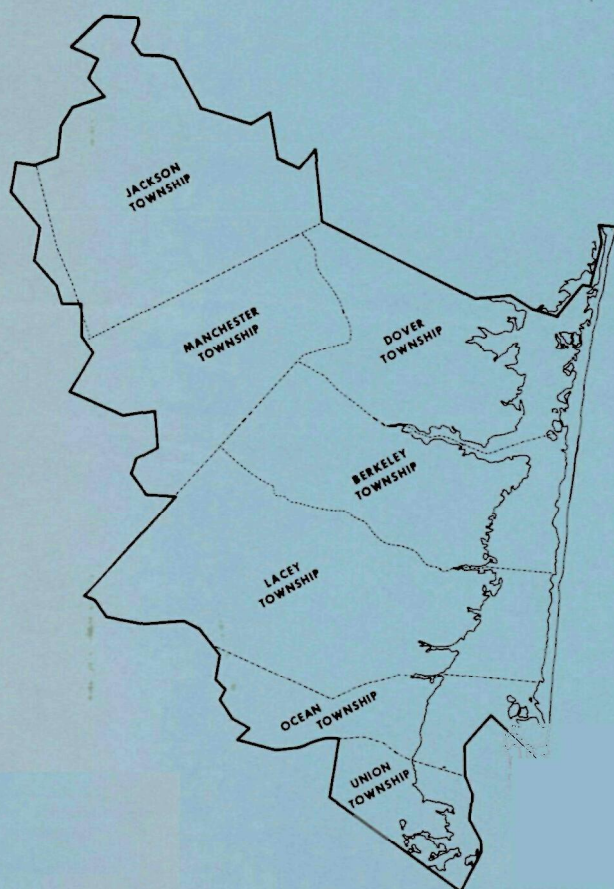


ENVIRONMENTAL IMPACT STATEMENT
ON A WASTEWATER TREATMENT FACILITIES CONSTRUCTION GRANT
FOR THE CENTRAL SERVICE AREA OF THE OCEAN COUNTY
SEWERAGE AUTHORITY IN OCEAN COUNTY, NEW JERSEY

VOLUME II
COMMENTS ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT



FINAL
OCTOBER 1974

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 Federal Plaza
New York, New York 10007

ENVIRONMENTAL IMPACT STATEMENT
ON A WASTEWATER TREATMENT FACILITIES CONSTRUCTION GRANT
FOR THE CENTRAL SERVICE AREA OF THE OCEAN COUNTY SEWERAGE AUTHORITY
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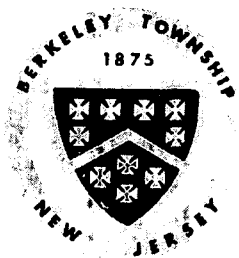
FINAL
OCTOBER 1974

Prepared by:

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 Federal Plaza
New York, New York 10007

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BERKELEY TOWNSHIP SEWERAGE AUTHORITY

Post Office Box R
271 Atlantic City Blvd. (State Hwy. #9)
Bayville, New Jersey 08721

PHONES
201-269-3500
201-269-3501

HAROLD MATHIS, Chairman
HERBERT I. WRIGHT, JR., Vice Chairman
WILLIAM KEHOE, Treasurer
LEO J. BELLARMINO, Secretary
ANTHONY KURNEL, Member

CHARLES J. KUPPER, INC., Engineer
STOUT, O'HAGAN, DeVITO & HERTZ, Attorney
FRED J. STEFANY CO., Auditor

June 17, 1974

Mr. Paul Arbesman, Chief
Environmental Impact Branch
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Arbesman:

The Authority has examined a copy of the Environmental Protection Statement on the waste water treatment facilities construction grant for the Central Service Area of The Ocean County Sewerage Authority, Ocean County, New Jersey. The Berkeley Township Sewerage Authority has caused its consultant to review and examine the above mentioned Environmental Protection Statement. May this letter serve as the Authority's comments in regard thereto.

The Authority has difficulty in understanding the basis for your Agency limiting the population of Ocean County in the central area to 250,000. The Authority is mindful that your Agency is one that determines the grants in aid of construction for particular projects but it is not aware that this right contains the power to limit the size of the population in a particular area. It is the Authority's general understanding that recent Federal pronouncements have espoused a theory that the Federal Government leaves to State and governmental units, such questions as the control of population. Suffice it to say that the Federal Government has no direct power to limit the population of a particular area or region and apparently chooses to do so by a back door approach.

The Berkeley Township Sewerage Authority has entered into a contract with The Ocean County Sewerage Authority which has been approved by the New Jersey State Department of Environmental Protection and by the United States Environmental Protection Agency. Under the terms of that contract and in particular, Article IIA, The Ocean County Sewerage Authority agrees and covenants with the Berkeley Township Sewerage Authority that it shall, during the term of the Agreement, treat and dispose of all waste water delivered to it by the Berkeley Township Sewerage Authority. It is the understanding of the Berkeley Township Sewerage Authority that to limit the size of the Central Treatment Plant to 24 million gallons per day, will not adequately provide for the anticipated population in this area.

To: Paul Arbesman, Chief
Environmental Impact Branch
U. S. Environmental Protection Agency

It must be contemplated by the Berkeley Township Sewerage Authority that your limitation of total population in the central area of Ocean County imposes an uppermost limit on this provision of the Agreement. This Authority questions why your Agency would not make this a part of the Agreement with the two parties.

The Berkeley Township Sewerage Authority questions how this population limitation can be interpreted by the Berkeley Township Sewerage Authority and The Ocean County Sewerage Authority. For instance, the Contract between The Ocean County Sewerage Authority and the Berkeley Township Sewerage Authority does not reserve a capacity for Berkeley Township in the Ocean County Sewerage Authority system. Therefore, can one or more of the participants in the central region use existing capacity at a greater rate than was anticipated, at the expense of the other communities? It is submitted that there is nothing in the Agreement nor under the law that would prevent one participant from taking advantage of the other's in this regard.

It is highly questionable as to whether the zoning powers authorized under existing law by the New Jersey Legislature would allow for limitation of population in a particular area, in the sense contemplated by your report. Whereas, the zoning act allows for the regulation and restriction of the density of population and as one of its purposes, attempts to provide adequate light and air. Nevertheless, the case law interpreting these provisions of the zoning law does not allow for limitation of population, based on the deterioration of air quality at a given time by subsequent population growth as expressed in your report.

As a matter of fact, the zoning law of the State of New Jersey is presently under intensive study by the Legislature and the Courts, in order to determine whether the heretofore approved precepts of home rule should continue. One aspect of the social problems the Legislature and Courts are confronted with rests in the fact that particularly in New Jersey, there is a limited amount of land available for dwellings proximate to the employment areas. Another aspect of this problem is that many of the municipalities under home rule have, in effect, limited the population by requiring as a minimum, under their zoning ordinances, large lot sizes with large habitable floor areas and costly improvements to be installed by developers. In many communities, this has been by and large the rule rather than the exception and, therefore, great segments of the population are unable to afford the purchase price of single family dwellings in many municipalities.

However, the effect of these restrictions is to limit the population in a given area, which is apparently what the Environmental Protection Agency advocates as part of the aforesaid report. The Courts of this State have recently stricken down such highly restrictive zoning ordinances on the theory that they used up the available land supply and do not provide shelter for all segments of the population.

Therefore, it is submitted that your limitation of the total population of the central area of Ocean County could readily be in conflict with recent pronouncements of New Jersey Courts in this regard.

Page 3
June 17, 1974

To: Paul Arbesman, Chief
Environmental Impact Branch
U. S. Environmental Protection Agency

This letter is not meant to exhaust all of the ramifications of your report but rather addresses itself to that portion which will generate large problems for The Ocean County Sewerage Authority and the Berkeley Township Sewerage Authority with no apparent legal means of remedying the situation. Again, it is submitted as directed under the terms of your Environmental Impact Report, as contrary to the present philosophy of the Federal Government leaving local problems and decisions to the State, Counties and Municipalities and apparently is contrary to the existing law of the State of New Jersey and the recent decisions of the Courts.

Very truly yours,
BERKELEY TOWNSHIP
SEWERAGE AUTHORITY

A handwritten signature in cursive script that reads "Harold Mathis".

Harold Mathis
Chairman

HM:rh

cc: William J. O'Hagan, Jr.
Charles J. Kupper, Jr.
The Ocean County Sewerage Authority
Berkeley Township Committee

CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY

P.O. BOX 376, CAPE MAY, NEW JERSEY 08204

AREA CODE 609 TEL. 884-3407

WALTER A. SUPLEE, JR., CHAIRMAN

JOHN VINCI

JOHN H. EDMONDS

GEORGE CAMPBELL

CLIFFORD L. MOCABEE

JOHN H. MEAD, SOLICITOR

June 10, 1974

Mr. Gerald Hansler
Regional Administrator
U. S. Environmental
Protection Agency
26 Federal Plaza
New York, New York 10007

Re: Environmental Impact
Statement - Air Quality
Ocean City, New Jersey

Dear Mr. Hansler:

As the Cape May County New Jersey Municipal Utilities Authority, we have been involved for the past year in developing a facilities plan for wastewater management on a regional basis in the County of Cape May. Through the course of developing an appropriate facilities plan for the County, there has emerged an intense inter-relationship with the County Health Department, Planning Board and the County Utilities Authority. An important aspect of this relationship has been the development, through the leadership of the County Planning Board, of an inter-related total management system. This involves the three agencies recited above, the sixteen County municipalities and the New Jersey State Department of Environmental Protection. The framework for this total management system is presently being developed and strengthened by the first steps of implementation. The ultimate goal will be to match population densities with the environmental resources of the County. It is intended that restrictions will be placed on the environmentally sensitive areas and that major public works, such as utilities, shall be so constructed and managed that their use will be consistent with proper management of the development and of resources of the County.

The County Authority is aware of the "Environmental Impact Statement on a Wastewater Treatment Facilities Construction Grant for the Central Service Area of the Ocean County Sewerage Authority in Ocean County, New Jersey", which was prepared in draft form and dated April 1974. We have discussed the content of this report at some length

Mr. Gerald Hansler
Regional Administrator

- 2 -

June 10, 1974

with the Director of the Cape May County Planning Board and wish to provide the following comments on the Environmental Impact Statement.

As a part of the air quality control region including Ocean, Atlantic, Cumberland and Cape May Counties, we wish to register an objection to the degradation of air quality which will be committed by the planned population increase in Ocean County. Emission limitation presumably which would be placed on Cape May County would arrest any planned growth within the County and would stunt the economy in this area of the State. Planning and construction of various facilities in the four-county area are presently under way. The total region should be assessed rather than one segment.

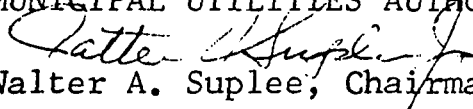
The need for wastewater management control in Cape May County has placed its name in the number 2 position on the priority listing of the New Jersey Department of Environmental Protection. It is essential that existing pollution be arrested, brought under control and eliminated to the benefit of many millions of people living in the northeastern sector of the United States.

It is our request that consideration be given to a regional management system for air quality control through the appointment of representatives from each of the four counties to immediately develop a basic strategy for management of air quality. The intent should take on a regional aspect that would allow the four counties in the region to share equally in the planning to accomplish the ultimate objectives of the Clean Air Act of 1970.

The Cape May County Utilities Authority is taking the initiative in this communication and stand ready to cooperate in any way necessary to provide the proper institutional base for air quality control.

Very truly yours,

CAPE MAY COUNTY
MUNICIPAL UTILITIES AUTHORITY


Walter A. Suplee, Chairman

WAS/ak

cc: Brendan Byrne, Governor, State of New Jersey
David J. Bardine, Commissioner, N.J. DEP
Cape May County Board of Chosen Freeholders
Elwood Jarmer, Director, Cape May County Planning Board
Steven Lubow, N.J. DEP
Pandullo, Chrisbacher and Associates

CITIZENS' CONSERVATION COUNCIL of Ocean County, Inc.

Toms River, New Jersey

May 31, 1974

Reply To: Box 154-Z
R.D. 2

Mr. Gerald Hansler, Regional Administrator EPA
Region II
26 Federal Plaza
New York, New York 10007

Re: ENVIRONMENTAL IMPACT STATEMENT ON A WASTEWATER TREATMENT FACILITIES
CONSTRUCTION GRANT FOR THE CENTRAL SERVICE AREA OF THE OCEAN COUNTY
SEWERAGE AUTHORITY IN OCEAN COUNTY, NEW JERSEY.

THE CITIZENS' CONSERVATION COUNCIL of Ocean County, New Jersey is a coalition of conservation-minded government agencies, private organizations and individuals formed for the purpose of "...working for the conservation of the natural resources of Ocean County to the end that a quality environment may be attained." It is a non-partisan, non-profit organization whose participants now number over 7,000 people of Ocean County.

Dear Mr. Hansler:

Ocean County, New Jersey is indeed fortunate that we will be at long last getting a sewage system in a county which is termed the fastest growing county in the United States. At present we have many critical areas and have been fortunate that we have not had an out break of any water-borne disease to date. It is with great graditude that we look forward to state and federal aid on a project that we could never have financed alone. We appreciate very much the careful analysis that the EPA has given the Impact Statement.

In reply to your request that our organization respond to the Environmental Impact Statement on a Wastewater Treatment Facilities Construction Grant for the central service area of the Ocean County Sewerage Authority in Ocean County, New Jersey, we submit the following remarks:

1) Our over-all fear upon reviewing the document is that it appears to us that (note page 47) that unless there is a curtailment of the year-round influx of people into Ocean County that gradually there will be the elimination of Ocean County as a recreational area for the people of the state of New Jersey. This would be a great loss to Ocean County as a revenue but more importantly as a place for people of northern New Jersey, Pennsylvania, New York and other parts of the country to use as a vacation retreat. In other words our Resort Industry would be lost. We are concerned that the population projections of the Ocean County Sewerage Authority do not allow for the annual increase of people into our county which triples the population in the summer months.

2) We have noted numerous references of Tertiary Treatment plants. We should appreciate a definition of tertiary treatment. Our membership doubts that these so-called tertiary treatment plants are tertiary in the true sense of the word. Are the Tertiary treatment plants as listed on pages 82 and 83 (table #7) really tertiary plants? Are they acceptable for ground discharge?

3) We are concerned too, that the OCSA has not as yet designated where the sludge disposal areas will be. This is of particular concern since our water table is very high throughout the county.

4) Great Adventures...Safari Animal Park and Amusement Park, Jackson, has mushroomed into a far greater impact upon Ocean County than anyone ever expected. At present the DEP has not completed their approval of the sewer plant under construction and has issued a stop work order which the Great Adventure appears to ignore. We have been led to believe that drainage from this enterprise will go westward to the Delaware River and then again we read that eventually the effluent will be taken over by the Ocean County Sewerage System. Which is right? We should appreciate knowing the exact facts. This Enterprise is over a valuable water table supplying parts of Ocean County.

5) As you noted no definite arrangements have been made for sewage discharge from boats and marine holding tanks. Sewage from boating tho denied, is a serious problem in Ocean County.

6) Our ocean front beaches are frequently littered with fecal matter contrary to reports by government officials. We are looking forward to considerable change for the better when regional sewerage is implemented.

A number of our members give freely of their time gathering water samples for testing under federal standards, yet, recent newspaper releases indicate our Barnegat Bay and related waterways are acceptable under County Standards which are not released to the general public.

Our citizens' water testing group have noted much higher fecal coliform counts in the areas of boat marinas.

7) We already have one operating Atomic Plant on Barnegat Bay which has been responsible for numerous fish kills and has been fined by the DEP of the state of New Jersey. The second plant preparing to be built will have cooling towers. It is our understanding that the increase of salt into Barnegat Bay waters from this plant will be considerable and we wish to draw this to your attention.

8) We agree and commend your department on the chapter on Conclusions and Recommendations. We think we have a reliable, conscientious Ocean County Sewerage Authority under the leadership of Mr. Grutzik. With careful monitoring at all levels of government we are confident that the best for the health and welfare of the people of our county and state will be realized.

A copy of our statement of December 14, 1974 regarding the Environmental Impact of the Proposed Sewage Collection, Treatment and Disposal System is enclosed for your perusal.

Sincerely yours,

A handwritten signature in cursive script that reads "Robert Anstett". The signature is written in dark ink and is positioned above the typed name and title.

Robert Anstett
President

RA/lm

212

CITIZENS' CONSERVATION COUNCIL of Ocean County

Statement to the Ocean County Sewerage Authority Regarding the Environmental Impact of the Proposed Sewage Collection, Treatment and Disposal System.

The CITIZENS' CONSERVATION COUNCIL of Ocean County is a coalition of conservation-minded government agencies, private organizations and individuals formed for the purpose of "...working for the conservation of the natural resources of Ocean County to the end that a quality environment may be attained." It is a non-partisan, non-profit organization whose participants now number twenty. A list of members is attached at the end of this statement.

The Board of Directors of the COUNCIL is deeply concerned that the following questions be answered satisfactorily and that the following suggestions be thoroughly investigated and carried out if feasible.

- A. Water Resources. The sewerage network, when completed, will require much more water per capita than is now being used in order to flush and carry wastes to treatment plants. In addition, a growing population will increase usage. The possible danger of salt water intrusion in some areas would exist from water table depletion.
1. We suggest that a water table depletion study be made to indicate estimated effects, at specified future dates, on water table levels, and water level changes in creeks rivers, swamps, wetlands and lakes. Is there a possibility that water table depletion will lead to land sinkage?
 2. If depletion and descending levels are indicated, the following possibilities should be investigated to alleviate the problem.
 - a. Return treated waters to the land via holding basins, lakes or reservoirs instead of discharge into the Ocean. These would be useable in various ways depending on water quality.
 - b. Pipe effluents to areas where the water can be used to irrigate or fertilize land - farms, golf courses, etc.
 - c. In general, investigate and utilize any other feasible ways of recycling water. Even the possibility of dual water systems, one for drinking and cooking, another for less demanding uses, should be explored.
- B. Land Use. Sewer and water systems, like transportation systems, should be built to serve a land use pattern and population densities determined to be desirable by the people of the county. Too often, the reverse is the case. Sewer, water and transportation systems are laid out without regard to a comprehensive plan, therefore becoming the influencers and determinants of land use development patterns, desirable or not. In Ocean County's case, a regional sewer system should be based on the comprehensive regional land use plan adopted by the Ocean County Planning Board.
1. What land use plan is the Ocean County Sewerage Authority now basing its sewer plan on?

2. When will it be necessary to have such a plan available to guide the completion of the sewer collection system? If soon, we suggest that the existing 1966 county plan be used. Its basic principles are sound.

C. Environment.

Every effort should be made to minimize damage to any part of the environment affected by the sewerage network.

1. Pipeline routings should avoid wetlands, marshes, bay bottom and other ecologically important areas.
2. If absolutely necessary to cross these areas, routes where the destruction has already been done should be sought. Sewer lines should use existing rights-of-way along roads, power lines or other pipe lines wherever possible.
3. We note that one outfall line is to cross Island Beach State Park. If this is necessary, how will it be handled so as not to damage the park?
4. We also note that the northern-most outfall line crosses a green acres park project in Brick Town. This should be avoided.
5. Pipes should be kept at least 20 feet from stream beds, and farther if conditions warrant.
6. Areas cleared of trees and other vegetation should be kept to a minimum. If there is damage, it should be replaced by natural, native growth to disturb the local ecology as little as possible.
7. Barnegat Bay's shellfish and finfish industries, both commercial and sport, have been badly damaged already by water pollution and wetlands destruction. Pipelines laid across as yet undisturbed portions of Bay bottom should be avoided for this reason. Any further damage would be intolerable.
8. Since the effects of taking Bay waters and of heated Bay waters from generating plants discharged into the environment are not fully known, sewer effluents might be used to cool generators before being held in cooling reservoirs and re-used for other purposes. In this case, it would be desirable to locate treatment plants as close as possible to generating plants.
9. All treated effluents, if finally discharged into streams, bays or oceans, should meet all water quality standards for those water bodies established by the State of New Jersey.
10. During construction, temporary flooding should be avoided, as this is known to cause tree kills.
11. If trees are injured during construction, they should be properly cared for according to the best arborist practices.
12. In retaining an environmental impact consultant, all required disciplines should be included -- foresters, wildlife biologists, soils experts, etc. -- in order to choose the proper routes and sites and in planning the construction process.
13. Soil erosion should be avoided during and after construction.

- a. Avoid steep slopes where it is virtually impossible to restabilize the area.
 - b. If flood plains must be crossed, care should be taken to prevent siltation and possible adoption by the stream of the new artificial channel created for the pipe.
 - c. Steps to stabilize soils should take place immediately after construction.
 - d. The Ocean County Soil Conservation District has adopted "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas," and this is recommended for your use. The District can also provide consultative soil services for review and execution of construction plans.
- D. Sludge Disposal. The Authority should investigate all possible ways of sludge disposal that would be harmless, and preferably beneficial, to the environment. Among them may be:
1. Sell to sod or other types of farms.
 2. Use to enrich soils of abandoned sand and gravel pits and reclaim them.
 3. Sell to fertilizer plants
 4. Should not be used on pine barrens, because it would change their unique ecology, and possibly endanger their usefulness as water supply sources and open spaces.
- E. Priorities. We understand that the Authority will sewer all urbanized areas in the county first. This is good. Among urbanized areas, first priority should be given to those where septic tank effluents are endangering health, seeping into nearby waters or flowing out on the surface of the land.
- F. Contract. We urge the Authority to specify in all the construction contracts it lets, all of the measures, in detail, which are necessary to carry out the above recommendations and suggestions.

Gentlemen, I thank you very much for this opportunity to offer comment on behalf of the CITIZENS' CONSERVATION COUNCIL of Ocean County, and request that this statement be made a part of the record.

Charles D. Smith, Jr.
President.

CITIZENS' CONSERVATION COUNCIL Participants ~~Participants~~

Charles D. Smith, Jr. Pres. Brick Twp. Conservation Commission	Winn Epstein, Lakewood Twp. Conservation Commission
Robert B. Litch, Vice Pres. Fed. of Conservationists, United Societies	Arnold Lehman, O.C. Board of Agriculture
Donald M. Rippey, Sec. O. C. Cooperative Extension Service	Frederick Lesser, O. C. Mosquito Comm.
Stanley Cottrell, Baymen's Asso. & Shellfish Institute of No. America	Harley Winship, O. C. 4-H Leaders Asso.
William Eissing, Fed. of Sportsmen's Clubs	Isaac Walton League
	O.C. Fish and Game Protective Asso.
	League of Women Voters of O.C.
	O. C. Soil Conservation District

(OVER)

Ocean Nature and Conservation Society
Conservation Society of Long Beach Is.
O. C. Senior Coordinating Council
N.J. Bureau of Forestry

Veterans of Foreign Wars
Woman's Club of Long Beach Is.
Robert Anstett & Asso.



LEAGUE OF WOMEN VOTERS OF OCEAN COUNTY, N. J.

847 Ocean View Drive
Lydia B. Arden, President

Toms River, N.J. 08753
May 30, 1974

U.S. Environmental Protection Agency
Region II 26 Federal Plaza
New York, N.Y. 10007

Re: Invitation to comment on April 1974 Draft -
Environmental Impact Statement on a Wastewater Treatment
Facilities Construction Grant for the Central Service
Area of the Ocean County Sewerage Authority in Ocean
County, New Jersey.

The League of Women Voters of Ocean County appreciates the request of the Environmental Protection Agency to comment on the April Draft of the above named report. Members find the Statement fascinating reading and are impressed with the completeness of the work and its thrust.

We enclose a release of October, 1973 from the L.W.V. of Ocean County citing the accelerating pollution. It received extensive coverage in the Newark Star-Ledger and many other N.J. papers.

The need for wastewater management continues more and more evident. The conditions of the ocean this year in the first six months of 1974 are sickening to League observers-even before the tourist season begins. Anything that will hasten the full implementation of the Central Service Facility should have high priority.

Members are impressed with the E.P.A.'s "reach" to control excessive growth in Ocean County. We can pray the E.P.A. will be successful but opine it will be the trick of the century should control. Observation indicates that developers equipped with steamrollers flap over officials girded with little determination to deter.

On page 47 "F R & W predicts that by 1990 most of the residences in the Central Service area will be year-round homes. Consequently, seasonal variations in population will be negligible." We feel that this does not squarely face the tourist summer influx. The many new motels building on "the Strip" seem to be a trend. The resort traffic will not go away. What will hold back multitudes from the hot cities? Is it not a paradox that we demand freedom from off-shore development in order to protect our tourist and resort business then plan on a stable year-round population? We believe wastewater management planning must acknowledge seasonal variation realistically and plan for it.

On December 14, 1971 the OCSA held a hearing in the Court House in Toms River. At that time the LWVOC offered definite recommendations. Certain of them follow:

- *Make provision for pumping and disposal of waste water from septic systems.

This suggestion was the direct result of a honeydipper's unloading directly into a coastal stream.

Since the plan to sewer the county will not be complete

for a decade a station must be provided to encourage sanitary practices. (connected to a central treatment plant?)

- * Make provision for disposal of waste from recreation vehicles.

Self-contained vehicles are a way of life at this time. Facilities must exist to accommodate their waste.

- * Make provision for holding tanks and disposal in marinas.

It is a fact that fecal coliform count in the vicinity of marinas is notably higher than in more distant areas. (League members take the water samples.)

Other areas of our nation have banned disposal of waste from boats directly into the water. Many people gladly comply with the law. Visiting boatmen in Ocean County are shocked that absolutely no facility exists for pumping holding tanks. A person who goes near moorings and marinas in this region can see visible, disgusting pollution. Marina owners seem oblivious to the need of marina holding tanks or to the degradation of "pumping overboard". When a hull springs a leak in a marina the bilge is more reminiscent of a country out-house than of off-shore breezes.

It must be mandatory to make convenient and adequate facilities for all of the above noted sources of waste

septic system - recreation vehicle - boat, private and commercial

Individuals will not comply with laws-that might be passed-if it is impossible or too difficult to do so. People are becoming increasingly more sensitive to environmental improvement. They HAVE to be supported and encouraged. The county, as a more responsible group, should take leadership. The cost to the taxpayers is reasonable compared to epidemics.

TYPHOID WAS HERE AGAIN IN 1973.

There follow here some pages with random thoughts and observations. Several ideas would necessitate cooperation of municipal, civic or professional groups. On page 161 under recommendation #3 cooperation of groups is recommended. Actually it will be a great day for the government when all branches plan .

The LWVOC has comment to offer on pollution from run-off and the validity of retention basins near parking lots, shopping centers and subdivisions. However, we learn that others will make what we believe is good observation so for the sake of efficiency we will not say more.

Judging from the retention business in Toms River an education campaign and course in trustworthy government will be in order before the rank and file will "buy" retention basins.

RE: Shift in Saline Conditions of Barnegat Bay

P. 126 "Those streams that empty into Barnegat Bay may experience a shift in saline conditions because reduced stream flow will permit the salt water of the bay to flow farther upstream."

All parties interested in environmental conditions in Barnegat Bay should be warned that the cooling towers of the new Forked River Nuclear Plant may or will return enormous amounts of salt to the Forked River. Testimony to this effect was offered at the A. E. C. License Hearings for the new plant, held in Waretown, N.J. The amount of salt that could be returned to the estuary seems to pose a serious hazard. The fact is not being taken seriously for its potential to change the environment. Higher salt content in the bay could increase the shift in saline conditions predicted by the impact statement at hand.

Exact information can be found in the published record of the A.E.C. hearings. References will be furnished by the LWVOC at the drop of a letter or the ring of a phone.

RE: Dredge Spoils

The environmental impact statement refers to dredge spoils as a problem in several pages.

On May 14th, 1974 representatives of interested groups met in Ocean County College with Rutgers scientists from the Marine Science Center for the precise purpose of discussing rehabilitation of the marshes, that is marshes that have been despoiled. Some of those present--including a League member--have witnessed actual new growth in the bay on dredge spoils. Those present agreed to plan a research project for definite replanting and restoring marsh areas, especially where extensive development has destroyed marshes. We search proper areas now.

The League recommends that the OCSA consider with the DEP and EPA possibility of restoration of small islands, where wild life would take up residence at the earliest moment they could succeed. We believe that volunteer environmental groups of adults and youth would cooperate in planting and nurturing islands under professional direction.

* * * * *

Rubble of World War II in Berlin and Munich was trucked outside of the cities and built into deliberate hills now called "Devil's Mountains". They serve recreational purposes, park and picnic in summer; skiing and sledding in winter. Munich is as flat as the shore area.

In New Zealand the government owns all of the hills in cities and towns. They are landscaped and kept for the one, only and sole purpose of looking green, lovely, cool and beautiful. Those hills give the cities a unique and altogether pleasant panorama. The richest nation in the world, adverse to creating little nice places for people, would never care to create a hill in Ocean County with landscaping and possibly a "Top of the County" restaurant or observation facilities. However dredge spoils could be considered as assets for some use as hills.

RE: Sludge Disposal

A "dredge spoils" hill with a hole in the middle could contain sludge?

In Ridgewood, N.J. sludge was placed in a disposal site available to the residents. People went with cans and removed quantities of it for their gardens. Presumably such a provision would require an educational campaign.

Re: Recreation of OCSA buffer zones

The LWVOC has witnessed the antipathy of the people to the treatment plant in Berkeley Township. It is reminiscent of a utility substation in a north Jersey suburb. Now that the plant has been a reality for years people have forgotten it is there. It has been built like a large beautiful home. The truck area has Norway maples shading the area and the street side has tennis courts.

"At the proposed site of the treatment plant" (p.158)
"62 ha (25 acres) of woodland will have to be cleared prior to construction." (The League digs metrication but believes this should be reversed or corrected).
One feels that a low cost public goodwill measure could be incorporated into the buffer zone of the treatment plant. If the periphery were made into some type of recreation field, small as badminton, paddle tennis, volley ball or if possible, larger fields as baseball, hockey, lacrosse, tennis. One would expect that recreation commissions of the municipalities would cooperate. With good advertising and educational campaign the addition of facilities for athletic use would benefit the public and make goodwill. Appeal to Boys' Clubs might make a nearly cost free playground.

The LWVOC thanks the EPA for the opportunity to read the excellent document. We only hope that there may be a kernel in the comments submitted.

It is necessary to congratulate the EPA again for a stand to protect the future of Ocean County from the insane growth without planning or care.

Respectfully submitted

Lydia B. Arden
Lydia B. Arden, President
League of Women Voters of
Ocean County

Comment not concerned with the Ocean County Sewerage Authority but apropos of the E.P.A. Impact Statement.

RE: The Kirkwood Formation described on page 65

The Kirkwood with other aquifers outcrop along ridges in the northern area of Ocean County. Some of the Kirkwood outcrop is in the Great Adventures animal park.

In a special invitation tour, members of the LWVOC were escorted by the vice-president and chief engineer to all parts of the park. We discussed the Kirkwood outcrop with them. It was all news, they had never heard of it. However, they did recognize that on some parts of the land there was soil too thin for grazing. They explained that that area would be covered with topsoil and planted with grass. We believe that they were probably identifying the Kirkwood outcrop. We did not investigate further.

The Ocean County League and the Monmouth County Leagues feel that recognition of the importance of aquifers should be publicized. We believe there should be active protection of the outcrops that lie in a line from roughly Perth Amboy to Trenton. Would some kind of park system or differentiation set them aside for protection? ("Not unless you pay full money value for every inch of the land!!")

Also Great Adventures: Concerning OCSA? Vice-president and chief engineer claim that all of Great Adventures park falls into the Delaware River Basin. Indeed, the drainage map shows that the tiniest corner of the park dips into the Toms River Basin. Page 43, quoting from the statement of Great Adventures to the NJDEP in June 1973: "This site in Ocean County will ultimately be served by sewers extending from the Ocean County Regional Sewerage Authority system." Great Adventures anticipates up to two million patrons per day in the park. As far as the LWVOC knows there is no plan to sewer the area of Jackson Township for many years. The whole failure to make public plans for the Safari Park and anything else connected with Great Adventures appears to be a dismal chapter in the annals of New Jersey and this county. Practices in and not in the park defy the law and human decency..

As long as it will be an asset to pockets nothing will change we presume. It is, indeed, an unhappy example of how to get things done the wrong way. The League bleeds in impotence, along with many others.



LEAGUE OF WOMEN VOTERS OF OCEAN COUNTY, N. J.

The purpose of the League of Women Voters is to encourage the informed and active participation of citizens in government.

LYDIA B. ARDEN, PRESIDENT
201-244-5704, 244-6850

847 Ocean View Drive
Toms River, New Jersey 08753

OCTOBER, 1973

Release Re: Accelerating Pollution, Health Hazards and their relation to the Proposed Sewerage Facilities of The Ocean County Sewerage Authority.

The League of Women Voters of Ocean County notes with apprehension the accelerating degradation of the waters of Ocean County. Increasing pollution, obvious to field observers, during 1973 is reason for grave concern. The loss of water resources to the people is at a cost beyond sustaining whether the people understand it or not.

In May 1973 the Environmental Assessment Council placed the final report of studies on the projected regional sewerage plan of the Ocean County Sewerage Authority in the Public Library. Members of the League of Women Voters have studied the volumes and found them a fascinating compendium of information on the environment in which we live. The League recommends the report as general reading to all our fellow countymen.

The Environmental Assessment Council's report states, "Waste-water management programs based on river basin development have not been formulated or initiated in the County. Rather a haphazard array of treatment facilities has been established".

Informed citizens participating actively in government know that modern wastewater treatment must be based on river basin systems. The League deduces from the report that if river basin disposal systems in this county were not planned river basin disposal "just grew".

The Environmental Assessment Council's report discussed the drainage of the county from north to south:

The Metedeconk River Basin, including the north (part in Monmouth County) and south river branches, Kettle Creek and the tributary systems and associated estuaries receive the effluent of fifteen secondary sewerage plants, an estimated 3.5 million gallons per day in the summer. Beautiful Lake Carasaljo receives from upstream, 133,000 gallons per day of secondary waste. Irisado Lake - now rejoicing in the name of Lake Riviera, wins, from a treatment plant upstream, 350,000 gallons per day. The lakes, in turn, contribute to the Metedeconk system. Last summer the League remembers the Clean Water Council discovered astronomical counts of coliform bacteria which caused the closing of some bathing beaches in

Brick. Every summer the "fertilizer factories" pumping excessive nitrogen into the waters cause "eutrophication", which is the abnormal rapid aging of water bodies due to increased concentrations of nutrients and algae. The resultant rampant growth of plant life spoils water recreation and lowers the water quality. Insupportable odors lead to the harvesting and trucking of material by municipal government at taxpayers expense.

The Environmental Assessment Council's report suggests that regional sewerage systems with some rehabilitation of waterways would restore water conditions to their original quality.

This summer, the League of Women Voters awarded the "Solid Gold Potty" to the people of the Metedeconk Basin for the dubious honor of living along the most polluted river basin in Ocean County.

The Toms River Basin receives effluent from six treatment plants - five secondary and one primary. (Primary means they only screen and settle out the big pieces). 1.5 million gallons of some-more-or-less treated, some not treated, sewage flows past Dover Township everyday. Pine Lake, in Manchester, wins 122,000 gallons of discharge from Lakehurst and passes it into Toms River.

The Forked River-Cedar Creek Basin receives effluent from five treatment plants excluding Oyster Creek.

The Mill Creek Basin receives effluent from three treatment plants, more than half a million gallons per day.

The Tuckerton Creek and Mullica River Basins also receive such inadequately treated effluent (some from Burlington County).

All river basins show similar conditions - the situation in each case is a matter of degree.

It is easy to see that planned, or not planned, Ocean County has a river basin system - not of Sewerage but of Pollution.

The Environmental Assessment Council's report permits us to identify the quality of effluent passing into our waterways. There are 46 separate treatment plants currently operating in Ocean County most of which are not providing the required degree of treatment and 9 of which are approaching "overloaded conditions" or are presently overloaded. Of these, 26 are discharging into rivers and streams. Four of the 26 are operating in excess of their design capacity. (Operating in excess of design capacity results in lesser treatment of the sewage before it goes directly into waterways). The inadequate treatment facilities are causing serious problems in the County. The New Jersey State Department of Environmental Protection has ordered 20 systems in Ocean County to be upgraded.

The certain knowledge that many inadequate plants are passing human waste into all our river basins should make every citizen sick, literally and figuratively.

The certain knowledge that the rate increases with an uncontrolled population explosion should make every citizen sicker.

The facilities described so far represent the civilized part of wastewater management as practiced in our area - the bow to the 20th Century; the bow to American high technology.

Treated sewage accounts for less than half of the total sewage produced in the County. According to the New Jersey census, 58% of sewage disposal occurs in individual septic systems. The Environmental Assessment Council's report states "the County has allowed development of areas on a septic system of waste handling".

Septic systems never belonged in populous areas in the first place. The proper habitat of septic tanks is in the country, on farms, in isolated residences. Septic systems are country cousins. They never should have come to town! Above all they never should have been tolerated in the lagoon and bay area of a coastal plain. Every dumb-dumb knows that no man can keep a good septic tank down in a high water table. So-o-o-o-o- "knock the bottom out of it!" Everybody laughs. You no longer have a septic system, you have a cess-pool.

The report points out septic systems exist on lots 75'x100' and smaller in large developments of high density along the bay; that homeowners experiencing problems due to poor drainage systems often by-pass septic tanks entirely and discharge their raw sewage into the bay. Contributions of bacteria and viruses from unsewered lagoon communities are quite high. The report does not state that many small lots with septic systems in high density developments draw water from wells. One League member knows a fellow who insists he does not mind his own effluent so much - "but ugh to the guy next door".

Polluted streams and polluted lagoons flow to polluted rivers. Ultimately Barnegat Bay receives the co-mingled urine and feces of thousands of human beings. In plain English, "Our bay is a great big john".

The State government and the Federal government forbid the eating of shellfish from our rivers, our bays, and our nearby ocean because of the bacteria and viruses flushed into these waters by and from people. In a world protein shortage, how much we miss the succulent seafood that flourished in and around our bay.

The League notes that nowhere does anyone pose the big question - "What about the menace of disease?" Does no one think in terms of Public Health? How can the people of Ocean County live in health with the feces of "all those other guys"? Have all of the people forgotten the scourge of typhoid? of cholera? of all the brands of dysentery? - of polio? - and of all other infectious diseases? Our population has lost endemic immunities. We could be decimated by new epidemics. Citizens now are plagued with hepatitis and odd mutations of viruses. Mutations mutate in worse directions. Are citizens aware that world travelers and the military returning home from foreign lands can impart bizarre parasitic organisms? These bugs might just dig our brand of pollution.

The League asks one more question, "Are citizens aware that doctors and medical services have not had the training to recognize and diagnose the forgotten and foreign diseases? In New Jersey there has not been teaching material in many years. The cholera scare should shake up the seaside society.

We are disturbed by the apathy of the people to a regional sewerage system in Ocean County. We believe that that apathy is the arch tribute to the accomplishments of the Public Health services in this century. In one sentence, "We have forgotten to be afraid".

Members of the League have attended most of the public meetings of The Ocean County Sewerage Authority and the Environmental Assessment Council during the past two years. We are appalled by the adversary atmosphere apparent in each meeting. It seems incongruous that in 1973, in the United States, there should be high emotion manifested against the implementation of a master plan for wastewater management in Ocean County. It seems incredible that speakers inveigh against the sewerage plan and that boorish crowds react with applause. In all the public meetings, the League cannot remember many concerned citizens or representatives or organizations who have struck a positive note for the one thing this county needs more than all others - a total, efficient operating wastewater management system. The League of Women Voters of Ocean County says, "Let us get on with the job - and fast".

NEW JERSEY COOPERATIVE EXTENSION SERVICE

Address reply to: Extension Service
Agricultural Center, Toms River, N. J. 08753
Phone: (Area Code 201) 349-1245

Cooperating Agencies: Rutgers - The
State University, the U. S. Department of
Agriculture, and the Ocean County Board
of Chosen Freeholders.

Rutgers - The State University

April 26, 1974

Ms. Barbara Metzger
U.S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10007

Dear Barbara:

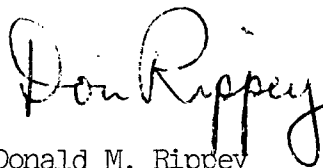
I have had an opportunity to look over the E.P.A. impact statement on the Central Service Area of the Ocean County Sewerage Authority. It is basically excellent ---- one of the courageous and more hopeful, realistic documents of our time.

I will have some comment to make, either directly or indirectly, on the report. It will be in strong support, but aimed in the direction of strengthening it. How, by the way, does a layman go about evaluating the 1972 air quality baseline and evaluating the accuracy of the dispersion model?

In the meantime, I could use a copy of the report here in my office. Could you arrange to have one sent?

Best regards, and many thanks for your part in the sewerage impact statement and for a copy if you can manage it.

Sincerely yours,



Donald M. Rippey
Extension Agent-
Resource Management



State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS

PATRICIA Q. SHEEHAN
COMMISSIONER

May 24, 1974

363 WEST STATE STREET
POST OFFICE BOX 2768
TRENTON, N.J. 08625

Mr. Gerald M. Hansler
Regional Administrator
U.S. Environmental Protection
Agency, Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Hansler:

The Division of State and Regional Planning has reviewed the Draft Environmental Impact Statement prepared by E.P.A. for the Wastewater Treatment Facilities in the Central Service Area of Ocean County. It is an excellent evaluation of the possible impacts of the project, and the recommendations regarding population growth will surely set a precedent for future assessments and impact statements.

We trust that E.P.A., having set the parameters for growth, will give whatever technical assistance possible to help the county and the municipalities in actually allocating population. This Division will certainly provide whatever services it can if called upon.

We hope that in the near future the State will be taking on broad responsibilities for guiding growth within our borders.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Richard A. Ginman".

Richard A. Ginman, Director
Division of State & Regional Planning

RAG:s



State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS

PATRICIA Q. SHEEHAN
COMMISSIONER

363 WEST STATE STREET
POST OFFICE BOX 27
TRENTON, N.J. 08625

May 30, 1974

Mr. Paul Arbesman, Chief
Environmental Impact Branch
Department of Agriculture
Region II
26 Federal Plaza
New York, New York 10007

RE: Our File #OSRC-FY-74-494

Dear Mr. Arbesman:

This will acknowledge receipt of your recent Project Notification for EIS-"Wastewater Treatment Facilities Construction Grant", for Ocean County received on May 21, 1974. The Project has been designated application #OSRC-FY-74-494, for all future references.

We have circulated the Project Notification to appropriate State agencies for review and comment. We anticipate no problems during the review phase, but should any conflicts or issues arise it will be necessary to schedule a conference in order to resolve the issues prior to the issuance of a Letter of Certification.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jerry Eure".

Jerry Eure
Supervising Planner
Project Review Section
Division of State and Regional
Planning

JE/dm



State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS

PATRICIA Q. SHEEHAN
COMMISSIONER

363 WEST STATE STREET
POST OFFICE BOX 2768
TRENTON, N.J. 08625

June 13, 1974

Mr. Gerald M. Hansler, P.E.
Regional Administrator
U.S. Department of Environmental Protection
Agency -- Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Hansler:

In accordance with the U.S. Office of Management and Budget Circular A-95 Revised, your Environmental Impact Statement for "Wastewater Treatment Facilities Construction Grant" for Ocean County designated OSRC-FY-74-494, has met the State of New Jersey Clearinghouse requirements.

We have circulated this Project Notification to appropriate State agencies, none of which have voiced any objections.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Sidney L. Willis" followed by a stylized monogram or initials.

Sidney L. Willis
State Review Coordinator
Division of State & Regional Planning

SLW:vt



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

TRENTON 08625

OFFICE OF THE COMMISSIONER

June 28, 1974

Mr. Gerald Mansler
Regional Director
U. S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Mansler:

RE: Environmental Impact Statement on a Wastewater
Treatment Facilities Construction Grant for
the Central Service Area of the Ocean County
Sewerage Authority, Ocean County, New Jersey.

The New Jersey Department of Environmental Protection has had the opportunity to review the above cited environmental impact statement. As a result of the review, the Department's prime area of concern is the far-reaching implications associated with the limiting of sewage treatment capacity as a means of insuring non-degradation of air quality. In the case of the Ocean County Central Service Area, the Environmental Protection Agency has determined that a sewage treatment capacity of 24 mgd would limit population growth to a maximum of 250,000 people.

We take exception to the methodology used by EPA to conduct a diffusion model study which concluded that there would be significant air quality deterioration if the population of the Central Service Area exceeded 250,000. The recommendation contained in the EIS is based on the Air Quality Increment Plan contained in the proposed non-degradation regulations. Although EPA discussed several non-degradation control strategies in the EIS, the determination in the Air Quality Increment Plan is based on suspended particulates only, and fails to consider control strategies other than restricting population. For example, deterioration with respect to particulates could be limited by one or more of the following alternative strategies:

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- a. Improvement in combustion equipment, especially domestic and commercial units.
- b. Auxiliary controls on domestic and commercial combustion units.
- c. Wider use of cleaner fuels.
- d. Substitution of remote heat and power sources for on-site generation.
- e. More homogeneous population distribution.

While some of these strategies may be "advanced" for today's climate, they cannot be ruled out when we are looking 15 years or more into the future.

One of the major emission categories used as a parameter for projecting air quality was gasoline usage. According to the EPA inventory, gasoline generated particulates represent 300 of 875 tons per year or about 34% of the particulates presently coming from area sources in the county. By January 1, 1978 when the Federal requirements are in full force, particulate emissions from motor vehicle exhausts will be expected to decrease by 35 to 50% because of lead reductions and increased use of unleaded fuels. For vehicles equipped with catalytic control devices, there will also be a mechanical filtering action. Total particulate reductions, according to some studies, may be as high as 97%. These factors apparently were not taken into account in the EPA projections.

In selecting designated Air Quality Maintenance Areas according to EPA procedures, Ocean County was not included as one of those areas in which the National Air Quality Standards are expected to be exceeded within the next ten years. The maintenance areas are to be updated every five years. Should Ocean County become a "designated" area in the next updating, we would then be obligated to prepare an implementation plan to prevent the standards from being exceeded. There would seem to be ample opportunity to deal with this issue without resorting to the approach proposed in the subject document.

The Air Quality Increment Plan is just one of four contained in those proposed regulations and is therefore not necessarily the one that New Jersey would adopt if those proposed regulations are promulgated.

Among the alternatives is the Local Definition Plan. This plan would authorize the State to set the allowable degree of air quality deterioration on a local basis. Under this plan, the responsibility for delineating air quality areas and for defining significant deterioration is left to the State and under this plan the ultimate level of deterioration could progress in finite increments up to the level of the secondary standards.

Assuming that this is the plan that would be adopted by New Jersey and further assuming that significant deterioration is defined as an increase up to the level of the secondary standards let us examine the data on which the EPA based its recommendations together with a third set of figures which were projected according to methodologies set down in the Environmental Protection Agency's "Guidelines for Designation of Air Quality Maintenance Areas" (AQMA):

Annual Geometric Means of Particulates ($\mu\text{g}/\text{m}^3$)

<u>STATION</u>	<u>Measured (7/72-7/73)</u>	<u>Projected 1990 from DSRP* Data</u>	<u>Projected 1990 from FR&W** Data</u>	<u>Projected 1990 AQMA Guidelines</u>
Toms River	43	90	70	65
Berkeley	40	90	69	59
Warrentown	28	65	55	40
Jackson	27	40	36	32

* DSRP - Division of State & Regional Planning

** FR&W - Fellow Read & Weber (Engineering consultants to the Ocean County Sewage Authority)

In all cases the numerical guideline against which these projected concentrations should be compared is the National Secondary Ambient Air Quality Standards for Suspended Particulates of $60 \mu\text{g}/\text{m}^3$. DSRP data indicate that 3 sites would contravene the standard, FR&W data suggests that 2 sites would contravene the standard while the AQMA projections indicate that the standard would be contravened at one of the four sites.

It is obvious that any conclusions drawn from this examination will be influenced by the set of projections that are used. The first two sets of projections (DSRP and FR&W) were generated through a diffusion model while the last set of projections (AQMA) is the result of a proportional model. This difference is mentioned because diffusion modeling is very sensitive to variations in input parameters, such as the number and locations of pollutant sources, as demonstrated by the differences in the results of the first two sets of projections. The accuracy of diffusion modeling in the predication of the future ambient air quality concentrations that result from area sources will be highly dependent on the validity of the assumptions made in locating those sources in relation to a receptor grid.

Proportional modeling, on the other hand, implicitly assumes the homogeneous mix of pollutant sources throughout an area in order to confirm a direct relationship between emissions and ambient concentrations. Although simplistic in scope, proportional modeling is nonetheless a useful predictive tool because its unchanging assumptions permit a direct comparison of results

obtained for different areas. Most significantly, proportional modeling was the methodology approved by the EPA for the development of the New Jersey State Implementation Plan to meet air quality standards.

However, it is not our intent to determine which of the projected concentrations is the most accurate but rather to point out that there are several methods of modeling future air quality concentrations each of which is very sensitive to the validity of all input data and working assumptions.

Finally modeling is still a relatively inexact science and the results of a model should not be considered absolute values but rather relative values that would be subject to further interpretation.

The New Jersey Department of Environmental Protection therefore concludes that the diffusion model study based on the AQIP is not an appropriate method to determine and regulate sewage treatment capacity in order to achieve non-degradation of air quality. We suggest that the Draft EIS be modified to specify population limits in the order of magnitude of 250,000 as the actual air quality deterioration threshold point may vary considerably with the methodology used. We further recommend the approach to non-degradation be made by on-going planning of growth in the Central Service Area as indicated by continuous air quality monitoring. Any decision to expand the capacity of the sewage treatment facilities should be made far in advance of the time the expansion is required and be made contingent upon the latest possible analysis of air quality.

The final analysis prior to a decision on whether to approve or disapprove increased sewage treatment capacity should be based on State approved modeling techniques, consideration of alternate strategies, and consideration of technological and improvements.

In addition to our major area of concern, the New Jersey Department of Environmental Protection offers the following more specific comments, questions, and recommendations on the Draft EIS:

The U.S. Bureau of Sports Fish & Wildlife should have been added to the Department of Interior's list of agencies in which comments were to be requested. The Bureau of Sports Fish & Wildlife should be given an opportunity to review the Draft EIS (page 5).

There are no smallmouth bass in the area's waters. However, waters of the area contain the black-banded sunfish, the blue spotted sunfish, the sphagnum sunfish and the mud sunfish - all species that are associated with acid waters of the Coastal Plains and are not generally found elsewhere in New Jersey. (page 56)

The anadromous species (blueback herring, alewife, white perch) have not been included. These utilize and are dependent upon both the tidal and non-tidal waters of the area. (page 60)

Oysters are not found offshore in the ocean, but rather in the estuary. (page 61)

The OCSA should restore through dredging the ponds and upper estuarine waters those sediments resulting from the project construction phase.

Consideration should be given by OCSA to require a performance bond to "assure" the correction of environmental problems for a period of two years following completion of the project.

The Division of Marine Services should be consulted before the construction phase of the project commences, with respect to specific sites for the interceptor lines. The present specifications are not easily adaptable to Wetlands photography scale and present the problem of determining regulatory jurisdiction.

Specific details should be made available, before commencement of the construction phase of the project, concerning the proposed schedule of the excavation of restoration process for any interceptor lines traversing wetlands. A detailed description should be given concerning the time of year, the exact process, and the means of restoration (artificial or natural) that will be utilized during and after installation of lines through wetlands.

Discussion and investigation by representatives of the Ocean County Sewage Authority and the New Jersey DEP should be initiated as soon as possible concerning the sites available for dredge spoil materials that will be a result in the installation of trunk lines under Barnegat Bay and Toms River. Disposal sites should be agreed upon before the final EIS has been written. Before any discussion of the spoil sites takes place, the Authority will have to obtain the following information:

- a. the approximate cubic yardage of spoil material,
- b. the composition of materials that will be encountered and approximate cubic yardage of each,
- c. the means of accomplishing the dredging and back-filling.

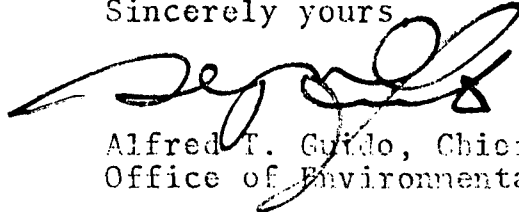
Mr. Gerald Mansler

June 28, 1974

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In addition to any wetlands permit that may be required, the bulk of the project would be located within the Coastal Zone and, as such, would be subject to the jurisdiction of the Coastal Area Facility Review Act. Furthermore, any alteration of lands below the natural mean high water line, including the dredging activity in Barnegat Bay and Toms River, would be subject to the necessary riparian permits and licenses.

Sincerely yours

A handwritten signature in dark ink, appearing to read 'Alfred T. Guido', is written over the typed name and title.

Alfred T. Guido, Chief
Office of Environmental Review

ATG:cjw

OCEAN COUNTY PLANNING BOARD

COURT HOUSE SQUARE
TOMS RIVER, NEW JERSEY 08753

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ELIZABETH C. PRIESTLEY
SECRETARY

201 - 244-2121 EXT. 202

May 30, 1974

Gerald M. Hansler, Regional Administrator
U. S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10007

RE: ENVIRONMENTAL IMPACT STATEMENT on a WASTEWATER TREATMENT FACILITIES
CONSTRUCTION GRANT for the CENTRAL SERVICE AREA of the OCEAN COUNTY
SEWERAGE AUTHORITY in OCEAN COUNTY, NEW JERSEY - Draft - April, 1974

Dear Mr. Hansler:

The Ocean County Planning Board has reviewed the Environmental Impact Statement on a Wastewater Construction Grant for the Central Service Area of the Ocean County Sewerage Authority (E.I.S.) and has attempted, within a brief period of time, to evaluate the ramifications and potential impacts of the conclusions of this Statement.

The County Planning Board, the County Sewerage Authority, and the affected 16 municipalities have had a relatively brief period of time in which to respond to the E.I.S. A meeting with E.P.A. officials called by the County Planning Board and the County Sewerage Authority indicated the problems of analyzing the potential impact of the E.I.S. It is not possible to evaluate the long term impact of many of the conclusions developed from the statement in a period of less than six weeks. The E.I.S. does, however, focus upon the problem of rapid population growth which has been recognized in Ocean County by responsible governmental officials.

The Ocean County Planning Board is currently in the process of updating the County Master Plan. This Plan will incorporate and be based upon environmental, economic and social analyses, and will be designed to reflect current State and Federal regulations pertaining to the environment. The Plan is to be developed in cooperation with Ocean County municipalities and will reflect the goals, objectives and needs of the County.

The Planning Board is deeply concerned with the proposed limitations on the size of the central sewage treatment plant on the basis of air quality standards stipulated in the E.I.S. The Board is concerned that adherence to a limitation on sewage treatment facilities would lead to extensive use of septic tanks after the 250,000 or other population limitation is reached. This would produce deterioration of ground and surface water quality. Under current State legislation the County Health Department and municipal health departments cannot prevent use of septic tanks in areas where sewer systems are not available provided minimum state standards are met.

Ocean County's leadership in developing a regional sewage treatment system designed to eliminate septic systems which collectively produced deteriorated water quality in Ocean County was imperative. Unless significant changes are made in current State legislation, Central Ocean County would soon face the specter of a proliferation of septic systems which it hoped to avoid.

Restriction of population in the central service area of the County to a level of approximately 250,000 as indicated in Conclusions 1 and 2 of the E.I.S. would result in major economic, social and legal impacts which cannot be answered by municipal, County, State or Federal institutions without extensive analysis of administrative strategies for a population control policy on a regional basis. If population growth were to be terminated at 250,000 in the central portion of the County by 1983 or 1984, the Board questions how it can be accomplished, by whom it should be accomplished, and at what point in the development process this should occur? A study of the Planning Board staff indicates that between 1970 and April 1974, the Board processed and gave final approvals to 36,947 proposed dwelling units (24,106 single family homes, 11,460 multi-family units, and 1,381 mobile homes) in the Central Service District. It is conceivable that within the next year or two additional subdivision and site plan approvals, combined with existing permanent and seasonal residential development, would provide for residential development proposals capable of supporting 250,000 residents. Should the County Board and/or municipal planning boards restrict further processing of development proposals or should the municipalities be responsible for not issuing building permits when the population maximum is reached? Restricting population growth is extremely difficult within the present legal framework and restrictions applied on a regional basis could have significant social and economic impacts on Ocean County and on adjoining counties.

The E.I.S. does not clearly specify if the proposed population restriction of 250,000 applies to permanent resident population or a combination of permanent and seasonal residents. If the latter applies the permanent resident population would account for only approximately 180,000 to 190,000 residents, a level which could be achieved prior to 1980 and possibly at a point in time simultaneous with the final construction of the central sewage treatment plant and collection system. This is an important point which should be clarified.

The imposition of a population limitation on central Ocean County or any other large region would result in litigation if land owners are deprived of the use of their property. The Ocean County Planning Board recommends that, if this should occur, the Environmental Protection Agency be legally responsible for the restrictions on population growth including payment of legal fees resulting from law suits and possible liability for compensation which could occur if redress for financial loss to landholders does occur.

The Ocean County Planning Board is generally in agreement with Recommendation 3 and Ocean County has already initiated and will continue to effect coordination with State and municipal officials on methods of guiding future development through existing legal mechanisms and institutional arrangements. The Board also will work with appropriate State, Federal, County and municipal agencies in development of necessary regulations which will encourage cooperative and coordinated planning on a County and sub-County basis.

The Board agrees with Conclusion 4 and will work with the Sewerage Authority on its reevaluation of interceptors for these areas.

Conclusions and recommendations 5 and 6 do not apply to the County Planning Board.

In Conclusion and recommendation 7 references are made to landfill sites for sludge disposal. The Ocean County Board of Freeholders and Planning Board have initiated a County Solid Waste Disposal Study with M. Disko Associates as consultants. This study is expected to result in recommendations leading to a County operated landfill system. The Planning Board staff and M. Disko Associates will be coordinating with the Sewerage Authority on the problem of sludge disposal.

Conclusions and Recommendations 8 and 9 pertaining to the water-table aquifer and ground-water recharge has already been addressed by the County Planning Board through a preliminary program of regional reservoirs and retention basins to retard surface drainage and provide for ground-water recharge. Richard Lane, County Engineer; Thomas A. Thomas, County Planner; Charles Pike, County Administrator; and the Ocean County Soil Conservation Service have held a series of sessions leading to a program of delineating critical reservoir areas. Mr. Lane is currently undertaking a County-wide analysis of critical areas which should be preserved for reservoir and retention basin sites. The County Planning Board and County engineer have also required major developments to provide infiltration-detention basins where excess run-off would occur. The Board has also encouraged the use of porous concrete parking lots in areas where feasible and has approved two developments which utilize this new technology.

The problem of saltwater intrusion is, we believe, of critical importance to the future populations along the shore. We encourage the E.P.A. to assist the County Sewerage Authority in developing an effective monitoring program pertaining to salt-water intrusion. We endorse the Sewerage Authority's position that an independent agency from the Federal or State or County level should be responsible for the monitoring program as it relates to the operational effects of the Central Sewage Treatment Plant and to other treatment facilities. The Authority should be held responsible for a monitoring program if no independent agency can accomplish such a program in an effective manner.

The Board has discussed conclusion and recommendation 10 and find that the County cannot implement a plan to eliminate the discharge of wastes from boats and marinas since the coastal waters and estuaries are controlled by the New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers, and the U. S. Coast Guard. We believe that the responsible agencies should develop a plan to prevent pollution of waterways from boats and marinas. The County would cooperate to the greatest extent possible but it has no statutory authority to implement a plan at this time.

The County Planning Board recognizes that there are long-term problems of rapid population growth and that there are limitations to the extent to which the County should be developed if it is to maintain a desirable environmental setting. The Board does not feel, however, that the Central Service Area can be singled out as a target area for population growth control without an overall plan for environmental quality control at the State and regional level. The Board feels very strongly that a limitation of

Gerald M. Hansler, Regional Administrator


-4-

May 30, 1974

population growth in central Ocean County will have significant social, economic and legal impacts which have not been determined or properly analyzed. Since there are no statutory provisions for allocating population growth on a regional basis, this problem will require an innovative program if economic inequities are to be minimized amongst the affected communities.

In conclusion the Ocean County Planning Board urges the E.P.A. to reconsider its proposed requirements for the Central Service Area Treatment Facilities Grant and to provide an in-depth analysis of the economic, social, legal institutional impacts if population growth is restricted on a regional basis in Central Ocean County. The Board does commend the E.P.A. staff on its background analysis and its efforts in pointing up the necessity for evaluating the secondary impacts generated by a regional sewerage system. The Planning Board and its staff expect to continue working cooperatively with the E.P.A. and other Federal, State and County agencies which are working toward a goal of guiding future development in a manner consistent with proper land use and environmental planning standards.

Very truly yours,


H. George Buckwald
Chairman

HGB/ecp

c.c. Ocean County Board of Chosen Freeholders

Ocean County Sewerage Authority

Mrs. Patricia Q. Sheehan, Commissioner, New Jersey Department of
Community Affairs

David Bardin, Commissioner, New Jersey Department of Environmental
Protection

Charles M. Pike, Ocean County Administrator

Ocean County Environmental Agency

16 Municipalities - Planning Boards

THE OCEAN COUNTY SEWERAGE AUTHORITY
REVIEW OF U.S. ENVIRONMENTAL
PROTECTION AGENCY DRAFT
ENVIRONMENTAL IMPACT STATEMENT
DATED APRIL 1974 OF THE PROPOSED
CENTRAL SERVICE AREA FACILITIES.

June 21, 1974



THE OCEAN COUNTY SEWERAGE AUTHORITY

40 HADLEY AVENUE

TOMS RIVER, NEW JERSEY 08753

201/349-3684

COMMISSIONERS

LAWRENCE SIMPSON, CHAIRMAN

EDWARD J. MORAN, VICE CHAIRMAN

J. CHESTER HOLMAN

JACK MEYER

JOHN J. SWEENEY

June 20, 1974

Mr. Gerald M. Hansler, Regional Administrator
U. S. Environmental Protection Agency
26 Federal Plaza
New York, N. Y. 10007

RE: U.S. Environmental Protection
Agency, "Environmental Impact
Statement on a Wastewater
Treatment Facilities
Construction Grant for The
Central Service Area of The
Ocean County Sewerage Authority
In Ocean County, New Jersey-
Draft-April 1974"

Dear Mr. Hansler:

The Ocean County Sewerage Authority has reviewed the referenced environmental impact statement and wishes to commend you and your staff for the exhaustive evaluation performed.

Presented herein are this Authority's comments on the impact statement.

As indicated in these comments, The Ocean County Sewerage Authority unequivocally endorses the U. S. Environmental Protection Agency's goal of preventing significant deterioration of the air quality the residents of Ocean County presently enjoy. We feel, however, that several of the assumptions, calculations and procedures used in the development of the impact statement need clarification. In addition, population restrictions as may be required to implement these goals, will provoke many legal and practical questions which should be considered prior to the implementation of such a program. Accordingly, this Authority has attempted to identify areas of concern in the comments contained herein and respectfully request that they be seriously considered in your preparation of the final environmental impact statement.

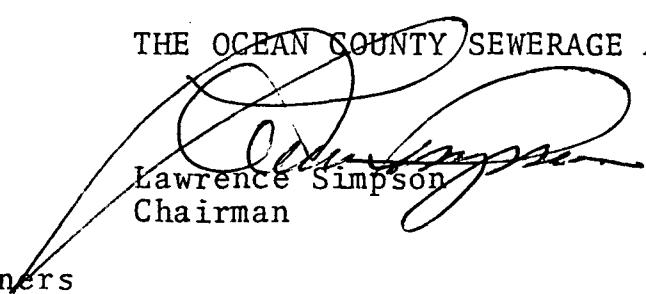
THE OCEAN COUNTY SEWERAGE AUTHORITY

Page 2
June 20, 1974
Mr. Gerald Hansler

We wish to thank your staff for the cooperation they have extended representatives of this Authority in the many meetings and discussions held to date and look forward to continued cooperation on this matter. We are certain that the final outcome of this revolutionary concept will strengthen the need for proper planning for the future of Ocean County and protection of the environment.

Very truly yours,

THE OCEAN COUNTY SEWERAGE AUTHORITY



Lawrence Simpson
Chairman

LS:mal
c.c. O.C.S.A. Commissioners

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THE OCEAN COUNTY SEWERAGE AUTHORITY

I. COMMENTS ON U.S.E.P.A. CONCLUSIONS AND RECOMMENDATIONS

USEPA Conclusion 1

"A diffusion model study of the air quality situation in Ocean County shows that significant air quality deterioration will result if the population of the Central service area exceeds 250,000, assuming that the current fuel use patterns, transportation modes and industrial patterns remain constant. The population of the Central service area is expected to reach 250,000 by 1984."

USEPA Recommendation 1

"In seeking to provide the Central service area with adequate sewage treatment facilities, the responsible governmental agencies should not indirectly encourage air quality deterioration. Therefore, the capacity of the Ocean County Central sewage treatment plant should be limited to 91,000 cu m/day (24 mgd). A sewage treatment plant of this size will be capable of treating the wastes generated by a population of 250,000."

As an authority created to protect the environment of Ocean County, the Ocean County Sewerage Authority (OCSA) unequivocally endorses the U. S. Environmental Protection Agency's (EPA) goal not to allow significant deterioration of the air quality of Ocean County. The OCSA however, questions the accuracy of the work performed by EPA which lead to the above conclusion.

EPA's conclusion is based upon their interpretation of their proposed rules entitled "Environmental Protection Agency-Prevention of Significant Air Quality Deterioration" as they appear in the Federal Register dated July 16, 1973 (Appendix C) and their conductance of an air quality diffusion model study.

However, based upon reviews conducted by OCSA and their environmental consultants, Environmental Assessment Council, Inc., there appears to be various inconsistencies and errors in the air quality analyses which lead to the above conclusion. The detailed review conducted by the Environmental Assessment Council, Inc. is included in Appendix A.

Following is a partial listing of various significant points raised which should be evaluated by the EPA before confirming the above conclusion:

1. In order to establish maximum air quality emission rates, which if exceeded, would be considered by the EPA as significant deterioration of air quality, the EPA utilized an alternate plan described in their proposed rules dated July 16, 1973 (Appendix C) which arbitrarily establishes an allowance of 20 percent degradation above certain "baseline emission" levels. It appears however, that the baseline emission levels utilized by EPA were the 1970 emission levels which appear to contradict their proposed rules in which the following is stated:

"The use of 1970 as a nationwide baseline would present several practical problems. Foremost among these is that in the interim between 1970 and the current time, growth patterns have changed sufficiently that, although the nationwide air quality has improved substantially in some (particularly non-urban) areas, the air quality has already deteriorated."

"For these reasons those plans discussed herein which require establishment of a baseline air quality or emission level are developed around the measured or established data for 1972."

"Hence in all plans proposed herein requiring a baseline year, 1972 is used."

Accordingly, EPA is requested to clarify which year's emissions were utilized and if necessary, reestablish the maximum allowable emission rates utilizing 1972 data. The EPA should also be cognizant of the significant increase in the population of Ocean County from 1970 to 1972.

2. The July 16, 1973 proposed regulations specifically indicate the following:

"Emission reductions to be achieved under State plans in major urban and industrial centers will significantly affect total national emissions and thereby lower the background pollutant concentrations in rural areas. Thus a 25 percent reduction in the background concentration of particulate matter in rural areas in the northeast is anticipated."

Since Ocean County is a rural area, the EPA should indicate why the above expected reductions in emissions, as well as other reductions mentioned in the proposed regulations, were not considered in their determination of the maximum allowable emission levels.

3. It is felt that sufficient trends are apparent today which can safely disclaim EPA's claim that "current fuel use patterns, transportation modes and industrial patterns remain constant." For example, the Jersey Central Power and Light Company has reported that pollutant free nuclear and hydroelectric plants contributed 18 percent of the power network to which Ocean County is a part in the year 1972. This percentage is expected to increase to 57 percent by 1982. The Ocean County Board of Chosen Freeholders and the Ocean County Planning Board have strongly endorsed mass transportation as a necessary means of travel in

the immediate future. Industrial patterns and any associated air pollution effects are expected to be rigidly controlled by existing Federal and State regulations. It should also be noted that the Ocean County Freeholders have recently created the Industrial Pollution Control Financing Authority of Ocean County whose function it is to enforce industrial pollution requirements and assist in financing anti-pollution facilities.

4. The validity of the EPA assumption that air quality emissions are proportional to population appears doubtful in light of the recent reporting of the New Jersey State Department of Environmental Protection (NJSDEP) that air quality over Ocean County has improved in recent years (while undergoing a significant population increase).

5. Considering the four county Air Quality Control Region (consisting of Atlantic, Cape May, Cumberland and Ocean Counties) as a whole, Ocean County represents 33 percent of the land area. In 1970, Ocean County's population accounted for approximately 37 percent of the entire population of the Region while only contributing approximately 7 percent of the particulate and sulfur dioxide emissions. Thus, it is extremely difficult to accept the EPA conclusion that air quality emissions are proportional to population. EPA also does not account for the remaining approximately 93 percent particulate and sulfur dioxide emissions attributed to Atlantic, Cape May and Cumberland Counties while these counties in combination, comprise 63 percent of the population.

Population data developed by the State of New Jersey Department of Labor and Industry for the four counties in the Air Quality Central Region (AQCR) indicates that Ocean County will represent 45.4 percent of the population of the Region in 1990, if population restraints are not imposed. These population figures also indicate that 64.5 percent of the increase in population in the Region is attributed to Ocean County. The EPA claims that this increase in population will account for 44.4 percent of the allowable sulfur dioxide increase and 69.3 percent of the allowable particulate increase, which to the OCSA appears justifiable. The EPA, however, further asserts that if this increase in emissions were allowed Ocean County, "growth in the other counties of the AQCR (Atlantic, Cumberland and Cape May) would be severely restricted." This EPA conclusion appears unfounded since Ocean County's projected increase in population is projected by EPA to be proportional to the allowable increases in emission levels and thus no inequities would exist between the counties of the AQCR. On the contrary, if inequity were claimed, it should be claimed by Ocean County since, while representing 45.4 percent of the 1990 population of the AQCR, Ocean County will only contribute approximately 18 percent of the particulate and sulfur dioxide emissions in the AQCR.

6. The EPA calculations do not indicate any reductions in the emissions presently being discharged by the Toms River Chemical Company which is located in the Central Service Area.

This industrial discharge accounts for 10.0 percent of the particulate emissions and 22.0 percent of the sulfur dioxide emissions of the County and 20.0 percent and 42.0 percent respectively, of the Central Service Area. It is suggested that EPA report on any Federal or State requirements for the reduction of these emissions and the effects such reductions will have on the Central Service Area.

7. Since it appears that various arbitrary and possibly unsubstantiated assumptions had to be made in the diffusion model study, primarily due to the unavailability of accurate data, OCSA recommends that EPA indicate that the results of their model studies are, at best, only broadly approximate. In addition, OCSA suggests that the wording of the above Conclusion and Recommendation be revised to read as follows:

Conclusion 1

"A diffusion model study of the air quality situation in Ocean County shows that there is a possibility that significant air quality deterioration may result if the population of the Central service area exceeds approximately 250,000, assuming that current fuel use patterns, transportation modes and industrial patterns remain constant. The population of the Central service area is expected to reach 250,000 by 1984."

Recommendation 1.

"In seeking to provide the Central service area with adequate sewage treatment facilities, the responsible governmental agencies should not indirectly encourage air quality deterioration. Therefore, the capacity of the Ocean County Central sewage treatment plant should initially be limited to 91,000 cu m/day (24mgd). A sewage treatment plant of this size will be capable of treating the wastes generated by a population of 250,000. Future expansions of the treatment plant will be predicated upon what effects if any, secondary air quality impacts attributable to the treatment plant will have on the air quality of the Central Service Area."

8. Of the four alternative plans for evaluating air quality deterioration outlined in the proposed non-degradation rules dated July 16, 1973, EPA utilized only the Air Quality Increment Plan and the Emissions Limitation Plan in arriving at the above Conclusion since "the other plans were considered impractical because they required State determinations of areas or zones that were simply unavailable." Never-the-less, EPA is requested to comment upon the advisability and drawbacks in the use of the Local Definition Plan as it appears that this plan would offer the greatest degree of local input and thus could possibly be most favorably received by the local communities..

9. It must be stressed that OCSA does not have the authority to restrict flow from any of the participating municipalities of the regional system because of existing state statutes and conditions in the service agreements executed between the Authority and the municipalities.

The State of New Jersey Sewerage Statutes, Sewerage Authorities Law (Title 40, Chapter 14A, Source:L.1946, c.138) under which the OCSA was created requires:

"Every sewerage authority is hereby authorized and directed.....to collect from any and all public systems within the district all sewage and treat and dispose of the same in such manner as to promote the purposes of the sewerage authority."
(Section C.40:14A-6.(c))

The Service Agreements executed with the participating municipalities in the Central Service Area contain the following provisions:

"The Authority will operate and maintain and enlarge the Regional Sewerage System so as to treat and dispose of all wastewater, without limitation as to flow, which may be delivered into the Regional Sewerage System by any Participant." (Article II.(A))

"Each Participant will deliver all wastewater collected in its Local Collection Sewerage System and deliver at the said point or points of connection (to the regional system)." (Article III.(A))

"After connection to the Regional Sewerage System, each Participant will keep its Local Collection Sewerage System connected with the Regional Sewerage System, and will deliver and discharge into the Regional Sewerage System all wastewater originating in or collected by it." (Article III.(A))

Thus, it appears that revisions to existing state statutes and the service agreement would be necessary to implement the EPA intended restrictions on municipal flows.

USEPA Conclusion 2

"It is not the intent of the U. S. Environmental Protection Agency to restrict the ultimate population of the Central service area to 250,000. However, the U. S. Environmental Protection Agency will not grant funds for the expansion of the Ocean County Central sewage treatment plant beyond 91,000 cu m/day (24 mgd) or issue a discharge permit for the expanded facility if that expanded facility will directly or indirectly cause contravention of air quality standards."

USEPA Recommendation 2

"Growth of the population of the Central service area beyond the 250,000 mark and simultaneous expansion of the Ocean County Central sewage treatment plant might be justified in one of two ways. The first would be to disprove the results of the air quality diffusion model study. This would require that the existing network of air quality monitoring stations in Ocean County be kept in operation over the long term so that trends in air quality could be assessed. The second would be to develop new technologies that would invalidate the assumptions used in the diffusion model study. New technologies, such as the development of coal and oil gasification plants to supply homes and industries with clean burning natural gas and the development of a truly non-polluting automobile, could enable growth of the Central service area's population beyond the 250,000 mark without contravention of the air quality standards. Any decision made by the U. S. Environmental Protection Agency must be consistent with the possibility that a solution to the Central service area's potential air quality problems will be found. Therefore, the interceptors should be sized to accommodate the sewage flows that would be generated by the 2020 population of the Central service area, as projected by Fellows, Read & Weber, Inc., except in the cases of Manchester and Berkeley Townships whose population projections may be understated."

The OCSA comments included under Conclusion 1 and Recommendation 1 are also applicable to this Conclusion and Recommendation.

The above Recommendation allows only the two indicated methods to disprove the results of the air quality diffusion model study.

As indicated in the comments prepared by the Environmental Assessment Council, Inc. (Appendix A) many uncertainties exist concerning the accuracy of the model. The EPA is therefore requested to comment on the accuracy and validity of their model results based upon the items raised.

The refusal of EPA to grant funds or issue a discharge permit for a facility greater than 24.0 mgd, without parallel local and State restraints and/or new Federal and State laws, will probably not result in maintaining the air quality in the Central Service Area and may result in increasing water pollution.

It is the present practice of the NJSDEP to approve of interim package type treatment facilities that dispose of their effluent by spray irrigation. Policy of the NJSDEP requires that these facilities be abandoned upon the availability of the regional sewerage system. However, upon reaching the 24.0 mgd limitation, individual package type treatment facilities employing spray irrigation could again be approved by the NJSDEP if it can be shown that the effluent will not cause contamination of the ground water. Thus, populations could continue without an expanded regional treatment facility and without the issuance of a discharge permit since a discharge permit is not required where a receiving stream is not involved. A multitude of such package type treatment facilities could thus defeat EPA's goal of maintaining air quality and will thwart OCSA's efforts to maintain a high level of water quality in the service area

through the denial of adequate regional treatment facilities.

Population increases could also be accomplished by the construction of housing developments of any size with septic disposal systems in areas of greater than 10 feet elevation that provide adequate percolation with the ground water level greater than 4 feet from the bottom of the disposal field. Existing State statutes approve construction in such areas which are abundant in the Central Service Area.

Thus, from the above, it is apparent that the State could allow development to continue beyond the goals of EPA and thus their cooperation is essential if the EPA goals are to be realized. The EPA is therefore specifically requested to indicate in their final recommendations whether the State intends to join the EPA in the implementation of their intended goals.

Due to the apparent uncertainties of the diffusion model, the OCSA recommends that the wording of Conclusion 2 and Recommendation 2 be modified as follows:

USEPA Conclusion 2

"It is not the intent of the U. S. Environmental Protection Agency to restrict the ultimate population of the Central service area to 250,000. However, the U. S. Environmental Protection Agency will not, at this time, grant funds for the expansion of the Ocean County Central sewage treatment plant beyond 91,000 cu m/day (24mgd) or issue a discharge permit for the expanded facility unless it can be shown to the satisfaction of this Agency that the population served by any expanded facility will not directly or indirectly cause contravention of air quality standards."

USEPA Recommendation 2

"Growth of the population of the Central service area beyond the 250,000 mark and simultaneous expansion

of the Ocean County Central sewage treatment plant beyond 24 mgd might be justified in one of two ways. The first would be to disprove the results of the air quality diffusion model study. The second would be to develop new technologies that would invalidate the assumptions used in the diffusion model study. Any decision made by the U. S. Environmental Protection Agency must be consistent with the possibility that a solution to the Central service area's potential air quality problems will be found. Therefore, the interceptors should be sized to accommodate the sewage flows that would be generated by the 2020 population of the Central service area, as projected by Fellows, Read & Weber, Inc., except in the cases of Manchester and Berkeley Townships whose population projections may be understated."

USEPA Conclusion 3

"State and local land use legislation cannot prevent urbanization of the communities in the Central service area. At most, existing legislation can retard the rate of urbanization and can promote the orderly implementation of development. If development in the Central service area is as extensive as allowed by existing legislation, only some type of as yet undeveloped technology can prevent contravention of the proposed non-degradation regulations of the Clean Air Act."

USEPA Recommendation 3

"The Ocean County Planning Board, the municipal planning board for each community in the Central service area, and the Ocean County Sewerage Authority should jointly decide on a land use strategy that will prevent contravention of the Clean Air Act."

For its part, the U. S. Environmental Protection Agency through its construction grant program and its municipal discharge permit program will impose the following conditions on the Ocean County Sewerage Authority's proposed project. The Ocean County Sewerage Authority, in cooperation with municipal authorities, must:

(a) Begin to develop an overall land use and pollution control strategy within the communities of the service area to achieve a proper balance between desirable development goals (with concomitant wasteload generation) and treatment capability.

(b) Begin to develop an effective mechanism within the communities of the service area for review of development changes or increases that influence wasteload generation, including subdivision approvals, residential and nonresidential zoning changes that allow higher densities, building permit issuances by location and type, and so on. Such increases in wasteload generation over time should be compared with treatment capability.

(c) Develop the capability within the communities of the service area to initiate appropriate adjustments in development policies and controls (enact ordinances, amend zoning regulations, modify subdivision requirements and building codes, and so on) as necessary to avoid emergence of hydraulic overload or inadequate treatment.

(d) Submit a report to the EPA, the State, and the local governmental authorities within one year following issuance of this grant (or permit) and annually thereafter, summarizing progress in implementing these initial planning actions within the communities of the service area."

The above Recommendations which apparently will become a grant condition of any EPA construction grant offered for the Central Service Area regional facilities, very clearly imposes air pollution conditions on the OCSA. Authority to impose such conditions, EPA purports, are given in the Clean Air Act and the proposed anti-degradation regulations of July 16, 1973. As detailed in the legal summary prepared by the Authority's Counsel, Hiering, Grasso, Gelzer & Kelaher, included in Appendix B, the OCSA questions the legitimacy of the imposition of conditions on an anti-water pollution grant, where those conditions demand affirmative anti-air pollution measures in excess of the proposed non-degradation regulations which govern all potential pollutants. In addition, the OCSA questions the applicability of the proposed regulations, which were intended for State implementation plans relating to air quality control, to an application for grant funds for wastewater facilities. While raising these issues to preserve its future rights, the OCSA does not intend to contest the conditions presently.

The Recommendation advanced above by EPA to have OCSA initiate the implementation of a land use strategy plan directed at restricting population growth in the Central Service Area fails to recognize the lack of statutory authorization for such action.

A county planning board is limited to encouraging the cooperation of local municipalities. Moreover, a county planning board has subdivision supervision only with respect to "those subdivisions affecting county road or drainage facilities." While the New Jersey statutes permit the creation of regional planning boards, the existence of such bodies is dependent upon the willingness of component municipalities and counties to sacrifice their respective planning powers and duties. A transfer of such powers from the communities within Ocean County cannot be considered a likely possibility.

Indeed, local municipal planning boards have the statutory authority to implement land use strategy; however each municipality can do so only within its own domain. The absence of any coordinating influence prevents the municipalities from being considered as an effective instrument for regional planning.

The legality of any regional land use strategy directed at the limitation of growth, must be viewed in the light of recent judicial antagonism towards exclusionary zoning. Such decisions have not squarely confronted the use of environmental factors to justify population limitation. That issue, however, will certainly be raised by the EPA's proposal.

The OCSA takes no position upon the legality of the proposed land use strategy and program, but will dedicate its full cooperation in developing such a strategy and implementing such a program if it is imposed upon the Authority by EPA.

OCSA further recommends that EPA thoroughly review all the legal questions raised herein and include a legal opinion from their Regional Attorney on these legal matters.

In the event an overall land use and pollution control strategy plan is imposed upon OCSA, it is recommended that the wording of the above Recommendation be altered to remove any objection based upon lack of statutory authority. It is therefore suggested that Recommendation 3 be changed to read as follows:

"The Ocean County Planning Board, the municipal planning board for each community in the Central Service Area, and the Ocean County Sewerage Authority should attempt jointly to decide on a land use strategy that will prevent contravention of the Clean Air Act.

For its part, the U. S. Environmental Protection Agency through its construction grant program and its municipal discharge permit program will impose the following conditions on the Ocean County Sewerage Authority's proposed Central Service Area project. The Ocean County Sewerage Authority in such attempt, should seek the cooperation of municipal authorities in a joint effort to:

(a) Begin to develop an overall land use and pollution control strategy within the communities of the Central Service Area to achieve a proper balance between desirable development goals (with concomitant wasteload generation) and treatment capability.

(b) Begin to develop an effective mechanism within the communities of the Central Service Area for review of development changes or increases that influence wasteload generation, including subdivision approvals, residential and non residential zoning changes that allow higher densities, building permit issuances by location and type, and so on. Such increases in wasteload generation over time should be compared with treatment capability.

(c) Develop the capability within the communities of the service area to initiate appropriate adjustments in development policies and controls (enact ordinances, amend zoning regulations, modify subdivisions requirements and building codes, and so on) as necessary to avoid emergence of hydraulic overload or inadequate treatment.

The Ocean County Sewerage Authority shall submit a report to EPA, the State, and the local governmental authorities within one year following the issuance of this grant (or permit) and annually thereafter, summarizing progress in implementing these initial planning actions within the communities of the Central Service Area."

In the brief time since the issuance of the EPA draft report, the OCSA has met with State legislators and County officials to discuss the impact of the EPA proposed requirements on the Central Service Area. These officials have expressed a willingness to cooperate in the development of the land use strategy plan pending clarification of the comments raised herein. If required by EPA, OCSA will continue such discussions with State, County and local agencies in order to achieve the stated goals. OCSA requests however, that EPA officials participate in the initial discussions to insure that the goals are accurately indicated.

USEPA Conclusion 4

"Population projections made by the Division of State and Regional Planning are more up to date than those made by Fellows, Read & Weber, Inc. The Division of State and Regional Planning's 1990 population projections for Manchester and Berkeley Townships exceed Fellows, Read & Weber, Inc.'s 2020 projections for the same townships. Since Fellows, Read & Weber, Inc. used its own 2020 population projections in designing the interceptors for Manchester and Berkeley Townships, the interceptors may be undersized."

USEPA Recommendation 4

"The Ocean County Sewerage Authority should re-evaluate the interceptor designs for Manchester and Berkeley Townships."

"The OCSA accepts the population projections developed by the Division of State and Regional Planning. The proposed interceptor lines to serve Manchester and Berkeley Townships will be designed to conform to the 2020 population projections as developed by that Department.

USEPA Conclusion 5

"Care has been taken to select interceptor and outfall routings that will minimize the environmental effects of construction. However, damage is still likely to occur in critical areas, such as steep slopes, barrier bay crossings, stream and estuary crossings, and marshlands."

USEPA Recommendation 5

"The contract specifications for the proposed project should include the recommendations made by the Environmental Assessment Council. Relevant procedures outlined in the following documents should also be included in the specifications:

Maryland Department of Water Resources, Becker, B.C., and Mills, T.R. 1972. Guidelines for Erosion and Sediment Control Planning and Implementation. U.S. EPA, Office of Research and Monitoring, Washington, D.C.

New Jersey Department of Environmental Protection. 1972. Environmental Guidelines for Planning, Designing and Constructing Interceptor Sewers. New Jersey Department of Environmental Protection Trenton, New Jersey.

New Jersey State Soil Conservation Committee. 1972. Standards for Soil Erosion and Sediment Control in New Jersey. The New Jersey State Soil Conservation Committee. Trenton, New Jersey.

U. S. Environmental Protection Agency. 1973. Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity. U. S. Government Printing Office. Washington, D. C.

The specifications should clearly identify each problem area and should stipulate exactly what the contractor is to accomplish in each problem area. During preparation of the specifications, it may be necessary to make changes in the proposed routings. If, for any reason, it is necessary to alter the proposed routings, an environmental assessment of the new routings should be prepared".

OCSA intends to comply with the recommendations made by the Environmental Assessment Council as indicated in their report dated May 15, 1973. These recommendations will be reflected in the final plans and specifications.

If the Authority finds it necessary to change any of the selected routes or sites, the new routes and/or sites will be environmentally assessed by the Environmental Assessment Council, Inc. and will be reported as an addendum to the May 15, 1973 assessment report. In addition, the OCSA will conduct a public meeting on such changes as may be required by EPA regulations.

This Authority has in the past, and will continue in the future, to adhere to all Federal, State and normally applicable design codes, regulations, etc.

USEPA Conclusion 6

"The Ocean county Sewerage Authority and its engineering consultant have developed the framework for the proposed project, but have yet to prepare detailed plans and specifications.

USEPA Recommendation 6

"In preparing detailed plans and specifications for the proposed project, the Ocean County Sewerage Authority and its engineering consultant should follow the Federal Guidelines for Design, Operation and Maintenance of Waste Water Treatment Facilities (FWQA, 1970) and the Design Criteria for Mechanical, Electric and Fluid System and Component Reliability (U.S. EPA, 1974b)."

This Authority has in the past and will continue in the future to adhere to all Federal, State and normally applicable design codes, regulations, etc.

USEPA Conclusion 7

"The landfill site for disposal of the sludge from the Ocean County Central sewage treatment plant has not yet been selected. All of the sites now being considered by the Ocean County Sewerage Authority would require the implementation of special measures to protect the ground water from leachates."

USEPA Recommendation 7

"Before the Ocean County Central sewage treatment plant goes into operation, the Ocean County Sewerage Authority must commit itself to a specific sludge disposal method and a specific sludge disposal site. An environmental assessment statement on the sludge disposal alternatives should be prepared. If the sludge disposal site selected by the Ocean County Sewerage Authority is not a State approved landill site, the Sewerage Authority should commit itself to a ground-water monitoring program. A summary of the environmental assessment statement should be presented at a public hearing."

This Conclusion and Recommendation is in error since the OCSA has committed itself to a specific sludge disposal method and specific sludge disposal sites which were described in the documents submitted on May 24, 1973 that accompanied the Step 2 Federal and State grant applications for the Central Service Area (USEPA Project Number C-34-0372).

The following is indicated in the previously submitted report prepared by Fellows, Read & Weber, Inc. entitled, "Project Report, The Ocean County Sewerage Authority Regional Sewerage System, Phase 1, April 1973."

"Because the environmental impact of the various methods of wastewater solids handling and disposal is presently under review by the Regulatory Agencies, it was decided that a process should be selected which was both economical and readily adaptable to other methods."

"As a result, it was decided to use standard - rate anaerobic digestion at each treatment plant. After digestion, the wastewater solids will be dewatered and trucked to an existing State approved private landfill site. In the future, the solids could be pumped to a land reclamation area or, if the land reclamation pilot study indicates land reclamation is not desirable, the Authority will have the option to operate its own landill, use a public landfill, or continue to use private landfills. At the present time, the Authority is conducting a pilot study for land reclamation to determine if the land reclamation method is economical and feasible for use in conjunction with the regional facilities. The details of the pilot study is discussed hereinafter."

The Project Report also includes copies of letters received from the following privately owned and State approved lanfill corporations indicating their willingness to accept digested sludge:

Ocean Landfill Corp., Lakehurst, N. J.
Southern Ocean Landfill, Inc., Ocean Township, N. J.

It is this Authority's intent to utilize both of the above landfill sites for the disposal of digested sludge from its Central Service Area treatment facilities.

Since the indicated landfill operations have been previously approved by the State, it is assumed that an environmental assessment as indicated in the above Recommendation is not necessary.

USEPA Conclusion 8

"Increased pumpage from the water-table aquifer and decreased ground-water recharge will reduce the ground-water level. A reduction in the ground-water level will induce saltwater intrusion into the aquifers and will reduce the base flow of streams."

USEPA Recommendation 8

"Programs should be developed and implemented to monitor the incidence and extent of the operational effects of the Ocean County Central sewage treatment plant on the base flow of streams, the intrusion of saltwater into aquifers, and the piezometric head of aquifers. If the monitoring data indicate the potential for serious problems, a program to artificially recharge the ground water with treated effluent should be developed."

OCSA agrees to the establishment of a program to monitor ground water levels and saltwater intrusion.

The Environmental Assessment Council, Inc. is presently preparing a conceptual report for the development of a program to monitor ground water levels and saltwater intrusion. Upon the availability of this report, this Authority will seek approval of the concept from NJSDEP and EPA. In addition, OCSA will formally request Federal and State construction grant funds for the development of the monitoring program.

USEPA Conclusion 9

"Urbanization will increase runoff which will decrease the amount of natural ground-water recharge and increase the amount of peak flow in streams."

USEPA Recommendation 9

"Wherever possible, large subdivision or parking lots should install infiltration-detention basins so that runoff can be used to artificially recharge the water table aquifer."

Although OCSA agrees to the concept of artificial recharge of the water-table aquifer with storm water runoff it questions the immediate need for such recharge in Ocean County and suggests that additional documentation be provided to justify the expenditure for the construction of detention basins.

The OCSA does not have any authority to impose infiltration-detention basin requirements on proposed subdivision and parking lots. The Authority has, however, discussed this Recommendation with County officials who have agreed to its concept.

By letter dated May 30, 1974, the Ocean County Planning Board submitted comments on the subject EPA Environmental Impact Statement. Their comments indicate their concurrence in this Recommendation.

USEPA Conclusion 10

"If maximum benefit is to be gained from the proposed project, a system must be devised to prevent the pollution of Ocean County's waterways with sewage discharges from boats and marinas."

USEPA Recommendation 10

"Ocean County, either alone or in cooperation with the State, should devise and implement a plan to eliminate the discharge of wastes from boats and marinas into the waters of the county."

OCSA endorses and strongly encourages the development of a program to eliminate wastewater discharges from boats and marinas into the waterways of Ocean County.

The development of a comprehensive vessel pollution abatement program however, cannot be implemented by the County of Ocean and/or OCSA alone, as suggested in the above Recommendation, since navigable waters, as a general rule, which lie within the confines of the State of New Jersey are subject to the exclusive control of the State of New Jersey and the U. S. Government. Thus, as indicated in the legal opinion included in Appendix B, OCSA does not possess authority or jurisdiction to enact this type of abatement program.

The OCSA strongly recommends that the EPA and other federal agencies, such as the U. S. Coast Guard, join in a cooperative effort with the State, County and OCSA in the development and implementation of a comprehensive program to abate vessel pollution of Ocean County's waterways.

II. GENERAL COMMENTS ON CONTENTS OF U.S.E.P.A. IMPACT REPORT

The OCSA wishes the EPA to also consider the following additional comments concerning the general contents of the draft environmental impact report: (The indicated page numbers are those of the EPA report).

Page 2

The indicated potential adverse effect that "possible contamination at the site of effluent disposal" is inconsistent with EPA's conclusion on Page 100 that "the ocean is not expected to suffer any adverse effects as a consequence of ocean disposal of secondary treatment plant effluent". The EPA is reminded that the ocean outfalls will be designed incorporating a diffuser design that will achieve an initial dilution ratio of 200:1 in accordance with recommendations contained in the Environmental Assessment Report of May 15, 1973 prepared by the Environmental Assessment Council, Inc. and requirement of the Federal/State approved "Interim Plan For Wastewater Management/Water Pollution Control Ocean County Sewerage Authority District, Ocean County, New Jersey" dated June 1973.

Page 10

The treatment facility for the Central Service Area will employ the complete mix and step aeration modifications to the activated sludge method of treatment rather than the "complete mix, extended aeration" method indicated.

Page 34

The list of communities in which sewer connection bans have been imposed by the NJSDEP should also include the Boroughs of Surf City and Beach Haven.

Page 42

Ocean County is not presently within a Standard Metropolitan Statistical Area.

Page 43

Although Great Adventure, Inc. is within Ocean County, it is within the natural drainage basin of the Delaware River and thus, will not be served by the OCSA.

Pages 44 & 45

The difference between the 1990 population projections of DSRP and F.R. & W. is approximately 82,000 rather than 70,000 as indicated.

Pages 82 & 83

The Holiday City, Intermediate School and Toms River treatment facilities of the Dover Sewerage Authority (Nos. 7,8, and 9 of Table 7) have been abandoned with their flow presently being discharged to the Dover Sewerage Authority's Ortley Beach facility.

It is suggested that the NJSDEP confirm the summer and winter flows indicated in Table 7 as several seem to be inaccurate.

It is requested that this "Miscellaneous" section be entirely eliminated from the impact report as it belittles the competency of both this Authority and its consultants by inferring that items such as bypasses, overflows, lack of auxiliary power, inadequate pump capacities, etc. could be designed into the proposed facilities. In addition, the general layman reading the report could misinterpret this section and assume that such items have been included in the design. As was demonstrated in this Authority's previously funded projects, the OCSA and its consultants are cognizant of the EPA and NJSDEP design, construction and operating requirements and fully intends to adhere to all such requirements.

APPENDIX A

Comments Prepared By:

ENVIRONMENTAL ASSESSMENT COUNCIL, INC.



Environmental Assessment Council, Inc.

Review and Analysis of the
Draft EIS on the
Central Service Area of the
Ocean County Sewerage Authority

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I. Introduction

This review and analysis of the Draft Environmental Impact Statement issued by Region II USEPA for the Central Service Area (CSA) of the Ocean County Sewerage Authority (OCSA)¹ has focused on several areas that are subject to inquiry. Two principle levels of analysis are involved in reaching the conclusions on growth and environmental quality within the CSA of Ocean County.

Accordingly, our analysis will address itself both to the fundamental assumptions about land use controls, and, more specifically to the assumptions and procedures employed in implementing the limitations based on air quality standards.

A comprehensive and balanced approach to land use planning must integrate all the components of an environmental system into an optimal and equitable growth plan. This environmental system is composed not only of a physical component, measured in part by parameters of air and water quality, but also a biotic component, measured in the quality of open space and woodlands, and the stability and diversity of wildlife populations. A third and vital component of the environmental system is measured by the social and cultural amenities within a region. The parts of the area's infrastructure -- its arterial and local road

networks, municipal water and sewerage facilities, recreational opportunities, open space, and cultural and historical aspects -- must be included as objectives within the overall planning process.

The balanced planning approach will provide for continued growth within the context of, and assuring the protection of, the environmental system described above.

II. Conceptual Discussion of Comprehensive Land Use Planning

The attainment of high standards of quality in both air and water pollution control is a goal which has to be met in order to assure continued environmental protection. The attainment of these standards, however, must be viewed in the proper temporal, legislative and technological contexts. The regulation of only one component of the system should not be the limiting factor to which all other components are forced to adjust. The projected plans to maintain air quality standards for the Air Quality Control Region (AQCR) -- as it is defined in the Draft EIS², Ocean County being a part of it -- attempt to place severe restrictions on all other phases of development. As a result efforts to maintain a high level of water quality in this region may be thwarted through denying adequate sewerage treatment facilities.

A. Temporal Sequence

The projection of air quality standards for 1990, by utilizing 1972 baseline emission data, represents an 18 year span. During this span, the air quality component of the total environmental system will be rigidly fixed, thus forcing adjustments to be made in all other parameters. The adjustments necessary to accomodate this limitation include the possibility of reducing the effective life span of the primary focus of the project and the maintenance of high water quality. In addition, some estimates indicate that the design capacity of the sewerage treatment plant will be exceeded by its completion date.³

B. Projected Growth

The effectiveness and legitimacy of attempts to exercise land use control by limiting municipal facilities is of crucial importance. To act effectively, other growth-inducing factors must be consistent and subject to constraint. The Division of State and Regional Planning (DSRP) of the New Jersey Department of Conservation and Economic Development has envisioned the following "overall growth picture" for Ocean County:

Ocean is the fastest growing county in New Jersey in terms of residential development. In both 1971 and 1972 more than 17% of the housing units built in the state were built in Ocean. Between 1960 and 1970 the County population just about doubled going from 108,000 to 208,000. It is estimated by Eugene Cross that in the next three years,

1970-1973 it has grown by almost another 100,000. It is difficult to see how anything short of nuclear war or the demise of the automobile could put a stop to the building boom there considering the following growth-conductive factors:

1. The existence of vast amounts of flat, well drained land. (Our estimates show 138,778 acres of vacant, undeveloped land outside of the Wetlands for which no development has yet been proposed). This results in cheaper building costs. Smaller lots are possible. There is no rock to blast through, little grading to be done, etc.
2. Underground water supplies are abundant and many people seem to think they are limitless.
3. No other area within a two hour commuting radius of New York City has such felicitous natural features for building.
4. A special land-holding situation where major developers own enormous tracts outright which they bought very cheaply, quite a few years ago.
5. Industry and service jobs are moving out to fringe areas. So more and more jobs will exist close to Ocean County and thus increase the demand for housing. Middlesex County, for instance, is New Jersey's fastest growing county industrially. Also industry and service jobs will come to Ocean as the work force grows.
6. As land and building costs go up in Ocean County, they will be going up higher in the already more developed areas, so that relatively speaking it will still be cheaper to build in Ocean.
7. The ocean and bays are an attraction in themselves. Living near them means easy access to recreation - vacation living year around (sic).
8. Accessibility

New roads and road improvements planned by the state, the Turnpike Authority, and the New Jersey Highway Authority which runs the Garden State all

promise increasing accessibility for large portions of Ocean County.

9. Regional Sewerage System

It seems that Ocean County would develop rapidly even if the regional sewer weren't built. However, pollution problems are beginning to plague various parts of the County. Developers are willing to build package treatment plants, but not whole collector systems and tertiary treatment plants with ocean outfalls. The regional sewerage system, thus, will be another factor insuring continued growth, removing one of the few obstacles which can be seen today to rapid growth. (DSRP, 1973).⁴

As a fundamental premise, the Draft EIS maintains that limiting the capacity of the regional sewerage system--only one of nine growth-conducive factors--will limit population growth within the region. The DSRP states, however, "that Ocean County would develop rapidly even if the regional sewer were not built." It becomes apparent then that a crucial link in this premise is controlling the use of septic tanks in sustaining population growth.

C. Legislative Considerations

1. State Statutes

The legislative tool available to exercise the above mentioned control is Chapter 199, P.L. 1954 "Standards for the Construction of Sewerage Facilities for Realty Improvements" (revised 1963).⁵ The New Jersey Department of Environmental Protection (NJDEP), however, has jurisdiction

over septic tank usage only in critical areas (defined as those areas of less than 10 feet elevation or where a development of 50 or more dwelling units is proposed). Even within these critical areas, the primary limiting parameters are percolation rate, and depth to seasonal high water table. Within Ocean County, the soils generally provide rapid percolation and the depth to seasonal high water is very often greater than the required "four feet from the bottom of the disposal field." The effectiveness of this legislative tool for controlling growth within Ocean County must be considered marginal, at best.

The Wetlands Act of 1970⁶ and the Coastal Facilities Review Act⁷ both exercise a measure of land use control. Neither act, however, is intended for use as a limiting control on population growth.

Thus, the three legislative tools available at the state level apparently do not contain the power to limit the population growth which could occur using septic tanks.

The USEPA Region II, in their analysis of the environmental impact of the proposed wastewater management facilities for the Central Service Area of the Ocean County Sewerage Authority (OCSA), utilized EPA's proposed rules for the "Prevention of Significant Air Quality Deterioration".⁸

2. Federal Statutes

The proposed rules set forth by EPA in the Federal Register (V. 38 #135) were intended to establish a mechanism for preventing significant air quality deterioration. This was upheld by a preliminary injunction issued on May 30, 1972 in the District Court for the District of Columbia, affirmed by the U.S. Court of Appeals for the District of Columbia circuit on November 1, 1972, and affirmed by the U.S. Supreme Court on June 11, 1973 by an equally divided court. The preliminary injunction required the Administrator of EPA to review all state plans and "disapprove any portion of a state plan which fails to effectively prevent significant deterioration of existing air quality."⁹ The injunction also required the Administrator to promulgate regulations

as to any state plan which he finds on the basis of his review either permits the significant deterioration of existing air quality in any portion of any state or fails to take measures necessary to prevent such significant deterioration.¹⁰

It is important to note that the rules issued by the Administrator of EPA were for state implementation plans relating to air quality control. Applying the Proposed Rules for the Approval and Promulgation of Implementation Plans¹¹ to an application for grant funds for wastewater facilities indicates either an extension of federal authority, or a new interpretation of the

purpose and extent of the proposed rules.

Furthermore, to the extent that these proposed rules are being applied to size the Ocean County Central Sewage Treatment Plant (OCCSTP), and ultimately restrict the growth of Ocean County, it should be noted that they are applied without scientific data to support the arbitrary increment increases as defined and recognized in the proposed rules.

Pending the development of adequate scientific data on the kind and extent of adverse effects of air pollutant levels below the secondary standards, significant deterioration must necessarily be defined without a direct quantitative relationship to specific adverse effects on public health and welfare. It should be emphasized that defining significant deterioration in this way does not imply a judgment by EPA on the question of whether it is sound public policy to define "deterioration" as any increment above existing air pollution levels and to attempt to define "significant" deterioration in the absence of documentation on the adverse effects thereof. Furthermore, it is possible, indeed probable, that even when there are additional data, it will be evident that there are levels below which some of the pollutants covered by national standards do not have effects that can be considered, adverse to public health and welfare.¹²

EPA Region II states in conclusion #2 that:

It is not the intent of the U.S. Environmental Protection Agency to restrict the ultimate population of the Central Service Area to 250,000. However, the U.S. Environmental Protection Agency will not grant funds for the expansion of the Ocean County Central Sewerage treatment plant beyond 91,000 m³/day (24 mgd) or issue a discharge permit for the expanded facility if that expanded facility will directly or indirectly cause contravention of air quality standards.¹³

However, this appears to be in contradiction to both the U.S. EPA and the purpose and intent of the plaintiffs in the original court action that initiated the proposed rules.

Clearly, it is not within the province of EPA, under either the Clean Air Act or any other statute, to impose limitations on the Nation's growth. Neither the Sierra Club nor any of the States or organizations that filed amicus curiae briefs with the Supreme Court in support of the Sierra Club's position argued that the District Court's preliminary injunction means that EPA must limit economic growth, as such, in order to prevent significant deterioration of air quality. To the contrary, it was agreed that growth could and would continue, albeit with the restrictions necessary to prevent significant deterioration.¹⁴

Therefore, one must question upon what premise EPA Region II justifies recommendations #1 and #2 of the EIS--recommendations which appear to limit the population growth of the Central Service Area to 250,000 people by denial of funds and permits, and which, by EPA Region II's own admission, would not be sufficient beyond 1984. Furthermore, what is the purpose of recommendation #3 which directs the adjustment and change of zoning and land use patterns?

The USEPA proposes only two means by which the Ocean County Central Sewage Treatment Plant could be expanded beyond 91,000 m³/day (24 mgd) and the Central Service Area allowed growth beyond 250,000 people:

The first would be to disprove the results of the air quality diffusion model study. This would require that the existing network of air quality monitoring stations in Ocean County be kept in operation over the long term so that trends in air quality could be assessed. The second would be to develop new technologies that would invalidate the assumption used in the diffusion model study.¹⁵

Both procedures assume that the assumptions and conclusions reached in EPA Region II analysis of the air quality impact are correct and justified.

There is a third means by which conclusions and recommendations can be modified: to challenge the equity and validity of the assumption and conclusions. This we have done in the following sections.

III. Discussion of Assumptions Involved in Growth Limitations based on Air Quality Consideration.

A. Proportionality of Population to Emissions

Since existing air quality levels are a primary result of point sources -- such as industrial emission and electric power generation -- in addition to stationary area sources -- such as home heating facilities -- which are generated within the larger air quality control region, it may be useful to review the assumption on which the 1990 projected air quality levels are based.

The energy requirement from stationary sources can be divided into two major groups. One consists of electric power generation which would be concentrated in a few locations where emissions would affect an airshed downwind from the plant. The second significant source of emissions would result from heating facilities associated with both multi and single family dwelling units. The air pollution problems associated with either type of source are spatially differentiated and consequently would contribute to the background emission levels in different locations in different magnitude and at different times.

The E.I.S. report assumes that SO_2 and particulate matter levels are a direct function of the population projected for

1990. At the same time, the report makes no assumption regarding the expected improvements in the environment caused by the abatement technologies, the increased use of high quality fuels, and improvements in the legal and administrative institutions responsible for the integration of regional and environmental planning. Specific examples of the expected results created by the consideration of these factors follows.

In 1972, the total power generating capacity, in the power network of which Ocean County is a part, amounted to approximately 5000 megawatts. Of this, 18% was derived from nuclear and hydroelectric plants, neither of which would produce any of the two pollutants under consideration.¹⁶ The percentage increase in such non-polluting power sources will rise to 57% by 1982, thus not increasing the background emission levels of both SO₂ and particulate matter, while significantly increasing the generating capacity. The significant increase in electrical generating capacity within the network seriously questions the assumption in the E.I.S. that the proportion of fossil fuel usage by stationary area sources such as residences will remain constant.

Of potentially greater significance is the implied assumption that the total population projected for the Central

Service Area is permanent. Although the proportion of seasonal population probably will decrease by 1990, it is doubtful that a complete conversion of existing housing units to year round residences will take place by the end of the planning period.

Since most of the energy requirements by the summer population would be in the form of electrical energy, part of which would be produced elsewhere, and an increasing percentage of which would be non-polluting in terms of air quality, it is suggested that the population energy equivalent added would be significantly less than that projected by EPA, thus seriously questioning the relationship between population growth, its distribution, and the projected increase in total emission levels.

Of the four alternative plans for evaluating air quality deterioration proposed in the non-degradation rules, EPA applied the Air Quality Increment Plan (AQIP) and the Emissions Limitation Plan (ELP) in their analysis. The other plans were considered impractical. This critique will only be directed at the AQIP and the ELP utilized by EPA Region II.

B. Emission Limitation Plan

The utilization of the ELP was based on an allowed 20%

increment increase to the baseline emissions, as set forth in the non-degradation regulations to establish ceiling air quality emission rates. This was required since emission rates for 1970 exceeded ceiling emission rates calculated by emission density factors cited in the non-degradation rules, which are based on the land area of the Air Quality Control Region (AQCR).

The EPA analysis for Ocean County is based on the assumption that the increase in emissions in selected categories is proportional to the increase in population. The validity of this assumption can be discerned by an analysis of the present air quality emissions calculated for Ocean County by EPA Region II, as compared to the emissions of the AqCR and the population distribution within the AQCR.

Population data obtained from the Department of Labor and Industry for the four counties which comprise the AQCR is presented in Table 1. The projections were made in 1973 and represent the most recent population projections for the AQCR. Table 2 represents the percent of the AQCR population each county presently has, and future population distribution trends. Table 3 is a presentation of the relative population increases of each county to the AQCR population increases.

Ocean County presently has an air quality emission rate of approximately 1020 tons/year particulates and 3060 tons/year sulfur dioxide.¹⁸ A comparison of these values to the AQCR values for 1970, presented on Page 146, reveals that Ocean County accounted for approximately 7% of the particulate emissions and approximately 5% of the SO₂ emissions of the AQCR. A comparison of the 1970 values presented in Tables 1 and 2 reveals that Ocean County represented approximately 37% of the population of the AQCR. With this information, it becomes increasingly difficult to accept the premise that air quality emissions are proportional to population. If this were a valid assumption, one would expect Ocean County to account for a greater share of the 1970 AQCR emissions reported in the EIS. Furthermore, if, as it appears, there is little correlation between present emission levels as they relate to population, how can it be assumed that future emission levels will be proportional to population?

As shown in Table 2, Ocean County represents 45.4% of the AQCR population in 1990. The proportionate share of population increase of the AQCR claimed by Ocean County will be 64.5% as indicated in Table 3. In comparison to the 3 other counties in the AQCR, Ocean County is expected to grow in population by a factor of at least 4.5 times any other county in the AQCR.

This explains why Ocean County will be claiming 44.4% of the allowed SO₂ increase and 69.3% of the allowed particulate increase for the AQCR, considering EPA's assumption that emission increases are proportional to population increases.

It would appear from Tables 1, 2, and 3 that growth in the other counties of the AQCR will be very small as compared to Ocean County. In addition, little if any restriction would have to be imposed should Ocean County claim the projected emissions as expressed in the EIS since the 3 other counties in the AQCR only represent 36.5 % of the projected growth. (Table 3) It seems then that if the same air quality evaluation were used in the other counties of the AQCR, no inequities would surface.

A question then arises from the assumptions made by EPA Region II:

If increased emissions are proportional to population growth, why shouldn't emission densities within an AQCR be allocated by projected population growth? It would seem inequitable to determine distribution by the number of participating counties or by land area since neither is a controlling parameter in future growth. If emission levels are to be projected from proportionate population growth, the emission density distribution should be based on projected population

growth. The question then arises as to who is responsible for emission density distribution, the State or the Federal government? EPA has relinquished its role in emission density allocation to the state level in the ELP, as described in the proposed rules:

The determination of how emission density is to be distributed in each region would be the state's prerogative, and the Administrator would accept any distribution provided that the emissions ceiling and national ambient air quality standards are observed.¹⁹

If EPA has relinquished its role in emission density allocation to the states, would it not be the State of New Jersey's prerogative to decide if the projected increased emissions, as calculated in the EIS (paragraph 142), restrict growth in the other counties of the AQCR? Furthermore, Ocean County will represent 45.4% of the projected 1990 population of the AQCR -- while contributing approximately 18% of the AQCR particulate emissions and approximately 12% of the SO₂ emissions of the AQCR in 1990.

IV. Discussion of AQIP - IPP Modelling

A. Source Data

Data used in the Implementation Planning Program (IPP) model for air quality modelling was obtained and analyzed, yielding the observations that follow.

Point sources within the county were limited only to the Toms River Chemical Company (TRC). TRC accounted for a large percentage of the sulfur dioxide and particulate emissions of Ocean County in 1972, as discussed in a later section. The projection for 1990 does not consider additional point sources nor does it reflect the addition to the existing sources of any higher level of emission control technology.

Projected particulate emissions from the transportation area sources did not account for reductions in emission levels due to the use of non-leaded fuels. This reduction is expected to be in the range of 35 to 50 percent by 1978, according to the NJDEP Air Pollution Control Division. Since the transportation area sources account for approximately 37 percent of the total emissions inventory of the county, the above cited reduction may reflect itself in a 13 to 18 percent reduction in overall particulate emissions.

Area sources established for 1972 were used as 1990 area sources by increasing the projected emission levels. The assumption implicit in this procedure is that the spatial population distribution, as reflected in the area source locations for 1972, will remain constant through 1990. The projected rapid population influx, in conjunction with the large tracts of essentially undeveloped land under single ownership (DSRP growth factor #4), may lead to intensive residential development of areas not now assigned values as "area sources" of emission. The geographic distribution of area sources plays a crucial role in the calculated air quality values at the "receptor" locations. Therefore, some question exists as to whether the receptor values calculated at Toms River, Berkeley, Jackson and Waretown will in fact represent the air quality resulting from a 1990 population distribution.

B. Theoretical Basis

Utilization of only four stations within the CSA leads to uncertainties concerning the adequacy of the modelling technique utilized to accurately interpolate between receptor locations.

The rapidly fluctuating climatic conditions which prevail in coastal regions lead to greater uncertainties in modelling steady-state atmospheric diffusion. Atmospheric

instability caused by the differing rates of temperature fluctuation between the land and the ocean give rise to off-shore and onshore winds. Consideration of the atmospheric mixing resulting from this phenomenon may give rise to markedly lower concentrations of air pollutants at receptor locations in the coastal area.

Many of the limitations inherent in steady-state modelling techniques are of crucial importance in the present application as discussed above.

In summary, areas which will require further clarification are:

1. Accuracy of assumptions regarding projected point source emissions.
2. Validity of area source distributions stack heights, and emission rates (some of which increase by 3500% in the period 1972-1990).
3. The ability of any area-wide model to be statistically verified on the basis of only four sampling stations.
4. The adequacy of a steady-state diffusion model to accurately predict air quality levels in the rapidly fluctuating coastal climatic zone which prevails in Ocean County.
5. The temporal variations in climatic data employed as input of the diffusion model and the number of runs made to

obtain a statistically valid result for any given receptor location.

Consideration of the above variables leads to the conclusion that the accuracy of the modelling technique should be clearly stated. The implications of large variations from the mean determined value for expected air quality would lead to large variations in the proposed treatment plant sizing. A variation of 50 percent in the model result would vary the expected treatment plant sizing from approximately 12 mgd to 36 mgd.

The IPP diffusion model is a crucial link in the analysis and conclusions regarding the future growth in Ocean County. The basic assumptions inherent in the model and in its application to Ocean County, some of which are outlined above, must be the object of intensive study and verification.

C. Application

The analysis of air quality levels through the use of an air quality diffusion model is the basis of the AQIP. EPA Region II utilized measured baseline air quality for particulates only, and projected, through the model, future air quality at 4 locations in the Central Service Area. The short term (24 hr.) secondary air quality standard for particulates, and the allowable increase in existing annual geometric mean, as proposed

in the non-degradation regulations, were used as guidelines.

EPA projected that air quality standards would be contravened utilizing Fellows Reed and Weber population projections for 1990²⁰, and that a 28-31% reduction in particulate air pollution would be required to meet the 10 ug/m3 increment guideline. EPA proposed that a 25% reduction in the OCCSTP to 91,000 M³/day (24 mgd) from 125,000 M³/day (32 mgd) would provide a 25% reduction in population, which would be reflected in a similar reduction in particulate air pollution.

This is within the range of the calculated reduction required in air pollutant emissions, allowing for errors inherent in the diffusion modeling process. Therefore, a 91,000 M³/day (24 mgd) treatment facility should meet the intent of the proposed non-degradation regulations.²¹

The apparent intent of reducing the OCCSTP by 25% was to achieve an approximate 25% reduction in particulate air quality levels, since the sewage treatment plant size reflected population, and EPA had, as previously described, assumed emission increases to be proportional to population.

Ocean County is not, nor will it be, a major urban and industrial area as described and projected in the EIS. The proposed rules claim that from the implementation of State Air Quality Control Plans, a reduction in particulates is to be anticipated in rural areas or the northeast. The anticipated

reduction in particulates stated in the proposed non-degradation regulations is as follows:

Emission reductions to be achieved under state plans in major urban and industrial centers will significantly affect total national emissions and thereby lower the background pollutant concentrations in rural areas. Thus a 25% reduction in the background concentration of particulate matter in rural areas is anticipated.²²

If a 25% reduction is anticipated in background emissions for rural areas such as Ocean County from the implementation of state plans in major urban and industrial centers, should the OCCSTP be reduced by 25% or by some lower value? If a 25% reduction is, as stated in the EIS, within the calculated accuracy of the diffusion model for the OCCSTP, it should follow that a 25% projected reduction in background particulates in rural areas like Ocean County from state implemented air quality control plans in major urban and industrial centers should also be considered and applied if an accurate and equitable population reduction is to be utilized to size the OCCSTP.

There exists in Ocean County a single major industrial emission source that accounts for 9% of the particulate emissions and 18% of the SO₂ emissions of the county. If viewed with respect to the Central Service Area, this source is 18% of the particulate emissions and 41% of the SO₂ emissions. It appears, from data analysis of the emission values utilized by EPA in the

AQIP, that no reduction was anticipated or planned for this source. Obviously the application of emissions control equipment to this source can significantly affect the projected air quality levels for particulates calculated by EPA. There appears to be no application of restrictions to this industrial source. One must question the premise that allows future significant industrial point source emissions while restricting future growth.

V. Summary of Conclusions

1. A comprehensive and balanced approach to land use planning must integrate all the components of an environmental system into an optimal and equitable growth plan.

2. By restricting the capacity of the OCCSTP on the basis of air pollutant emissions, water quality standards may be contravened in less than five years. This seems contradictory to the primary aim of the project--to protect and enhance the water quality of Ocean County.

3. Given the combination of growth-inducing factors within Ocean County, it is doubtful that limiting regional sewerage facilities will significantly limit population growth.

4. The use of septic systems to sustain continued growth within Ocean County cannot be effectively controlled by existing tools.

5. It seems apparent from the proposed rules for the approval and promulgation of implementation plans that the purpose and intent was to set up

a mechanism for preventing significant deterioration of air quality in areas where air pollution levels currently are below national ambient air quality standards which would prescribe steps to be taken by the states.²³

The relevance of utilizing the air quality increment plans or the proposed plans to apply for grant funds for wastewater facilities indicates either a new interpretation of the purpose and intent

of the proposed rules, or an extension of Federal authority.

6. To the extent that these proposed rules are being applied to reduce the capacity of the OCCSTP, it is important to note that they are being applied without scientific data to support the arbitrary allowed increment increase defined in the proposed rules.

7. There appears to be a contradiction between the purpose and intent of EPA Region II's recommendations 1, 2 and 3²⁴ and the purpose and intent of the plaintiffs in the original court action and the proposed rules developed by EPA, with regard to restrictions to limit growth.

8. The changing distribution of energy generating modes from fossil fuel to nuclear will provide a larger generating capacity with no increase in air pollutant emissions.

9. The significant increases in electrical generating capacity projected for the mid-1980's seriously questions the assumption that the proportion of fuel oil usage by stationary sources will remain constant.

10. Particulate emissions from residences are subject to large seasonal fluctuations. The winter time population would most accurately represent that population whose area source emissions would contribute to air pollution.

11. The validity of the assumption that air quality emissions are proportional to population is doubtful, at best, when consideration is given to the fact that in 1970 Ocean County accounted for approximately 37% of the AQCR population while contributing approximately 7% of the particulate and 5% of the SO_x emissions to the AQCR.

12. Population data from New Jersey Department of Labor and Industry, Office of Business Economics, indicates that Ocean County will account for 64.5% of the population growth of the AQCR (Table 3) or 4.5 times the growth of any other county in the AQCR. This data refutes EPA Region II's claims that Ocean County will restrict growth in the AQCR if the County is allowed to claim the projected emissions calculated by EPA. Growth in the other counties of the AQCR will be insignificant in comparison to Ocean County. Furthermore, projected population growth is of the same magnitude of the estimated percent increment increases in particulate and SO_2 emissions calculated by EPA. It seems that if the same air quality evaluation were employed in the other counties of the AQCR no inequities would occur.

13. It appears that EPA Region II in Recommendation 1, 2 and 3²⁵ is attempting to influence the emission density allocations in the AQCR. This is in contradiction to the EPA stated objective in the proposed rules, ELP, which designate responsibility for emission density distribution allocation to the state.

14. EPA Region II appears to have neglected anticipated background reductions in particulates for rural areas, as stated in the non-degradation proposed rules, in its diffusion model analysis in the AQIP. A 25% anticipated reduction in background levels of particulates, from improvement in metropolitan and industrial air quality, should be considered and applied to the diffusion model study.

15. It appears that EPA Region II did not anticipate or plan for any reduction of emissions from a major industrial source in the Central Service Area with regard to projected emissions and air quality analysis in their diffusion model and in the AQIP. This source accounts for 9% of the particulate and 18% of the SO₂ emissions calculated for Ocean County. There is serious doubt as to the equity of the AQIP applied to Ocean County when it appears that no consideration was given to any future reduction of this point source emission. A reduction of this source may result in decreased emissions over the long term. Consideration of this point assumes special significance since the apparent restrictions on the future growth of the area, which are proposed in the EIS, are based, in part, on this assumption.

16. The accuracy of the model to predict future ambient air quality levels should be clearly explained. Large variations from the mean determined value will significantly affect the sizing of the sewage treatment plant and the planning-related conclusions stated in the EIS.

Appendix A

Table 1
Estimated Projections

	Land Area Sq. Mile	1970	1975	1980	1985	1990	1995
Atlantic	569	175,043	185,250	193,460	202,760	212,070	221,410
Cape May	267	59,554	64,940	68,090	72,410	76,740	81,560
Cumberland	500	121,374	131,450	139,100	147,770	156,450	165,110
Ocean	<u>642</u>	<u>208,470</u>	<u>253,310</u>	<u>289,860</u>	<u>326,000</u>	<u>370,140</u>	<u>414,270</u>
Total	1,978	564,441	631,950	690,510	748,940	815,400	882,350

Table 2
Percent Population of AQCR

	<u>Land Area</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>
Atlantic County	28.8%	31.0%	29.0%	28.0%	27.1%	26.0%	25.1%
Cape May County	13.5%	10.6%	10.3%	9.9%	9.7%	9.4%	9.2%
Cumberland County	25.3%	21.5%	20.8%	20.1%	19.7%	19.2%	18.7%
Ocean County	<u>32.4%</u>	<u>36.9%</u>	<u>40.0%</u>	<u>42.0%</u>	<u>43.5%</u>	<u>45.4%</u>	<u>47.0%</u>
AQCR	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3
Relative Population Increases from 1970

	<u>1980</u>		<u>1990</u>	
	Population Increase	% Population Increase	Population Increase	% Population Increase
Atlantic County	18,417	14.6%	37,027	14.7%
Cape May County	8,536	6.8%	17,186	6.8%
Cumberland County	17,726	14.1%	35,076	14.0%
Ocean County	<u>81,390</u>	<u>64.5%</u>	<u>161,670</u>	<u>64.5%</u>
AQCR	126,069	100.0%	250,959	100.0%

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25. Ibid.

APPENDIX B

Legal Comments Prepared By:

- HIERING, GRASSO, GELZER & KELAHER, ESQS.

LAW OFFICES
HIERING, GRASSO, GELZER & KELAHER

P. O. BOX 1028
HIERING BUILDING
COURT HOUSE SQUARE
TOMS RIVER, NEW JERSEY 08753

AREA CODE 201
TELEPHONE 349-1212

WILLIAM T. HIERING
VINCENT A. GRASSO
MILTON H. GELZER
THOMAS F. KELAHER

GARRY J. ROETTGER
WILLIAM T. HIERING, JR.
THOMAS L. BACE

June 19, 1974

Mr. Lawrence Simpson, Chairman
Ocean County Sewerage Authority
40 Hadley Avenue
Toms River, N. J. 08753

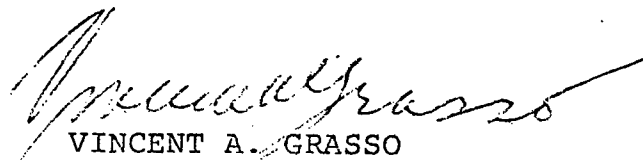
RE: Legal Comments on Recommendations 3 and 10
of the April 1974 draft of the U.S. Environmental
Protection Agency's Environmental Impact Statement
pertaining to the central service area of the
Ocean County Sewerage Authority

Dear Mr. Simpson:

We respectfully submit herewith for consideration and use in connection with the reply to be made by the Ocean County Sewerage Authority to the draft of April 1974 of the Environmental Impact Statement of the U.S. Environmental Protection Agency, our comments on Recommendations 3 and 10.

If there is any further matter, which we are required to explore and advise, please let us know as soon as possible.

Very truly yours,


VINCENT A. GRASSO
For The Firm

VAG:ajl
Enclosures

COMMENTS ON THE LEGAL IMPLICATIONS OF RECOMMENDATION 3
MADE BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY IN ITS
DRAFT OF APRIL 1974 OF THE ENVIRONMENTAL IMPACT STATEMENT
ON A WASTEWATER TREATMENT FACILITIES CONSTRUCTION GRANT
FOR THE CENTRAL SERVICE AREA OF THE OCEAN COUNTY SEWERAGE
AUTHORITY IN OCEAN COUNTY, NEW JERSEY.

PREPARED BY:

HIERING, GRASSO, GELZER & KELAHER, ESQS.
ATTYS FOR OCEAN COUNTY SEWERAGE AUTHORITY
204 HORNER STREET
TOMS RIVER, NEW JERSEY 08753

POWER OF EPA TO IMPOSE AIR POLLUTION CONDITIONS

The Ocean County Sewerage Authority has applied to the federal Environmental Protection Agency for a grant for construction of treatment works, pursuant to 33 USCS 1281 (g) (i). The entire "Federal Water Pollution Control Act Amendments of 1972" [33 USCS 1251-1376 refers to water pollution. Among the goals set forth in this law is the restoration and maintenance of the "chemical, physical, and biological integrity of the Nation's Waters." 33 USCS 1251. The comprehensive program created is aimed at "preventing, reducing or eliminating the pollution of the navigable waters and ground waters and improving the sanitary condition of surface and underground waters." 33 USCS 1251. The statute even defines the terms "pollutant" and "pollution" in terms of the integrity of Water. 33 USCS 1362.

A question therefore must be raised as to the source of authority for the Administrator of the Environmental Protection Agency to impose upon such a grant conditions significant only with respect to air pollution. The Ocean County Sewerage Authority does not assert an immunity from those federal air pollution controls which govern all potential pollutants. However, the Authority questions the imposition of conditions on an anti-water pollution grant, where those conditions demand additional affirmative anti-air pollution measures in excess of the proposed non-degradation regulations of the "Clean Air Act Amendments of 1970."

The "Clean Air Act Amendment of 1970" establishes sufficient regulatory control of potential pollutants by creating air quality control regions [42 USCS 1857 c-2 national ambient air quality standards [42 USCS 1857c-4], and by requiring the submission of state implementation plans [42 USCS 1857c-5]. How can the Administrator burden the Authority with additional air pollution restrictions solely because it happens to be applying for a water pollution grant.

POWERS OF OCEAN COUNTY PLANNING BOARD

A county planning board is enabled by N.J.S. 40:27-2 to adopt a master plan for the physical development of the county. This plan, however, cannot be imposed upon constituent municipalities. The county planning board is limited to encouraging "the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen freeholders with respect to the formulation of development programs and budgets for capital expenditures." Id.

In addition to the abovementioned planning powers, a county planning board must review all subdivisions of land within the county, and must approve or reject "those subdivisions affecting county road or drainage facilities," in accordance with specific statutory standards. N.J.S. 40:27-6.2. The county planning board may also provide "for the review of site plans for land development along county roads" for the "purpose of assuring a safe and efficient county road system." N.J.S. 40:27-6.6.

These functions of the county planning board are very limited in scope and restricted in application by statute. They certainly do not provide an operative framework for any significant control of regional land development.

The spirit of regional land use planning is exhibited by statutes that require municipalities to file their zoning ordinances with the county planning board and to give the board notice of proposed changes affecting certain lands, N.J.S. 40:27-6.10,

and to notify the county planning board of variance applications where the land fronts on an existing or proposed county road, adjoins county-owned land or is situated within 200 feet of a municipal boundary. N.J.S. 40:27-6.11. Unfortunately, only the spirit of regionalization exists, since the county planning board's ability to influence development is minimal.

POWERS OF OCEAN COUNTY SEWERAGE AUTHORITY

The Ocean County Sewerage Authority has not the slightest power to affect local municipal zoning. It is believed that powers of this nature are included in a water quality management bill, which has yet to be introduced in the New Jersey legislature. However, at the present time, the maximum effort which may be expected of the Authority is to encourage municipal governing bodies to join in a cooperative program.

N.J.S. 40:14A-7(7) empowers county sewerage authorities "[t]o accept. . . grants of. . . money. . . for the purposes of the sewerage authority, and to make and perform such agreements and contracts as may be necessary or convenient in connection with the procuring, acceptance or disposition of such. . . grants." This specific delegation of powers, together with the omnibus section of powers, N.J.S. 40:14A-7(11), apparently would enable the Authority to seek and to enter a compact with the local governing bodies in the Central service area. The legality of any such agreement is a separate problem, which will be discussed below.

It is doubtful that arbitrary limits upon service to residents in participating municipalities would stand up to a judicial attack. The New Jersey Supreme Court noted in Deerfield Estates, Inc. v. Tp. of East Brunswick, 60 N.J. 115, 130 (1972) that while "a municipality, engaged in furnishing water to its inhabitants, has a large measure of discretion as to the limits to which it should extend its mains [,] [a]t the same time there is an obligation to supply impartially all applicants in substantially

like position." This philosophy was reiterated with respect to a municipal sewerage authority in S.S. &O. Corp. v. Tp. of Bernards Sewerage Auth., 62 N.J. 369, 381 (1973)

However, even if such a mechanism were valid, the service contracts already entered between the Authority and the participating municipalities provide for delivery to and treatment by the Authority of all wastewater originating in and collected by the respective municipality. These factors would certainly preclude the Authority from using rationing as a land use development tool.

REGIONAL PLANNING BCARDS

The concept of regional planning is embodied in a little used statute, N.J.S. 40:27-9. This law permits municipalities and/or counties to "co-operate in the creation of a regional planning board for any region defined as may be agreed upon by said co-operation councils and board or boards or by said co-operating boards." Such a body, once formed, would have the responsibility of preparing a master plan for the physical development of the region, (N.J.S. 40:27-10), but more importantly, co-operating municipalities or counties would be permitted to delegate to the regional planning board "any or all of the powers and duties of a municipal planning board. . .and of a county planning board. . . ." N.J.S. 40:27-11.

While, the availability of such a potential planning body is encouraging, it is extremely doubtful that municipalities with established planning boards would be willing to sacrifice their respective autonomy. Absent a transfer of powers from municipalities to the regional planning board, the latter would serve no greater function than the existing county planning board.

MUNICIPAL ZONING

The municipal planning board is empowered to prepare a master plan "for the physical development of the municipality[,]" and to include in such plan "proposals for various stages in the future development of the municipality." N.J.S. 40:55-1.10. The plan must be presented to the county planning board for review and comment prior to public hearing. Id.

The scope of the master plan, among other factors, includes the following:

Conservation - water, forest, soil, flood control, and other like matters (N.J.S. 40:55-1.11e)

The distribution and density of population
(N.J.S. 40:55-1.11g)

Other elements of municipal growth and development
(N.J.S. 40:55-1.11h)

"The master plan may include in its scope areas outside the boundaries of the municipality which the planning board deems to bear an essential relationship to the planning of the municipality. The studies in connection with the master plan shall be conducted wherever possible with the co-operation of adjacent planning agencies." N.J.S. 40:55-1.11.

The general purpose of the master plan is to guide and accomplish "a co-ordinated, adjusted and harmonious development of the municipality and its environs. . . " N.J.S. 40:55-1.12.

The municipality may "limit and restrict to specified districts and may regulate therein" the development of the municipality. N.J.S. 40:55-30. This general zoning power must "be in accordance with a comprehensive plan and designed for one or more of the following purposes: to lessen congestion in the streets; secure safety from fire, flood, panic and other dangers; promote health, morals or the general welfare; provide adequate light and air; prevent the overcrowding of land or buildings; avoid undue concentration of population. Such regulations shall be made with reasonable consideration, among other things, to the character of the district and its peculiar suitability for particular uses, and with a view of conserving the value of property and encouraging the most appropriate use of land throughout such municipality. N.J.S. 40:55-32.

Municipal cooperation is fostered by N.J.S. 40:55-53 which requires notice to adjoining municipalities of hearings with respect to planning, zoning, approval of subdivisions, granting of variances, or establishing or amending an official map involving property within 200 feet of such adjoining municipality.

JUDICIAL DEVELOPMENTS IN ZONING

Having recognized the statutory ability of municipalities to control their development through zoning, it becomes important to consider the judicial limitations imposed upon the power to zone. While regional considerations have been promoted wherever feasible by our courts, the judicial system has expressed antagonism towards exclusionary zoning. These two trends in decisional law would apparently collide were a geographic area to be restrictively rezoned for the purpose of limiting population in order to preserve the air quality of the region.

In Southern Burl. Cty NAACP v. Tp. of Mt. Laurel, 119 N.J. Super. 164 (Law Div. 1972) the municipal zoning ordinance was invalidated for exhibiting "economic discrimination in that the poor have been deprived of adequate housing and the opportunity to secure the construction of subsidized housing. . ." Supra at 178. The municipal zoning had excluded trailers and had excluded multi-family dwellings except on farms. In addition, the court ordered the defendant municipality to undertake a study and then to develop a plan of implementation towards an affirmative program of meeting the municipality's housing needs for persons of low and moderate income residing in the township, or presently or projected to be employed by the municipality or in commercial and industrial uses in the township.

The Township of Madison had enacted a zoning ordinance which limited the increase in multiple dwelling units to 200 per year, and restricted construction in most of the undeveloped areas in

the township to one or two acre minimum areas. In Oakwood at Madison, Inc. v. Tp. of Madison, 117 N.J. Super. 11 (law div. 1971), the court found that the governing body had "determined to curb population growth significantly and thus to stabilize the tax rate." Supra at 14. The objective of the ordinance "was fiscal zoning, zoning as a device to avoid school construction and other governmental costs incident to population expansion." Supra at 18.

Judge Furman found that the 'general welfare' requirement of the Zoning Act requires a consideration of housing needs, and concluded that in view of the municipality's continuing encouragement of new industry, and the lack of consideration for moderate and low income housing in the area, that the ordinance was exclusionary in purpose and effect, and therefore, invalid. He commented that:

Families with more than one child are barred from multi-family apartments because of the one and two bedroom restrictions, restrictions without any guise of a health or safety purpose. Supra at 20.

While the local ordinance was overturned for failing to promote a reasonably balanced community, several points are significant with respect to any type of population limitation based upon environmental protection. Primarily, it should be noted that the Madison Township ordinance was not supported by any health or safety purposes, and Judge Furman deemed it important to comment upon the lack of such scientific support:

Only engineering data and expert opinion and, it may be, ecological data and expert opinion could justify the ordinance under attack. These were lacking both in the legislative process and at trial. The record fails to substantiate that safeguarding against flood and surface drainage problems and protection of the Englishtown aquifer would be reasonably advanced by the sweeping zoning revision into low population density districts along the four water courses, Supra at 21-22 (emphasis added).

Secondly, the Oakwood decision does not purport to overrule Fischer v. Bedminster Tp., 11, N.J. 194 (1952), which sustained five acre zoning throughout 85% of Bedminster. Rather, the Fischer case was distinguished as being based upon "preserving the character of the community, maintaining the value of property therein and devoting the land throughout the township for its most appropriate use[,] while Madison Township "has no established residential character or residential property values." Oakwood, supra at 19.

Another interesting aspect of the Oakwood decision is that the multiple dwelling restriction of 200 per year, was not commented upon except to state that "[t]he township concedes the invalidity of the limitation to 200 new multi-family units per year. . ." Supra at 17.

Finally, it should be realized that on September 19, 1972 Certification was granted by the New Jersey Supreme Court, 62 N.J. 185 (1972), to review the lower court's holding.

Shortly after the Oakwood decision, the Appellate Division, in Schere v. Township of Freehold, 119 N.J. Super 433, 436 App, Div. 1972), held that fiscal "considerations will not justify

imposing substantial functional non-utilization of a property owner's lands." This ruling was in response to an ordinance restricting development of one-family residential areas to 40,000 square feet per lot, such restricted areas being surrounded by industrial, vestigial farming and smaller residential uses. Expert witness testified, without contradiction to the effect that "these properties were not developable for one-acre residences in the reasonably foreseeable future." Supra at 435. The Court believed that the restrictions were "designed to inhibit residential development in the municipality at a rate which would outstrip what the town fathers thought the voters and taxpayers would accept in fiscal outlay to supply ancillary municipal services (schools, etc.)." Supra at 436.

Relying on the Oakwood decision, it was observed that:

. . . a deliberate governmental attempt to prevent by zoning the residential utilization of land, apt for the purpose, on behalf of the generality of the population in need thereof, in favor of reserving such land for future utilization by more affluent users, would seem to conflict with present-day judicial thought as to appropriate relationships between zoning policy and social housing needs. Supra at 437.

Some of the sharpest exclusionary language encompassed in New Jersey cases is found in Molino v. Mayor and Council of Bor. of Glassboro, 116 N.J. Super. 195 (Law Div. 1971), wherein the local zoning ordinance, which had the effect of restricting population of the borough to adults, was found to be violative of the equal protection clause, and therefore, invalid. The tool used by Glassboro had been a bedroom ratio limitation in multiple

dwellings. The municipality admitted that the ordinance was designed to keep children out of Glassboro, thereby preventing the necessity for more schools and higher taxes. Judge Schalick stated that zoning "cannot be used as a means to solve all collateral municipal problems." Supra at 201. He then continued:

Our courts have upheld the regulation of apartments, the land areas for dwelling units, the limitation of congestion, the requirements for living and recreation space, the exclusion of residential uses consistent with the needs of the region as well as the limitation of the type of permissible uses within the municipality. There must be a case by case analysis, with concern for a legal use of the land and the health, safety and welfare of the people. Supra at 204.

The most far reaching portion of the decision followed:

Exclusionary zoning may lead to illegal and unwanted conditions, which are violative of individual rights. No municipality can isolate itself from the difficulties which are prevalent in all segments of society. When the general interest is paramount to the limited interest of the municipality then the municipality cannot create road blocks. Zoning is not a boundless license to structure a municipality. Supra.

One further decision must be mentioned. It involved the so-called "Petaluma Plan", which passed into law by the small California community in its attempt to retain its rural character. The Plan, which restricted the construction of new homes to no more than 500 per year, was aimed at preventing the doubling of Petaluma's 30,000 person population, as had been projected would occur by 1985.

U.S. District Court Judge Burke found the "Petaluma Plan" unconstitutional, "saying the city could not halt the natural influx of suburbanites." 97 N.J.L.J. 382, (May 23, 1974). The ruling was grounded upon a "violation of the right to travel" which was inherent in this ordinance "designed to restrict population

growth." Id. Judge Burke's decision was,

. . .intended to encompass not only the outright numerical limitations upon the issuance of building permits, but also any and all features of the plan which, directly or indirectly, seek to control population growth by any means other than market demands. Id.

Having reviewed the recent proliferation of anti-exclusionary zoning cases, reference should be made to a somewhat more sustained and less dramatic trend towards consideration of regional needs and welfare. Local municipal action granting a "special reasons" variance was sustained upon regional needs in Kunzler v. Hoffman, 48 N.J. 277 (1966). extended the scope of previous judicial precedent in considering the urgent need for a private hospital in the township and the surrounding communities:

A municipality may look beyond its own borders for zoning purposes and recognize legitimate regional needs. . . it may provide cooperatively for the needs of neighboring communities, as well as its own. . . .Recently there has been recognition that local zoning authorities should look beyond their own provincial needs to regional requirements. Supra at 287 (citations omitted).

The first major expression of regionalism by the New Jersey Supreme Court had been set forth in Duffcon Concerte Products v. Borough of Cresskill, 1 N.J. 509 (1949), as a justification for the Cresskill ordinance which restricted the borough to residential uses, and small businesses and trades, while excluding heavy industry. Chief Justice Vanderbilt, speaking for the Court announced:

What may be the most appropriate use of any particular property depends not only on all the conditions, physical, economic and social, prevailing within the municipality and its needs, present and reasonably prospective, but also on the nature of the entire region in which the municipality is located and the use to which the land in that region has been or may be put most advantageously. The effective development of a region should not and cannot be made to depend upon the adventitious location of municipal boundaries, often prescribed decades or even centuries ago, and based in many instances on considerations of geography, of commerce, or of politics that are no longer significant with respect to zoning.

Supra at 513.

The Court upheld the highly residential nature of Cresskill's zoning ordinance by taking cognizance of "the availability and use of the extensive bottom lands of the Hackensack River Valley within the region for industrial purposes." Supra at 514.

Five years later, Chief Justice Vanderbilt and the Borough of Cresskill were again involved in a decision espousing regional zoning, Cresskill v. Dumont, 15 N.J. 238 (1954). Dumont claimed that it need give no consideration to the effect of a zoning amendment upon neighboring municipalities. Vanderbilt wrote:

The appellant spells out from the language of these constitutional and statutory provisions that the responsibility of a municipality for zoning halts at the municipal boundary lines without regard to the effect of its zoning ordinances on adjoining and nearby land outside the municipality. Such a view might prevail where there are large undeveloped areas at the borders of two contiguous towns, but it cannot be tolerated where, as here, the area is built up and one cannot tell when one is passing from one borough to another. Supra at 247.

Kozesnik v. Montgomery Twp., 24 N.J. 154 (1957) approved of cooperation between two townships in amending their respective zoning ordinances in order to allow a specific project to be practicable:

. . .municipalities are concerned with land utilization abutting their lines, and hence a concurrent effort to integrate them serves the objective of our zoning statute. Supra at 163.

A strike against regional awareness was embodied in Fanale v. Hasbrouck Heights, 26 N.J. 320 (1958), where the Court rejected a plea for the necessity of more apartment houses throughout Bergen County, in upholding the municipal ordinance which prohibited the erection of multiple family dwellings. Indeed, Fanale is directly contradicted by cases such as Oakwood, Supra, and Molino, Supra, which fail to mention the Fanale decision.

A final steppingstone to the Kunzler holding, was Andrews v. Ocean Twp. Board of Adjustment, 30 N.J. 245, (1959) which upheld the granting of a "special reasons" variance for a parochial school even though "the school will serve the entire parish of which [Ocean] [T]ownship is but a part." Supra at 251.

Into the judicial climate analyzed above, there is supposedly to be interjected a cooperative program of rezoning by the municipalities in the Central service area. The theme supporting this proposed joint effort is the limitation of population growth for the purpose of preventing contravention of the Clean Air Act. Whether the judicial system will accept environmental protection as a justification for restrictive zoning is certainly unpredictable. Any such municipal action will be scrutinized with respect to the concepts and principles of zoning, as well as with respect to the constitutional issues of equal protection, freedom of interstate commerce, privileges and immunities, due process, and possibly others.

It must not be forgotten that the Central service area is not the universe; if population growth is restricted there, it will take place elsewhere. The environmental benefit bestowed upon the Central service area, will be counterbalanced by a detriment elsewhere. This phenomena is reminiscent of municipal parochialism which the courts have admonished.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Several New Jersey statutes deserve comment upon the powers they vest in the New Jersey Department of Environmental Protection.

The Coastal Wetlands Act [N.J.S. 13:9A-1 et seq.] provides the Commissioner of Environmental Protection with authority to adopt regulations "restricting or prohibiting dredging, filling, removing or otherwise altering, or polluting, coastal wetlands." N.J.S. 13:9A-2. Such regulations, however, must have as their purpose the promotion of public safety, health and welfare and the protection of public and private property, wildlife and marine fisheries. Id.

The Act also prohibits the erection of structures, draining, dredging, dumping, and other "regulated activity" upon any wetland without a permit issued by the Commissioner of Environmental Protection. N.J.S. 13:9A-4b.

"In granting, denying or limiting any permit the commissioner shall consider the effect of the proposed work with reference to the public health and welfare, marine fisheries, shell fisheries, wildlife, the protection of life and property from flood, hurricane and other natural disasters, and the public policy set forth in [N.J.S. 13:9A-1a]" N.J.S. 13:9A-4d.

The Coastal Area Facility Review Act [N.J.S. 13:19-1 et seq.] recognizes the "coastal area" as "an exceptional, unique, irreplaceable and delicately balances. . . natural environmental resource." N.J.S.

13:19-2. The Act encourages "the development of compatible land uses in order to improve the overall economic position of the inhabitants of that area within the framework of a comprehensive environmental design strategy which preserves the most ecologically sensitive and fragile area from inappropriate development and provides adequate environmental safeguards for the construction of any facilities in the coastal area." Id.

The coastal area is statutorily defined to include a great deal of the Central service area. [See Figure 14 of EPA Draft Statement]. No "facilities," as defined by the Act may be constructed without a permit issued by the Commissioner of Environmental Protection. N.J.S. 13:19-5. All applications for permits must include an environmental impact statement, which statement must provide information concerning, among other things, air quality. N.J.S. 13:19-6 & 7. An assessment of the probable impact of the project upon air quality, and the other existing environmental conditions is also necessary. N.J.S. 13:19-7d. The Commissioner may issue a permit only if he finds, inter alia, that the proposed facility:

- a. Conforms with all applicable air, water and radiation emission and effluent standards and all applicable water quality criteria and air quality standards.

- b. Prevents air emissions and water effluents in excess of the existing dilution, assimilative, and recovery capacities of the air and water environments at the site and within the surrounding region. N.J.S. 13:19-10 a & b.

The standards incorporated in the Coastal Area Facility Review Act hopefully will provide the D.E.P. with a tool to assist in the protection of the air quality in the coastal area.

The Air Pollution Control Act [N.J.S. 26:2C-1 et seq.] empowers the D.E.P. to "formulate and promulgate, amend and repeal codes and rules and regulations preventing, controlling and prohibiting air pollution throughout the State or in such territories of the State as shall be affected thereby." N.J.S. 26:2C-8. Administration of this law is now handled by the Bureau of Air Pollution Control in the Division of Environmental Quality of the Department of Environmental Protection in accordance with N.J.A.C. 7:27A-1.1 et seq.

These and other powers which rest within the office of the Commissioner of Environmental Protection may offer some assistance in the goal of preventing degradation of air quality, but are totally beyond the control of the Ocean County Sewerage Authority.

LAND USE POLICY AND PLANNING ASSISTANCE ACT

It is appropriate to note that there is presently being considered by the U.S. Senate Committee on Interior and Insular Affairs a proposed federal Land Use Policy and Planning Assistance Act (S. 268). This bill recites the national interest in more efficient land use planning and decision making, and attacks land use problems by a program of grants to the states. The key element of the grant program is the philosophy of statewide land use planning, and the necessity for state land use planning agencies.

The state programs which will be eligible to apply for federal funds pursuant to this bill are strictly defined. For example, every such program must regulate land sales and development projects so that such projects do not exceed the capacity of existing or planned and approved systems for water and power supply, waste water collection and treatment and waste disposal.

Implementation of state programs may be handled by general purpose local governments as long as the respective state retains authority to prevent arbitrary and capricious restriction or prohibition of development of public facilities or utilities of regional benefit, and to prohibit the use of land within areas which, under the state land use program, have been designated as areas of critical environmental concern.

The Act also encourages through grants interstate coordination of planning functions.

Although the Act, if passed, will not directly create new planning agencies or philosophies, its financial incentives should result in such innovations.

COMMENTS ON THE LEGAL IMPLICATIONS OF RECOMMENDATION 10
MADE BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY IN ITS
DRAFT OF APRIL 1974 OF THE ENVIRONMENTAL IMPACT STATEMENT
ON A WASTEWATER TREATMENT FACILITIES CONSTRUCTION GRANT
FOR THE CENTRAL SERVICE AREA OF THE OCEAN COUNTY SEWERAGE
AUTHORITY IN OCEAN COUNTY, NEW JERSEY.

PREPARED BY:

HIERING, GRASSO, GELZER & KELAHER, ESQS.
ATTYS FOR OCEAN COUNTY SEWERAGE AUTHORITY
204 HORNER STREET
TOMS RIVER, NEW JERSEY 08753

With respect to the Recommendation 10 made by the U.S. Environmental Protection Agency in its draft of April 1974, Environmental Impact Statement, affecting the central service area treatment facilities, it is first to be noted that the report does not specifically designate, indicate or suggest any specific action recommended to be taken by the Ocean County Sewerage Authority with respect to abating pollution caused by sewage discharged by boats and marinas.

However, it is to be noted, as with respect to Recommendation 3, that the Ocean County Sewerage Authority is completely without power or jurisdiction to enact or enforce any rules or regulations controlling this problem.

As a general rule, navigable waters which lie within the confines of the State of New Jersey are subject to the exclusive control of the State of New Jersey and under certain circumstances, the U.S. Government.

The State has retained this jurisdiction and has not in any instance delegated to any municipality or county bordering on navigable waters the power to regulate traffic or commerce on navigable waters.

So, the State of New Jersey has enacted several statutes attempting to control pollution of waters by boats and vessels, among which are:

- A. Being a disorderly person offense to pollute fresh waters (N.J.S. 2A:170-69.1a);

- B. Also there is a prohibition against registration or licensing of vessels containing facilities which may pollute (N.J.S. 2A170-69.1b);
- C. Exhaustive regulations controlling the ownership and operation of vessels as set forth in Chapter 7 Title 12 of the New Jersey Statutes;
- D. R.S. 12:7-44 is specific in vesting power to regulate vessels on the tidal waters within the State in the Department of Conservation and Economic Development, which is now the Department of Environmental Protection.

Not only does the Ocean County Sewerage Authority lack the power or authority to attempt to adopt any rules or regulations, but past experience of the State in attempting to enforce its regulations has proven very costly and difficult.

In addition, it is obvious that control must be exercised by the State and not any specific County or service area because flowing tide waters know no boundaries.

APPENDIX C*

U.S. ENVIRONMENTAL PROTECTION AGENCY

Proposed Rulemaking

PREVENTION OF SIGNIFICANT
AIR QUALITY DETERIORATION

*Not included.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

1370 Hamilton Street, P. O. Box 219, Somerset, New Jersey 08873

June 3, 1974

Mr. Paul Arbesman, Chief
Environmental Impacts Branch
Environmental Protection Agency
26 Federal Plaza
New York, New York 10007

Dear Mr. Arbesman:

The draft environmental impact statement on "A Wastewater Treatment Facilities Construction Grant for the Central Service Area of the Ocean County Sewerage Authority in Ocean County, New Jersey" that was sent to the Soil Conservation Service has been reviewed and the following comments are offered for your consideration.

1. Throughout the county are numerous drainage ways which only carry water occasionally. The presence and function of these minor drainage ways is not considered in the planning and design of the collection system.
2. With the large size of the collection pipes and the quantity of porous bedding material placed under these pipes, there may be a tendency for groundwater to be conducted along the pipes. This piping may cause adverse effects by altering the natural internal drainage of areas by diverting water or conducting excess water to areas of lower elevation.
3. Throughout the Environmental Impact Statement the concerns relating to increased runoff, decreased natural groundwater recharge, the intrusion of salt water, and the maintenance of stream base flow are repeatedly mentioned. Management of the water resources of a region should be considered in total. Conclusions number 8 and 9 along with the recommendations address part of the overall water resource management needs. These needs could be better handled on a watershed basis than on the individual subdivision or parking lot basis. It is suggested that Recommendation #9 be broadened so that a watershed is considered as a unit.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

Chester F. Bellard

Chester F. Bellard
State Conservationist





DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
CUSTOM HOUSE—2 D & CHESTNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

IN REPLY REFER TO
NAPEN-E

7 MAY 1974

Mr. Paul Arbesman
Chief, Environmental Impacts Branch
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, N. Y. 10007

Dear Mr. Arbesman:

In response to your undated letter, this office has evaluated the Environmental Impact Statement on Wastewater Treatment Facilities in Ocean County, New Jersey; we offer the inclosed following comments.

The comments are listed as to sections in the EIS. On the whole, the report was satisfactory; in the final document, however, some further details are needed.

If any further assistance or clarification is needed, please do not hesitate to contact our Environmental Resources Branch, telephone (215) 597-4833.

Sincerely yours,

WORTH D. PHILLIPS
Chief, Engineering Division

1 Incl
As stated

Fresh Waters Section
page 56, paragraph 5

Specify location(s) of high population density.

Estuarine Waters Section
page 58, paragraph 2

Include a map showing the streams that enter Barnegat Bay and mention how wide are the streams or rivers.

Terrestrial Ecosystems Section
page 79, paragraph 24

Provide soils data that verifies the high organic content, high acidity and low phosphate availability of the flood plain soils.

Attach a brief ecological glossary of the terminology used in the report to convey the information that can be easily understood, both by members of the public and by the public decision makers.



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

June 10, 1974

Mr. Gerald M. Hansler, P.E.
Regional Administrator-Region II
Environmental Protection Agency
26 Federal Plaza
New York, New York 10007

Dear Mr. Hansler:

The draft environmental impact statement for "A Wastewater Treatment Facilities Construction Grant for the Central Service Area of the Ocean County Sewerage Authority in Ocean City, New Jersey," has been received by the Department of Commerce for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

It is our opinion that this document does not provide sufficient information to allow assessment of all relevant problems concerning this project proposal.

Section IV - Alternative to the Proposed Project

Wastewater Treatment System

Page 99, paragraph 1

The attitude of the New Jersey Department of Environmental Protection of not allowing disinfectants other than chlorine to be used at the plants should be reviewed in light of the following:

1. The identified negative effects of chlorine and chlorine compounds on the environment (Baker and Cole, 1974; Grothe and Eaton, 1974; Jolley, 1973; Eaton, J., Univ. of Minn. Minneapolis, MN, personal communication).



2. The existing mild shortage and potential major shortage of usable chlorine in the United States (Ward, 1974).
3. The indication and information that ozone treatment can be used as a disinfectant for drinking water and/or sewerage treatment, as displayed by Whiting, Indiana; Strausberg, Pennsylvania; Paris, France; and Montreal, Canada (Blogoslawski, W., NMFS, Milford, CN, personal communication).
4. The cost analysis performed by several independent engineering firms indicating that there are savings in using ozone rather than chlorine disinfection techniques (Bollyky, J., A.C.I. Ozone Corp., Stamford, CN, personal communication).
5. The recent research at Notre Dame University using both ozone and ultrasonic vibration demonstrating that in addition to disinfecting for bacteria and viruses, this system appears to shatter long molecule chemical compounds.

Effluent Disposal System

Page 103, paragraph 3

Although Ocean County does not presently have a saltwater intrusion problem, it would be desirable to know if the potential for such a problem does exist. While the groundwater recharge system alternative may be impractical at this time, technology for these systems will undoubtedly be improved in the future. It may be prudent to design the proposed facility in such a manner that a groundwater recharge system could be implemented should it prove to be necessary in the future.

Section V - Detailed Description of the Proposed Project

Effluent Disposal System

Page 115

The information presented here is insufficient for us to assess the alignment or the existing conditions around the proposed outfall pipe pathline. The flora and fauna, bottom topography, geology, current patterns, method of installation, and predicted scour activity should all be addressed in any future environmental statement. This information may be obtainable from the assessment studies concerning the offshore nuclear power plants to be located southward of these outfall lines.

Section VI - Environmental Impact of the Proposed Project

Short-Term Impact

Aquatic Ecosystems

Pages 120-124

It is not possible to accurately assess the impact of the proposed project on streams, estuarine areas, or open ocean without additional information concerning the following topics:

1. The specific organisms presently found in these areas or migrating through them.
2. The proposed methods of pipeline placement in these areas (coffer dams, dewatered trenches, hydraulic or mechanical dredging).
3. The degree of flexibility in the time frame for pipe placement.
4. The types of materials to be excavated and their pollution potential with respect to the Environmental Protection Agency criteria.
5. The degree of water movement by osmotic processes through the the wall of the pipe (infiltration and exfiltration). [Apparently this was a major concern regarding a sewage treatment plant constructed on Long Island, New York (Wantagh Sewage Treatment Plant in Nassau County)].
6. An explanation of what constitutes "proper construction techniques."
7. The water velocities present in the areas where the pipeline is to be installed.
8. Types of fauna that are considered to be highly susceptible to suspended materials.
9. The location of islands in Barnegat Bay that are to be spoiled and an explanation of how the spoil material is to be placed and retained on them.

10. The location of the old spoil sites and a detailed assessment of the existing conditions of the dump site, amount and type of spoil materials, anticipated impact upon the dump site, etc.
11. The type of safeguards planned to insure continuity of the pipeline and protection of the aquatic environment from pipe failure or incorrect placement, which could cause leakage of the effluent.

Page 122, paragraph 2

Are the results of the dilution ratios presented in this table based on waters containing ambient loads of nutrients, as presented in the previous table, or are they based on relatively nutrient-free water?

Since a dilution ratio of 200:1 is considered optimum, we assume that the facility will be designed using this ratio as a basis that concentrations of phosphorous and nitrogen in the effluent will be comparable to those present in the table. If this is not true, this topic should be clarified in the final statement. Additionally, considering the enormous volumes of water required, it would be desirable to know how a 200:1 dilution will be achieved.

Long-Term Secondary Impacts

Surface and Groundwaters

Page 141, paragraph 1

In view of the discussion presented here, we strongly re-emphasize the need to discuss groundwater recharge systems that could be implemented should it prove necessary to do so.

Section VII - Adverse Environmental Effects Which Cannot be Avoided Should the Proposed Project be Implemented

Page 154, paragraph 1

It would be desirable to know what "temporary and permanent erosion control methods" are anticipated to minimize adverse effects and to have some assurance that these methods will be utilized by the contractors.

Pages 154-155, paragraph 4

The entire problem of reduced stream flow and its impact on estuarine areas should be discussed. Potential effects include increased salinity in the Bay, alteration of the existing ecological communities in the Bay and its associated tributaries, reduction of the estuarine mixing zones, increased siltation and sedimentation due to reduced flushing abilities of the fresh water streams, reduced aquatic habitat resulting from inaccessibility of once productive areas, and the potential alteration of tidal currents. Our comments regarding page 141, paragraph 1, are also applicable here.

Section VIII-Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Page 156

We suggest that this section be expanded to include a discussion of the items mentioned in our comments on Section VII, pages 154-155.

Section IX-Irreversible or Irretrievable Commitment of Resources Which Would be Involved in the Proposed Project Should It be Implemented

Page 158

We suggest that this section be expanded to describe the commitment of aquatic organisms as a result of the project. In addition, in view of the chlorine problem outlined in our comments on Section IV, page 99, this section should address this problem.

Section X-Conclusions and Recommendations

Page 163, Recommendation No. 5

The revised statement should include a detailed assessment of the impacts associated with placement of the pipeline. This draft statement does not provide complete coverage of the environmental impacts.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving a copy of the final statement.

Sincerely,



Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

Literature Cited

- Baker, R. and Cole, S. 1974. "Residual chlorine: Something new to worry about." Industrial Water Engineering, Vol. II, No. 2, pages 10-21.
- Grothe, D. and Eaton, J. Unpublished. Chlorine - Induced Mortality in Fish.
- Jolley, R. 1973. Chlorination effects on organic constituents in effluents from domestic sanitary sewerage treatment plants. Doctoral dissertation, University of Tennessee. 281 pp.
- Ward, P. 1974. "Chlorine for effluents in short supply." Journal of Water Pollution Control Federation, Vol. 46, No. 1. pages 2-4.

Pages 154-155, paragraph 4

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Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

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- Ward, P. 1974. "Chlorine for effluents in short supply." Journal of Water Pollution Control Federation, Vol. 46, No. 1. pages 2-4.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

REGION II

FEDERAL BUILDING

26 FEDERAL PLAZA

NEW YORK, NEW YORK 10007

OFFICE OF THE
REGIONAL DIRECTOR

May 24, 1974

Our Reference: ROFEC

Mr. Paul Arbesman, Chief
Environmental Impacts Branch
U. S. Environmental Protection
Agency - Region II
26 Federal Plaza - Room 905
New York, New York 10007

Dear Mr. Arbesman:

Subject: E.I.S. #014-04-74 Waste Treatment Facility For The
Central Service Area of The Ocean County Sewerage
Authority, Ocean County, New Jersey

Our primary area of concern for a project of this nature is the protection of public health from unsafe shellfish.

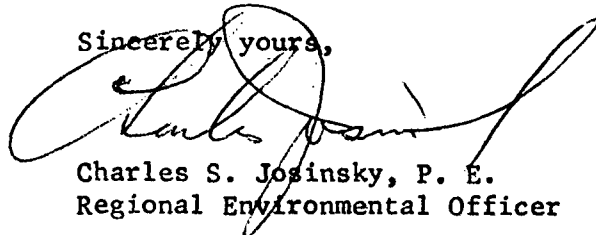
We therefore, requested Mr. George C. Meyer, Regional Shellfish Consultant for the Food and Drug Administration (the branch of HEW charged with the Shellfish Program) to comment on your EIS.

Mr. Meyer has indicated his comments on the enclosed memorandum dated April 30, 1974.

We also would suggest that during the scheduling of construction of the collection system sewers, that special consideration be given to maintaining traffic flows on important access routes to hospital and health service facilities.

We appreciate the opportunity to review your draft EIS.

Sincerely yours,



Charles S. Josinsky, P. E.
Regional Environmental Officer

Enclosure

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION

TO : E. Warner, HFR 26

DATE: April 30, 1974

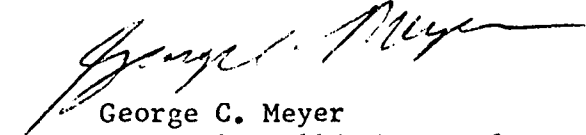
FROM : G. C. Meyer, HFR 218

SUBJECT: E.I.S. #014-04-71, Central Service Area of The Ocean County Sewerage Authority, N.J.

We have reviewed the subject E.I.S. and submit the following comments:

1. We agree that the proposed project should help improve water quality in Barnegat Bay and will eliminate a number of waste water treatment plant discharges to tributaries of the Bay. It is possible that some presently closed shellfish areas may be reopened. However, these areas must first meet FDA approved area classification criteria.
2. We concur fully with Conclusion and Recommendation 10 regarding elimination of boat and marina waste discharges.
3. We also agree with Conclusion and Recommendation number 9 in that increased runoff because of urbanization will also intermittently degrade water quality, possibly resulting in closure of shellfish growing areas.
4. The New Jersey Department of Environmental Protection has administratively closed the ocean waters extending 1 mile offshore to shellfishing because of outfall discharges. This project will eliminate a number of outfall discharges and hence some area may be reopened. However, the waters around the outfall diffuser will have to be closed to shellfish harvesting. Commercial sea clamming is of concern in this area.
5. In view of the recent Nassau County Wantagh waste water treatment plant outfall rupture in approved shellfish waters and the fact that the proposed outfall for this project runs through approved waters in Barnegat Bay, careful control should be exercised to assure outfall integrity.
6. We concur fully with recommendation 6, regarding utilization of the "Federal Guidelines for Design, Operation and Maintenance of Waste Water Treatment Facilities" and "Design Criteria for Mechanical, ---etc." Since the proposed project will have the potential to adversely affect approved shellfish waters, we would recommend that proposed Technical Bulletin "Protection of Shellfish Waters" also

be followed. FDA and EPA technical advisors have jointly developed this document and it is presently being reviewed for inclusion as a supplemental technical bulletin to the original "Federal Guidelines for Design, Operation and Maintenance---etc." We are especially concerned with the disinfection system and the document includes guidelines regarding effluent chlorine residual monitoring, chlorinator capacity and reliability, pre-mixing, contact chamber design, detention time, outfalls and alarm systems.



George C. Meyer
Regional Shellfish Consultant



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER-74/549

JUN 26 1974

Dear Mr. Arbesman:

Thank you for the letter of April 21, 1974, requesting our views and comments on the draft environmental impact statement for the Wastewater Treatment Facilities of the Ocean County Sewerage Authority, Ocean County, New Jersey.

We have completed our review of the draft statement and submit the following comments for your consideration and use.

We note in the statement that three crossings of Island Beach State Park were considered and rejected for the Island Beach Section of the outfall line. Because Land and Water Conservation Fund monies have been invested in that park, Section 6(f) of the Land and Water Conservation Fund Act, as amended, would apply in the event that any of the three crossings need be used. Section 6(f) of the Act, as amended, specifies that the Secretary of the Interior must approve the conversion of lands acquired or developed through the Fund from park land to other uses. That section of the Act further provides for such conversion "... only upon such conditions as he (the Secretary) deems necessary to assure the substitution of other recreation properties of at least equal fair market value and reasonably equivalent recreational usefulness and location." This authority has been delegated by the Secretary to the Director of the Bureau of Outdoor Recreation. If coordination is later required, the project sponsor should contact the Regional Director, Bureau of Outdoor Recreation, 600 Arch Street, Ninth Floor, Philadelphia, Pennsylvania 19106.

Background

The text of this environmental statement does not show any indication that consideration has been given to cultural (historical, archeological, architectural) resources. The



New Jersey Department of Environmental Protection, whose Commissioner bears the responsibility of State Historic Preservation Officer, is listed as an agency reviewing this draft environmental statement. We recommend that the final statement indicate full compliance with Executive Order 11593 and contain the results of any consultations and communications with the State Historic Preservation Officer.

There are three National Historic Register properties in Ocean County, New Jersey. Of these, Hangar No. 1, Lakehurst Naval Air Station (a National Historic Landmark) lies within the Ocean County Sewerage Authority's central service area and may be affected by the subject action. EPA should apply the "Criteria of Effect" as set forth by the Advisory Council on Historic Preservation and follow related procedures as necessary in 36 CFR, Part 800, January 25, 1974.

The work relating to the subject grant will not adversely affect any existing, proposed, or known potential unit of the National Park System or any known natural or environmental education sites eligible for the National Landmark Programs.

Coastal Marine Waters

Page 61, paragraph 1 - It would be useful if a full description of the existing effects of wastewater treatment plant outfalls cited here were provided.

Terrestrial Ecosystems

This section would be improved if a map of vegetation types in the project area were provided to accompany the text. This map should also show which areas will be disrupted by project implementation.

Page 76, paragraph 4 - The estimate of the area of tidal marsh in Ocean County (30 acres) is too low by a factor of more than 1,000. This area should be recalculated so that a reasonably accurate figure can be included in the final statement.

The last sentence of this paragraph is too strong - there are still some significant areas of tidal marsh not damaged by siltation, pollution, and spoil deposition.

Environmental Impacts

Aquatic Ecosystems

Page 121, paragraph 2 - The vegetation types and aquatic organisms (including benthos) in each of the streams and other aquatic habitats through which pipelines will pass should be assessed for impacts.

Sentence two of this paragraph indicates that all benthic organisms will adjust within a week. This is inaccurate and contradicts the final sentence of the paragraph. To remedy this problem, the words "and other benthic organisms" should be struck from sentence two and the final phrase modified to read, "but many of them will adjust within a week after turbidity subsides."

We believe that the statement should be more specific about the kinds of recreation uses which occur in the area where the project will be located. There are many references to recreation as the "economic backbone of the Bay area" (page 60) and as a "major economic factor in the coastal area" (page 63) accompanied by mention of the most popular activities such as fishing, swimming, boating, and hunting. The statement does not mention, however, the hiking and trail use in the area or the need for facilities for such use in the area. The New Jersey Statewide Comprehensive Outdoor Recreation Plan, Outdoor Recreation in New Jersey, 1973, documents the need for these facilities on page 123. In this regard, we believe that the final statement should elaborate on the potential beneficial impacts of the project, particularly the interceptor lines, in providing trails for public use. Specifically, we believe that the abandoned railroad right-of-way between Barnegat and Tom's River in conjunction with the main interceptor lines, as well as the spurs which go towards Lakehurst and the Whiting Tract in Manchester, should be investigated. If technical assistance is desired in evaluating this potential and means for implementing it, the project sponsor should contact:

Regional Director
Bureau of Outdoor Recreation
Northeast Regional Office
600 Arch Street, 9th Floor
Philadelphia, Pennsylvania 19106
ATTN: Division of Land Use Coordination

Page 123, paragraph 3 - The locations of spoil sites referred to (including beach sites, islands in Barnegat Bay, and old spoil sites) should be specified and evaluated for possible impacts.

We are concerned about the effects that the ocean outfall (page 128) may have on recreational uses, particularly boating and fishing, in the immediate area of the outfall. An analysis of these impacts (deposition of solids, sight, smell, etc.) and their approximate zones of influence on recreation use should be included in the final statement.

Aquatic Ecosystems

Page 126 - This section gives a full description of the effects of effluent discharge on algal blooms, but the topic should be expanded to include a description of the effects on invertebrates and fish.

Page 130, last sentence - The word "The" at the beginning of the sentence should be changed to "A". Although nutrients are certainly a major factor in red tide blooms, it has not been shown that they are the major cause. This has been very clearly explained on page 62 of this statement.

Terrestrial Ecosystems

Page 135, paragraph 4 - Will herbicides be used to control vegetation along project right-of-ways? If so, what will be their impact on fish and wildlife resources?

We find the statement reasonably adequate and accurate in its evaluation of the environmental impact of the proposed action on water resources. However, one item should be further examined in the final statement. On page 135 of the draft, third paragraph, the statement reads, "Lastly, ground water can be lost by infiltration into interceptor lines." What is not discussed is that, conversely, sewage can leak from the interceptor lines into the groundwater system and cause contamination wherever and whenever the interceptor lines lie above the water table. Because there will be about 45 miles of sewer pipe (page 10) buried at different depths relative to the fluctuating water table, an estimate should be made of the

quantities of raw effluent that may leak from the lines and reach the groundwater system. This information should be compared with an estimate of leakage from septic tanks. If the quantities are considered negligible, it should be so indicated in the statement.

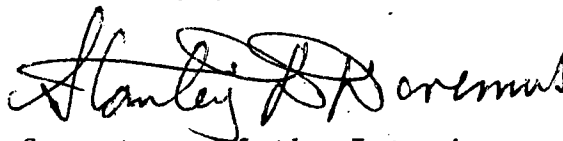
Adverse Environmental Impacts

This section fails to describe and summarize the effects of project construction and operation in flora and fauna.

In closing, we wish to thank you for the opportunity to review and comment on this draft statement. Also, we would like to surface a problem relating to the review process which, if corrected, can be to our mutual benefit. As you know, the Department of the Interior has a number of Bureaus which have jurisdiction or special expertise in a variety of disciplines. Hence, these Bureaus must have copies of any impact statement for review if we are to establish a fully coordinated Departmental response. Accordingly, to assist us in this effort and to provide a timely input into the development of your statements, we request that you provide 12 copies of all future impact statement to the following address:

Department of the Interior
Assistant Secretary for Program,
Development, and Budget
Washington, D. C. 20240
ATTN: Office of Environmental
Project Review/Room 5313

Sincerely yours,



Deputy Assistant Secretary of the Interior

Mr. Paul Arbesman
Chief, Environmental Impacts
Branch
Environmental Protection Agency
26 Federal Plaza
New York, New York 10007



DEPARTMENT OF THE NAVY
OFFICE OF THE OCEANOGRAPHER OF THE NAVY
HOFFMAN II
200 STOVALL STREET
ALEXANDRIA, VA. 22332

IN REPLY REFER TO

514
31 May 1974

Mr. Gerald M. Hansler, P.E.
Regional Administrator
Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Hansler:

The draft Environmental Impact Statement on a Wastewater Treatment Facilities Construction Grant for the Central Service Area of the Ocean County Sewerage Authority in Ocean County, New Jersey has been reviewed.

At this time there are no comments. The opportunity to review the draft is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "B. E. Stultz", is written over a horizontal line.

B. E. STULTZ
Commander, CEC, U. S. Navy
Assistant Chief of Staff
for Environmental Quality
By direction of the
Oceanographer of the Navy