

AMENDMENTS  
TO  
THE OCEAN COUNTY DISTRICT  
SOLID WASTE MANAGEMENT PLAN

JULY 1, 1980

adopted by  
THE OCEAN COUNTY BOARD OF CHOSEN FREEHOLDERS

in cooperation with  
THE OCEAN COUNTY SOLID WASTE ADVISORY COUNCIL

June 26, 1980



# COUNTY OF OCEAN

BOARD OF CHOSEN FREEHOLDERS

Leonard T. Connors, Jr.  
Freeholder Director

June 27, 1980

The Honorable Jerry English, Commissioner  
State of New Jersey  
Department of Environmental Protection  
P.O. Box 1390  
Trenton, New Jersey 08625

Dear Commissioner English:

I am pleased to inform you that the Ocean County Board of Chosen Freeholders has adopted amendments to the Ocean County District Solid Waste Management Plan, as called for in your Certification of Modification dated December 14, 1979. A copy of the Plan amendments and a public participation report are enclosed for your information and review. Also enclosed is a summary of the June 23rd Public Hearing concerning the Plan amendments.

The Plan amendments address the development of environmentally secure regional landfills, the phasing in of resource recovery and the disposal of sewage sludge and septage. In the area of resource recovery, the proposed Dover Township Municipal Utilities Authority project is incorporated in the Plan amendments. The Ocean County Utilities Authority sludge management planning project is also incorporated into the Plan amendments.

In the opinion of the Board of Chosen Freeholders and the Ocean County Solid Waste Advisory Council, the County Plan represents the best judgement at this time for managing Ocean County's solid waste. The Board strongly supports resource recovery and intends to actively pursue the development of such facilities in Ocean County. However, the County's professional consultants and the Solid Waste Council advise the Board that until financial assistance is available for resource recovery projects the most economically feasible method for disposal of solid waste at this time is the landfill program outlined in the Plan. In this regard the Board reserves the right to modify the Plan as may be necessary to advance resource

Honorable Jerry English  
Leonard T. Connors, Jr.

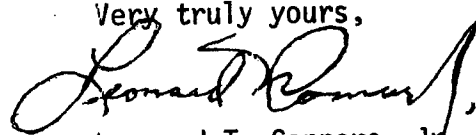
June 27, 1980

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recovery in a timely fashion.

The Board looks forward to your expeditious review and certification of the County Plan.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Leonard T. Connors, Jr.", written in dark ink.

Leonard T. Connors, Jr.  
Freeholder Director

LTC:Jr:cey  
enclosures:

cc:  
Bart Carhart, Solid Waste Administration

OCEAN COUNTY

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## INTRODUCTION

On July 18, 1979, the Ocean County Board of Chosen Freeholders adopted a solid waste management plan. The Plan was prepared to assure safe, efficient and lawful collection and disposal of solid waste in the County. It was adopted in conformance with the New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq., C. 326, PL 1975 and the Federal Resource Conservation and Recovery Act (42 USC 6901 et seq.)

To be an effective legal instrument, the Plan must be approved by the Commissioner of the New Jersey Department of Environmental Protection. The Ocean County Plan was submitted for review following its adoption by the Freeholder Board. The Commissioner, on December 14, 1979, notified the Board that certain modifications of the Plan would be required to make it approvable.

To comply with the notice issued by the Commissioner, the Freeholder Board, upon the recommendation of the Ocean County Solid Waste Advisory Council, adopted modifications which are presented in the remainder of this report. A public hearing concerning the modifications was held on Monday evening, June 23, 1980. The modifications were submitted to the Commissioner on July 1, 1980.



## SUMMARY OF THE PLAN

### Landfills

Two regional sanitary landfills to be operated by, or on behalf of, the County are the mainstays of the Ocean County Solid Waste Management Plan adopted by the Freeholders in 1979.

The use of these disposal sites continues as the essential ingredient of the Plan as it is modified by the refinements presented on the following pages.

These two landfills can accommodate all domestic, commercial, and non-chemical industrial wastes generated in the County. No importation is expected and no new landfills are proposed.

The landfill to serve the southern region of the County is to be at a site now owned and operated by Southern Ocean Landfill, Inc. in Ocean Township. This site is to be acquired and operated by the County. As a first step toward acquisition the County has commissioned M. Disko Associates, Consulting Engineers, to make an engineering and environmental evaluation of the property. This work will be completed before the end of 1980. The results of this examination will support decisions as to what must be done to upgrade the site to conform with current state and federal requirements, and will influence the terms of site acquisition.

Acquisition can occur, and County operation begin, by mid-1981. If extensive upgrading must be done before transfer of title; or if acquisition is done by condemnation proceedings, County operation will begin later. The use of the landfill for

regional disposal in accordance with the Plan need not await County ownership.

The landfill to serve the northern region of the County is to be at a site now owned and operated by Ocean County Landfill Corp., in Manchester Township. This site is to be acquired, through condemnation proceedings, by the Manchester Municipal Utilities Authority. The disposal facility is to be operated by the Authority as an agent of the County. The terms of the agency contract are now being drawn by the County and the Authority. Authority operations will begin during 1981. Expanded use of the landfill for regional disposal need not await Authority ownership.

These two private landfills now receive much of the solid waste generated in the County. The waste from three municipalities is now transported to two landfills in Monmouth County. Ten municipal landfills operate in Ocean County.

The wastes now delivered to Monmouth will be redirected to the regional landfill when current collection contracts expire. The ten municipal sites will gradually be closed to use as they reach capacity, or as they face the high costs of compliance with state environmental regulations, as well as with those of the federal Resource Conservation and Recovery Act whose enforcement has just begun. No solid waste importation is expected.

## Resource Recovery

Even though the two regional landfills are a necessity to sensible waste management for at least the ten year scope of the Plan, it is understood that landfilling does not take advantage of the resource recovery potential of solid waste.

The objective of the Solid Waste Management Act under whose provisions this Plan is drawn, is a disposal system which will permit the production of energy and the recovery of materials.

The Dover Township Municipal Utilities Authority has made a proposal to apply resource recovery to Dover Township's solid wastes. The technique is to extract reusable materials and burn the remainder for the production of steam for use by the Toms River Chemical Corporation. Preliminary engineering and environmental assessment has been done. If all parties agree on its feasibility, the Authority could construct the plant and operate it under an agency contract with the County as a part of the Plan. The northern regional landfill would provide disposal for residual wastes and would serve as backup in the event that the Dover Municipal Utilities Authority facility was not in operation. In addition, the northern regional landfill will receive the Township's solid wastes until the resource recovery facility is operational.

On a larger scale, the Ocean County Utilities Authority is about to begin the preparation of a Sludge Management Plan. This project is being funded in large part by the federal and state governments.

Among other techniques, the project will consider the economic and technical aspects of the co-incineration of sludge and garbage for the production of energy usable by the three regional wastewater treatment plants.

If co-incineration proves feasible, solid waste and sludge resource recovery plants could be constructed and operated by the Authority under an agency contract with the County, as a part of this Plan.

The study will take 18 months and should begin in August, 1980.

#### Sludge and Septage

Under the terms of the state law, sludge and septage are considered to be solid waste; provisions for their disposal must be included in the Plan.

The best method of disposal of sludge produced by the County's wastewater treatment plants is the objective of the OCUA study just mentioned. When decisions are made after the study, they will be incorporated in the Sludge Management Plan which is subject to county, state and federal approval. Until the results of that study are implemented, sludge will be disposed of in the two regional landfills.

The best long-term disposal of septage is also an objective of the sludge management study. At present, the waste is received at the Southern Regional Landfill. Unless regulations are issued by the state to the contrary, this practice will continue until OCUA has installed pretreatment processes to permit its northern and central treatment plants to accept septage. The northern plant will be able to receive 15,000 gallons per day, starting July, 1980. The central plant will accept 35,000 gallons per day beginning 90 days after the EPA approves federal funding of the needed facilities. Excess septage, if any, will be delivered to the Middlesex County wastewater treatment plant under an agreement now being discussed.

No septage or sludge importation is expected.

## Management

The Plan provides for the creation by the Board of Chosen Freeholders of a County department to manage solid waste, including the operation of the southern regional landfill and the supervision of all agency contracts.

Full-time, specialized, centralized, responsible management can make the Plan an operating document. It can refine solid waste generation and source data as all disposal is consolidated in the two regional landfills. With such consolidation, it can assess opportunities for improved transportation efficiencies, including the value, if any, of the construction of transfer stations to receive the wastes from one or both barrier islands.

Centralized management can assure equitable disposal rates, encourage and assist the Solid Waste Advisory Council in its efforts toward source separation and recycling. This management will also involve overseeing of landfill termination; including subsequent monitoring, maintenance and other conditions governing other uses of restored lands. Further, County management will guarantee that the public participation processes of the Plan are a reality.

## GENERAL PLAN FOR SOLID WASTE MANAGEMENT

### Implementation of Regional Landfills

The Ocean County Solid Waste Disposal Plan calls for the development of two regional landfill facilities at or adjacent to the sites of the Ocean County Landfill Corporation in Manchester Township, and the Southern Ocean Landfill, Inc. in Ocean Township. Priority attention is being devoted to defining the engineering and environmental factors which would contribute to an action to acquire the regional sites.

M. Disko Associates, Consulting Engineers, Union, N.J. have been retained to provide environmental engineering services to the Board of Chosen Freeholders. The scope of work for the Disko contract is divided into four general areas, two of which are significant to the implementation of regional landfill programs:

- TASK 1 - involves the detailed engineering evaluation and design of a southern regional landfill facility, together with environmental and operational aspects of the project.
- TASK 2 - concerns the engineering review of a northern regional landfill facility, including environmental and operational factors. This task is not as detailed as the work involved in Task 1 because of the involvement of Manchester MUA as "agent" for the County in owning and managing this facility.

The proposed work tasks will provide necessary environmental analysis of surface water and groundwater in order to determine and document existing conditions at the proposed regional facilities. The work also provides for proper environmental planning to safeguard regional landfill operations from leachate pollution.

Appropriate operational practices will be outlined to provide for economy, public acceptance and environmental safeguards. Landfill design criteria will be determined that will eliminate or reduce odor production, methane and hydrogen sulfide gas production, fire hazards, etc. Also, operating flexibility and future expansion of facilities will be considered. If appropriate, alternative siting will be considered.

In summary, the initial phase of the engineering work will document important issues of concern which must be considered prior to acquisition of regional facilities. Upon completion of this work, the Board of Chosen Freeholders will have a rational set of facts, figures and plans on which to base policy decisions and stage implementation activities. An individual program and schedule concerning each of the proposed regional landfill sites is presented in Tables 1 and 2.

TABLE 1

Steps Leading to County Operation  
Of Southern Ocean Regional Site

Step	Description	Schedule
1	Perform topographic mapping, surveys and borings	Under way
2	Make environmental analyses	Under way
3	Develop evaluation using engineering and environmental data from Steps 1 and 2	December 1980
4	Make final determination of Southern Regional Site	February 1981
5	Initiate discussions with landowner	March 1981
6	Develop and execute agreement for sale of the landfill site	April 1981
7	Establish financing arrangements using engineer's cost estimates	April 1981
8	Establish interim operating procedures for the regional landfill	May 1981
9	Submit engineering plans to upgrade landfill to meet all State and Federal requirements	May 1981
10	Obtain State approval to transfer certificate of operation	June 1981
11	Initiate operation of existing site by County after acquiring title	July 1981
12	Obtain State approval to upgrade regional landfill	September 1981
13	Complete upgrading	May 1982
14	Initiate operation by County of upgraded facility	June 1982



TABLE 2

Steps Leading to Public Operation  
Of Northern Ocean Regional Site

<u>Step</u>	<u>Description</u>	<u>Schedule</u>
1	Make topographic mapping, surveys and borings	Under way
2	Make environmental analyses	Under way
3	Initiate site acquisition by Manchester MUA	Under way
4	Initiate negotiations of "agent" agreement between Manchester MUA and County	Under way
5	Prepare and pass resolutions authorizing "agent" agreement	August 1980
6	Execute "agent" agreement	September 1980
7	Transfer County engineering and environmental data to Manchester MUA consultants	October 1980
8	Manchester MUA acquires title to the Northern Site	Early 1981
9	Manchester MUA submits engineering plans to upgrade landfill to meet all State and Federal requirements	Within 1 month of Step #8
10	Obtain State approval to transfer certificate of operation	Within 2 months of Step #8
11	Manchester MUA assumes operation of existing site	Within 3 months of Step #8
12	Obtain State approval to upgrade regional landfill	Within 6 months of Step #8
13	Complete upgrading	Within 12 months of Step #8
14	Manchester initiates operation of upgraded facility	Within 13 months of Step #8

## Waste Flow Schedule

The flow of solid wastes to the regional landfills is depicted in Figure 1. The diagram shows that several municipalities will not utilize regional facilities initially. All of the County's 33 municipalities will use the District's regional landfills before the conclusion of the ten-year planning period. Those not immediately using the regional system will operate their own landfill which as available capacity, or dispose of their solid waste by contract at a non-regional facility for a short period.

Figure 1 also shows the location of all currently operating landfills with the DEP and County Plan registration numbers. A description of all landfills identified in this figure appears in Chapter III of the Plan. Table 3 groups municipalities by their current disposal facility, and also indicates the regional facility (i.e., North or South Waste Region) which the municipality is expected to use before the end of the planning period.

Waste will be phased into the regional facilities as available non-regional capacity is utilized, or when the full force of environmental regulations is brought to bear against all the landfills. In this latter instance, it is

...the intent of the District that all landfills operating in Ocean County will be required to conform at the earliest practical date to Federal criteria governing classification as a sanitary landfill. While final regulations have not been promulgated by USEPA, criteria have been proposed pursuant to Section 4004(a) of the Resource Conservation and Recovery Act of 1976. The federal law requires that all landfills be evaluated considering federal criteria within one year after the criteria are promulgated. Any facility which does not meet the criteria will have at most, five years to comply.<sup>1</sup>

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<sup>1</sup>Ocean County Solid Waste Disposal Plan, P. X-9.

Table 3  
Disposal Facilities Currently  
Utilized by Ocean County Municipalities

NORTHERN WASTE DISTRICT	PLANNED DISPOSAL AT REGIONAL SITE IN MANCHESTER TOWNSHIP
Municipality	Current Disposal Facility
Bay Head	Lakewood Township Municipal Landfill-Lakewood
Beachwood	Beachwood Municipal Landfill-Beachwood
Berkeley	Berkeley Municipal Landfill-Berkeley
Brick	Ocean County Landfill Corp.-Manchester
Dover	Dover Township Municipal Landfill-Dover
Island Heights	Southern Ocean Landfill, Inc.-Ocean Township
Jackson	Jackson Township Municipal Landfill-Jackson
Lavallette	Waste Disposal, Inc. Landfill-Howell Township
Lakehurst	Ocean County Landfill Corp.-Manchester
Lakewood	Lakewood Township Municipal Landfill-Lakewood
Manchester	Manchester Township Municipal Landfill-Mancheste
Mantoloking	Marpal Landfill-Monmouth County
Ocean Gate	Southern Ocean Landfill, Inc.-Ocean Township
Pine Beach	Southern Ocean Landfill, Inc.-Ocean Township
Plumsted	Plumsted Municipal Landfill-Plumsted
Point Pleasant	Waste Disposal, Inc. Landfill-Howell Township
Point Pleasant Beach	James H. James, Inc.-Brick
Seaside Heights	Ocean County Landfill Corp.-Manchester
Seaside Park	Berkeley Township Landfill-Berkeley
South Toms River	South Toms River Municipal Landfill-So. Toms Riv

Table 3 (continued)

SOUTHERN WASTE DISTRICT	PLANNED DISPOSAL AT REGIONAL SITE IN OCEAN TOWNSHIP
<u>Municipality</u>	<u>Current Disposal Facility</u>
Barnegat	Southern Ocean Landfill, Inc.-Ocean Township
Barnegat Light	Southern Ocean Landfill, Inc.-Ocean Township
Beach Haven	Southern Ocean Landfill, Inc.-Ocean Township
Eagleswood	Tuckerton-Eagleswood Landfill-Eagleswood
Harvey Cedars	Southern Ocean Landfill, Inc.-Ocean Township
Lacey	Lacey Township Municipal Landfill-Lacey
Little Egg Harbor	Little Egg Harbor Twp. Landfill-Little Egg Harbor
Long Beach	Stafford Township Municipal Landfill-Stafford
Ocean	Southern Ocean Landfill, Inc.-Ocean Township
Ship Bottom	Stafford Township Municipal Landfill-Stafford
Stafford	Stafford Township Municipal Landfill-Stafford
Surf City	Stafford Township Municipal Landfill-Stafford
Tuckerton	Tuckerton-Eagleswood Landfill-Eagleswood

The inspections associated with the federal evaluation requirements are scheduled to be performed later this year. The inspections will serve to define the necessary environmental improvements to landfills within the District, since most, if not all, landfills in Ocean County will fail to meet minimum federal criteria. Faced with the prospect of spending large sums of money to upgrade, the operators of many facilities will consider closing their landfills, since the County will have provided a regional alternative which will comply with federal standards and will have adequate capacity to handle the eventual waste from the residential, commercial and non-chemical industrial waste streams from all 33 municipalities.

However, it should be noted that capacity in the upgraded landfills will not be provided immediately for all future waste volumes, since capital investment would be unused for an uncertain period of time. Because of the modular nature of proposed regional landfill designs, as much as 18 months lead time may be required to phase significant additional waste volumes into the upgraded facilities. The County will make every effort to anticipate required needs based upon information furnished by landfill operators, and a current assessment of State and Federal enforcement efforts.

### Use of Terminated Sites

The planning strategy and framework for the use of terminated landfill sites in Ocean County was thoroughly discussed in Chapter III of the Plan (pp. III-98 to III-108). The primary roles of the Solid Waste Administration in specifying the standards to be achieved at terminated sites, and of the landowner in implementing actions to address environmental deficiencies were carefully articulated in the Plan. The Plan also proposes a number of acceptable uses for a completed sanitary landfill, and it notes limitations on the District's legislative authority to require measures to minimize environmental impact or to mandate the necessary means to finance these measures.

The data appearing in Table III-6 of the Plan shows that twelve of the fifteen terminated landfills surveyed have been returned to uses encompassing recreational, residential and industrial applications. These data clearly indicate that, in the absence of detailed plans, terminated landfills have been recycled to other higher uses in Ocean County.

The District through the Planning Board staff has developed a procedure to guide landowners toward appropriate uses of terminated sites, without providing a customized, detailed plan for the use of each terminated site. The steps required to implement this procedure are as follows:

- (1) Define all vacant or active landfill sites within Ocean County. Locate each on a generalized map (see Figure 1) and on tax maps.

- (2) Define current zoning for each site (see Table 4).
- (3) Determine incompatible zoning designations based upon uses for a completed sanitary landfill indicated in the Plan (pp. III-106, 107).
- (4) Develop recommended zoning changes for incompatible uses. Review changes with Solid Waste Advisory Council.
- (5) With concurrence of the Solid Waste Advisory Council, transmit County recommendations to the local municipal governing body and planning board for consideration in future revisions to the Master Plan and zoning ordinance. Also, advise landfill owner and the Solid Waste Administration of these recommendations.
- (6) When the landfill is terminated, receive copies of the termination plan (required by DEP) and the closure plan (required by EPA) for review by staff and the Solid Waste Advisory Council. These plans should be furnished by the landfill operator at the same time they are forwarded to regulatory agencies.
- (7) Arrange a meeting with the landowner and local planning department to review termination requirements with specific reference to inconsistencies with local zoning, and technical concerns such as leachate controls, gas venting methods to be employed, and other requirements specified by the Solid Waste Administration.
- (8) Provide guidance to landowner to insure that terminated facilities are not creating negative environmental or aesthetic impacts. Recommend buffers and other measures to screen the landfill during a period of stabilization.
- (9) Assist in developing specific uses for the terminated site which are compatible with uses proposed in the Plan.
- (10) Provide comments of Solid Waste Advisory Council to the regulatory agencies regarding the termination (closure) plan prior to final State and Federal agency action.

This procedure will be implemented by the County Planning Board Staff, with the cooperation and assistance of the Solid

TABLE 4

SUMMARY OF  
EXISTING ZONING REQUIREMENTS  
FOR SANITARY LANDFILLS  
LOCATED IN OCEAN COUNTY  
JUNE 1980

FACILITY	MUNICIPAL ZONING	REMARKS
<b>MUNICIPAL LANDFILLS</b>		
<p>BEACHWOOD Fac. #1504 A In Operation Wastes:10;12;13; 23;74.</p>	<p>Landfill: Industrial uses with some permitted business and commercial uses. Adjacent Properties: Same</p>	<p>Industrial uses require special structural design considerations.</p>
<p>BERKELEY Fac. #1505 A In Operation Wastes:10;12;13; 23;74.</p>	<p>Landfill: Landfill as a public use. Adjacent Properties: Light Industrial, Industrial Park and Residential. Permitted uses include parks and recreation.</p>	<p>Industrial uses require special structural design considerations. Residential uses represent potential conflict; buffer minimum design requirement. Garden State Parkway is eastern border.</p>
<p>BRICK Fac. #1506 A Not in Operation Wastes:10;13;23; 25;73.</p>	<p>Landfill: Rural Residential and Single-Family Residential. Adjacent Properties: Rural Residential, Single-Family Residential and Multi-Family Residential. Permitted uses include parks and recreation.</p>	<p>Residential use is unacceptable. Residential uses on adjacent properties represent potential conflict; buffer minimum design requirement.</p>
<p>DOVER Fac. #1507 A In Operation (Until 8-1-80) Wastes:10;13;23.</p>	<p>Landfill: Rural, with agricultural major permitted use. Adjacent Properties: Same. Permitted uses include parks and recreation.</p>	<p>Residential use is unacceptable. Agricultural uses conditional with proper soil cover and crop selection. Garden State Parkway is western border. Landfill will cease operation August 1, 1980.</p>
<p>JACKSON Fac. #1511 A Not in Operation Wastes:10;12;13; 23;25;73; 74;</p>	<p>Landfill: Residential zone for single-family dwellings with parks and recreation a permitted use. Adjacent Properties: General Manufacturing</p>	<p>Residential use is unacceptable. NJDEP has placed special restrictions because of groundwater contamination. Industrial use on adjacent properties conditionally acceptable; buffer minimum design requirement.</p>



TABLE 4 (continued)

FACILITY	MUNICIPAL ZONING	REMARKS
<b>MUNICIPAL LANDFILLS</b>		
<p>LACEY Fac. #1512 B In Operation Wastes: 10;13;23.</p>	<p>Landfill: Parks, Recreation, conservation and open space. Adjacent Properties: Residential for single-family dwellings and limited business zone.</p>	<p>Open space and passive recreation is acceptable use. Residential and/or business uses on adjacent properties represent potential conflict; buffer minimum design requirement.</p>
<p>LAKEHURST Fac. #1513 B Not in Operation Wastes:</p>	<p>Landfill: Not presently zoned. Officials indicate desired use as light industrial zone. Adjacent Properties: Public use (sewerage treatment plant) and Residential for single-family dwellings, limited business and commercial.</p>	<p>Industrial uses require special structural design considerations. Residential, business and/or commercial uses on adjacent properties represent potential conflict buffer minimum design requirement.</p>
<p>LAKESWOOD Fac. #1514 A In Operation Wastes: 10;12;13; 23;27;74.</p>	<p>Landfill: Manufacturing with parks and recreation a permitted use. Adjacent Properties: Agriculture, Rural and Manufacturing in Lakeswood. Residential for single-family dwellings with cluster option in Dover.</p>	<p>Lakeswood plans construction of a recreational area on a portion of landfill site; light industrial uses on remainder. Recreation is an acceptable use; industrial uses require special structural design considerations. Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.</p>
<p>LITTLE EGG HARBOR Fac. #1516 A In Operation Wastes: 10;13;23; 25;27.</p>	<p>Landfill: Light Industrial with general business and commercial permitted uses. Adjacent Properties: Residential for single-family dwellings with general agricultural uses permitted.</p>	<p>Industrial uses require special structural design considerations. Business and commercial uses represent potential conflict. Residential uses for adjacent properties represent potential conflict: buffer minimum design requirement. Garden State Parkway is southern border.</p>
<p>MANCHESTER Fac. #1518 A In Operation Wastes: 10</p>	<p>Landfill: Rural agriculture with single-family dwellings, general agriculture, limited office and parks and recreation permitted uses. Adjacent Properties: Same.</p>	<p>Residential uses are unacceptable. Agriculture uses conditional with proper soil cover and crop selection. Residential and office uses on adjacent properties represent potential conflict: buffer minimum design requirement.</p>

TABLE 4 (continued)

FACILITY	MUNICIPAL ZONING	REMARKS
<b>MUNICIPAL LANDFILLS</b>		
PLUMSTED Fac. #1523 A In Operation Wastes: 10;13;23	Landfill: Residential with single-family dwellings, cluster, planned residential developments, general agricultural permitted uses. Adjacent Properties: Same	Residential uses are unacceptable. Agricultural uses conditional with proper soil cover and crop selection
SOUTH TOMS RIVER Fac. #1529 A In Operation Wastes: 10;13;12	Landfill: Landfill as a public use. Adjacent Properties: Recreation/Playfield and Residential for single-family dwellings in So. Toms River. Residential for single-family dwellings in Berkeley.	Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.
STAFFORD Fac. 1530 A In Operation Wastes: 10;13;23; 73;74	Landfill: Rural zone with single-family dwellings and general agriculture permitted uses. Adjacent Properties: Same	Residential uses are unacceptable. Agricultural uses conditional with proper soil cover and crop selection. Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.
TUCKERTON EAGLEWOOD Fac. 1508 A In Operation Wastes: 10;13;23; 73	Landfill: No zoning designation. Adjacent Properties: Residential for single-family dwellings with cluster option, public buildings, parks and recreation permitted uses.	Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.
<b>PRIVATE</b>		
FRANCIS TANNER TRUCKING CO. Fac. #1533 A In Operation Wastes: 13;23	Landfill: Residential with single-family dwellings, planned adult communities, senior citizen housing, general agriculture, parks and recreation permitted uses. Adjacent Properties: Same	Residential uses unacceptable. Agricultural uses conditional with proper soil cover and crop selection. Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.

TABLE 4 (continued)

FACILITY	MUNICIPAL ZONING	REMARKS
<b>PRIVATE</b>		
JAMES H. JAMES, INC. Fac. 1506 A In Operation Wastes: 10;13;23;	Landfill: Residential with single-family dwellings, parks and recreation, municipal permitted uses. Adjacent Properties: Residential for single-family dwellings, cluster option.	Residential uses unacceptable. Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.
OCEAN COUNTY LANDFILL CORP. Fac. #1518 B In Operation Wastes: 10;12;13;23; 25;27;73;74	Landfill: Limited Industrial with general agriculture, golf courses, general office, excavation permitted uses. Adjacent Properties: Rural agriculture with single-family dwellings, general agriculture, professional offices, parks and recreation permitted uses in Manchester. Residential for single-family dwellings, general agriculture, municipal uses permitted in Dover.	Landfill will be operated as northern regional facility.
TOMS RIVER CHEMICAL CORP. Fac. #1507 D In Operation Wastes: 12;18	Landfill: Industrial with assembly, manufacturing, research and development permitted uses. Adjacent Properties: Same	Landfill is lined facility, industrial uses require special structural design considerations.
SOUTHERN OCEAN LANDFILL INC. Fac. #1520 A In Operation Wastes: 10;12;13; 23;25;27; 73;74	Landfill: Rural with single-family dwellings, general agriculture, public and quasi-public buildings permitted uses. Adjacent Properties: Same	Landfill will be operated as southern regional facility on proper soil cover and crop selection. Structures require special design considerations. Residential uses on adjacent properties represent potential conflict: buffer minimum design requirement.

Prepared by: Ocean County Planning Board

Sources: Facility Listing from NJDEP, Solid Waste Administration  
 Authorized Wastes keyed to NJDEP, Solid Waste Administration codes  
 Zoning and permitted uses from municipal ordinances

Waste Administration. It is anticipated that many of the terminated sites will be recycled in a manner which meets the environmental goals of solid waste management through institution of the procedure. However, in certain specific instances, the administrative problem of insuring that terminated landfills remain environmentally secure will be an issue. Further consideration should be given to the proposed use of "...an escrow account for proper maintenance of certain terminated landfills",<sup>1</sup> administered by the Solid Waste Administration which was discussed in the Plan.

#### Interdistrict Agreement for Solid Waste

In the short-run, it is necessary for Ocean County to utilize out-of-district disposal facilities to receive solid wastes from three of its 33 municipalities. Wastes from Mantoloking have been taken to the Marpal Landfill in Monmouth County. Point Pleasant and Lavallette dispose of their wastes at the Waste Disposal, Inc. Landfill, Howell Township, Monmouth County. Based upon 1977-78 data, less than seven percent of the total residential solid waste generated within Ocean County requires export to Monmouth County.

Discussions have been held with Monmouth County officials to develop a mutually acceptable basis for the continued use of disposal facilities in Monmouth County. An agreement will be developed which will allow for existing disposal and/or collection contracts to be completed. New contracts will necessitate that wastes be redirected to the secured, regional facilities at the Ocean County Landfill site.

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<sup>1</sup>Ocean County Solid Waste Plan, P. III-105.

By acting to provide secured, regional landfill capacity, the County expects to address its needs for the 10 year planning period required by State statute. In combination with the implementation of a resource recovery program, careful management of these sites for the benefit of the residents and summer population of Ocean County will result in disposal capacity being available through the early 1990's. The County does not anticipate that the State will direct additional quantities of solid waste to Ocean County for disposal.

#### Uniform Distribution of Costs

The essence of the Ocean County Solid Waste Management Plan is the operation of two regional landfills and the gradual discontinuance of other disposal sites now in use. A two landfill strategy, one operated by the County and the other operated by Manchester MUA as an agent of the County, can accomplish the uniform distribution of costs to all users of these facilities. Arrangements to implement such an approach will be considered in the agent agreement between the County and Manchester MUA, which will control and regulate the flow of solid waste to agent owned facilities. Through this contractual mechanism the County will assure that disposal costs at both regional facilities are comparable.

In the broad context of solid waste management, uniform rates represent a means to achieve an end -- an implemented resource recovery scheme. In Ocean County the need to institute a uniform rate mechanism does not appear at this time to be a limiting factor in the development of a resource recovery program.

Dover Township MUA's energy recovery project, which is discussed in the next section, is proceeding forward using local resources. Furthermore, Dover's consultants project that tipping fees will be \$4.00 per ton after credits for the sale of steam to Toms River Chemical. The crucial factor in the implementation of the Dover project is the availability of the solid waste stream, which the County can provide through appropriate amendment of the Plan, once all technical and administrative approvals are obtained.

The Ocean County Utilities Authority sludge management study must be completed before it is appropriate to consider the need to distribute or level costs. Subsequent revision to the Plan may consider the OCUA resource recovery opportunities when they are more fully defined, both technically and financially.

If cost disparities become in fact an obstacle to resource recovery then the cost equalization suggested by the statute can be considered through an agent agreement mechanism similar to the one which will be negotiated with the Manchester MUA governing the operation of the northern regional site.

## RESOURCE RECOVERY ELEMENT

The requirement for indepth studies necessary for resource recovery implementation is being met by three parallel activities, two of which are high technology approaches. Each activity is discussed to demonstrate County responsiveness to the State statutory requirement for maximum practicable progress toward implementation of resource recovery facilities.

This section is concluded with a brief discussion of the dependence of resource recovery on the General Plan for Solid Waste Management, through implementation of two secured regional landfills.

### Dover Township Municipal Utilities Authority Energy Recovery System

As described under Action Two in Chapter 10 of the Plan (p. X-11), the County continues "to cooperate on developing the resource recovery strategy being implemented by Dover Township." Economic feasibility is being assessed, and early design work done, at the direction of the Dover MUA, for an energy recovery system to serve that community. Dover proposes that the solid waste generated in that municipality (an average of about 200 tons per day) be burned in a Dover MUA facility with the steam produced to be purchased by Toms River Chemical Corporation.

The preliminary engineering report and the environmental assessment of this proposal have recently been completed. They will soon be discussed by members of the Dover MUA and the Board

of Chosen Freeholders. If the Board concurs with the Authority that the proposed energy recovery facility is economically feasible, then the project can proceed under this Plan. The MUA will secure the necessary State permits. Costs of preliminary studies and design and the capital for construction, are the responsibility of the Dover MUA. Dover's estimated cost of the facility is \$15 million.

The facility would be constructed and operated under an agreement between the Dover MUA and the Freeholders. This contract would make the Dover MUA an agent of the Board in the operation of a District solid waste disposal facility; it would require the Board to regulate and guarantee a waste flow to the recovery plant. The contract would establish the basis for fees to be charged. Further, it would assure the availability of a District landfill to receive non-burnables, plant residue, and all waste in the event of a plant shutdown.

#### Ocean County Utilities Authority Sludge Management Study

OCUA has received grants from USEPA and NJDEP to prepare a sludge management plan. The Plan of Study for this project includes an evaluation of the technical factors and costs of facilities for the co-disposal of sludge and solid waste. Specifically, the study will consider the feasibility of disposal facilities at each of the



OCUA's regional treatment works, a central facility at one of the treatment plants or a facility at a County landfill. A variety of technologies is to be evaluated against expressed criteria. Markets for any usable products are to be tested. The advantages of the production of steam, electricity and fuel are to be compared. The possibility of receiving more solid waste than is needed to accomplish sludge burning is also to be assessed.

The study budget is \$600,000 of which \$450,000 has been granted by EPA and \$48,000 by DEP. It can begin in August 1980 and be complete 18 months later.

OCUA may require delivery of solid waste to implement a solution presented in the sludge management plan. In accordance with the District's general policies, an agent contract would be required to be developed between the County and OCUA which would indicate the terms upon which solid waste would be furnished. Such a contract would regulate and guarantee an adequate flow of waste, and would also govern the disposal fees to be charged. The contract would also assure the availability of a District landfill to receive non-burnables, residue from the plant, and all waste (including unprocessed sludge) in the event of a plant shutdown.

#### Recycling and Source Separation Program

The pursuit of high technology, capital-intensive resource recovery systems can be complemented by independent actions to

recycle or source-separate solid waste materials. The Solid Waste Advisory Council has a committee which is looking into practical, low cost approaches to recycle materials. The specific activities of this group are detailed in a separate report on Public Participation in Ocean County Solid Waste Planning. Generally, however, the focus of the committee's efforts has been to associate solutions with landfill operations (i.e., holding facilities for waste oil, bins for waste paper, composting of leaves, etc.). It is expected that each regional landfill will have capability to receive and store recyclable materials.

#### Resource Recovery and Landfills

As a closing comment for the resource recovery element, it should be noted that the studies by Dover MUA and by OCUA can most logically evaluate the appropriateness of high technology resource recovery as a part of Ocean County's solid waste disposal system. However, this active consideration of resource recovery in no way alters the need for the County to proceed with its disposal system as described in the Plan, and the first section of this report.

The operation of the proposed northern and southern regional landfills is essential to sensible solid waste disposal even if resource recovery systems are to be established, for the following reasons:

- \* If the Dover MUA Project were to progress it would take at least 3 and probably 5 years for it to receive wastes; furthermore, it would accommodate only those wastes generated in Dover Township.

- \* The implementation of any resource recovery project recommended through the OCUA sludge management plan is at least 5 years from initial operation.
- \* Every resource recovery plant needs a sanitary landfill:
  - To serve as back-up for use when the recovery facilities are inoperable;
  - To receive wastes that cannot be accommodated at the recovery plant;
  - To accept the residual waste from the resource recovery process.
- \* Secured landfills must be available for use in the event that resource recovery facilities are not constructed in the predictable future, in order to protect the ground and surface waters of the County.

## SLUDGE AND SEPTAGE MANAGEMENT ELEMENT

The need for sludge and septage strategies in both the short term and long run grows in importance as available solutions are narrowed.

The Solid Waste Management Act (N.J.S.A. 13:E-42) prohibits after March 15, 1980 the disposal in landfills of bulk liquids which includes domestic septage and liquid sludge. As a result of recent legislation (L. 1980, c. 9), the effective date was shifted to March 15, 1981. Because of these statutory requirements, a different means of disposing of septage must be provided.

The Department of Environmental Protection has proposed regulations that would require that sewerage agencies in most areas of the State dispose of septage within their service areas. In some cases the Department has determined that additional capacity is available at a specific wastewater treatment plant and that it must accept septage from a temporary septage service area delineated by the Department in accordance with the State-wide Plan.

The results of the State Plan are summarized in proposed regulations issued by the Department on February 14, 1980 (Docket No. DEP 90-80-02). The Department is currently in the process of revising these regulations to reflect input provided at two recent public hearings. These regulations are reflected in the short-term septage and sludge management strategy for Ocean County, which is presented in the next part of this section.

A long-term strategy for septage and sludge is presented in the last part of this section. The strategy expands upon the information presented as Action One of the Sludge and Septage Management Element as presented in Chapter X of the Solid Waste Disposal Plan.

### Short-Term Strategies for Septage and Sludge

#### Immediate Future - Septage

For the immediate future, only certain landfills have septage handling capacity in Ocean County. The Southern Ocean Landfill, Inc. in Ocean Township currently accepts significant volumes of septage. Other landfills accept lesser amounts, and still others have discontinued receiving septage either voluntarily, or at the direction of the State. Until the regulations or policy is altered, Southern Ocean will continue to receive septage.

The Ocean County Utilities Authority has also discontinued receipt of septage at its northern treatment plant. This action was required because of the operating problems which were encountered. Until suitable pretreatment facilities are available, OCUA will not accept septage at any of their regional facilities.

#### Alternative Short-Term Solutions - Septage

Short-term solutions, which are more environmentally suitable than septage disposal at a landfill, are being developed. Pretreatment facilities are being added to the northern treatment plant to permit the disposal of 15,000 gallons per day of septage. These modifications are being funded by OCUA, and should be operable by July, 1980.

OCUA has also sought approval of a State and Federally funded change order which would permit them to install facilities to pretreat and dispose of septic tank wastes at their central treatment plant. If the change work order is approved this capacity could be furnished within 90 days of the date of approval at a cost of \$125,000. These pretreatment facilities have been designed to process 35,000 gallons a day. If OCUA is able to institute its short-term septage program, an administrative mechanism should be devised by OCUA in conjunction with the County Board of Health to record the origin and composition of all septage processed.

Additional septage-handling capacity will be provided through an interdistrict agreement with Middlesex County. Under this agreement which is being developed, septage will be transported to the Middlesex County Utilities Authority treatment plant in Sayreville.

Since excess environmentally acceptable septage processing capacity is not available in Ocean County, it is not anticipated that the County will be required to receive septage from outside the District boundaries. This position agrees with the Department's "Proposed New Rules Concerning the Statewide Management of Septage Disposal", which did not direct any septage from outside Ocean County to OCUA facilities.

#### Short-Term Strategy - Sludge

OCUA facilities will continue to use existing installed treatment units to digest and dewater sludge prior to disposal

in the regional landfills located in Ocean and Manchester Townships.

Non-Authority facilities will continue present practices until they are incorporated in the long-range plan which OCUA is developing. If short-term exportation of sludge is required, the interdistrict agreement with Middlesex County will contain a provision providing for sludge disposal at the Middlesex County Utilities Authority. Available information does not indicate a need to accept sludge from outside the District.

## Long-Term Strategy for Sludge and Septage<sup>1</sup>

### Introduction

The Ocean County Utilities Authority has received approval from the New Jersey Department of Environmental Protection (DEP) and a Step 1 grant from the U.S. Environmental Protection Agency (EPA) for the preparation of a 201 Sludge Management Plan to investigate methods of sludge treatment and disposal other than that presently practiced by the Authority. At the direction of the DEP and EPA, the Authority is also to develop a plan for the treatment and ultimate disposal of all septage generated within the study area as well as all domestic sludge produced from non-Authority owned and operated treatment plants. This study will be initiated about September 1, 1980, will take 18 months and has a budget of \$600,000.

### Study Area

The study area for the Sludge Management Plan comprises all of Ocean County and those portions of Freehold, Howell and Wall Townships within the Metedeconk River drainage basin. The study

<sup>1</sup> Extracted with some additions and modifications from the Ocean County Utilities Authority Sludge Management Plan, Plan of Study, dated February 19, 1980.

area is coincidental with that for the Ocean County 208 Water Quality Management Plan which covers approximately 675 square miles, has a current population exceeding 350,000 people and comprises part or all of 36 communities.

#### Prior Authority Sludge Studies

Under a grant received from the EPA, the Authority conducted a wastewater solids demonstration project to determine if digested sludge could successfully be applied to the sandy soils of Ocean County and be used as a soil conditioner and fertilizer by supplying the soil with much needed nutrients and increasing its moisture-retaining capabilities. In addition, the effects of the application of sludge on the groundwaters beneath the site were also investigated.

The results of the study, although not yet officially released by EPA, indicated that with proper application and management practices, sludge may be disposed of in this manner without environmental harm.

#### Plan of Study

The Plan of Study includes the tasks presented on the following page. The precise scope of work to be performed under each task has not been determined, but the Plan of Study generally identifies the work to be undertaken and describes features unique to this study. The Authority is relying upon the expertise of consultants to describe in detail the work to be performed to properly complete the indicated tasks. These tasks are as follows:



1. Characterize the Authority's Present Method of Solids Handling and Disposal.
2. Project Future Sludge and Septage Quantities and Qualities Expected to be Generated at Authority and Non-Authority Owned Facilities.
3. Project Future Solid Waste Quantities and Characteristics.
4. Identify Federal, State and Regional Laws, Rules, Regulations or Requirements Impacting the Project.
5. Evaluate the Present and Alternate Methods of Sludge Disposal.
6. Select Best Alternatives.
7. Detail and Justify Best Plan.
8. Perform a Pretreatment Study.
9. Participate in a Public Participation Program.

#### Coordination

A study advisory committee has been formed by Ocean County Utilities Authority to oversee the conduct of this Study. The committee consists of 22 members from various public and private sector interests in conformance with Federal requirements for a full-scale public participation program.

Three members of the County Solid Waste Advisory Committee plus the County Planning Director serve on the committee. Thus, a definite linkage exists between the County solid wastes program and the Authority's sludge management planning study.

By maintaining an open and public planning process, a sludge and septage management plan will be produced which fully complies with Department of Environmental Protection "Guidelines for the

Utilization and Disposal of Municipal and Industrial Sludges and Septage", and which can serve as the long-range solution for these critical problems in Ocean County.

The schedule for the performance of the OCUA Sludge Management Plan appears in Table 5.

TABLE 5

Schedule for Performance of OCUA  
Sludge Management Plan

Step	Description	Schedule
1	EPA Step 1 Grant Offer	October 9, 1979
2	OCUA Acceptance of Grant Offer	November 8, 1979
3	Receive Proposals	May 15, 1980
4	Interview Consultants, Review Proposals, and Selection of Consultant or Consultants	May 15, 1980 - July 1, 1980
5	Execution of Professional Service Agreement	August 1, 1980
6	Completion of Evaluation Of Alternate Methods	August 1, 1981
7	Preliminary Selection of Final Plan	January 1, 1982
8	Public Hearing - Final Plan	February 1, 1982
9	Submit Final Plan and Public Response Report to EPA & DEP	March 15, 1982
10	Receive EPA & DEP Comments On Report	May 1, 1982
11	Distribution of Final Report	June 15, 1982

## OTHER RESPONSES TO THE CERTIFICATION OF MODIFICATIONS

### An Improved Data Base for Planning

#### Current Facilities for Sludge and Septage

In Chapter 3 of the Plan a description of collection and disposal practices for septage and sludge is presented. This information is supplemented by the description of Authority facilities presented in the Plan of Study for the OCUA Sludge Management Plan.

Furthermore, Task 1 of the Authority Plan of Study provides for a detailed presentation of the Authority's present method of solids handling and disposal:

Work under this task will include a review of the present methods of solids handling and disposal utilized at the four previously cited treatment plants. A sampling program should be conducted at these facilities to determine the characteristics of the sludge being generated by the Authority. The sludge shall be analyzed for all parameters (% solids, % volatile solids, nutrients, metals, organics, pesticides, etc.) relevant to the alternates to be evaluated under Task 5 and required by the DEP sludge reporting requirements. Unit and total costs including those for labor and chemicals for the present methods of sludge disposal will be determined.

A sampling program will also be conducted to determine the characteristics of the septage expected to be received at the Authority's facilities. This program will be performed either through contact with the septage haulers or the landfills at which their wastes are disposed of, as the Authority is currently not accepting any septage at its treatment facilities. A review and evaluation of the Authority's present facilities for handling and treating septage will be made. Any problems associated with either treatment

of the septage because of its characteristics or the unsuitability of the septage handling facilities will be identified.

Non-Authority facilities will also be discussed in this section of the report to supplement the generation data discussed earlier for non-Authority facilities.

#### Generation Data for Solid Waste, Sludge, Septage and Industrial Waste

The generation data provided in Chapter 4 of the Plan is the best that is available at the present time. The dry-ton figures provide the basis for developing realistic solutions. However, these figures should be refined in order to improve the data base available for long-term planning.

More accurately defined waste generation rates and composition require a greater ability to directly measure the waste stream. The implementation of regional operations at the southern and northern regional landfill sites will permit this expanded program to be implemented in 1981 or early 1982.

In the meantime, the OCUA Sludge Management Plan includes two tasks which will address this need. Task 2 of the Plan of Study will project future sludge and septage quantities and qualities expected to be generated at authority and non-authority owned facilities. Quoting from the Plan of Study:

Using the population information presented in the Ocean County 208 Water Quality Management Study, and adjusting it as deemed necessary, the design period for the alternates to be studied in the plan along with projected future sludge quantities will be determined. Estimates will be made of the quantities of septage and sludge expected to be handled

at the Authority's treatment plants from non-owned Authority facilities. These quantities will be developed for each of the 36 communities within the study area. Seasonal variations in these quantities should also be considered.

Similarly, Task 3 has been designed to project future solid waste quantities and characteristics as follows:

Review the County's present Solid Waste Plan. Using the information provided in the plan and the 208 Plan, and developing new information where necessary, determine the expected volume and characteristics of solid waste along with its origin that will be generated within the study area for the design period established for the Sludge Management Plan. Review the plan's recommendations to determine their impact on any applicable alternatives and to ensure that any alternatives developed are in conformance with the plan.

The results of the OCUA studies should update and improve the understanding of sources, composition, and quantity of sludge, septage and solid waste presently generated in the District as well as update projections of same over the next ten years. Finally, the OCUA Study includes an analysis of industrial waste generation, transportation and disposal within the County as an ingredient in the OCUA pretreatment study. If the study follows the proposed schedule, industrial waste data will be available in late 1980 or early 1981.

## Public Participation

The development of a workable, cost-effective solid waste management plan faces a myriad of difficult and complex problems. Successful implementation of such a plan requires a broad range of support from local and County officials, interest groups and the general public.

To provide for effective public involvement during all phases of plan development, the Board of Chosen Freeholders created a Solid Waste Advisory Council. This Council was created by formal resolution and in accord with the requirements of Chapter 326. The purpose of the Solid Waste Advisory Council was, and continues to be, to serve as an advisory group to the Board of Chosen Freeholders on solid waste management and related issues, to participate fully in formulating policy and plans for solid waste management, to provide public input into the planning process and, in turn, promote communication and cooperation between and among municipal agencies, private industry, State government, interest groups and concerned citizens in the development and conduct of a County-wide solid waste management program.

To accomplish these objectives, the Solid Waste Advisory Council has held a total of 23 public meetings. These meetings were held on a regular basis and were in conformance with the requirements of the Open Public Meetings Act. Each member was informed by mail of the time, place and agenda for each meeting. In addition, the local media and all individuals and organizations listed on an extensive mailing list were also notified.

The public participation activities of the Solid Waste Advisory Council and project staff are fully documented in the report entitled "Public Participation in Ocean County's Solid Waste Management Program". In general, however, in the initial stages of the program, efforts were made to acquaint the Solid Waste Advisory Council members and the general public with the requirements of Chapter 326 and to discuss solid waste related issues in Ocean County. As the program progressed, and decisions were required on management goals and strategies, the meetings were more characteristic of work sessions than informational meetings. Draft copies of plan elements were usually provided to each member prior to discussion.

Comments, questions, suggestions and decisions made by the Solid Waste Advisory Council were recorded in detailed minutes. Responses to Solid Waste Advisory Council members' comments were either made orally at the meetings or, if necessary, in follow-up letters or telephone conversations by members of the Planning Board staff or by the project consultants. At the direction of the Solid Waste Advisory Council, the Planning Board staff prepared responses to several solid waste related issues, such as landfill expansions and proposals for composting and land application operations, which were submitted to the appropriate agencies.

The Ocean County Planning Board staff also participated in public involvement activities. A comprehensive mailing list was compiled to assist the public information campaign. News releases

were prepared to publicize the solid waste management program and to focus attention on related issues. Another effective method of disseminating information regarding the program was through public speaking arrangements. Both the Planning Director and the Chairman of the Solid Waste Advisory Council addressed a variety of organizations to explain the complexities of the management program. The activities regarding educational, informational and general assistance to the public are well documented. The Planning Board office maintains in its files minutes from all public meetings, transcripts of public hearings, copies of all press releases and related newspaper articles, current mailing lists, records of all public comments and correspondence, written responses to requests for information, written responses concerning actions to be taken as a result of comments or recommendations at the direction of the Solid Waste Advisory Council, evidence of public speaking appearances and such additional information as necessary to demonstrate a reasonable effort to involve the public in solid waste management planning.

In May, 1979, the Solid Waste Advisory Council presented the draft plan to the Ocean County Board of Chosen Freeholders. At this time, copies of the Plan were widely circulated to provide for public review and comment. In conformance with State regulations, the Board of Chosen Freeholders conducted a formal hearing on the Plan in Toms River on May 23, 1979. A transcript of this hearing was recorded and is on file at the Ocean County Planning Board offices in Toms River. In addition, the hearing record



remained open for fifteen days for written comments on the Plan. In response to requests made by local residents and elected officials, a second public meeting was held in Waretown, Ocean Township. This meeting was held to insure that residents of the southern portion of the County had an opportunity to comment publicly on the Plan.

Following the formal review period, the draft plan was amended to incorporate appropriate changes. On July 18, 1979, the Board of Chosen Freeholders adopted the amended plan by unanimous resolution and submitted the Plan to the New Jersey Department of Environmental Protection for review and certification.

The Solid Waste Advisory Council is expected to continue to serve as the primary vehicle for public participation. In addition to its general role of providing input from the public to the planning process, the Solid Waste Advisory Council is expected to advise the Board of Chosen Freeholders on modifications to the Plan, oversee Plan implementation, review and comment on solid waste related issues and continue to investigate the feasibility of incorporating additional resource recovery and recycling activities into the Plan. The Solid Waste Advisory Council is already overseeing the Plan modifications required by the State Certification of Modification. The schedule of major implementation activities which appears as Table 6 will serve as a framework for future Solid Waste Advisory Council activities.

TABLE 6

OCEAN COUNTY SOLID WASTE MANAGEMENT PLAN  
SCHEDULE OF MAJOR IMPLEMENTATION ACTIVITIES

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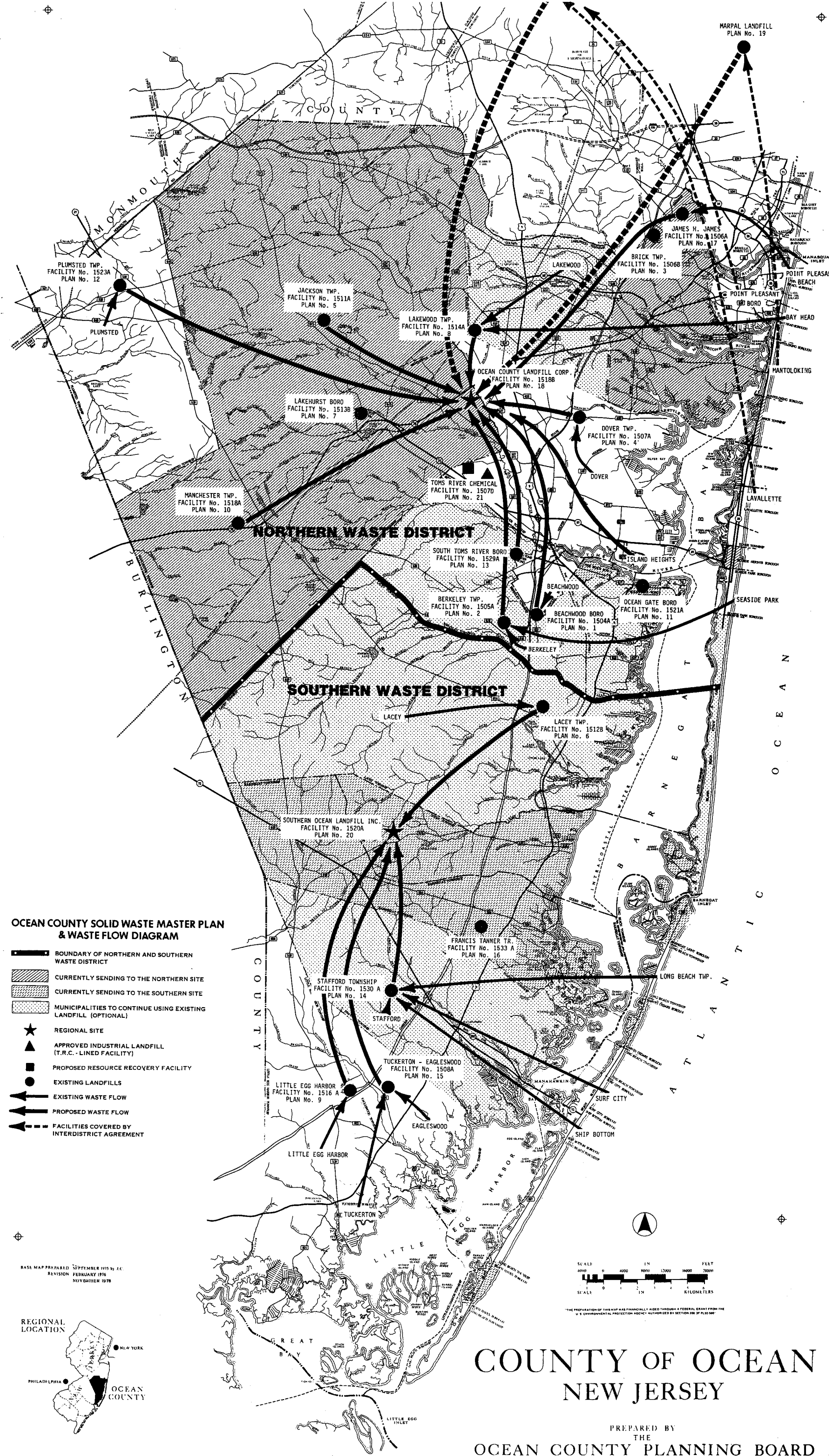


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1980	Adoption of Solid Waste Management Plan by Ocean County Board of Chosen Freeholders CERTIFICATION OF SOLID WASTE MANAGEMENT PLAN BY THE COMMISSIONER, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION Execution of Interdistrict Agreements Execution of Manchester Municipal Utilities Authority Agreement
1981	Execution of Dover Municipal Utilities Authority Agreement Execution of Southern Ocean County Landfill Agreement Begin Phase Out of Some Existing Landfill Facilities
1982	Solid Waste Management Plan Update Completion of Co-disposal Evaluation (Element of Ocean County Utilities Authority Sludge and Septage Management Plan) Evaluation of Potential Use of Transfer Station(s)
1983	Evaluation of Industrial Waste Generation, Transportation and Disposal Dover Municipal Utilities Authority Incinerator Facility On-line
1984	Solid Waste Management Plan Update Continued Phase Out of Existing Landfills
1985	Evaluation of Regional Source Separation
1986	Solid Waste Management Plan Update Phase Out of Some Existing Disposal Sites
1987	Evaluation of Phased or Full Scale Resource Recovery System
1988	Solid Waste Management Plan Update
1989	Phase Out of Some Existing Disposal Sites
1990	Solid Waste Management Plan Revision All Wastes to Environmentally Secure Regional Sanitary Landfills Resource Recovery System Operational if Feasibility was Demonstrated

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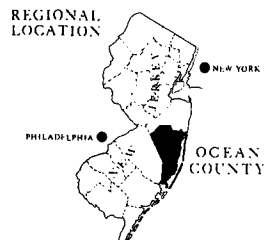
In addition, the public information campaign will continue. Speaking engagements either on the Plan or on related issues will be encouraged. Public hearings, meetings, new releases and so forth will be conducted as required. The Planning Board will continue to maintain a complete record on the solid waste program, respond to questions and requests for information from the public and serve as support staff to the Solid Waste Advisory Council. These activities will supplement the role of the Solid Waste Advisory Council and insure that the public continues to be adequately and fully informed.



**OCEAN COUNTY SOLID WASTE MASTER PLAN  
& WASTE FLOW DIAGRAM**

- BOUNDARY OF NORTHERN AND SOUTHERN WASTE DISTRICT
- ▨ CURRENTLY SENDING TO THE NORTHERN SITE
- ▩ CURRENTLY SENDING TO THE SOUTHERN SITE
- ▧ MUNICIPALITIES TO CONTINUE USING EXISTING LANDFILL (OPTIONAL)
- ★ REGIONAL SITE
- ▲ APPROVED INDUSTRIAL LANDFILL (T.R.C. - LINED FACILITY)
- PROPOSED RESOURCE RECOVERY FACILITY
- EXISTING LANDFILLS
- EXISTING WASTE FLOW
- PROPOSED WASTE FLOW
- FACILITIES COVERED BY INTERDISTRICT AGREEMENT

BASE MAP PREPARED SEPTEMBER 1975 BY J.C.  
REVISION FEBRUARY 1976  
NOVEMBER 1978



SCALE  
0 1000 2000 3000 4000 5000 FEET  
0 1 2 3 4 KILOMETERS

THE PREPARATION OF THIS MAP WAS FINANCIALLY AIDED THROUGH A FEDERAL GRANT FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY, AUTHORIZED BY SECTION 206 OF PLR 90-507

**COUNTY OF OCEAN  
NEW JERSEY**

PREPARED BY  
THE  
OCEAN COUNTY PLANNING BOARD