these facilities will be redirected to Brick.

Manchester, Jackson and Lacey have elected not to use the County's regional system, opting to use their own municipal sites.

APPENDIX D

Transportation Study

OCEAN COUNTY BOARD
OF CHOSEN FREEHOLDERS

REPORT UPON
TRANSPORTATION COST ANALYSIS

DRAFT FEBRUARY 1986
FINAL MARCH 1989

Killam Associates
Consulting Engineers
27 Bleeker Street
Millburn, New Jersey 07041

1.0 INTRODUCTION

This report has been prepared to comply with the provisions of N.J.S.A. 13:1E-21b(4) which states that each solid waste management district in the State must determine the transportation costs for each municipality to haul its solid waste to each existing and proposed disposal site in the district. An initial draft of this report was prepared in February, 1986 as part of GBB-Killam's contract with Ocean County to conduct a resource recovery site selection process and prepare a PEHIS for the selected site. The initial draft of the transportation report was circulated to the Ocean County Citizen's Advisory Committee on Resource Recovery (CAC) - Transportation Task Force for review and comment. After receiving the public comment, the draft was used to evaluate and rank the sites studied during the site selection process. The site selection report was finalized in July, 1986.

The County now desires to submit the transportation cost analysis to the NJDEP in compliance with the Solid Waste Management Act. The report has been updated to reflect 1989 conditions.

2.0 DESCRIPTION OF ALTERNATIVES

Five alternatives were developed to study the effects of disposal site location on the haul costs for the County's 33 municipalities. The objectives in selecting the alternatives were to: 1) determine the haul costs to the existing disposal site, 2) determine the haul costs to the proposed resource recovery facility (RRF) disposal site and, 3) determine the economies (if any) to be gained through the use of transfer stations in the County. While the 1986 report contained additional evaluations dealing with the projected closure of Southern Ocean Landfill, Inc. (SOLF), this version has deleted those analyses as that landfill was closed in late 1988. All alternatives were evaluated based on 1992 projected costs and tonnages as that was the projected year for

the opening of the proposed resource recovery facility in the PEHIS. This allowed a common basis of comparison. However, a more realistic date for the start of operation of the RRF would now be 1993-1994. A description of the alternatives follows:

2.1 Alternative 1 - This alternative models the existing 1989 conditions. All waste disposal in the County occurs at the Ocean County Landfill Corporation (OCLF) landfill in Manchester Township. OCLF is the only remaining landfill in the County and there are no transfer stations. This alternative is indicative of the period from 1989 to when the RRF becomes operational. This alternative is shown on Figure 1.

2.2 Alternative 2 - This alternative models the proposed solid waste disposal strategy that will be in effect when the resource recovery facility is operational. Waste from all of the municipalities will be hauled to the centrally located RRF in Waretown (Ocean Township). No transfer stations are modelled in this alternative. This alternative can be in effect from the start of operation of the RRF through the effective life of the facility. It is shown on Figure 2.

2.3 Alternative 3 - This alternative acknowledges the fact that most of the waste is generated in the northern waste district of Ocean County. It computes the transportation costs assuming a transfer station is constructed at the OCLF site in Manchester Township. Waste from the northern waste district of the County would be hauled to the transfer station and the station would then haul the waste to the RRF in Waretown. The selection of OCLF as the site for the transfer station was made for modelling purposes only and is not a designated site. The costs are representative and can be used to evaluate a transfer station in other areas of the northern district of the County, though. The waste from the southern district of the County would be hauled directly to the RRF. It is shown on Figure 3.

2.4 Alternative 4 - This alternative evaluates the transportation costs assuming that two transfer stations are constructed in the County. The northern station would be at OCLF as outlined in Alternative 3 and the southern station would be located at the site of the closed Stafford Township Landfill. As with the northern site, the Stafford site was selected for modelling purposes only and is not a designated site. It was selected because of its proximity to Route 72 and the Garden State Parkway. The costs are representative and can be used to evaluate transfer haul from other southern transfer stations. This alternative could be in effect from the start of operation of the RRF throughout the life of the facility. It is shown on Figure 4.

2.5 Alternative 5 - This alternative is a variation of the existing conditions outlined in Alternative 1. It assumes the construction of a transfer station in the southern district with transfer haul to OCLF. As in Alternative 4, the station was located at the closed Stafford Landfill for modelling purposes. This alternative could be in effect from the date of construction of a transfer station until the operation of the RRF. The viability of this alternative is dependent on the timing of the transfer station construction. Typically, 2-3 years are required to complete transfer station permitting and construction. Once the RRF is completed, the need for the transfer station diminishes substantially. If the transfer station is completed in 1992 and the RRF is completed in 1994, there is a poor economic incentive to develop the transfer station as all of the waste being transferred to OCLF would be diverted to the RRF in Waretown (10 miles away). This alternative is shown on Figure 5.

3.0 METHODOLOGY

In order to evaluate haul costs, GBB-Killam utilized a computer model which employed the following procedure:

1. 1992 population projections for each municipality were input from data supplied by the Ocean County Planning Board;
2. 1992 solid waste quantities for each municipality were computed;
3. Solid waste centroids were established in each municipality;
4. Routes from each municipality centroid to each "modelled" disposal site were selected and field-verified. These routes were over selected roads in the County and represent realistic and workable links. Mileages for each route were computed on a round-trip basis. They depend on the routes available to access the Parkway and in some cases involve trucks travelling south to a Parkway interchange and then north to the site;
5. Costs were established on a dollar per ton mile basis to enable GBB-Killam to equate a given municipality's tonnage, travel distance and time to a haul cost. The cost of collection (packer) truck haul was evaluated by examining all of the costs associated with these operations. These costs included: replacement cost (including reduction of life or vehicle with corresponding earlier replacement), labor for 2 loaders and driver, fuel costs, tire costs, service costs, parts costs, and overhead. When added and divided by a typical measured Ocean County packer truck weight, we found the cost of direct haul to be \$0.33 per ton-mile;

The costs for transfer trailer haul were similarly computed. The factors examined include: amortization of capital cost including debt service of the transfer station, the cost of labor for the driver, the operations and maintenance (O&M) costs for the transfer station, and the O&M costs for the transfer trailers (fuel, service, tires, parts, etc.). The sum of all of the costs divided by a typical transfer trailer payload resulted in a cost of transfer station haul to be \$0.16 per ton-mile;

6. Haul costs were then computed for the five alternatives discussed above by multiplying each municipal tonnage by the round-trip miles and by the cost per ton-mile.

4.0 LIST OF ASSUMPTIONS

In order to compute all of the costs, certain assumptions were made. These assumptions are reasonable given the task of comparing haul costs for various disposal sites and transfer station locations. They include:

1. When the RRF is in operation and there is a transfer station in either the north or south, the waste transferred to the RRF from the transfer station is 90% of the waste coming in. The remaining waste either remains or is sent to OCLF as non-processible material.
2. There are no computations for ash haul. The cost of ash haul is an RRF facility cost and will be included in the RRF tipping fee. There is no assumption that the transfer trailers which haul waste to the RRF will haul ash back to OCLF.
3. The capital cost of the transfer trailers does not include the capital cost of the ash trailers. That cost is part of the RRF construction cost.
4. The costs presented do not include the cost of local collection. These are haul costs only. The study assumed that all of the waste generated in the municipality leaves from the "waste center" or centroid of the municipality and travels to the disposal site. Further, it assumed that the cost of local collection is unaffected by the disposal site location.
5. Computer runs for Alternatives 1 and 5 include 1992 tonnages even though they occur earlier. This was done to allow comparison with other alternatives.

5.0 RESULTS

The table below shows the results of all of the analyses. The costs reported are county-wide totals for the years shown based on the tonnages expected in those years.

<u>ALTERNATIVE/YEAR</u>	<u>DESCRIPTION</u>	<u>ANNUAL COST</u>
1-1992	All Waste to OCLF	\$4,371,200
2-1992	All Waste to RRF in Waretown	\$6,892,600
3-1992	North District to North Trans. Sta., South ⁽¹⁾ to RRF	\$5,212,500
4-1992	North to North Trans. Sta., Central to RRF, South to Southern Trans. Sta.	\$5,034,200
5-1992	North District to OCLF, South to Southern Trans. Sta. then to OCLF	\$3,595,200

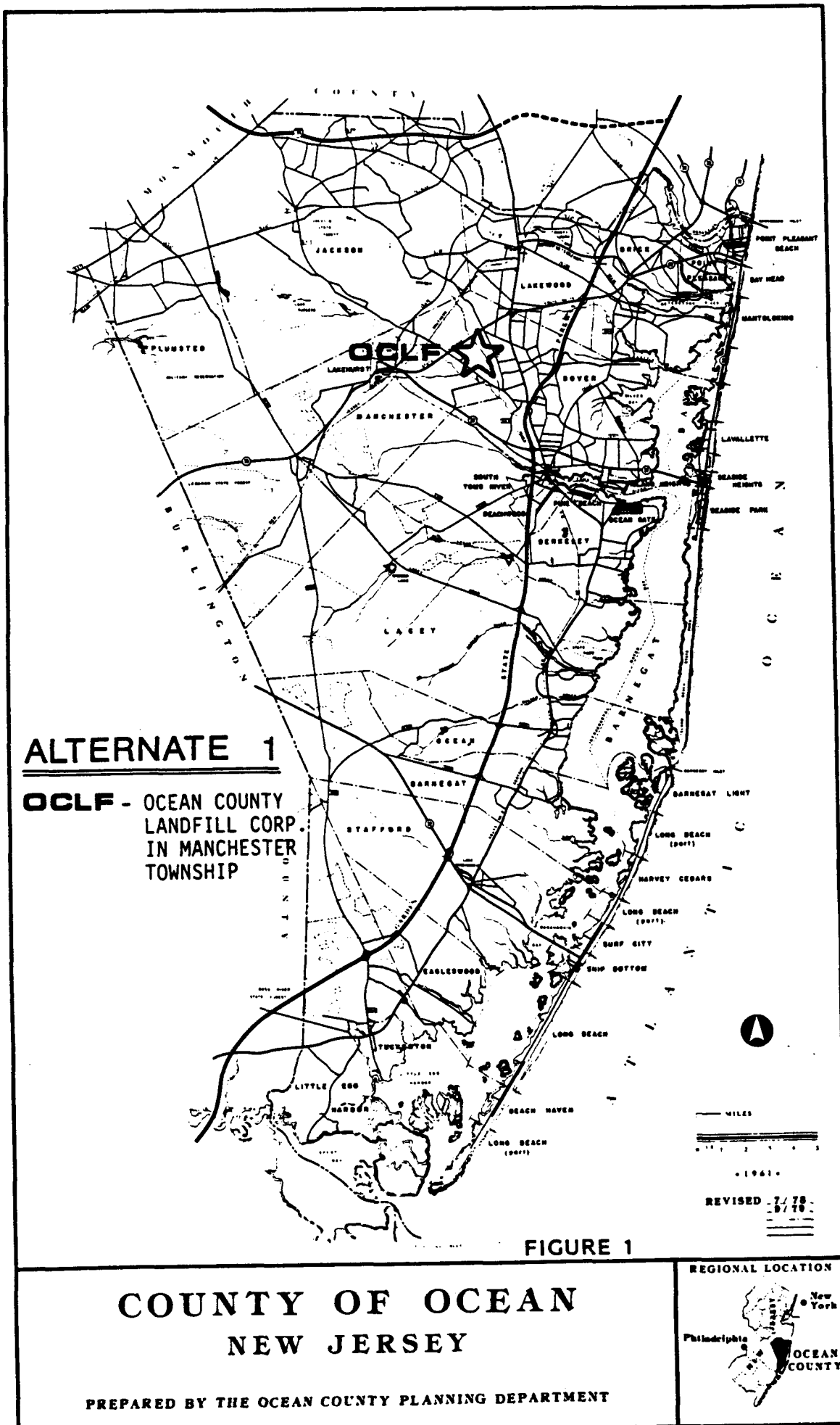
- (1) The municipalities comprising the waste districts vary by Alternative. See attached figures.

6.0 CONCLUSIONS

The conclusions which can be reached are as follows:

- 1) The County-wide annual cost of haul decreases when transfer stations are utilized. When the RRF is located in Waretown, a transfer station in the North District reduces haul costs by \$1,680,100. If a transfer station is constructed in both the north and south districts, the reduction in haul cost is \$1,857,800.

2) There is a \$776,000 savings in haul costs to the southern waste district municipalities over the existing condition if a transfer station is constructed in the southern district. However, this alternative enjoys that financial benefit only until the RRF is constructed in Waretown. This is because OCLF is 30 miles from the southern transfer station but the RRF is only 10 miles away. If the transfer station is constructed in 1992 or 1993 and the RRF in 1994, the period of maximum savings in the haul costs is short and does not justify the construction of the station.



ALTERNATE 2

RRF-RESOURCE RECOVERY
FACILITY IN
WARETOWN

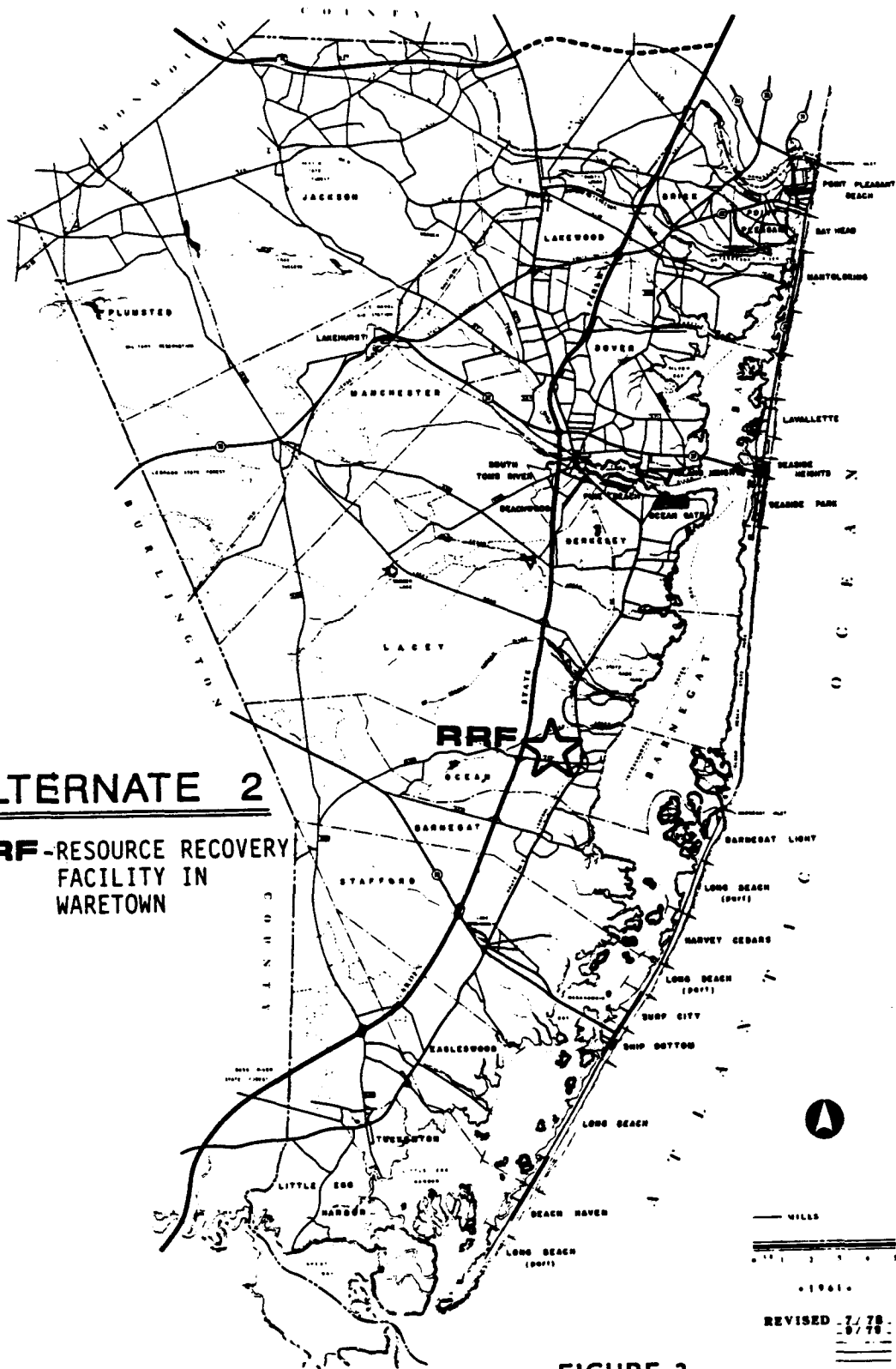


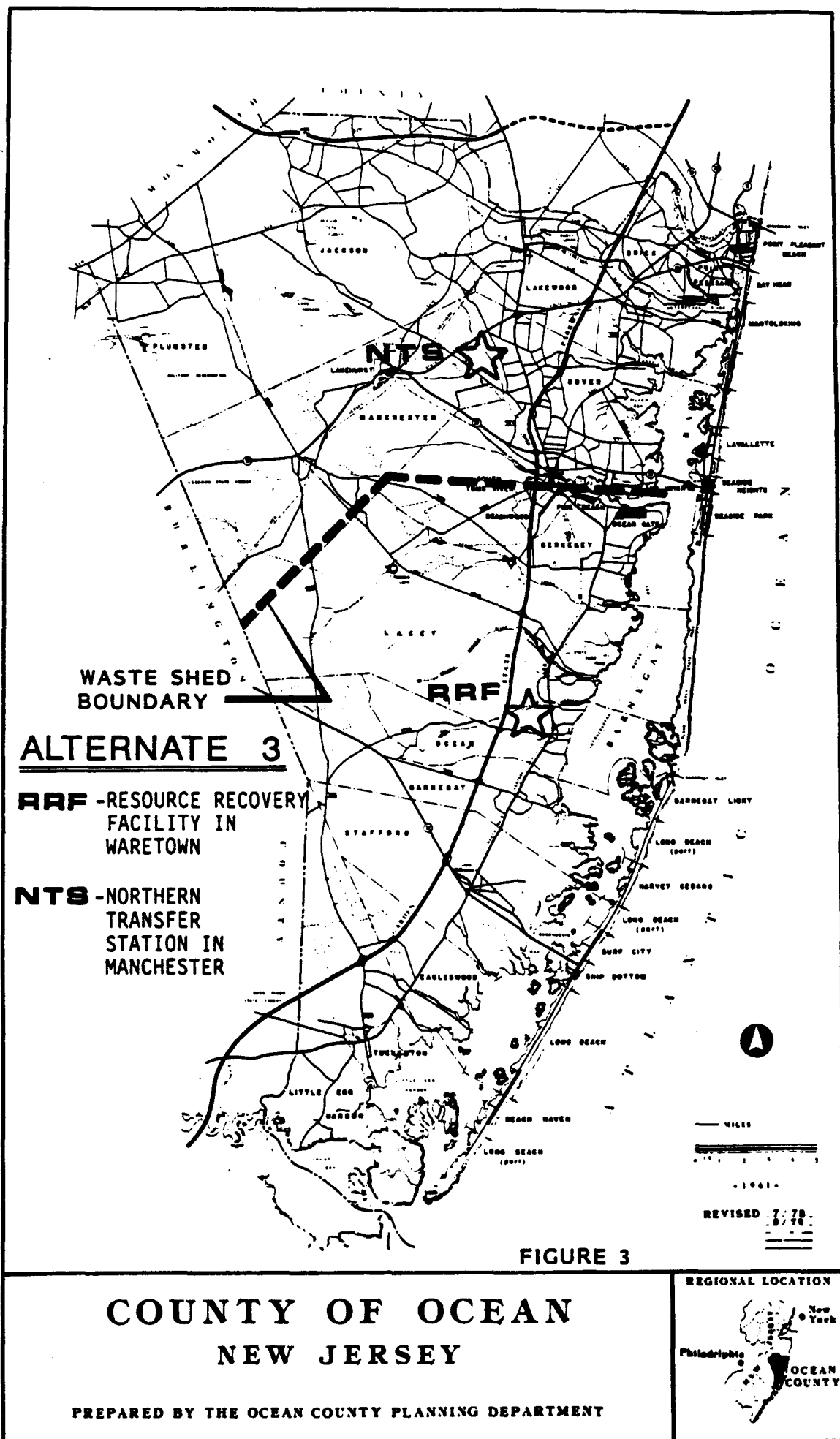
FIGURE 2

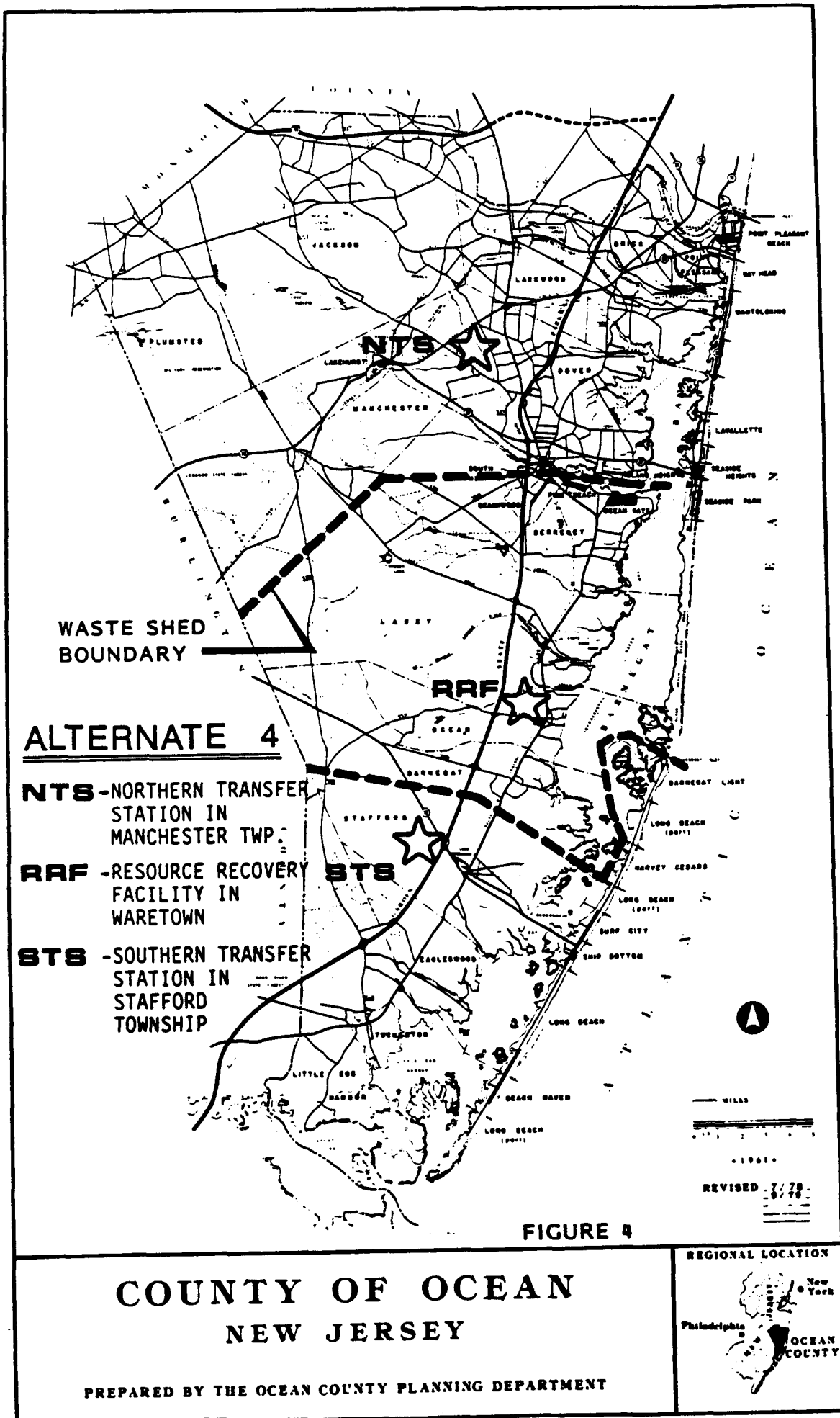
COUNTY OF OCEAN NEW JERSEY

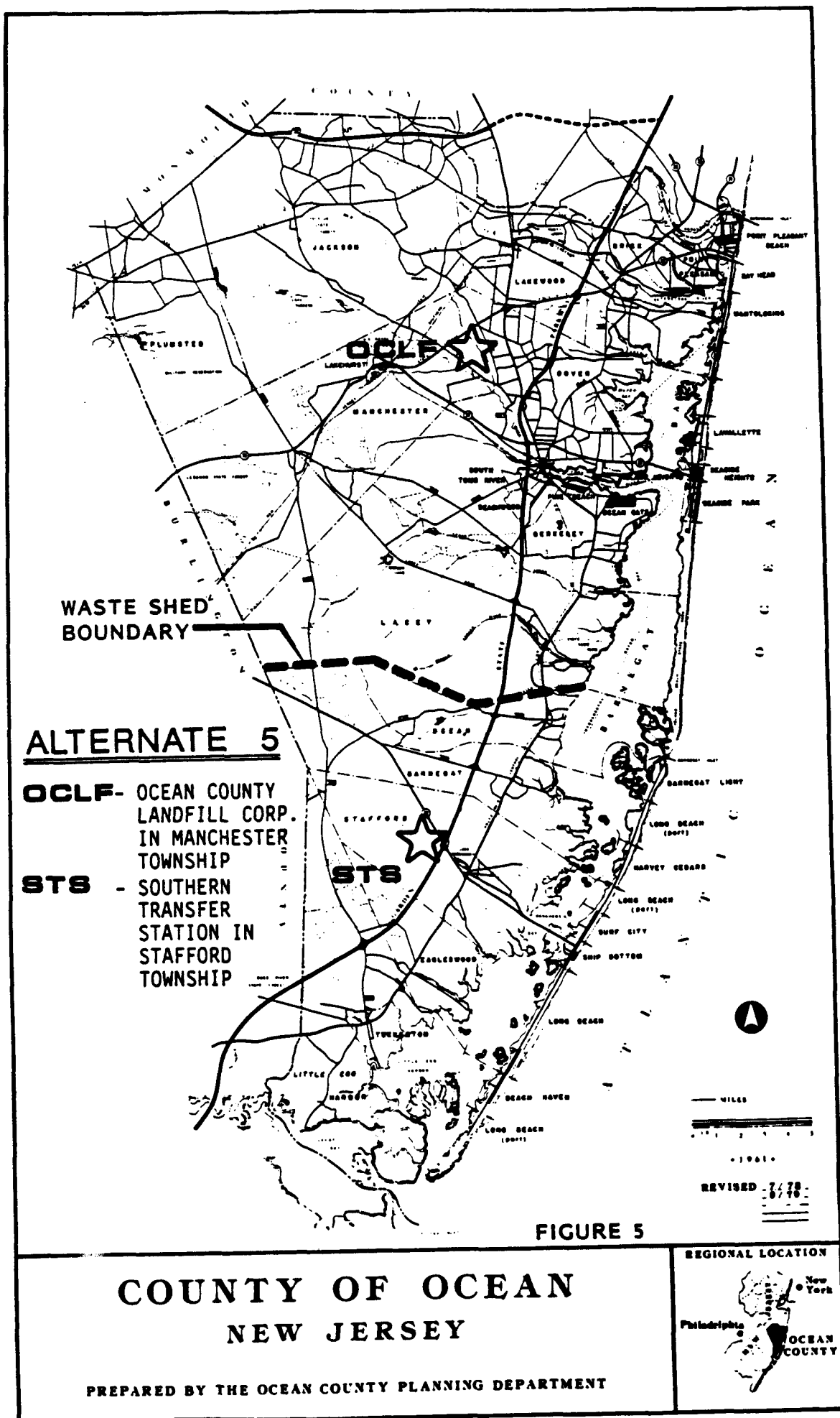
PREPARED BY THE OCEAN COUNTY PLANNING DEPARTMENT

REGIONAL LOCATION









APPENDIX E

Plan of Finance

**OCEAN COUNTY
RESOURCE RECOVERY PROJECT
PLAN OF FINANCE**

Ocean County is proposing to finance the planning, development, design, construction and testing of its 1,050 ton per day resource recovery facility (the "Facility") and related improvements (collectively, the "Project") through a multi-faceted financing program designed to produce the capital required for the Project in a timely fashion and at the least cost to the citizens of Ocean County.

OWNERSHIP OF THE FACILITY

As a preliminary step in the development of this Plan of Finance, the County required Public Financial Management, Inc., its financial advisor, to complete a preliminary financial analysis of the Project and the Facility ownership options available to the County. The results of that analysis and the conclusions and recommendations included in the report of the financial advisor have enabled the County to reach certain conclusions upon which this Plan of Finance is premised.

Most importantly, the County has determined that because of the status of the Ocean County Facility as a "transition rule" project under the terms of the Tax Reform Act of 1986, it will be possible to generate significant annual cost savings for the County if the Facility is privately owned and operated. These savings are the result of the fact that the private owner/operator of the Facility will be willing to make a contribution of equity to the Project. Depending upon market conditions at the time of the vendor selection, that equity is likely to be in the range of 12%-15% of the capital cost of the Facility. This equity contribution reduces the amount of borrowing that the County will have to undertake and thus reduces the annual debt service payment which will have to be raised in the tipping fee. The vendor will achieve a return on this equity contribution by making use of the tax benefits which have value to the private owner but not to the County.

The County has made this determination that while private ownership will be most advantageous to it financially, it is also clear, after a careful review of the business risks associated with such a transaction, that there is no material increase in such risks as a result of private ownership.

Finally, the County has determined that it will maintain an additional level of control in the private ownership scenario that it has elected by maintaining ownership of the site on which the Facility will be developed. The site will be leased under a long-term lease to the Facility's owner.

INSTITUTIONAL ARRANGEMENTS

A second important conclusion upon which the Plan of Finance has been premised is that the financing can be most effectively pursued through the use of the Ocean County Pollution Control Financing Authority (the "Authority") to sponsor the financing of the Project.

By financing the Project through the Authority (as opposed to through the County itself), it will be possible to issue pure project revenue bonds which will have the least impact upon the underlying credit of the County. If the Project were financed through the County, even if the structure of the financing was as a pure revenue bond, it would be necessary for the

County to count the Project debt against their general obligation debt limit because under State law the bonds would be considered to be secured by both the revenues of the Project and the County's full faith and credit. In addition to the negative impact of such a large borrowing on the County's overall credit picture, it is unlikely that the County in fact would have sufficient general obligation borrowing capacity both to finance the Project and to continue with its normal capital borrowings. In addition, if the Project bonds were issued by the County, it would be necessary to follow the rules set out by the State for the issuance and structuring of general obligation debt. While these rules are appropriate for the issuance of general obligation debt, they would place certain inappropriate constraints on the issuance of the Project debt and would result in a higher per ton tipping fee at the Facility.

Having determined that it would be most cost effective and at the same time protective of the County's credit to use an Authority to issue the bonds for the Project, the County reviewed the three authorities which are authorized under New Jersey law to finance resource recovery projects:

County Utilities Authorities (N.J.S.A. 40:14B-1 et seq.)

County Improvement Authorities (N.J.S.A. 40:37A-44 et seq.)

County Pollution Control Financing Authorities
N.J.S.A. 40:37C-1 et seq.)

The County's existing Utility Authority is already responsible for the considerable task of collecting and treating the County's wastewater. There is currently no County Improvement Authority. Rather than create one, the Board of Chosen Freeholders has elected to reactivate the Pollution Control Financing Authority (the "Authority") and to make it responsible for the issuance of the debt associated with the Project. This assignment of responsibility will be accomplished with the June 7, 1989 adoption of this Plan Amendment by the Freeholders. While the financing and contractual arrangements will be carried out by the Authority, the supervision of the Project and of the performance of contracts will be carried out by the County Department of Solid Waste Management.

THE FACILITY PROCUREMENT

Having reached these basic conclusions about the ownership of the Facility and the vehicle for financing it, the County is now prepared to begin the selection of the Facility vendor (the "Vendor"). In keeping with the requirements of the McEnroe Amendments to the State Solid Waste Management Act (N.J.S.A. 16:1E-136), the Authority will undertake a two step procurement process which will enable it to select the best qualified vendor able to offer the least costly Facility to the County.

In the first phase of the procurement, the Authority will develop and circulate a Request for Vendor Qualifications (the "RFQ"). The RFQ will establish criteria for the qualification of vendors who will then be invited to respond to the Request for Proposal (the "RFP"). The County anticipates that the RFQ will be circulated by the Authority in the spring of 1989.

Respondents to the RFQ will be evaluated based upon objective standards in each of the following categories:

management capabilities;
corporate commitment to resource recovery;
municipal solid waste/resource recovery experience
technical qualifications; and
financial strength and stability.

Qualified vendors will then be invited to respond to the detailed RFP which will enable the Authority to select the vendor with whom it wishes to negotiate the final terms and conditions of the transaction. The County currently anticipates the release of the RFP by October 1, 1989. The selection of the vendor with whom the Authority will negotiate will be made pursuant to an evaluation of the comparative technical merits of each proposed Facility, the comparative costs of developing the Facility and operating it for 20 years and the comparative contractual positions proposed by each vendor. After the preliminary selection of a vendor, the Authority will negotiate the final contract terms with that vendor and, assuming that agreement is reached, will be prepared to enter into that contract with the Vendor.

VENDOR GUARANTEES

An integral part of the vendor selection and of the ultimate economics of the Facility will be a series of guarantees that each vendor will, in their RFP response, agree to provide to the County. The major guarantees are as follow:

- 1) 100% compliance with all environmental standards;
- 2) Guaranteed capacity or throughput; and
- 3) Guaranteed level of energy production.

Each vendor will also guarantee a certain maximum level of utility usage as well as the quality and quantity of the residue ash which will be generated from the incineration process.

The Authority, to ensure that the vendor has the financial wherewithal to pay the damages associated with the failure to meet one or more of these standards, will require that each proposing vendor provide a commitment of its parent company or outside guarantor to back-up each of the commitments made by the vendor.

THE SALE OF ELECTRICITY

The Facility will generate electricity which will be sold by the vendor to a local investor-owned utility pursuant to applicable State and federal law and policy. Revenues from the sale of electricity will be shared by the Authority and the vendor. It is typical that the vendor's share of these revenues for amounts in excess of the guarantee level increase in order to provide an incentive to the vendor to exceed the guarantee level. These terms will all be negotiated with the vendor identified in the RFP process and will be included in the final agreements negotiated with that vendor.

PROJECT COSTS

The design, construction and testing of the Facility is projected to cost \$146,851,950. In addition, the County anticipates that it will be necessary to complete roadway improvements which are estimated to cost \$13.4 million. Other primary costs which must also be financed are construction period interest, a debt service reserve fund and certain costs associated with the financing. After the completion of construction, the County anticipates that it will have outstanding a tax-exempt bond issue in the principal amount of \$159,725,000.

THE FINANCING

Having reached these basic conclusions about the structure and content of the transaction it plans to undertake, the County is now in a position to identify the basic elements of the actual financing which the Authority will undertake in order to provide the funds necessary to have the Facility designed, constructed and tested in a timely fashion.

The Authority will issue a series of tax-exempt bonds and a series of taxable bonds. The proceeds of the tax-exempt bond issue will be used to finance those costs which under federal law are qualified for tax-exempt financing. These include the following categories of expenditures:

- 1) costs associated with the solid waste disposal function such as: the design of the Facility; site acquisition and preparation; Facility construction; the purchase and installation of waste handling equipment; the purchase and installation of air pollution control equipment; miscellaneous costs including initial spare parts, bid bonds, construction period insurance and payment and performance bonds;
- 2) costs associated with the start-up and initial operation of the Facility;
- 3) costs, to a limit of 2% of the par amount of the tax-exempt bond issue, associated with the issuance of the bonds;
- 4) construction period interest; and
- 5) a debt service reserve fund.

Because the Facility is to be privately owned, the tax-exempt bonds will be deemed to be Private Activity Bonds and, as such, will require a private activity bond allocation from the State of New Jersey.

The Authority will use the proceeds of the taxable bond issue to finance the costs of the Project which are not directly related to the disposal of solid waste. These costs include the following:

- 1) costs associated with the purchase and installation of power generating equipment, the steam transmission main, on-site electrical switch-gear and transmission equipment and the electrical interconnection; and
- 2) costs in excess of 2% of the par amount of the tax-exempt bond issue, associated with the issuance of the tax-exempt bonds.

As was noted above, the selected vendor will make an equity contribution to be used toward the cost of the Project. That equity may be infused into the Project in one of three ways: at the start of construction; pro-rata over each construction period drawdown; and upon the completion of construction. The Authority and the vendor will negotiate the payment method which produces the greatest financial benefit to the Project. If, as appears likely, the equity comes in at the completion of construction, the Authority will utilize the equity proceeds to redeem the taxable bond issue. Because this is the most costly portion of the Authority's debt, this redemption will have the greatest impact on reducing tipping fees. To the extent that vendor equity and other available funds (see Resource Recovery Investment Tax Fund below) are in excess of the par amount of the taxable bond issue, a portion of the tax-exempt bond issue will also be redeemed at the completion of construction.

The Authority will structure its long-term debt for the Project as revenue bonds supported solely by the revenues of the Facility. Revenues will consist of net electric revenues generated by the sale of electricity, tipping fees and, during the first two and one half years (July 1, 1993 - December 31, 1995) of Facility operations, the proceeds of the Resource Recovery Investment Tax Funds (see below). The bonds will be amortized over a 20 year term after a construction and testing period for the facility of approximately 30 months. The following is a pro-forma estimate of the Sources and Uses of Funds which will be available for financing of the Project:

SOURCES

Tax-Exempt Bond Proceeds	\$192,330,000
Taxable Bond Proceeds	16,455,000
Vendor Equity	36,901,505
Resource Recovery Investment Tax (Net of Land Acquisition)	9,000,000
Construction Period Interest Earnings	<u>28,242,762</u>
TOTAL SOURCES	\$282,929,267

USES

Construction Costs	\$146,851,950
Road Improvements	13,400,000
Capitalized Interest	49,319,197
Bond Redemption (at Construction Completion)	49,060,000
Debt Service Reserve Fund	19,233,000
Costs of Bond Issuance	<u>5,065,120</u>
TOTAL USES	\$282,929,267

RESOURCE RECOVERY INVESTMENT TAX

The County will use the proceeds of the Resource Recovery Investment Tax (the "Tax") for four specific purposes related to the development and implementation of the Project.

The first use of Tax proceeds will be for the acquisition of the Facility site. Collections for 1987, 1988, and 1989 totalling \$4,177,521 will be used to purchase the designated Facility

site. To the extent a portion of the this total is not used for site acquisition, it will be used to augment the 1990 and 1991 collections to reduce the amount of the 1991 bond issues.

When the Authority issues its project bonds (currently anticipated to be in early 1991), the total amount of the Tax then on hand will be used toward Project costs to reduce the size of the taxable bond issue. Logistically, the County will drawdown on the Tax balance held by the State at the time the Authority issues its bonds and will deposit these funds with the bond trustee to be paid out for Project costs which are not eligible for tax-exempt financing. Upon the completion of construction, the balance of the Tax which has been collected by the State during the construction period will be used, along with vendor equity, to effect a redemption of the taxable bond issue and, if sufficient funds are available, a portion of the tax-exempt bond issue. By using Tax proceeds to reduce the amount of debt ultimately outstanding for the Project, a savings over the term of the bond issues will be available to the residents of the County.

After the post-construction redemption, Tax revenues will continue to accrue until the end of 1995. It is the County's intention to use the remaining Tax revenues to establish a Rate Stabilization Fund which, over the first one and one half years of the operation of the Facility will be used to partially offset tipping fees and to regulate the impact of the cost of the Facility on residents of the County.

Based upon actual collections and projections of the Tax, \$4,500,000⁽¹⁾ will be available in January 1991 for deposit with the Project's bond trustee; \$4,500,000⁽²⁾ will be available upon the completion of construction to be used, along with vendor equity, for the post-construction bond redemption; and a total of \$1,500,000⁽³⁾ will be available during the period July 1, 1993 - December 31, 1995 for use as a Rate Stabilization Fund.

-
- (1) Collections for the period July 1, 1988 - January 1, 1991 are projected as follow:

07/01/88-06/30/89	\$1,800,000
07/01/89-06/30/90	1,800,000
07/01/90-12/31/90	<u>900,000</u>
Total	\$4,500,000

- (2) Collections during the construction period are projected to be as follow:

01/01/91-06/30/91	\$ 900,000
07/01/91-06/30/92	1,800,000
07/01/92-06/30/93	<u>1,800,000</u>
Total	\$4,500,000

- (3) Collections during the first one and one half years of commercial operations are projected as follow:

07/01/93-06/30/94	\$ 600,000
07/01/94-06/30/95	600,000
07/01/95-12/31/95	<u>300,000</u>
Total	\$1,500,000

OPERATING PROJECTIONS

Based upon capital and operating cost and revenue assumptions provided by the County's consulting engineer, Gershman, Brickner and Bratton, and the financing assumptions made by the County's financial advisor, Public Financial Management, Inc., the attached spread sheet (Table A-1) projects in 1989 dollars and in current dollars, the annual cost of operating the Facility, the annual debt service, available electric revenues and the tipping fee necessary to make the program operational. While these numbers are pro forma and are subject to change as actual circumstances occur, they do represent the current best estimate of the costs to the County of operating its Resource Recovery Facility.

1970-1971

The first connection was (C) broken immediately after construction of the facility on 7/1/80.

Notes: All losses in incidence. All earnings and hours are calculated from 11/1/88.

APPENDIX F
Transition Ruling

Bathgate, Wegener, Mouters & Neumann

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

ONE AIRPORT ROAD

POST OFFICE BOX 676

LAKEWOOD, NEW JERSEY 08701

(201) 363-0666

TELEX

13-2163

TELECOPIER

(201) 363-0664

ZAPNET

201 367 2234

April 12, 1989

Mr. Steven L. Pollock
Planning Director
Ocean County Planning Board
Court House Square
C.N. 2191
Toms River, New Jersey 08754

RE: OCEAN COUNTY RESOURCE RECOVERY PROJECT

Dear Mr. Pollock:

You have requested that we advise you whether the proposed Ocean County resource recovery facility is eligible for "transition status" under the Tax Reform Act of 1986, as enacted into law on October 22, 1986 (the "Act"), and under the Internal Revenue Code of 1986, as amended (the "Code").

Based upon and subject to the matters hereinafter set forth, it is our opinion that the Ocean County resource recovery facility constitutes a solid waste disposal facility described in the transition rule set forth in Section 204(a)(8) of the Act and, therefore, Section 201 of the Act, modifying the accelerated cost recovery system, shall not apply to the taxpayer who originally places in service the Ocean County resource recovery facility and the Ocean County resource recovery facility shall constitute "transition property" within the meaning of Section 49(e) of the Code, and, subject to Subsections 49(c) and (d), Subsection 49(a) of the Code, eliminating the regular investment tax credit for property placed in service after December 31, 1985, shall not apply to the Ocean County resource recovery facility.

To render the opinions set forth above, we have reviewed copies of various resolutions, vouchers, agreements, documents and other records of the County of Ocean, including copies of an Agreement dated November 13, 1985, by and between the Ocean County Board of Freeholders and Gershman, Brickner & Bratton, Inc., and an Agreement dated June 11, 1985, by and between the County of Ocean and New Jersey First Incorporated, copies of

Bathgate, Wegener, Wouters & Neumann
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Mr. Steven L. Pollock

April 12, 1989

Page 2

vouchers submitted to the County and dated prior to March 2, 1986 requesting payments in excess of \$200,000 for work performed in connection with the resource recovery facility, and the County's budget for 1986, which budget we have been advised appropriated \$479,050 for the resource recovery facility and was adopted on February 18, 1986. We have not undertaken an independent audit, examination, investigation or inspection of the matters described or contained in such resolutions, vouchers, agreements, documents and other records, and we have relied solely on the matters set forth above. In our examination of the foregoing, we have assumed the genuineness of signatures on all documents and instruments, and the conformity to originals of the documents submitted as copies. In rendering the opinions expressed herein, we are also relying on the representation that, in accordance with the County's state approved solid waste management plan, the Ocean County resource recovery facility is intended to provide solid waste disposal services for residents of Ocean County and that all of the solid waste to be processed at such facility will be collected from the general public.

Sincerely yours,

BATHGATE, WEGENER, WOUTERS & NEUMANN, P.C.

WRM/jsl

Bathgate, Wegener, Wouters & Neumann

APPENDIX G
Resolution of Adoption

RESOLUTION

June 7, 1989

WHEREAS, the Ocean County Board of Chosen Freeholders has previously adopted and the Commissioner of the New Jersey Department of Environmental Protection has certified, as required by State law, a Solid Waste Management Plan (hereinafter "Plan") for the Ocean County Solid Waste District; and

WHEREAS, the Ocean County Board of Chosen Freeholders has periodically adopted amendments to the Plan to provide a comprehensive strategy for the management and disposal of the solid waste generated within the Ocean County Solid Waste District; and

WHEREAS, Ocean County's current Plan consists of an integrated three prong approach to Solid Waste Management including:

1. An aggressive recycling effort to recover from the community solid waste stream all materials for which there are any reuse opportunities;

2. A waste-to-energy facility which will selectively burn non-recyclable waste using the heat to generate electricity;

3. A protectively designed landfill for purpose of disposal of waste which can neither be recycled nor burned, and for disposal of the ash residue from the waste-to-energy process; and

WHEREAS, the County's professional staff and consultants and the Ocean County Solid Waste Advisory Council have recommended that the Ocean County Board of Chosen Freeholders adopt additional amendments to the Ocean County District Solid Waste Management Plan, as more specifically detailed in a report entitled "Proposed Amendment to the Ocean County Solid Waste Management Plan,

April 7, 1989, Revised April 17, 1989, Revised June 5, 1989" (hereinafter "Plan Amendment Report"); and

WHEREAS, the essential purposes of the proposed Plan Amendment include the following, as more specifically detailed in the Plan Amendment Report:

1. Establish the Ocean County Pollution Control Financing Authority as the financing entity for the development of the proposed waste-to-energy facility;
2. Provide a financial plan for the proposed waste-to-energy facility;
3. Provide a plan for the use of the Resource Recovery Investment Tax Fund;
4. Provide a transportation cost study in accordance with N.J.S.A. 13:1E-21;
5. Provide a revised implementation schedule for the development, construction and operation of the proposed waste-to-energy facility;
6. Provide a list of existing private recycling operations within Ocean County;
7. Provide a list of permitted compost facilities in Ocean County and the Service Areas served by each;
8. Provide a list of small incinerators permitted and operating in Ocean County; and
9. Include in the Plan a Materials Recovery Facility/ Recycling Center proposed to be built and operated by Rosetto Recycling, Inc. at Block 411, Lot 1.2, Route 37, Dover Township, subject to the terms and conditions more specifically set forth in the Plan Amendment Report; and

WHEREAS, the proposed Plan Amendment Report together with the necessary supporting documents were prepared and publicly

distributed as required by law, and the proposed Plan Amendment was subject to public comment during a Public Hearing conducted by the Ocean County Board of Chosen Freeholders on May 16, 1989; and

WHEREAS, the Ocean County Board of Chosen Freeholders has carefully considered the recommendations of the County's professional staff, consultants and the Ocean County Solid Waste Advisory Council and has further considered both oral and written comments and testimony from the Public Hearing; and

WHEREAS, the Ocean County Board of Chosen Freeholders has further considered the "Response to Questions and Comments Raised at the May 16, 1989 Public Hearing on the Proposed Amendment to the Ocean County Solid Waste Management Plan", dated June 5, 1989; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF CHOSEN FREEHOLDERS OF THE COUNTY OF OCEAN, STATE OF NEW JERSEY as follows:

1. The Ocean County Board of Chosen Freeholders hereby adopts the amendments to the Ocean County Solid Waste Management Plan set forth in the document entitled "Proposed Amendment to the Ocean County Solid Waste Management Plan, Dated April 7, 1989, Revised April 17, 1989, Revised June 5, 1989". These amendments, as more specifically set forth therein, accomplish the following:

A. Designate the Ocean County Pollution Control Financing Authority as the financing entity for the development of the proposed waste-to-energy facility;

B. Approve a financial plan for the proposed waste-to-energy facility;

C. Approve a plan for the use of the Resource Recovery Investment Tax Fund;

D. Approve a transportation cost study in accordance with N.J.S.A. 13:1E-21 et seq.;

E. Approve a revised implementation schedule for the development, construction and operation of the proposed waste-to-energy facility;

F. Include in the Plan a list of existing private recycling operations within Ocean County;

G. Include in the Plan a list of permitted compost facilities in Ocean County and the Service Areas served by each;

H. Provide a list of small incinerators permitted and operating in Ocean County; and

2. The Ocean County Board of Chosen Freeholders defers action at this time concerning inclusion in the Plan of a Materials Recovery Facility/Recycling Center proposed to be built and operated by Rosetto Recycling, Inc. at Block 411, Lot 1.2, Route 37, Dover Township. This action is taken at no prejudice to the applicant.

3. A certified copy of this Resolution together with copies of the Plan Amendment Report, copies of the Public Hearing transcript, and other pertinent documents and information shall be submitted to the Commissioner of the New Jersey Department of Environmental Protection for State certification, as required by law.

4. Certified copies of this Resolution shall be forwarded to the Ocean County Solid Waste Advisory Council, Ocean County Legislators, Ocean County Mayors, and other parties, as required by law.

-4- I certify the foregoing to be a true copy of a Resolution adopted by the Board of Chosen Freeholders of the County of Ocean, on the 12th day of July, 1988.
[Signature]
Daniel J. Maroney
Chair of the Board

APPENDIX H

Resolution for Pollution Abatement Technology

RESOLUTION

June 7, 1989

WHEREAS, the Ocean County Board of Chosen Freeholders has adopted a Solid Waste Management Plan which provides for the construction and operation of a 1,050 ton per day waste-to-energy incinerator and said plan has been approved as required by State Law by the New Jersey DEP; and,

WHEREAS, the Board of Chosen Freeholders wishes to place on the official record that it is the policy of this Board that the proposed incinerator shall be developed to include the use of all available and effective pollution abatement technology;

WHEREAS, the purpose of this requirement is to insure safe operation of the plant and that maximum protection of the air, water and natural resources of Ocean County are afforded by the highest degree of protection;

NOW, THEREFORE, BE IT RESOLVED that the Ocean County Board of Chosen Freeholders hereby directs the County staff, professional consultants and advisors to include requirements in the Request for Proposals for the proposed plant to insure that all available and effective pollution abatement technology will be provided by the selected vendor for the construction of the plant.

I hereby certify that this is a true and correct copy of a Resolution adopted by the Board of Chosen Freeholders of the County of Ocean on the 7th day of June, 1989.
[Signature]
Board Secretary
Clerk of the Board

APPENDIX I

**Resolution for Inclusion of Recyclable Materials
in Screening Process**

R E S O L U T I O N

June 21, 1989

WHEREAS, The Ocean County Board of Chosen Freeholders has received recommendations from Mr. Robert Armeit of Manchester Township, which would provide clarification concerning the June 7th Solid Waste Plan Amendment's reference to recycling separation equipment, and

WHEREAS, The Board of Chosen Freeholders is in full agreement with these recommendations and wishes to specifically include same in the Solid Waste Plan Amendment, and

WHEREAS, the purpose and intent of these recommendations are to make it perfectly clear as to what specific items are to be removed prior to combustion,

NOW, THEREFORE, BE IT RESOLVED that the Ocean County Board of Chosen Freeholders hereby directs its staff and professional consultants and advisors to incorporate in the vendor selection process requirements to specify that the screening and removal process referred to in the June 7th Plan Amendment be designed to include, but not be limited to, the following items:

- 1. Tin cans, including tin paint cans and covers**
- 2. Aluminum cans, foil, and cake (pie) plates**
- 3. Glass - white (clear) glass to be separated from color glass**
- 4. Paper products - newspapers, magazines, brown supermarket bags**
- 5. Cardboard - corrugated and plain cardboard such as TV dinner cartons, cereal boxes**

6. All plastic materials, soda bottles, milk and water jugs, detergent and motor oil bottles, vitamin bottles, plastic wrapping and supermarket bags

BE IT FURTHER RESOLVED that copies of this resolution be incorporated in the Plan Amendment official record submitted to the New Jersey Department of Environmental Protection.

I certify the foregoing to be a
true copy of a Resolution *passed*

by the Board of Chosen Freeholders
of the County of Ocean on the

11th day of June 1989

Barbara J. Hennessy
Barbara J. Hennessy
Clerk of the Board